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Volume-1

# SELF STUDY REPORT

*for*

## ASSESSMENT AND ACCREDITATION

*Submitted to*

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE



JAYPEE INSTITUTE OF INFORMATION TECHNOLOGY  
NOIDA

17 September, 2015

## PREFACE

After serving a five-year term as Director of an IIT, and spending almost 38 years in academic institutions of repute, it was a new opportunity to steer Jaypee Institute of Information Technology, Noida. Over a period of 14 years of its existence, JIIT has acquired a distinct reputation for providing high quality education and has enjoyed the confidence of all stakeholders. JIIT has been fortunate to rope-in some very good academicians and retain them. There are professors who have been with the Institute almost since beginning and have given their best to build the institution. It is a matter of great satisfaction that together we have made steady growth and today the JIIT is among the leading institutes of North India.

It is our strong belief that with its current strengths of dedicated and cohesive faculty, sincere and *nishkam* promoters, and strategic location, the Institute will grow from strength to strength. We look forward to this accreditation and assessment process as an opportunity to pause and look at ourselves, and apply corrective measures wherever needed.

Preparation of this self-study report has been an extremely useful learning experience for the entire faculty and administration. It has been a great time of collective participation. The discussions and deliberation have given us a better perspective to view our efforts for fulfilling our vision and mission. The team of faculty and staff that comprised the Steering committee has pursued its task with great dedication. They have been very meticulous in collecting and presenting all data that has gone into preparation of this report. The entire community at JIIT joins me to record our great sense of appreciation for the most time-consuming task done by this team.

We are particularly grateful to Prof. D. K. Rai, the Convener of the committee, whose never-say-die, and good humoured leadership kept everyone interested throughout.

S. C. Saxena  
Vice Chancellor  
17 September, 2015

## **EXECUTIVE SUMMARY**

The Jaypee Group, ever since its inception fifty years ago, has been transforming dreams into reality. The Group is known for its great success stories in diversified areas of Engineering & Construction, Cement, Power, Fertilizers, Real Estate, Expressways, Hospitality, Healthcare, Sports, Information Technology, and then with a not-for-profit motto - Education.

With the noble thought of providing quality education in Engineering, Sciences and Management, the visionary founder of the Group, Shri Jaiprakash Gaur started with establishing the Jaypee Institute of Information Technology (JIIT) in the year 2001. Since beginning, JIIT envisioned becoming a centre of excellence for education, training and research in the field of Information Technology and other emerging areas. It aimed at producing professionals who shall be leaders in innovation, entrepreneurship, creativity and management.

Very soon, in 2004, the Institute got recognition of its efforts, as the Ministry of Human Resource Development (MHRD), satisfied with its high standards of professional education and supporting infrastructure, accorded it the status of “Deemed University” under section 3 of UGC Act 1956. The Institute has made continuous progress after acquiring the deemed university status and has now become the best private institution in the NCR region. Recently, Edu and Rand USA have placed the Institute at an All-India rank of 33 which is several notches above some new IITs and some old well-established government institutions.

The Institute is situated near the Electronic City at Noida, Sector 62 and at Sector 128. It is being steered by an accomplished administrator-cum-academician Prof. S C Saxena, the vice-chancellor, who, before taking up this position in 2011, has served full terms as Director IIT Roorkee (2006-11) and Director Thapar Institute, Patiala (2001-06). He emphasized the importance of research for a teacher and as a result, a significant progress has been made on research front. Sponsored projects worth more than Rs. 6.5 crores have been awarded to the Institute and 66 Ph. D. degrees have been awarded in the last four years.

### **Curricular Aspect**

The Institute offers, Ph. D., M. Tech., MBA and B. Tech. programmes emphasizing professional and leadership qualities through its courses that inherently have contents embedded into them to promote independent thinking, creativity and managerial skills. There are 7 departments which are running 4 B. Tech., 3 Integrated M.Tech/ Dual-Degree, and 10 M.Tech. programmes besides an MBA programme. The Ph. D. programme is available in all seven departments. Around 5500 students are currently enrolled in these

programmes. A semester system is followed in all programmes except in MBA where trimester system is followed. There is a strong faculty base of 256 faculty members, all having post-graduate qualification whereas 137 (>50%) are having Ph. D. degrees.

A choice based credit system (CBCS) is followed so as to provide a structured choice of electives drawn from a wide spectrum of categories such as Social Sciences, Management, Mathematics, Basic Sciences and Engineering besides the discipline related electives. The Institute believes that learning is incomplete without 'doing', hence all core courses have corresponding laboratory courses also. This is further supplemented by a substantial dose of project work and industrial exposure. The emphasis on hands-on experience through laboratory and project work ensures high employability of the students as evident from high rate of campus placement.

The curriculum design and development process involves all stakeholders, and goes through various stages of refinement – faculty and students, BOS, and then Academic Council. At all levels, external experts from academia and industry are invited to have wide inputs for discussion, and recommendations of professional bodies like IEEE, ACM, NASSCOM etc., are also taken into account. Feedback is also taken from national/ international experts, and industry. The democratic culture of freedom and flexibility in curriculum development creates enough scope for innovation to achieve the institutional mission of striving for academic excellence.

Over the years, a good number of students have gone for higher studies abroad in some renowned universities such as Stanford, Oxford, CMU, Cornell, Georgia Tech, Purdue, Florida, California, NUS Singapore etc., which indicates global acceptability of our curriculum and standards. At the national level, students are getting admissions in IITs, IIMs, IISc etc., for post-graduate studies.

The Institute has a well-established and structured system of collecting student feedback on all aspects of curriculum design, delivery and effectiveness since its inception. The feedback helps in continuous monitoring and improvement of teaching-learning process. From July 2014, IQAC is operational for data collection and analysis.

### **Teaching, Learning and Evaluation**

Quality of learning outcomes of teaching and evaluation of student performance is a very important parameter for judging the academic environment of an institute. As a first step towards this objective, the Institute ensures that all admissions to its programmes are merit-based. The admission process aims at complete fairness and transparency, offering admissions purely on the basis of merit at all-India competitive examinations such as JEE main, CAT, MAT, CMAT, GMAT, GATE etc. Only in Biotechnology programmes, a part of admissions are based on 12<sup>th</sup> class board-examination

results to allow biology stream students to get admission. SC/ ST students are admitted following relaxed criteria as per the reservation policy of government.

As a result of all-India examination based admissions, there is a fair amount of geographic diversity in student population. Though a major chunk of students comes from Delhi, UP and Haryana, but students from almost every state of India can be seen on campus including North-East. The Institute takes several measures to handle this diversity in educational and other backgrounds of the freshers through carefully designed orientation programme, special English language courses, summer courses, and other bridge-courses so that no student feels handicapped. For students finding difficulty in adjusting to the environment, there is a process of need-based student mentoring and counseling.

An important feature of the teaching learning process of this Institute is its very strict adherence to academic schedule which is prepared and notified in advance every year. Course outlines, lecture schedules, time table, study material, learning objectives and outcomes for each course are made available online to students and faculty through a central file server.

The Institute encourages faculty to develop innovative and effective teaching approaches. As a result, practices like collaborative teaching, and cross-level peer mentoring have been developed. Courses like term paper, seminar, projects, dissertation, and internship are seen as a supplement to conventional classroom teaching. In these courses, students are allowed to choose topic of their interest and thus train themselves in self-learning skills and research. Faculty is required to keep themselves updated, and facilities are extended for invited expert lectures, attending/ holding conferences, seminars, and workshops, faculty development programmes, Ph. D. supervision, sponsored research projects, study leave etc. The Learning Resource Centre of the Institute provides ample support through its rich collection of e-resources along with print resources.

The examination process is tuned for continuous evaluation, transparency, timeliness, objectivity and fairness. Question paper setting aims at promoting understanding of the subject rather than rote-learning. All results are declared as per schedule of the academic calendar. At every stage, students are given ample opportunity to discuss their exam-evaluation with the concerned faculty. The results are recorded and maintained through ERP software developed at the Institute. Ph. D. evaluation follows a standard two-examiner system - one foreign and one Indian.

The graduate attributes, adopted from the NBA document, form the guiding principles for the entire teaching-learning-evaluation structure across all academic programmes. It takes into account the required engineering and management competencies, emerging job requirements, and emerging societal challenges. The emphasis on higher level cognitive skills like apply,

formulate, analyze, design, evaluate, create, select, identify, interpret, experiment, etc. as well as considerations for environment, health, and ethics are the hallmarks of these attributes.

### **Research Consultancy and Extension**

Research and innovation are integral components of academic activities of the Institute as articulated in the vision statement. Three different research committees have been framed with their well-defined roles – DPMAC for each research student to monitor his/her progress and provide course correction, DRC to oversee and manage research facilities including sponsored projects in the departments, and IRDC for deciding and implementing overall research policies and directions for the Institute.

The Institute does everything to promote sponsored research by its faculty and some departments have made significant progress in this direction. Currently, 15 different sponsored projects are in progress with a funding of more than 4 crores from different government agencies. In the past, 15 different projects worth Rs. 2.56 crores have been completed. The Institute provides all facilities for these projects and also encourages by providing some initial funding. Over last four years, the Institute has provided funding of Rs. 32 lacs besides government funding. In order to create a good research base, the Institute has spent about 4 crores per year towards equipment, software, journals and e-resources, Ph. D. fellowships, support for conferences and workshops, inviting experts, IT support and electricity etc., over the last 8-9 years. Collaborative research is another direction adopted by the Institute for research promotion. At present collaboration with different institutions like University of Delhi, ICMR Virus Unit Kolkata, AIIMS New Delhi, IIP Dehradun, Jamia Hamdard New Delhi, TERI New Delhi exist. Through these collaborations projects worth Rs. 1.57 crores are in progress/completed.

The departments of the Institute regularly organize International conferences and workshops where eminent scientists and scholars from India and abroad are invited for keynote addresses. Conferences like IEEE International conference on Signal Processing and Communications (ICSC), and International Conference on Contemporary Computing (IC3) are annual features of the Institute. Recently in August 2015, 8<sup>th</sup> version of IC3 was held. Last ICSC was held in March 2015. It is a matter of great pride for the Institute that renowned professors like Prof. Banmali Singh Rawat, University of Reno USA, and Prof. Sartaj Sahni, University of Florida USA agreed to be the steering force behind organisation of these conferences. In last 5 years, 14 different international conferences/symposiums have been organised at the Institute.

With the growth of research facilities, the number of Ph. D. research scholars is continuously increasing. Currently more than 200 scholars are registered in various disciplines. All full-time scholars are paid fellowships and some

limited hostel facilities are also available. The research scholars make regular use of all lab facilities, and wherever particular equipment is not available, the Institute arranges facilities at other nearby institution/organisations. Students have used the facilities at JNU, AIIMS, University of Delhi, DRDO Delhi, NPL, IIT Delhi, IIT Roorkee, etc. The major instrumentation facilities available at the Institute include XRD, FTIR, UV-VIS spectrophotometer and Luminescence spectrophotometer. Two research centres at the Institute, Micro Electro Mechanical Systems (MEMS), and Centre for Emerging Diseases are helping to promote research in their respective areas.

Students and faculty of the Institute have published 1988 research papers in peer-reviewed journals/conferences. The average Scopus citation of these papers is 2.03 and that of Google Scholar 1.85. The average impact factor of the journals in which publications have been done is 1.85. All Ph. D. scholars are required to have at least two publications in Scopus/SCI indexed journals. On an average, 1.63 scholar per eligible faculty is currently enrolled.

Institute has a well defined official policy to check malpractices and plagiarism in research. No Ph. D. thesis, M. Tech. dissertation or B.Tech. project report is accepted without a proper plagiarism check through 'turnitin' for which facilities exist in the Institute library. Strict norms for plagiarism check are in place. All submissions to conferences held at the Institute have to satisfy the plagiarism norms otherwise papers are rejected.

### **Infrastructure and Learning Resources**

The Institute has adequate physical infrastructure to facilitate teaching, research, extracurricular activities, and residential facility for faculty, staff and students. With a built-up area of 1.58 lakh sqm., it has 47 lecture theatres/classrooms, 27 tutorial rooms, 71 laboratories, a 3-floor Library, conference halls, 2000 capacity auditorium, about 2500 hostel seats, 38 faculty residences, and Annapurna where about 1500 students can have meals at a time. The campus has 24 hour 100% power back-up through 4 generators. To provide an efficient work-place, all hostels, academic area and offices are centrally air-conditioned. Some other facilities which make the campus life more comfortable, safe and hassle-free include gyms, swimming pools (separate for boys and girls), laundry, medical dispensary, central RO water supply, tuck shop, Bank ATM, guest house, CCTV cameras for safety, and an underground parking facility.

The Institute houses a modern central library named as Learning Resource Centre (LRC) which is spread over three floors with central air-conditioning. It has complete wi-fi availability, an e-resources access area with desktops, reading area, about 50,000 print books, more than 5000 e-journals of ACM, IEEE, Springer etc., Internet bandwidth of 1.1 Gbps, and computerized issue/return of books.

The campus has a full-fledged Information Technology Centre (IT Centre) which manages all IT services and develops the IT infrastructure in the Institute. All Faculty, Staff and students are allocated user id and password to avail these services. The centre has deployed all major network security tools such as Firewall, IDS, IPS and Antivirus software to safeguard Institute network. The computer and network resources may be accessed only by the authorized members. The Institute has a computer-student ratio of 1:3.1 which gives sufficient opportunity to the students to make use of computer resources. All faculty is provides with internet connected desktops in their office rooms.

A unique feature of the Institute is provision of password protected space on a network drive to all faculty members. This drive is accessible from anywhere on the Institute LAN including class-rooms. Further, a Study Material folder is available to all students through a fileserver. For each subject, the course-coordinator can upload necessary study material on the server which students can refer any time. These facilities go a long way in making information and knowledge ‘omnipresent’.

### **Student Mentoring and Support**

The Institute believes that our responsibility is not just imparting knowledge to the students but towards their overall development and welfare. Several programs are run that work towards personality development, career counseling, soft skills development, improving language skills, etc. Sufficient sports and gym facilities exist to keep the mind and body fit. Conferences, workshops, seminars, industrial visits, technical festivals, technical and cultural hubs, programming contests, publication of students’ magazine are the activities that engage the students at various levels and help them to explore their strengths.

Financially also, the Institute tries to help needy students as much as possible. Institute helps in arranging educational loans through banks. From Jaypee India Scholars Fund, an amount of Rs. 1.22 crores has been distributed in last four years as financial assistance to meritorious but economically poor students. All full time Ph. D. scholars, and GATE qualified PG students are given fellowships. In last four years, the Institute has paid fellowships worth Rs. 5.8 crores. Deserving students are given assistance for attending conferences. Students are assisted in making use of Uttar Pradesh Scholarship and Fee reimbursement scheme. About 100 such applications are processed by the Institute every year. The SC/ ST category students are given special attention for all financial assistance schemes. In admission, the criteria are relaxed for reserved category students.

The Institute has a dedicated placement cell comprising three full time members headed by Head (Training & Placement). The efforts of faculty and the cell have made the placement scenario of the Institute highly commendable. Over 100 companies visit every year for selecting B. Tech., M.



Tech. & MBA students. More than 90% students get placed and the CTC offered ranges from 3.1 lacs to 19 lacs. Recently some start-up companies have also started visiting the Institute.

### **Governance, Leadership and Management**

The Institute was set up by Jaiprakash Seva Sansthan (JSS) a ‘not for profit’ trust. It believes that education is the cornerstone of economic development and only education can assist India to become a developed nation. JSS has kept itself away from the administrative and academic decision making of the Institute. Several statutory bodies have been created for governance and management. These bodies are Board of Management (BoM), Academic Council (AC), Finance Committee (FC), Planning and Monitoring Board (PMB) and Board of Studies (BoS). The administrative positions are Chancellor, Vice-Chancellor, Directors, Deans and HoDs. All management policies are based on democratic principles of participative management.

In order to have structured development of the Institute with a view to address knowledge advancements, changing needs, shortcomings and outreach expansion, the Institute has started the practice of framing prospective 5-year plans. The first 5-year prospective plan 2013-18 was framed in 2013 and is in operation. Some features of this plan are revision of curriculum, expansion of M. Tech programmes, emphasis on quality research with encouragement for funded projects, strengthening and quality improvement of Ph. D. programmes, argumentation of labs and introduction of new labs, etc.

The Institute has started conducting performance audit through IQAC from 2014-15. It has a grievance redressal mechanism in place. The Institute looks after the growth and development of its faculty and support staff. It is a member of IUCEE (Indo-US Collaboration for Engineering Education) and has remote centre of IIT Bombay initiative under NMEICT programme of Government of India. Several programmes have been conducted in last two years through this collaboration. IIIT has several welfare schemes in operation, some of which are study leave, sabbatical leave, maternity leave, medical leave, LTA, EPF, furnishing allowance, leave encashment, loan for medical emergency, book allowance, etc.

The Institute provides highly conducive academic atmosphere. It provides freedom to faculty to pursue academic pursuits of one’s own choice. The Institute has highly sound financial footing. It has well established mechanism for monitoring effective and efficient, utilization of financial resources through various levels of controls, review and audit. In case of deficit, the promoting body JSS provides support. The Institute also seeks bank loans for fulfilling its requirement and has created a corpus fund of Rs. 5 crore invested in fixed deposits. Internal Quality Assurance System has been established in 2014 and is in operation. Its first annual report is expected to be received by the end of September 2015 on all four aspects viz., academic (teaching &

learning), academic (research), stake holder relationship and profession and social activities.

### **Innovations and Best Practices**

The Institute has an eco-friendly campus with efficient water harvesting and energy saving mechanism in place. It uses recycled water for all its gardening needs. The buildings have been designed with proper insulations so as to limit energy losses and heat island effects. They also have been designed to maximize utilization of natural light and natural cool air. The Institute has won prestigious Governor General's Medal-2008, the highest architectural award instituted in Canada, for incorporating sustainable environment friendly architectural design. Its new hostel block has 2500 LPD ETC based solar water heating system. It has won 'Best Gardens' award from Horticulture Society for Noida and Greater Noida for the last eight consecutive years in the category of colleges and universities.

Several best practices have been adopted at the Institute, some of which are (a) research as integral part of learning, (b) e-management – a tool for transparency and efficiency and (c) cross level peer mentoring. We lay stress on research based learning from early stages for undergraduate courses with an objective of enhancing technical competency, critical thinking and developing creativity and innovativeness at undergraduate level itself. We have introduced two minor projects (one semester each) and one major project (one year) besides several mini projects in core courses. This practice has resulted into creation of some specialized labs, inculcating lifelong learning skills among students.

In order to have effective, transparent and efficient management of Institute affairs, a proactive approach has been adopted using ICT enabled environment (Webkiosk and file servers) ICT. As a result, the Institute has been able to successfully implement academic calendar without any deviation since its inception. Webkiosk and central file servers are being used for information creation and dissemination in several domains such as (i) Personal: Employee salary, benefits details, types of leave, attendance, details in case of emergency, help in tax information (ii) teaching: student attendance, information about student not attending, class room booking (iii) exam: marks entry, grade entry, result, invigilation duty, (iv) Counseling & Mentoring: to view student grades and performance (by parents and teacher), (v) provide feedback: e.g. IQAC.

Cross level peer mentoring has the objective of improving learning support system and personal attention for junior students through easily accessible senior mentoring students and deepen the technical competence and leadership skills of senior students. This practice has shown wide spread acceptance among the students and has resulted into increased placement of students

besides development of patience, empathy, understanding, tolerance and out of box thinking.

In addition to above, Institute uses several innovative practices such as enhanced emphasis on student projects, algorithmic puzzle solving, large number of electives, etc. The overall training, experience and value system has seen a large number of students getting admission in reputed Institutions abroad, and getting placed in renowned multinational companies. Participative decision making, and transparent policies have enhanced faculty satisfaction and a feeling of ownership of the Institute.

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# **SECTION B**

## **SELF-STUDY REPORT**

### **1. Profile of the University**

#### **1. Name and address of the university:**

Name:	Jaypee Institute of Information Technology (Deemed-to-be-University u/s 3 of UGC Act 1956)		
Address:	A-10, Sector-62, Noida		
City: Gautam Buddh Nagar	Pin: 201307	Sate: Uttar Pradesh	
Website: www.jiit.ac.in			

#### **2. For communication:**

<b>Designation</b>	<b>Name</b>	<b>Telephone with STD Code</b>	<b>Mobile</b>	<b>Fax</b>	<b>E-mail</b>
Vice-Chancellor	Prof. S C Saxena	O: 0120-2594105 R: 0120-2594418	7838189999	0120-2400986	sc.saxena@jiit.ac.in
Registrar	Sh. Raju Sangal	O: 0120-2400907 R: 0120-4103020	9818122700	-do-	raju.sangal@jiit.ac.in
Steering Committee Co-ordinator	Prof. D K Rai	O: 0120-2594362 R: 0120 2594402	9999052666	-do-	dk.raai@jiit.ac.in
IQAC – Co-ordinator	Prof. H O Gupta	O: 0120-4195806 R: 0120-4195991	9582899128	-do-	hariom.gupta@jiit.ac.in

#### **3. Status of the University:**

- State University
- Central University
- University under Section 3 of UGC
- Private University
- Institution of National Importance
- Any other (specify)

**4. Type of University:**

Unitary

Affiliating

**5. Source of Funding**

Central Government

State Government

Self Financing

Any other (please specify)

**6. a. Date of establishment of the university:**

01/11/2004 (dd/mm/yyyy)

**b. Prior to establishment of the university, was it a/an,**

i. PG Centre Yes  No

ii. Affiliated college Yes  No

iii. Constituent College Yes  No

iv. Autonomous College Yes  No

v. Any other Graduate Diploma College

Date of Establishment: 28/08/2001 (dd/mm/yyyy)

**7. Date of recognition as a University by UGC or any other National agency:**

Under Section	dd	mm	yyyy	Remarks
i. 2f of UGC				
ii. 12 (B) of UGC				
iii. 3 of UGC Act	01	11	2004	MHRD notification No. F.9-27/2000-U.3 dated 01/11/ 2004 as extended vide notification of even No. dated 01/10/ 2008 (effective 01/11/2007) #
iv. Any other (specify)				

# Copies of the MHRD notifications are attached as Annexures 1.7(i) & (ii)

**8. Has the university been recognized?**

**a. By UGC as a University with Potential for Excellence?**

Yes  No

Date of recognition: 01/11/2004 (dd/mm/yyyy)

The Institute was notified as a deemed-to-be-university by the MHRD on 01/11/2004 under de-novo category, in emerging area of IT, **with promise of excellence** based on the recommendations of the UGC. The status of deemed university was reconfirmed on 01/10/2008 based on the recommendation of the UGC.

**b. For its performance by other Governmental agency?**

Yes  No

Name of the agency: National Board of Accreditation (NBA) and

Date of recognition: 21/01/2008 (dd/mm/yyyy)

The undergraduate programmes of the Institute were accredited by the NBA on 21/01/2008 for a period of 5 yrs. However, further accreditation by NBA/NAAC, after expiration of earlier accreditation in 2013, could not take place because of the ongoing litigation in the Hon'ble Supreme Court regarding deemed universities.

**9. Does the university have off-campus centres?**

Yes  No

**10. Does the university have off-shore campuses?**

Yes  No

**11. Location of campus and area:**

	Location*	Campus area in acres	Built-up area in sq. mts
i. Main Campus Area	Urban	15.66 Acres	1,17,960
a. Noida Sec-62 b. Extension of 62 in Noida Sector-128		9.79 Acres	40,127
ii. Other campuses in the country	Nil		
iii. Campuses abroad	Nil		

**12. Provide information on the following: In case of multi-campus University, please provide campus-wise information.**

Details are as below:

<b>Facility</b>	<b>Sector-62</b>	<b>Sector-128</b>
Auditorium/ seminar complex with infrastructural facilities	i. Auditorium: 01 Capacity: Over 1800 ii. Open Air Theatre: 01	Multi-purpose hall: 01 Open Air Theatre: 01
<b>Sports facilities</b>		
Playground	Cricket (Practice Pitch), Basket Ball, Volleyball, Badminton, Lawn Tennis	Cricket, Football, Basket Ball, Volleyball, Badminton, Lawn Tennis
Swimming Pool	Boys: 01, Girls: 01	Common for boys & girls: 01
Gymnasium	Boys: 01, Girls: 01	NIL
Indoor Sports	Pool Table, Billiards Table, Carrom tables, Table Tennis	Badminton, Table Tennis
<b>Hostels</b>		
Boys' hostel	i. Number of hostels: 03 ii. Number of inmates: 1900 iii. Facilities: TV, RO water supply, Hot water supply, Common room, STD Tel. booth, Air- conditioned and networked rooms with wi-fi/ network points, Laundry, Round the clock un- interrupted power, Air-conditioned Mess	01 197 Further, hostel seats are also allotted at sector- 62 campus to the students, including girls, studying at Sector-128 with provision for transportation. <b>Facilities:</b> Same as at Sector 62 campus
Girls' hostel	i. Number of hostels: 2 ii. Number of inmates: 700 iii. Facilities: Same as in Boys' hostel	



Working womens' hostel	NIL	NIL
<b>Residential facilities:</b>		
Faculty	34 Flats	05 Flats
Non-teaching	Accommodation: 126 persons	No
Cafeteria	Yes	Yes
Health centre – Nature of facilities available – inpatient, outpatient, ambulance, emergency care facility, etc.	Dispensary: 01 Facilities: Outpatient, Ambulance, Emergency care, Medicines	Dispensary: 01 (Facilities of JAL, are available to all students and staff ) Facilities: Outpatient, Ambulance, Emergency care, Medicines
Banking (ATM)	Yes	Yes
Photocopy/ Book binding	Yes	Yes
Daily Need / Utility Shop	Yes	No
Transport facilities	Yes	Yes
Parking	Yes (Basement + Open)	Yes (Basement + Open)
Facilities for persons with disabilities	Yes	Yes
Animal House	Nil	Nil
Incinerator for laboratories	Yes (Outsourced)	Yes (Outsourced)
Power house	Yes	Yes
Waste management facility	Yes (Outsourced)	Yes (Outsourced)

**13. What is the total number of institutions affiliated to the University?**

Nil

**14. Does the University Act provide for conferment of autonomy (as recognized by the UGC) to its affiliated institutions? If yes, give the number of autonomous colleges under the jurisdiction of the**

**University**

Not Applicable. The institution is a Unitary Deemed-to-be-University.

**15. Furnish the following information:**

Particulars	Number	No. of Students
a. University Departments	07 (includes JBS)	4957
Undergraduate	3	3876
Post Graduate	7	PG: 877 (including MBA, integrated programmes) Ph.D.: 204
Research Centres on the campus	04	#
b. Constituent Colleges	Nil	NA
c. Affiliated Colleges	Nil	NA
d. Colleges under 2(f)	Nil	NA
e. Colleges under 2(f) and 12B	Nil	NA
f. NAAC accredited colleges	Nil	NA
g. Colleges for Potential for Excellence (UGC)	Nil	NA
h. Autonomous Colleges	Nil	NA
i. Colleges with Postgraduate Departments	Nil	NA
j. Colleges with Research Departments	Nil	NA
k. University recognized Research Institutes/Centres	Nil	NA
<b>Total</b>	<b>07</b>	<b>4957</b>

# Some Ph.D. scholars of the Departments work with the Research Centers.

**16. Does the university conform to the specification of Degrees as enlisted by the UGC?**

Yes  No

**17. Academic programmes offered by the university departments at present, under the following categories: (Enclose the list of academic**

**programmes offered)**

<b>Programmes</b>	<b>Number</b>	<b>List of academic programmes</b>
UG	4	<ol style="list-style-type: none"> <li>1. B. Tech. in Computer Science &amp; Engineering (CSE)</li> <li>2. B. Tech. in Information Technology (IT)</li> <li>3. B. Tech. in Electronics &amp; Communication Engineering (ECE)</li> <li>4. B. Tech. in Biotechnology</li> </ol>
PG	11	<ol style="list-style-type: none"> <li>1. M. Tech. in CSE</li> <li>2. M. Tech. in CSE with specialization in Information Security (IS)</li> <li>3. M. Tech. in CSE with specialization in Mobile Technology (MT)</li> <li>4. M. Tech. in Data Analytics</li> <li>5. M. Tech. in IT &amp; Entrepreneurship (IT &amp; E)</li> <li>6. M. Tech. in ECE with specialization in Microelectronics and Embedded Technology (MET)</li> <li>7. M. Tech. in ECE with specialization in Communication Systems (CS)</li> <li>8. M. Tech. in Applied and Computational Mathematics (ACM)</li> <li>9. M. Tech. in Materials Science and Engineering (PMSE)</li> <li>10. M. Tech. in Biotechnology</li> <li>11. Master of Business Administration (MBA)</li> </ol>
Integrated Masters	3	5-year DD B. Tech. – M. Tech. (renamed as intergrated M. Tech. w.e.f. 2015-16) in: <ol style="list-style-type: none"> <li>1. CSE</li> <li>2. ECE</li> <li>3. Biotechnology</li> </ol>
M.Phil	Nil	
Ph.D.	7	<ol style="list-style-type: none"> <li>1. Ph.D. Programme in CSE</li> <li>2. Ph.D. Programme in ECE</li> <li>3. Ph.D. Programme in Biotechnology</li> </ol>

		4. Ph.D. Programme in PMSE 5. Ph.D. Programme in Mathematics 6. Ph.D. Programme in Humanities and Social Sciences (HSS) 7. Ph.D. Programme in Management
Integrated Ph.D.	Nil	
Certificate Courses	Nil	
Diploma Courses	Nil	
PG Diploma	Nil	
Any others	Nil	
<b>Total</b>	<b>25</b>	

**18. Number of working days during the last academic year:**

299 (Academic Year 2013-14)

**19. Number of teaching days during the past four academic years. (Teaching days' means days on which classes were engaged, Examination days are not to be included)**

a. 2011-12	190
b. 2012-13	180
c. 2013-14	182
d. 2014-15	188

**20. Does the university have a department of Teacher Education?**

Yes  No

**21. Does the university have a teaching department of Physical Education?**

Yes  No

**22. In the case of Private and Deemed Universities, please indicate whether professional programmes are being offered? If yes, please enclose approval / recognition details issued by the statutory body governing the programme.**

Yes  No

These programmes are listed at sl. no. 17. The MHRD Notification, No.

F.2-1/2006-U.3(A) dated 05/04/2006, is enclosed as **Annexure-1.22**.

**23. Has the university been reviewed by any regulatory authority? If so, furnish a copy of the report and action taken there upon.**

The institute has been inspected by the UGC committees in 2004, 2007 and 2009 for grant of Deemed University status, extension thereof and review as ordered by MHRD respectively. The reports are attached as **Annexure-1.23 (i), (ii) and (iii)** respectively. The action taken/compliance reports on each are also attached as **Annexure-1.23 (i)a, (ii)a and (iii)a** respectively.

**24. Number of positions in the University**

Positions	Teaching faculty <sup>#</sup>			Non-teaching staff	Technical staff
	Professor	Associate Professor	Assistant Professor		
Sanctioned by University	45	95	237	90	41
<i>Recruited</i>	17	23	209	90	41
<i>Yet to recruit</i>	28	72	28	-	-
Number of persons working on contract basis	05+1*		1*	412 <sup>@</sup>	

#JIIT, being a private self-financing Deemed University, the Board of Management (Governing Body) approves the faculty and non-faculty positions. The Institute continuously strives to improve the faculty ratio keeping the quality as a prime requirement in view.

JIIT follows flexible cadre structure like IITs. Senior level faculty may gradually increase with the age of the Institute and facilitation by the Institute in improvement of qualification of the existing faculty. In addition to the faculty in position, teaching assistants pursuing full time M. Tech. and Ph.D. and in receipt of Institute assistanceship also assist in teaching work.

\*Part-time faculty

@Staff of outsourced security/ general and hostel maintenance/ utility services

## 25. Qualifications of the teaching staff

Highest Qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
<b>Permanent Teachers</b>							
D.Sc./ D.Litt.							
Ph.D.	17*	02	11	12	51	43	136
M. Phil.					01	01	02
PG	03	-	-	-	55	58	116
<b>Temporary Teachers - NIL</b>							
Ph.D.							
M. Phil.							
PG							
<b>Part-time Teachers</b>							
Ph.D.	01						01
M. Phil.							
PG						01	01
<b>Total</b>	<b>21*</b>	<b>02</b>	<b>11</b>	<b>12</b>	<b>107</b>	<b>103</b>	<b>256</b>

\*Includes 5 Professors who, on superannuation, have been taken on the rolls of JIIT on contractual employment as per UGC norms.

In addition, the Institute avails the services of visiting faculty from industry, abroad, academia from institutes of importance for conduct of courses, as may be required. The details have been covered in succeeding paragraphs.

## 26. Emeritus, Adjunct and Visiting Professors

	<b>Emeritus</b>	<b>Adjunct</b>	<b>Visiting</b>
Number	1	-	46*

\*Visited so far.

## 27. Chairs Instituted by the University

	<b>Chairs</b>
School/ Department	-

**28. Students enrolled in the university departments during the current academic year, with the following details:**

Students	UG	PG	Integrated masters	Ph.D.
	*M /F	M /F	M /F	M /F
From the State where the university is located	1466/496	137/168	90/110	49/85
From other states of India	1304/309	105/86	91/90	27/43
NRI/ NRI sponsored students	184/98	-	-	-
Foreign students	17/02	-	-	-
<b>Total</b>	<b>2971/905</b>	<b>242/254</b>	<b>181/200</b>	<b>76/128</b>

\*M – Male, \*F – Female

**29. ‘Unit cost’ of education – (Unit cost = total annual recurring expenditure (actual) divided by total number of students enrolled)**

(a) including the salary component = Rs 1.33 Lac

(b) excluding the salary component = Rs 0.55 Lac

**30. Academic Staff College**

Yes  No

**31. Does the university offer Distance Education Programmes (DEP)?**

Yes  No

**32. Does the university have a provision for external registration of students?**

Yes  No

**33. Is the university applying for Accreditation or Re-Assessment? If Accreditation, name the cycle.**

Accreditation : Cycle 1  Cycle 2  Cycle 3  Cycle 4

Re-Assessment:





# ***CRITERION I***

## **CURRICULAR ASPECT**

### **1.1 CURRICULUM DESIGN AND DEVELOPMENT**

#### **1.1.1 How is the institutional vision and mission reflected in the academic programmes of the university?**

JIIT envisions becoming a centre of excellence for education, training and research in the field of Information Technology and other emerging areas. It aims at producing professionals who shall be leaders in innovation, entrepreneurship, creativity and management.

In order to achieve the above, the Institute offers, Ph.D., M. Tech., MBA and B. Tech. programmes emphasising professional and leadership qualities through its courses that inherently have contents embedded into them to promote independent thinking, creativity and managerial skills.

#### **1.1.2 Does the university follow a systematic process in the design and development of the curriculum? If yes, give details of the process (need assessment, feedback, etc.).**

Yes. The Institute has a well established process for design and updation of curriculum. Curriculum design or updation takes into account feedback and experience of students, faculty, alumni, industry, and experts from other institutes, requirement of professional bodies like IEEE, ACM, NASSCOM, CII, etc., as also the curriculum in vogue at nationally important Institutes like IITs, IISc, IIITs, IIMs, etc. The courses/curricula are designed at the departmental/ Institute level, and the process followed is as under:

Inputs from all the sources mentioned above are taken into account and discussed in various committees at departmental and institutional levels. These committees have invited-experts as members in addition to the faculty of the Institute. The recommendations of these committees are then placed before the Board of Studies (BOS) which comprises all Deans, all HoDs, selected departmental faculty and external experts. Sometimes prior to designing courses and curriculum, workshops are held with participation from industry and other institutions in addition to Institute's faculty. Recommendations of BOS are placed before the Academic Council which is the highest body of the

Institute to decide on all academic matters including curriculum of each programme. Academic Council has participation from all sections of the Institute, external experts and has a provision for special invitees.

Each course specifies its objectives, learning outcomes, lecture plans and references in addition to the syllabi. Course contents are regularly updated based on feedback and experience of both students and faculty.

**1.1.3 How are the following aspects ensured through curriculum design and development?**

- \* **Employability**
- \* **Innovation**
- \* **Research**

Courses provide a thorough understanding of basic concepts, analytical skills, critical understanding of applications often with hands-on experience through laboratory experiments and mini projects. This approach ensures employability of our students, as is evident from high rate of campus placement.

Some of the courses in the curriculum are administered in lecture cum project mode or field work and in a large number of courses, students are required/ encouraged to take up mini projects. These help in developing innovative and creative skills amongst the students.

The curriculum has rich component of minor and major projects, dissertation, term paper, internship and association of students with on-going research projects of the faculty. Sometimes the projects are on live industrial problems. These help in development of research skills in students.

**1.1.4 To what extent does the university use the guidelines of the regulatory bodies for developing and/or restructuring the curricula? Has the university been instrumental in leading any curricular reform which has created a national impact?**

The Institute uses the guidelines of regulatory bodies like UGC and AICTE while revising/ restructuring and developing the curriculum.

**1.1.5 Does the university interact with industry, research bodies and the civil society in the curriculum revision process? If so, how has the university benefitted through interactions with the stakeholders?**

Yes. The interaction has made the curriculum rich and acceptable at international level. This is evident from the acceptability of students for higher studies in the universities abroad such as University of Stanford, Oxford

University, Carnegie Mellon University, Cornell University, Georgia Tech University, Columbia University, Purdue University, University of Southern California, University of South Carolina, University of California, UNC at Chapel Hill, North Carolina State University, University of Florida, London School of Economics, Rutgers, University of Utah, University of Illinois at Chicago, University of Washington, University of Buffalo, NUS Singapore, CNRS-LAAS, Duke University, University of Massachusetts, University of Pennsylvania, Rochester Institute of Technology, etc. Many students have also pursued their higher studies in India at IIMs, IITs, IISc, NID, etc. Few of the graduates have already completed Ph.D. at some of the highly reputed international universities. The graduates also get employment in multinational companies such as Amazon, SAP, Cognizant, Accenture, Infosys, Wipro, HCL, Delloite, CSC, IBM, Ernst & Young, etc.

**1.1.6 Give details of how the university facilitates the introduction of new programmes of studies in its affiliated colleges.**

Not Applicable

**1.1.7 Does the university encourage its colleges to provide additional skill-oriented programmes relevant to regional needs? Cite instances (not applicable for unitary universities).**

Not Applicable

**1.2 ACADEMIC FLEXIBILITY**

**1.2.1 Furnish the inventory for the following:**

- \* Programmes taught on campus
- \* Overseas programmes offered on campus
- \* Programmes available for colleges to choose from

Programmes offered by the Institute on Campus are:

S. No.	Programmes	Intake
1.	<b>Undergraduate B. Tech.:</b> Electronics and Communication Engineering (ECE)	480
2.	Computer Science and Engineering (CSE)	540
3.	Information Technology (IT)	60
4.	Biotechnology (BT)	60
5.	<b>Integrated M. Tech. / DD (B. Tech. - M. Tech.):</b> Computer Science and Engineering	30
6.	Electronics and Communication Engineering	30

7.	Biotechnology	30
8.	<b>Postgraduate M. Tech.:</b> ECE with specialization in Communication Systems	30
9.	ECE with specialization in Micro Systems and Embedded Technology	20
10.	Computer Science and Engineering	30
11.	Data Analytics	30
12.	CSE with specialization in Mobile Technology	30
13.	CSE with specialization in Information Security	30
14.	Information Technology and Entrepreneurship (ITE)	30
15.	Applied Computational Mathematics (ACM)	20
16.	Materials Science and Engineering (MSE)	20
17.	Biotechnology	30
18.	<b>Master of Business Administration (MBA)</b>	210
19.	<b>Doctor of Philosophy (Ph.D.)</b> Electronics and Communication Engineering Computer Science and Engineering Biotechnology Mathematics Physics and Materials Science and Engineering Humanities and Social Sciences and Management	Variable year on year basis (25-50)

**1.2.2 Give details on the following provisions with reference to academic flexibility**

- a. Core / Elective options**
- b. Enrichment courses**
- c. Courses offered in modular form**
- d. Credit accumulation and transfer facility**
- e. Lateral and vertical mobility within and across programmes, courses and disciplines**

Academic flexibility in programmes creates opportunities for exploration, innovation, and interdisciplinary work. It helps in making the teaching learning process more learner-centric and hence significantly contributes to quality enhancement of the educational programme.

The Institute's current approach to academic flexibility is guided by the pragmatic considerations of contemporary Indian models integrating some of the practices followed at world's top universities. The academic flexibility in the programmes is reflected as follows:

**a. Core/Elective options**

Since very beginning, the UG and PG curricula are having many slots for electives and the Institute has been offering several courses as options to the students to choose from. The present curricula provide for the elective slots as follows:

**(i) M. Tech.**

Six slots are reserved for the departmental electives starting from the first semester itself. In addition, the two laboratory courses in the first year also offer flexibility to the department and students. Further, a seminar, project, term paper and a year-long dissertation or a semester long industrial project in the second year also provide flexibility. A summary of credit distribution between core, electives, and projects in the M. Tech. programmes is presented in the table below.

S. No.	Type of Courses	No. of Courses	Contact hrs/week	Credits
1	Core Courses <i>Theory</i> <i>Lab</i>	6	18	18
		2	8	4
2	Elective Courses	6	18	18
3	Projects	1	As needed	4
4	Term Paper & Seminar	1	2	4
5	Dissertation	1	As needed	22
	or Industrial Project + Dissertation	1		18+4
<b>Total Credits</b>				<b>70</b>

The curricula structure containing semester-wise distribution of the courses in the programme is presented in Table 1.2.1 at page 213.

The integrated M. Tech. programme is an amalgamation of full B. Tech. and M. Tech. curricula. The academic flexibility in this programme is evident from the credits allocated to electives as shown in the table below.

S. No.	Type of Courses	No. of Courses	Contact hrs/ week	Credits
1,	Core Courses			
	<i>Theory</i>	37	135	135
	<i>Lab</i>	24	56	28
	<i>Audit</i>	1	2	-
2.	Elective Courses	14	42	42
3.	Projects	5	68	34
4.	Industrial Training	1	6 Weeks	-
5.	Term Paper & Seminar	1	2	4
6.	Dissertation	1	One Sem	22
	or Industrial Project + Dissertation	1	+ As needed	18+4
<b>Total Credits</b>				<b>265</b>

The curricula structure containing semester-wise distribution of the courses and credits is presented in Table 1.2.2 at page 214.

**(ii) B. Tech.**

Six slots for departmental electives and two slots for the HSS electives are reserved in the final year. Many courses offered by other departments are also liberally included in the list of departmental electives. In addition, two minor projects in 5<sup>th</sup> and 6<sup>th</sup> semester and one year long major project in the final year provide ample flexibility to the students to pursue their academic interest. A summary of credit distribution between core, electives, and projects in the B. Tech. programmes is presented in table below.

S.No.	Type of Courses	No. of Courses	Contact Hours	Credits
1	Core Courses			
	<i>Theory</i>	31	117	117
	<i>Lab</i>	21/22	48	24
	<i>Audit</i>	1	2	-
2	Elective Courses	8	24	24
3	Projects	4	60	30
4	Industrial Training	1	6 Weeks	-
<b>Total Credits</b>				<b>195</b>

The curricula structure containing semester-wise distribution of the courses is presented in Table 1.2.3 at page 218.

### (iii) MBA

All courses in the first year are core courses. In the second year, students have to study a few integrative core courses and choose one functional (Marketing, Finance, Human Resource and Operations) basket and one among associated sectoral elective basket. Each functional elective basket consists of 8 courses, while each sectoral elective basket (Financial Services, Logistics and Supply Chain Management, IS in Business, Business Analytics, International Business, Strategic Marketing, People and Leadership Skills) consist of 4 courses. In all, a student has to study 12 elective courses offered in two (functional and sectoral) baskets. Apart from these courses student has to complete 6-8 weeks of corporate internship and 3-4 weeks of social internship. A summary of credit distribution between core, electives, and projects in the MBA programmes is presented in table below.

S.No.	Type of Courses	No. of Courses	Contact Hours	Credits
1.	Core Courses	28	84	84
2.	Functional Elective Courses	8	24	24
3.	Sectoral Elective Courses	4	12	12
4.	Comprehensive Viva	2	-	6
5.	Corporate Internship	2	-	6
6.	Social Internship	1	-	3
<b>Total Credits</b>				<b>135</b>

The curricula structure containing semester-wise distribution of the courses is presented in Table 1.2.4 at page 221.

In the ongoing curriculum restructuring exercise for the B. Tech. programme, the number of the elective slots has been significantly increased. In the proposed model, the B. Tech. students will typically get up to 8 departmental electives, 2 Science electives, 4 Humanities and Social Sciences (HSS) electives and 2 open electives. This is further supplemented by 2 minor projects in 5<sup>th</sup> and 6<sup>th</sup> semesters, a term paper in 7<sup>th</sup> semester and also one final year project. Provisions for additional minor specialization, honours, value added audit courses are also proposed. This model of significantly increased proportion of elective courses brings the curriculum flexibility in this regard at par with some of the world's leading universities.

### **Industrial internship/ project**

Students are also allowed to pursue their final semester B. Tech. project/ M. Tech. dissertation at selected companies/ organizations under Institute arrangement. Around 1,000 students have benefitted from this flexibility. The department of CSE & IT has recently initiated an experiment of giving the option of part time industrial internship in lieu of a lab course in the second semester of M. Tech. programme. Success of this experiment will help us to scale up the model.

### **b. Enrichment courses**

Industrial training is an essential part of the B. Tech. curriculum. In addition, short term courses have been conducted by visiting faculty and a few companies. Some electives, e.g., Ethics, Values and Stress Management; Effective Tools for Career Management and Development; IPR; Human Aspects of Information Technology; Theory of Knowledge, Learning, and Research; Problem Solving and Research Methodology, etc., offered by HSS, Biotech and CSE & IT departments help in enriching the curriculum with different perspectives.

Corporate and social internships are essential part of MBA curriculum. These internships enrich the curriculum with hands on experience. In addition, some of the enrichment courses included in MBA curriculum are as under:

- Business Sustainability and Ethics
- Effective Self Management
- Social and Professional Skills
- Entrepreneurship and Innovation
- Analytical and Technical Skills
- Employability Skills
- Social Media & E-Marketing
- Business Negotiation Skills
- Leadership Skills for Managers
- Event Logistics & Humanitarian SCM
- Customer Value Management

Further, MBA students upon entry undergo a one week summer school and an orientation programme which provides for filling the gap due to diversity of intake. In these programmes, students are imparted courses to understand the basic need of the programme. Some of the courses are Basics of Finance and



Accounts; Business Mathematics and Statistics; Economics in Business; Introduction to Computers; Communication skills and Case Discussion.

### **c. Modularity**

The departments have created and offered some composite courses in which more than one faculty teach different but related topics in a 3 or 4 credit courses. This approach may be further strengthened in future. This helps in providing benefit of individual expertise to students. Some of the courses offered in this mode are as follows:

- RF Microelectronics
- Microelectronics and MEMS Technology
- Analogue and Digital CMOS Technology
- Advanced Mobile and Cloud Computing
- Multimedia and Wireless Computer Networks
- Computer Games
- Multimedia Computing
- Comparative and Functional Genomics
- Cell Culture Technology

### **d. Credit accumulation and Transfer**

The B. Tech. curriculum allows the final semester students to go to University of Florida, Gainesville, USA to complete their last semester requirement. More than 50 students have availed this opportunity so far. As some IITs have already announced non-degree study programmes for students of other universities; our students are allowed to avail this facility with provision for credit transfer. The Institute is now in the process of having more such arrangements with selected Indian and foreign universities.

### **e. Lateral and Vertical mobility**

JIIT allows lateral entry of students from other institutes in the second year of B. Tech. programme. At present there are no other options of lateral and vertical mobility within and across programmes and disciplines.

#### **1.2.3 Does the university have an explicit policy and strategy for attracting international students?**

No, because only professional programmes are being offered.

#### **1.2.4 Have any courses been developed targeting international students? If so, how successful have they been? If 'no', explain the**

### **impediments.**

The Institute accepts international students on the campus. Students from countries like Spain, Bhutan, Libya, etc. have studied/ are enrolled in different UG and PG programmes. With Bhutan, JIIT has an understanding to admit students from Bhutan on request.

#### **1.2.5 Does the university facilitate dual degree and twinning programmes? If yes, give details.**

The Institute has been offering Dual Degree programmes, B. Tech. - M. Tech., in the fields of Biotechnology, CSE, and ECE. These Dual Degree programmes have now been changed to Integrated M. Tech. programmes as per the requirement of UGC notification of standardization of degree nomenclature etc. of July, 2014.

#### **1.2.6 Does the university offer self-financing programmes? If yes, list them and indicate if policies regarding admission, fee structure, teacher qualification and salary are at par with the aided programmes?**

JIIT is a private self-financing institution and as such all programmes offered by JIIT are self-financing with uniformity of admission criteria, fee structure, teacher qualification, salaries etc.

#### **1.2.7 Does the university provide the flexibility of bringing together the conventional face-to-face mode and the distance mode of education and allow students to choose and combine the courses they are interested in? If 'yes,' give operational details.**

No. Distance mode courses are not offered by the Institute.

#### **1.2.8 Has the university adopted the Choice Based Credit System (CBCS)? If yes, for how many programmes? What efforts have been made by the university to encourage the introduction of CBCS in its affiliated colleges?**

All Programmes offered by JIIT follow choice based credit system with facility of credit carry and transfer with a rich dose of elective courses ranging from 20% to 50% of total curriculum requirement. The programmes have international acceptability as evidenced by (a) collaborative programmes with Florida University (b) Direct admissions to M.S. and Ph.D. programmes.

#### **1.2.9 What percentage of programmes offered by the university follow:**

- \* Annual system
- \* Semester system

**\* Trimester system**

All programmes follow semester system of examinations except MBA which follows a trimester system.

**1.2.10 How does the university promote inter- disciplinary programmes?  
Name a few programmes and comment on their outcome.**

The Institute currently offers one interdisciplinary M. Tech. programme in Information Technology and Entrepreneurship with the collaboration of Departments of CSE & IT, HSS and the Business School. Another interdisciplinary M. Tech. programme in Data Analytics is slated to commence from session 2015-16. This programme will be run with the collaboration of Departments of Mathematics, CSE & IT, HSS, and Business School.

### **1.3 CURRICULUM ENRICHMENT**

**1.3.1 How often is the curriculum of the university reviewed and upgraded for making it socially relevant and/or job oriented /knowledge intensive and meeting the emerging needs of students and other stakeholders?**

The B. Tech., M. Tech. and MBA curriculum are periodically reviewed by respective Board of Studies and Academic Council. M. Tech. programmes were revised in 2013 and B. Tech. programs have been revised for implementation with effect from 2015-16.

**1.3.2 During the last four years, how many new programmes at UG and PG levels were introduced? Give details.**

- \* Inter-disciplinary**
- \* Programmes in emerging areas**

The Institute constantly looks for growth keeping in mind the societal needs and the developmental trends. The following programmes have been introduced in last four years:

**Inter-disciplinary**

M. Tech. in Information Technology & Entrepreneurship

**Programmes in Emerging Areas**

- (i) M. Tech. in Biotechnology
- (ii) M. Tech. in CSE with specialization in Information Security

- (iii) DD B. Tech. - M. Tech. in ECE (renamed as Integrated M. Tech. w.e.f academic session 2015-16)

Two new programmes as under are being introduced from the session 2015-16:

- (i) M. Tech. in Data Analytics (an inter-disciplinary program)
- (ii) M. Tech. in CSE with specialization in Mobile Technology

### **1.3.3 What are the strategies adopted for the revision of the existing programmes? What percentage of courses underwent a syllabus revision?**

Minor adjustments/ alterations in course contents are taken up on yearly basis taking into account the feedback from students and faculty as well as contemporary developments.

New electives in emerging areas are added almost every semester / trimester after due approvals and less popular elective courses are dropped or revised after due internal review. A representative list of elective courses added in the Academic year 2014-15 is given below.

- Science Technology and Society
- Psychology of Media Technology
- Introduction to Literature
- Managerial Communication & Analytical Skills
- Epigenetics
- Real Time Systems
- System Simulation
- Business Analytics and Data Visualization
- Analog and Digital Control Systems
- Speech Signal Processing
- Theoretical and Computational Neuroscience
- Big Data Systems
- Cyber and Digital Forensics
- Information Retrieval
- Effective tools for Career Management and Development
- International Studies
- Biopharmaceutics and Pharmacokinetics

Biostatistics and its Applications  
Machine Learning and Big Data Analytics  
Computational Complexity Theory  
Introduction to Wireless Sensor Network  
Advanced Matrix Computations  
Applied Mathematical Methods  
Machine Translation  
Data Science and Big Data Analytics  
Multicore Programming

**1.3.4 What are the value-added courses offered by the university and how does the university ensure that all students have access to them?**

The students are offered several value added courses also. A typical list of the value added courses offered is as under:

Group and Co-operative Processes  
Social and Legal Issues  
Quality Issues in Engineering  
Effective Tools for Career Management & Development  
Technology and Culture  
Entrepreneurial Development  
Industrial Sociology  
IPR and Patent Law  
Effective Communication Skills  
IPR and Bioethics  
Social Internship  
Effective Self Management  
Social and Professional Skills  
Employability Skills  
Social Media & E-Marketing  
Business Negotiation Skills  
Leadership Skills for Managers  
Customer Value Management

**1.3.5 Has the university introduced any higher order skill development programmes in consonance with the national requirements as outlined by the National Skills Development Corporation and other agencies?**

The Institute offers technical and professional courses only which inherently develop required higher level skills.

## **1.4 FEEDBACK SYSTEM**

**1.4.1 Does the university have a formal mechanism to obtain feedback from students regarding the curriculum and how is it made use of?**

The Institute has well established and structured system in which feedback from the students is taken at the end of each semester in engineering programs and trimester in MBA program.

The feedback is taken in a specially designed form for theory and lab courses which has several parameters that are required to be commented upon by the students. The forms have been devised in meetings of the academia, taking inputs from various stake holders and approved by the Academic Council of the Institute.

The students are required to give feedback on 10 aspects in Theory Courses and 9 aspects in laboratory courses. Some typical parameters on which students are required to give feedback are:

- a) Frequency of questions and quality of answers.
- b) Level of assignments / projects and tests.
- c) Integration of subject with real world problems / situations.
- d) Concern for students learning and help extended outside the classes.
- e) Engagement of students in critical and creative thinking.
- f) Interest and curiosity evoked in the subject.
- g) Guidance and support extended to carry out the lab work.
- h) Making students aware of safety and risk issues.
- i) Encouragement to students to ask questions and express opinion.
- j) Evaluation & assessment and appreciation for good / innovative work by students.

The students give their feedback on a 5 point scale for each item ( $I_j$ ) as Excellent (10), Very Good (8), Good (7), Satisfactory (5) and Unsatisfactory (3). The figures in brackets are weightage ( $W_{ij}$ ) attached to each point. These are then converted into numerical index using the rating index formula as below:

Item Rating

$$I_j = \frac{\sum_i (C_{ij} * W_{ij})}{\sum_i C_{ij}} \text{ where, } C_{ij} \text{ is count of respondents giving weightage } W_{ij}$$

The overall rating is calculated as: Average Rating =  $(\sum_j I_j) / 10$ .

Overall Average Rating = Sum of item ratings / No. of items.

The overall rating indicates performance index of faculty for the course.

Feedback is collected in the last week of teaching in each semester for every theory and laboratory course by a nominated coordinator other than the concerned faculty teaching the course. The anonymity is maintained by asking the students not to mention their names on the forms, thus ensuring free and fair feedback. The feedback proforma for theory and laboratory courses of engineering programme and courses of MBA programme are given in Tables 1.2.5, page 223, 1.2.6, page 224, and 1.2.7, page 225 respectively.

The answers are thereafter collated on an automated system. Based on the total responses and scores obtained in each parameter, the average points are derived using above formula, which indicate the performance rating of the faculty and the course. The rating thereafter is used to derive overall performance index. A typical rating form for theory course is given in Table 1.2.8 at page 227.

**1.4.2 Does the university elicit feedback on the curriculum from national and international faculty? If yes, specify a few methods such as conducting webinars, workshops, online discussions, etc. and its impact.**

The Institute also elicits feedback on curriculum from national and international experts and industry. The methods of taking feedback are through arranging workshops and inviting comments, suggestions and observations on current and proposed curriculum from faculty of other institutions including those from outside country, alumni and industry experts. All suggestions / comments received are considered and suitable amendments are made in the curriculum. For example, an AAG (Area Advisory Groups)

workshop was conducted by Jaypee Business School in April 2014. This group consisted of 19 executives from Industries in diverse fields to revise MBA programme. An in-house discussion was held with two invited entrepreneurs before starting and devising curriculum for M. Tech. in Information Technology & Entrepreneurship. The proposed curricula were also sent to selected alumni and outside experts by e-mail for their responses before being put up to the Board of Studies.

**1.4.3 Specify the mechanism through which affiliated institutions give feedback on curriculum enrichment and the extent to which it is made use of.**

Not Applicable

**1.4.4 What are the quality sustenance and quality enhancement measures undertaken by the university in ensuring the effective development of the curricula?**

The Institute continuously takes measures for sustenance and enhancement of quality for effective development of curricula. Some measures taken are introduction of new elective courses, revision of syllabi on regular basis, up-gradation courses and periodic review of curricula and academic processes. These are further strengthened through feedback from students' and other stake holders.

IQAC, established in July, 2014, has designed systems for monitoring and maintenance of quality which have been put into operation from the odd semester 2014-15.



## ***CRITERION II***

### **TEACHING LEARNING AND EVALUATION**

#### **2.1 STUDENT ENROLMENT AND PROFILE**

##### **2.1.1 How does the university ensure publicity and transparency in the admission process?**

The Institute carries out admissions to all its UG, PG, and Ph.D. programmes purely on the basis of merit in national level competitive examinations through a transparent and well administered mechanism. The admission related events, schedules and procedures are widely publicized through advertisements in national newspapers and magazines, educational web portals, social media, and Institute website. A candidate has the option to apply online or submit an application as a hard copy. The details of such applicants are also maintained online and displayed on the website. All the candidates are provided a unique reference number which can be used to see the status of their application online.

To ensure transparency, complete details of academic programmes, seats available in each programme, admission process like meriting and counselling for the UG programmes are available on the Institute's website for information of the candidates. The complete admission process is software controlled; ensuring merit based counselling which is carried out in front of the shortlisted candidates and their parents. During counselling, the details of available and filled seat are projected live on the screens in the counselling halls. These details are also made available live on the Institute's website.

The results of the PG and Ph.D. programmes are also made available on the Institutional website.

##### **2.1.2 Explain in detail the process of admission put in place by the university. List the criteria for admission: (e.g.: (i) merit, (ii) merit with entrance test, (iii) merit, entrance test and interview, (iv) common entrance test conducted by state agencies and national agencies (v) other criteria followed by the university (please specify).**

## **B. Tech. and 5-year DD B. Tech.-M. Tech. programmes**

For the admission to the programmes in CSE, IT, and ECE, the candidates shortlisted strictly on the basis of All India Ranking of JEE Main examination conducted by the CBSE are called for counselling. The admission is offered on the basis of merit and choice of programme exercised by the candidates during the counseling.

For the programmes in Biotechnology, 50% seats are allotted on the basis of all India rank secured by the applicants in the JEE Main examination. Balance 50% seats are allocated to Biology/Biotechnology based candidates as per merit drawn on marks in 10+2 examination.

## **M. Tech. programmes**

Admissions to M. Tech. programmes are made on the basis of merit drawn on the valid GATE score for the students who fulfil the minimum eligibility criteria. In addition, the Institute also conducts an all India Postgraduate Entrance Test (PGET) for the admission to the M. Tech. programmes.

## **MBA programme**

For admission to MBA programme, the candidates are shortlisted on the basis of percentile in their CAT / XAT / MAT / CMAT/ GMAT examinations. The shortlisted candidates are invited for a written test in communication skills, group discussion and personal interview conducted by the Institute. The selection panel comprises experts from academia and industry. Thereafter, overall merit is drawn based on the performance of candidates in these components.

## **Ph.D. Programmes**

The admission to Ph.D. programmes is made through an all India entrance test conducted by the Institute in accordance with the UGC instructions and guidelines of 2009 on the subject. Candidates, who fulfil the minimum eligibility criteria, are required to take the written test. The shortlisted candidates are thereafter put through an interview. The candidates having qualified in NET/SLET or equivalent examinations and candidates in receipt of fellowship from the Govt agencies like CSIR, DST, etc., are allowed to take the interview directly. The final selection is based on the recommendations of the selection committees.

### **2.1.3 Provide details of admission process in the affiliated colleges and the university's role in monitoring the same.**

Not Applicable

**2.1.4 Does the university have a mechanism to review its admission process and student profile annually? If yes, what is the outcome of such an analysis and how has it contributed to the improvement of the process?**

The Institute compiles data of its students which include the profile of JEE ranks, percentage of marks in various qualifying examinations like 10+2, graduation/ post graduation, scores in competitive examinations like GATE/ CAT/ MAT/ NET/ SLET etc. In addition, the inputs are also collected at the time of application and registration to include details like category, gender, domicile/ background (rural/ urban), state, financial background etc. besides personal details. The data is analysed to know about the geographical diversity, merit/ academic profiles of the students and rate of attrition. The analysis helps the institute to draw policies to improve the quality, quantity, diversity to include unrepresented strata of the students, changes in admission criteria, modifying the teaching learning processes or other procedures as may be necessary. Examples of such analysis are presented in the following tables:

**Marks of 10+2 examination for admission to B. Tech. in Biotechnology Programme**

Academic year	Min. Marks	Max. Marks
2011-12	67	94.80
2012-13	65	90
2013-14	67	94.8
2014-15	66	94.4

**JEE Ranks for admission to B. Tech. Programmes**

Branch/Year	Highest Rank in AIEEE/ JEE				Lowest Rank in AIEEE/ JEE			
	2011	2012	2013 (JEE)	2014 (JEE)	2011	2012	2013 (JEE)	2014 (JEE)
CSE	15043	15599	14638	17586	106530	137819	280448	198933
ECE	14365	10165	15542	21680	91578	135595	273576	229052
IT	41937	40585	23805	69216	56146	66734	103052	105794
BT	39636	94012	238847*	156535	103910	125478	238847*	228576
5 Yr B. Tech.-M.Tech. CSE)#	41067	42762	38238	56083	106818	99272	178574	153708
5 Yr B. Tech.-M.Tech. (BT)	72107	96895	91093	NIL	72107	97252	91093	NIL
5 Yr B. Tech.-M.Tech. (ECE)#	NA	23401	85547	101533	NA	99458	218139	222614

\* Only one student admitted through JEE rank category

#Programme nomenclature modified as 5-years integrated M. Tech. w.e.f. AY 2015-16.

Further, the Institute enrolls students from all parts of the country. The diversity is reflected in the data of students currently on the rolls and admitted in the last four years.

State	Number of students	State	Number of students
Andhra Pradesh	12	Madhya Pradesh	151
Assam	2	Odisha	5
Bihar	154	Punjab	83
Chhattisgarh	7	Rajasthan	217
Delhi	1441	Tamil Nadu	5
Goa	2	Uttar Pradesh	2954
Gujarat	9	Uttarakhand	111
Haryana	306	West Bengal	15
Himachal Pradesh	43	Kerala	5
J&K	16	Maharashtra	24
Jharkhand	44		

### **2.1.5 What are the strategies adopted to increase / improve access for students belonging to the following categories:**

- \* **SC/ST**
- \* **OBC**
- \* **Women**
- \* **Persons with varied disabilities**
- \* **Economically weaker sections**
- \* **Outstanding achievers in sports and other extracurricular activities**

The Institute has adopted following strategies to increase access for the candidates belonging to different strata of the society:

1. Reservation in admission for students belonging to SC/ST categories and students with varied disabilities as per national policy on reservation. The admission criterion for such students is clearly defined in the admission procedure document. The Institute, being a private unaided self-financed University, does not have reservation for candidates of OBC category and economically weaker sections.

2. The provisions of (i) Fee concession; (ii) Merit scholarships; (iii) Jaypee India Scholars Fund, catering for free studies and repayment after graduation; and (iv) William Webster Scholarship which caters for reimbursement of fee up to one semester. These provisions are available for the students of all categories.

**2.1.6 Number of students admitted in university departments in the last four academic years:**

Category	2011-12		2012-13		2013-14		2014-15	
	M	F	M	F	M	F	M	F
SC	1	0	11	5	9	5	6	6
ST	0	0	2	0	0	1	0	0
OBC	-	-	-	-	28	9	39	15
General	869	378	1010	408	951	378	995	480
Others	0	0	0	0	0	0	0	0
<b>Total</b>	<b>870</b>	<b>378</b>	<b>1023</b>	<b>413</b>	<b>988</b>	<b>393</b>	<b>1040</b>	<b>501</b>

**2.1.7 Has the university conducted any analysis of demand ratio for the various programmes of the university departments and affiliated colleges? If so, highlight the significant trends explaining the reasons for increase / decrease.**

The Institute regularly conducts analysis of demand ratio of its various academic programmes. The Institute has been a popular destination for the students for admission to all its programmes. This is evident from the number of applications it receives for admission as given in the table below.

**Undergraduate Programmes:**

S. No.	Year	Total number of seats	Number of applications received	Demand ratio
1	2011	990	26005	1:26
2	2012	1170	23175	1:19
3	2013	1170	14076	1:12
4	2014	1230	11533	1:9

The reduction in the number of applicants is in consonance with the national trend and is partly due to increase in seats and number of national level institutes like IITs, NITs, IIITs, etc.

**Postgraduate Programmes:**

S. No.	Year	Applications received	Number of seats	Demand ratio
<b>M. Tech.</b>				
1	2011	1943	130	1:16
2	2012	1600	130	1:12
3	2013	1161	130	1:11
4	2014	477	170	1:3
<b>MBA</b>				
1	2011	601	180	1:3
2	2012	801	210	1:4
3	2013	597	210	1:3
4	2014	558	210	1:3
<b>Ph.D.</b>				
1	2011	801	52	1:15
2	2012	775	48	1:16
3	2013	449	30	1:15
4	2014	390	36	1:11

**2.1.8 Were any programmes discontinued/ staggered by the university in the last four years? If yes, please specify the reasons.**

The programmes which have been discontinued / re-named/ modified in the last four years are given below. The changes were done keeping with the market demand for the programmes or to provide a nomenclature/ name with due focus on the specialization.

- (a) 5-Years DD programme B. Tech. - MBA – discontinued w.e.f. AY 2010-11.
- (b) 5-Year DD B. Tech. - M. Tech. in CSE (renamed as 5 Years Integrated M. Tech. in CSE w.e.f. AY 2015-16).
- (c) 5-Year DD B. Tech. - M. Tech. in ECE (renamed as 5-Years Integrated M. Tech. in ECE w.e.f. AY 2015-16).
- (d) 5-Year DD B. Tech. - M. Tech. in Biotechnology (renamed as 5 Years Integrated M. Tech. in Biotechnology w.e.f. AY 2015-16).
- (e) M. Tech. in ECE renamed as M. Tech. in ECE with specialization in Communication Systems w.e.f. AY 2014-15.
- (f) M. Tech. in Microelectronics and Embedded Technology (MET) renamed as M. Tech. in ECE with specialization in MET w.e.f. AY 2014-15.

- (g) Bachelor of Arts (Honours) in Psychology, Sociology and Economics, started in 2011, discontinued in 2013 due to low admission.

## **2.2 CATERING TO STUDENT DIVERSITY**

### **2.2.1 Does the university organize orientation / induction programme for freshers? If yes, give details such as the duration, issues covered, experts involved and mechanism for using the feedback in subsequent years.**

At the beginning of each academic session, the Institute organizes a well structured orientation programme for the fresh students (freshers) admitted. Prior announcement of orientation schedule is made in the academic calendar of the Institute. It is organized at two levels - at the Institute level and the departmental level. The programme at the Institute level is coordinated by the Registrar and is conducted in presence of Vice Chancellor, Directors, Deans, Heads of academic departments, Training and Placement and IT support, Chairman of Timetable Committee, Chairman of Learning Resource Centre (LRC), Librarian, and faculty coordinator of Jaypee Youth Club (JYC), who address the students on different issues. The normal duration of the orientation programme is 1-2 days each for UG, PG and Ph.D. programmes and 3-6 days for MBA programme. The purpose of this programme is not only to welcome the students but also to make them aware of the facilities; rules and regulations, code of conduct, etc. The following topics are broadly covered in the Institute level orientation programme:

- Teaching – learning and assessment policies of the Institute;
- Rules and regulations of the Institute in academic and disciplinary matters;
- Foundation courses for weaker students so that they may be able to deal with the advanced level courses offered in the programme;
- Training and placement scenario;
- Help students familiarize themselves with each other so that they may be able to work together as learning teams;
- Learning Resource Centre;
- IT related facilities;
- Facilities like sports, medical, canteen;
- Timetable – how to read and identify their class schedules;
- Co-curricular and extra-curricular activities

In addition to the internal faculty members, the Institute invites alumni and external experts to interact with freshers and parents. In MBA programme student feedback is collected about the orientation programme so as to use this information to improve upon the design and conduct of this programme in future.

The Institute level orientation programme is followed by departmental orientation of UG, PG and Ph.D. students separately. The purpose of this orientation programme is to acquaint the students with the faculty members of the department, courses, laboratories, etc.

**2.2.2 Does the university have a mechanism through which the “differential requirements of the student population” are analysed after admission and before the commencement of classes? If so, how are the key issues identified and addressed?**

Students of diverse background take admission in the academic programmes of the Institute; therefore there are various issues/ differential requirements of the student population. One of the key issues observed by the Institute is the English language. Many students have been found to have poor English background, particularly those who have passed 10+2 examination from Hindi medium schools. Poor English background poses great difficulties to these students which results into their poor performance in various subjects. To address this issue, Institute offers an audit course in English in the first semester in addition to the compulsory Presentation and Communication Skills course. During orientation programme, students are informed about the audit course and are advised to assess their level and register in it. The table below presents the year-wise number of students who have registered themselves in this audit course:

Course Code	Course Name	Students registered			
		2011	2012	2013	2014
10B11PD199	English	42	76	29	30

Also, there are few courses which are in-built in the curriculum itself and are offered to address the differential requirements of the students. For example, a separate subject of mathematics is offered to the non-mathematics stream students of B. Tech. in Biotechnology programme in the first and second semesters to bridge the gap.

**2.2.3 Does the university offer bridge/ remedial/ add-on courses? If yes, how are they structured into the time table? Give details of the courses offered, department-wise/ faculty-wise?**



In order to further address the diverse needs of students, almost all the academic departments of the Institute offer some bridge/ remedial/ add-on courses. Quantitative Techniques, Accounting, Economics, Business Statistics, English Language and Communication etc., are examples of some bridge courses offered in the MBA programme.

Some of the value added courses offered by JBS are as follows:

- Business Sustainability and Ethics
- Effective Self Management
- Social and Professional Skills
- Entrepreneurship and Innovation
- Analytical and Technical Skills
- Employability Skills
- Social Media & E-Marketing
- Business Negotiation Skills
- Leadership Skills for Managers
- Event Logistics & Humanitarian Supply Chain Management
- Customer Value Management

**2.2.4 Has the university conducted any study on the academic growth of students from disadvantaged sections of society, economically disadvantaged, physically handicapped, slow learners, etc.? If yes, what are the main findings?**

In addition to the above, summer semester is run for academically weaker students/ slow learners. Summary of the students benefitted in the last three years is given below:

Year	Number of courses offered	Number of registrations
2012	63	476
2013	68	1036
2014	77	986
2015	77	1053

In Ph.D. programmes, students may take remedial courses over and above the compulsory course requirement from across all departments. Courses are chosen out of different PG programme courses running in the particular semester. Since these courses are regular courses of PG programmes, they do not need any special structuring into the timetable.

### **2.2.5 How does the university identify and respond to the learning needs of advanced learners?**

Another aspect of addressing the diverse needs of students is to respond to the learning needs of advanced learners. The Institute has been sensitive to this issue since its inception and has taken several steps in this regard. These are:

#### **a. Availability of high quality books**

The Learning Resource Centre (LRC) of the Institute has established a procedure of intensive scrutiny on the quality of books by the faculty before procurement. This is done to ensure availability of good quality books in the library, which is one of the most essential and important requirement of advanced learners. The recommendations for the procurement of books made by faculty are based on curricular needs as well as input of students.

#### **b. Availability of e-resources and journals**

The Institute has subscribed large number of e-resources and journals. Students can access these learning resources online round the clock from anywhere on the campus. The students are provided free internet access in their hostel rooms also. These facilities and resources not only fulfill the requirements of advanced learners but also provide opportunity to other students to enhance their learning.

#### **c. Academic events**

The Institute organizes a series of seminars/ conferences/ workshops where advanced learners and other students have opportunity to present papers, and interact with experts of different areas. The Institute has made a policy of free registration of the interested students in these academic activities organized in the Institute. The Institute also provides financial support to the students for presenting their work outside.

#### **d. Other arrangements for advanced learners**

The Institute has made provision of offering some M. Tech. elective courses to the advanced learners of B. Tech. programmes, if they are interested in higher learning. The students stay back in summers to do projects under a faculty also.

## **2.3 TEACHING-LEARNING PROCESS**

### **2.3.1 How does the university plan and organise the teaching, learning and evaluation schedules (academic calendar, teaching plan, evaluation blue print, etc.)?**

The Institute has a well established system of organizing teaching, learning and evaluation processes. Every year, academic calendar is finalized by a committee well before the start of the academic year and on approval, the same is notified to all through Institute's website in March/ April of the year. The academic calendar is meticulously crafted to include all academic activities covering admissions, registrations, classes, examinations, evaluation, results schedule, holidays and vacations, etc. A sample academic calendar for academic year 2014-15 is given below. The Institute strictly adheres to the Academic Calendar and there have been no overrun in the past.

### Academic Calendar 2014 – 15

S. No.	Event	Odd Semester (Jul-Dec 2014)	Even Semester (Jan-Jun 2015)
1.	<b>Registration</b>		
	UG 2 <sup>nd</sup> Yr (including DD) UG 3 <sup>rd</sup> Yr (Incl. DD) & M. Tech. 1 <sup>st</sup> Yr	06 Aug 2014	14 Jan 2015
	UG 4 <sup>th</sup> yr (Incl. DD) (5 <sup>th</sup> yr-2009 batch DD & M. Tech. 2 <sup>nd</sup> Year	07 Aug 2014	15 Jan 2015
	UG 1 <sup>st</sup> Yr (Fresh Batch)	08 Aug 2014	16 Jan 2015
	<b>Late Registration</b> - - Within one week from date of registration, after due approval and with late fee No Concession on attendance. Not for 1st year (New entrants) in Odd Semester only.		
2.	<b>Orientation / Commencement of Classes</b>		
	First year orientation (Fresh Batch)	09 Aug 2014	--
	Commencement of Classes for all batches. First year classes shall start on 11 Aug 2014	Next day of Registration	Next day of Registration
3.	Ebullience*/Welcome function of 1 <sup>st</sup> year students	To be decided by DOSW	--
4.	<b>Ph.D (Seminars, Enrollment, Registration &amp; Orientation)</b>		
	End Semester Seminars (for existing Ph.D. scholars)	15 - 19 Jul, 2014	14 - 17 Jan 2015
	Registration (All existing scholars) (branch-wise schedule to be issued by Registry)	24 - 31 Jul 2014	21 - 24 Jan 2015
	Enrolment (Batch admitted 2014)	11 - 12 Aug 2014	To be decided in case of admissions taken in Even Semester.
	Orientation (Batch admitted 2014)	13 Aug 2014	
	DPMAC Meeting (Batch admitted 2014) and Completion of follow-up Registration requirements	Within 15 days of Enrollment	

5.	Summer Industrial Training Report Submitted to Registry	Latest by 01 Sep 2014	--
6.	Attendance Review before T1 examination	20 Sep 2014	21 Feb 2015
<b>T1 Examination &amp; Results</b>			
7.	Examination Schedule (5 days)	22 - 26 Sep 2014	23 - 27 Feb 2015
	Showing of Evaluated Answer Sheets to students (Latest by)	Latest by 9 Oct 2014	04 Mar 2015
	Results Uploading on System (Latest by)	11 Oct 2014	12 Mar 2015
8.	<b>Inter Jaypee University Sports Meet - To be decided later</b>		
<b>Lab/Projects – Mid Term Seminars / Vivas</b>			
9.	<b>Mid-Semester Viva/Test for Labs (incl M. Tech.) and Minor Project</b> To be decided under departmental heads between T1 & T2.	Result uploaded before T2	Result uploaded before T2
	<b>Mid-Term Seminar/Viva for Major Projects.</b> To be decided under departmental heads between T1 & T2.	Result uploaded before T2	Result uploaded before T2
10.	Semester Break - Diwali / Holi (Incl. Sundays) @	19 - 26 Oct 2014	05 - 10 Mar 2015
11.	Attendance Review before T2 examination	10 Nov 2014	11 Apr 2015
<b>T2 Examination &amp; Results</b>			
12.	Preparatory Day (No Classes)	11 Nov 2014	12 Apr (Sunday)
	Examination Schedule (5 days excluding Sunday)	12 - 17 Nov 2014	13 - 17 Apr 2015
	Showing of Evaluated Answer Sheets to students (Latest by)	26 Nov 2014	23 Apr 2015
	Results Uploading on System (Latest by)	29 Nov 2014	25 Apr 2015
<b>Lab/Minor Projects – End Term Seminars / Vivas</b>			
13.	<b>End-Semester Seminar / Viva for Labs and Minor Projects -</b> to be decided under departmental heads.	Result uploaded before End Term Examination	Result uploaded before 21 May 2015
	<b>The results of minor projects</b> after finalization through institutional committee to be	--	before 22 May 2015

	shared with students and those failing to qualify should be given additional time		
14.	<b>Make-up Examination (All)</b>	26 - 29 Nov 2014	27 - 30 Apr 2015
15.	Major Project allocation for next year by	--	16 May 2015
16.	Minor Project allocation for next semester by	13 Dec 2014	16 May 2015
17.	Students' Feed Back Collection by	16 Dec 2014	20 May 2015
18.	Submission of Projects (B. Tech. & M. Tech.) / Dissertation Reports (M. Tech.)	16 Dec 2014	22 May 2015
19.	Classes to be over	17 Dec 2014	21 May 2015
20.	End Semester Attendance Review	17 Dec 2014	21 May 2015
21.	Makeup day for disrupted classes	18 Dec 2014	22 - 23 May 2015
	<b>Project / Dissertation Activity</b>		
22.	Allocation of M. Tech. Dissertation Supervisors	--	22 May 2015
	Allocation of Term Papers for M. Tech. for 3 <sup>rd</sup> Sem	--	22 May 2015 / 1 <sup>st</sup> week of New Semester
	Allocation for Topics for Dissertation by nominated supervisors	--	22 May 2015
	<b>End Semester Examination &amp; Results</b>		
23.	Examination Schedule	19 - 29 Dec 2014	25 May - 02 Jun 2015
	Showing of evaluated Marks sheets to students	05 Jan 2015	09 Jun 2015
	Deptt. Board of Examiners Meeting	06 Jan 2015	10 Jun 2015
	Meeting of University result Committee (Both for Theory & Lab Courses)	07 Jan 2015	11 Jun 2015
	Provisional Grades Display by faculty	08 - 09 Jan 2015	12 Jun 2015
	Freezing / Submission of Final Grades to Registrar by faculty	10 Jan 2015	13 Jun 2015 (FN)
	Declaration of Results by Registrar	12 Jan 2015	13 Jun 2015 (AN)
23.	<b>Project Viva / Winter Vacations &amp; Summer Internship</b>		

	Final Project Viva	30 Dec 2014 - 03 Jan 2015	03-06 Jun 2015
	Vacation - Except for Final year students	30 Dec 2014-14 Jan 2015*	3 Jun - 22 Jul 2015
	Vacation for Final year students	05 Jan 2014-14 Jan 2015*	07 Jun - 22 Jul 2015
	Summer Internship (Industrial Training) Period	--	08 Jun – 22 Jul 2015 (for 6 weeks)
	<b>Supplementary Examination</b>		
	Registration for Supl Examination	13 - 17 Jan 2015	20 - 15 Jul 2015
	Registration for Supp examination (For summer sem failures)	--	22 - 23 Jul 2015
	Supplementary Examination Schedule	21 - 24 Jan 2015	27 - 31 Jul 2015
24.	Showing of Evaluated answer sheet to students (by)	--	03 Aug 2015
	University meeting for finalization Suppl. results	28 Jan 2015	04 Aug 2015
	Submission of Suppl. Examination Grades by faculty	29 Jan 2015	05 Aug 2015 (FN)
	Declaration of Results of Suppl. Examination	30 Jan 2015	05 Aug 2015 (AN)
	<b>Summer Semester – 2015</b>		
25.	Summer Semester for Dual-Degree B. Tech. M. Tech. (Bio & CSE)	--	08 Jun - 18 Jul 2015
	Registration for Summer Sem.	--	15-16 Jun 2015
	Summer Semester for backlog students all years (Details separately)	--	16 Jun - 21 Jul 2015 (including results)**
26.	<b>End Semester Ph.D. Seminars</b>		
	End Sem Ph.D. Seminars	--	22 Jul-28 Jul 2015
27.	<b>Next Academic Session 2015-16</b>		
	Next Semester Registration begins (Academics Session 2015-16)	--	23 Jul 2015
28.	Finalization of progression of 1st yr students (found ineligible for promotion) into 2nd yr. and their registration in relevant Sem.	--	After suppli results i.e. 06 - 08 Aug 2015

**2.3.2 Does the university provide course outlines and course schedules prior to the commencement of the academic session? If yes, how is the effectiveness of the process ensured?**

Course outlines, lecture schedules, time table, study material, learning objectives and outcomes for each course are made available online to all students and faculty through a file server in a study material folder. A sample course outline and lecture schedule are given below:

**Detailed Syllabus**  
**Lecture-wise Breakup**

<b>Subject Code</b>	<b>10B11CI211</b>	<b>Semester: (Odd/ Even)</b>	Even
<b>Subject Name</b>	Data Structure		
<b>Credits</b>	4	<b>Contact hours</b>	4
<b>Faculty</b>	<b>Coordinators(s)</b>		
	<b>Teacher(s) (Alphabetically)</b>		
<b>Course Objective:</b> Developing the understanding of the fundamental Concept, analysis, implementation and application of basic linear and non-linear data structures.			
<b>Learning Outcome:</b> The students will be able to			
<ul style="list-style-type: none"> <li>• Describe usage/ application of various data structures;</li> <li>• Assess how the choice of data structure and algorithm design methods impact the performance of the programme;</li> <li>• Choose appropriate data structure as applied to specified problem definition;</li> <li>• Handle operations like searching, sorting, insertion, deletion, traversing, etc. on various data structures, understanding their time and space complexities;</li> <li>• Solve problems using data structures such as linear lists, stacks, queues, binary trees and Graphs and implement it using C.</li> </ul>			
<b>Module No.</b>	<b>Subtitle of the Module</b>	<b>Topics in the Module</b>	<b>No. of the Lectures for the Module</b>
1	Introduction	Review of Structures, pointers, functions, dynamic memory allocation, file handling in C	4

		programming language. Introduction to ADT.	
2	Linear Data Structures: Array and Linked List	Arrays, Linked List: Singly, Doubly, Circular, List of list, Sparse matrices and various operations on them, such as: creation, insertion, traversal, deletion, searching, sorting etc. File handling through linked list. Applications of linked lists.	12
3	Recursion, Searching, Sorting & Complexity Analysis of Algorithms	Algorithm Design, Recursion & fractals, Decrease and Conquer, Divide and Conquer, Searching (Linear, Binary, Interpolation and Median) and Sorting (Bubble, Selection, Insertion, Quick, Radix, Merg, Heap, Shell and Bucket) Algorithms, Big O notation	10
4	Stack and Queue	ADT Stack, specifications, array based and linked storage, complexity analysis, recursion and its removal with stack, stack as buffer, searching, matching and stack applications. ADT Queue, specifications, array based and linked storage, complexity analysis, queue as buffer, searching, queue applications, ADT Deque and applications, circular queue and its implementation through linked list	10
5	Non linear Data Structure	Introduction to nonlinear data structures, ADT Tree, specifications, array based and linked storage, binary tree, search in tree, tree traversal, BST, complexity analysis, applications, ADT Graph, array based and linked storage, search in graph, graph traversal	10
<b>Total number of Lectures</b>			<b>46</b>
<b>Recommended Reading material:</b> Author(s), Title, Edition, Publisher, Year of Publication etc. ( Text books, Reference Books, Journals, Reports, Websites etc. in the IEEE format)			
1	Langsam, Augestein, Tenenbaum : Data Structures using C and C++, 2nd Edition, PHI, 2001		
2	AK Sharma, Data Structures Using C, Pearson Education.		



3	Kruse, Tonso, Leung: Data Structures and Programme Design in C, 2nd Edition, Pearson Education Asia, 2002
4	Weiss, Mark Allen: Data Structures and Algorithm Analysis in C/C++, 2nd Edition, Pearson Education Asia, 2003
5	Richard F. Gilberg & Behrouz A. Forouzen: Data Structures, 2nd Edition, South-Western, Cengage Learning, 2005
6	Horowitz and Sahani: Fundamental Data Structures, 2nd Edition, Universities press, New Delhi, 2007.
7	Sahni : Data Structures, Algorithms and applications in C++, Universities press, Hyderabad, 2005
8	Standish: Data Structures in Java, Pearson Education Asia (Adisson Wesley), New Delhi, 2000
9	Cormen et al: Introduction to Computer Algorithms, 2nd edition , PHI New Delhi 2003
10	Heileman : Data Structures, Algorithms and Object Oriented Programming, Tata Mc-Graw Hill, New Delhi, 2002
11	Sorenson and Tremblay: An Introduction to Data Structures with Algorithms, 2nd Edition, Tata Mc-Graw Hill, New Delhi, 2003
12	Aho, Hopcraft, Ullman: Data Structures and Algorithms, Pearson Education Asia (Adisson Wesley), New Delhi, 2001
13	Knuth: The Art of Computer programming Vol I, Vol III, 2nd edition , Pearson Education Asia (Adisson Wesley), New Delhi, 2002
14	Sedgewick : Algorithms in c : part 1-4 fundamental data structrues, sorting, searching , 3rd Edition, Pearson Education Asia, New Delhi, 2000

The HODs ensure that all faculty members update study material folder on file server before start of the semester. Most of the core courses are associated with tutorial and/ or laboratory classes which help in organizing student-oriented skill based self-learning exercises. Also in large number of courses students are required/ encouraged to take small projects to implement concepts covered in the courses and beyond. Courses like term paper, seminar, projects, dissertation, and internship allow students to make free choice of topic of their interest and train them in self-learning skills and research.

**2.3.3 Does the university face any challenges in completing the curriculum within the stipulated time frame and calendar? If yes, elaborate on the challenges encountered and the institutional measures to overcome these.**

The course coordinator of each course provides a detailed lecture-wise teaching schedule to each faculty involved in teaching the course with information of course coverage before Test-1 and Test-2. Regular meetings of

the faculty are held to ensure the timely completion of the course. The faculty lagging behind takes extra classes to meet the timeline. There has been no slippage in the academic calendar schedule.

**2.3.4 How is learning made student-centric? Give a list of participatory learning activities adopted by the faculty that contributes to holistic development and improved student learning, besides facilitating life-long learning and knowledge management.**

For student centric and participative learning, following practices are in use:

Small group tutorials and Assignments; Laboratories; Project based learning through mini, minor and major Projects; Industrial internship; Cross-level peer mentoring; Report writing and Seminars; Technical competitions; Participation by students in Conference, Guest lectures, and industry conducted workshops; Regular organisation of various technical events related to programming, robotics, multimedia, game design, web design, etc., comprehensive IT symposium- Cyber Srishti.

The Institute has several technical and visual arts hubs which organize special lectures/ workshops and seminars on regular basis. The details of participative learning activities (hubs) are given in section 5.3.

**2.3.5 What is the university’s policy on inviting experts/ people of eminence to deliver lectures and/or organize seminars for students?**

In each Department, faculty is empowered to identify experts/ people of eminence, both from academia and industry, for delivering talks for the benefit of students, research scholars and faculty. Such talks are regularly organized by the Departments. In addition, Department of Biotechnology and Jaypee Center for Enterpreneurial Development organize seminar series in which experts are invited from outside. A list of expert talks organized in 2013-14 is given below as an example.

**Table: Expert Talks organized for students in engineering programmes (2013-14)**

S. No.	Experts with affiliation	Topic/ Date
<b>Biotechnology</b>		
1	<b>Dr. Uma Shanker</b> Consultant Scientist, Biotek Park Lucknow, India	Future Eyes on Biotechnology 12 /03/2014
2	<b>Prof. Subhash Chand</b> IIT Delhi	Techno-commercial issues related to Industrial Bioprocessing

		10 /02/ 2014
3	<b>Prof. Madhav Bhatia</b> University of Otago, Christchurch, New Zealand Prof. S. P. Singh, BHU	Innovative approaches for biomedical research- students of today are research leaders of tomorrow 29-30/10/2013
4	<b>Dr. Anup Madan</b> Genomics/Associate Director, Sequencing Group at Covance, Seattle, USA	Role of Biomarkers in P4 medicine 11 /10/2013
5	<b>Dr. Babal Kant Jha</b> Cleveland Clinic, Cleveland, USA.	Therapeutic implications of targeting innate immune response against cancer and viral infection 21 Jan, 2013
<b>CSE/IT</b>		
6	<b>Sunil Mahajan, Naresh Chand</b> Kleeto	Entrepreneurship talk
7	<b>Sunil Mahajan, Naresh Chand</b> Kleeto	Entrepreneurship talk
8	<b>Mohit Sharma</b> Homeshop18	Next Generation ERP for Android
9	<b>Dr. Amit Kumar Pandey</b> Aldebaran Robotics	Socially Intelligent Robots: Towards human-robot co-existence-Lecture
10	<b>Zuheb Jamil</b>	Weekend Venture
11	<b>Dr. J. C. Bansal</b> SAU New Delhi	Random Numbers and Computational Intelligence
12	<b>Martin</b> Innoticals Pvt.Ltd.	J-Unite 14
13	<b>Yogi Raj</b> Cofounder: 24 Idea Street	Making Your First 1000 Dollars 27/04/2014
14	<b>Rudraksh and Juhi</b> Founders: Mathharbor	Number Nirvana: Our experiences building a niche product for math nerds 27/04/2014
15	<b>Nikhil Wason</b> Founder: Cardback	Startups Don't Happen Overnight 27/04/2014
16	<b>Hari Prasanna and Pranav Prakash</b> Slide Share	Rise of Open Source Data Science Tools 27/04/2014
17	<b>Gurteshwar Singh</b> Plivo Inc	Avoiding single point of failures in a multi-services architecture 27/04/2014

18	<b>Saleem Ansari</b> Impetus Technologies Inc	Machine Learning with Apache Mahout and Scala 27/04/2014
19	<b>Pravin Kumar Mishra</b> Runtime Systems	Happy Go Programming, 27/04/2014
20	<b>Konark Modi</b> MakeMyTrip	Perfect recipe for data wrangling: IPython Notebook+ Pandas + Visualizations, 27/04/2014
21	<b>Gurteshwar Singh</b> Plivo Inc	An intro to Open Source Telephony, 27/04/2014
22	<b>Rudraksh</b> MathHarbor	Numberscape - The landscape of opensource languages and tools for computational math, 27/04/2014
23	<b>Shobha Tyagi</b> GNOME	GNOME, 26/04/2014
24	<b>Piyush Kumar</b> MakeMyTrip	Open Source behind MakeMyTrip Infrastructure, 26/04/2014
25	<b>Saurav Tomar</b> Wecure	Introduction to Web Scraping in Python, 26/04/2014
26	<b>Pragun Bhutani</b> Pixpa	Getting started with AngularJS, 26/04/2014
27	<b>Tavish</b> BaseApp Systems	Hardware hacking, 26/04/2014
28	<b>Shubhamoy Chakrabarty</b> Dynofy	The Dynofy Story, 26/04/2014
29	<b>Ankit Maheshwari</b> InnovAccer	Building scalable web applications on cloud platform, 26/04/2014
30	<b>Mahesh Krishnan</b> Manager, HCL	SAP : View As Career Option, 23/04/2014
31	<b>Aman Gupta</b> SAP Practice Head for NCR	SAP : View As Career Option, 23/04/2014
32	<b>Maneesh Birthwar</b> SAP Practice Head/ SVAM International	SAP : View As Career Option, 23/04/2014
33	<b>Prof. Vijay Vaishnavi</b> Georgia State University, USA	Engineering Science Research Methods 16/04/2014
34	<b>Prof Sartaj Sahni</b> Florida University, USA	Career guidance, 16/04/2014
35	<b>Sanjeev</b> Accenture	SAP Hana, 08/01/2014
36	<b>Nikhil Joshi</b> Digital Jalebi	Creative Coding, 16/08/ 2013

37	<b>Ashish Gupta</b> Director, Identity Management and Security Group, Oracle	Big data: A Perspective, 01/08/2013
<b>ECE</b>		
38	<b>Vikram M.Gadre</b> IIT Bombay, Somnath Sengupta, IIT, Kharagpur	Signals and Systems 2-12/01/2014
39	<b>Hemant Kumar and Technical Team</b> Comsol India	COMSOL Multiphysics for MEMS modeling, 15/11/2013
40	<b>Amit Saini</b> Technical Team, Cadre Design System	Semiconductor Device Modeling using TCAD Tools, 04/10/2013
41	<b>Krishnendu Chakrabarty</b> Duke University, USA	Design for Testability, 23-27/07/2013
42	<b>Vijaykrishnan Narayanan</b> Pennsylvania State University, USA	Embedded Systems, 01-05/07/2013
<b>HSS</b>		
43	<b>Diego Gazola</b> MD of Muda de Idiea, Sao Paulo, Brazil	Cross cultural issues and Technology Advancement December, 2014
44	<b>Kshitij Mishra</b> Senior Manager, Avaya Ltd.	Managerial comm. & Analytical skills October, 2014
45	<b>Dr Savita Pande</b> , Professor South Asian Studies, School of International Studies, JNU	Student Conference: Jaypee Youth Parliament 11-12 Oct, 2014
46	<b>Ambika Shukla</b> People for Animals foundation	Student Conference: Jaypee Model United Nations 22-23 Feb, 2014
47	<b>Dr. Nipendra Singh</b> Jaypee Business School	New-Age Marketing November, 2013
48	<b>Charu Bhargava</b> Assistant General Manager, Sheela Foam Pvt. Ltd.	Aspects of Marketing, November, 2013
49	<b>Peter Vrooman</b> Spokesperson, US Embassy	Student Conference: Jaypee Model United Nations 22-23 Feb, 2013
<b>Mathematics</b>		
50	<b>Prof. Karmeshu</b> Professor, JNU, New Delhi	Computational Neuroscience 29 Nov. 2014

51	<b>Prof. Subhadip Raychaudhuri</b> IIITD, New Delhi	In silico single cell biology of apoptotic cell death in healthy and diseased cells 29 Nov. 2014
52	<b>Prof Sitabhra Sinha</b> Institute of Mathematical Sciences (IMSc), Chennai	Exploring the complex networks of biology 29 Nov. 2014
53	<b>Prof Peeyush Chandra</b> IITK, Kanpur	Mathematical Models for HIV infection in vivo 29 Nov. 2014
54	<b>Prof. Karmeshu</b> Professor, JNU, New Delhi	Maximum Entropy Principle and Optimization- Power Law Behavior in Communication Network 23 Sept. 2014
55	<b>Prof. Kusum Deep</b> IIT Roorkee	Nature-Inspired Optimization Techniques 23 Sept. 2014
56	<b>Dr. Millie Pant</b> IIT Roorkee	Metaheuristics for Global Optimization 23 Sept. 2014
57	<b>Professor H. C. Taneja</b> Delhi Technical University	Residual and Past Life-time Distributions and Information Theoretic Measures Approach, 04 Feb, 2014
58	<b>Prof. B. S. Panda</b> IIT Delhi	Probabilistic Method in Graph Theory, 08 Oct, 2013
59	<b>Prof. B. K. Dass</b> University of Delhi	Interdisciplinary Nature of Mathematics, 23 Sept, 2013
<b>PMSE</b>		
60	<b>Dr. Ankur Goswami</b> University of Alberta, Canada	Microfluidics in Energy harvesting and Superhydrophobicity 06 Sept, 2014
61	<b>Dr Nirpendra Singh</b> King Abdullah University of Science and Technology, Thuwal, Saudi Arabia	Topological phases of novel two-dimensional materials 05 Aug, 2014
62	<b>Prof. P N Ghosh</b> Jadavpur University	Bose Einstein Condensation and Laser Cooling: Basic Concept, 01, Apr, 2014
63	<b>Prof. Binod Kumar</b> University of Dayton Research Institute, USA	Special need and emerging Lithium-Air Technology, 18 Nov, 2013
64	<b>Dr. Vijay Raj Singh</b> Singapore-MIT Alliance for Research and Technology (SMART), Singapore	3D fluorescence microscopy systems development for tissue imaging applications, 30/10/2013
65	<b>Prof. Subodh Kumar De</b> IACS, Kolkata	Self-Assembly: An Important Aspect of Nanomaterials

		21 June, 2013
66	<b>Prof. D Kumar</b> IIT BHU	Laser Spectroscopic Studies on Rare earth doped Oxides Materials 06, June, 2013

**Table: Expert talks organized for students of MBA programme  
(AY 2013-14)**

<b>S. No.</b>	<b>Name</b>	<b>Designation</b>	<b>Company</b>	<b>Date of Visit</b>
1.	Prof. A.D. Amar	Professor of Management	Seton Hall University – USA	04.03.14
2.	Prof. Preetpal Singh	Former Head, Deptt. Of Management Studies	IIT Delhi	02.02.14
3.	Prof. William Webster	Vice Provost	University of California, Berkeley, USA	01.03.14
4.	Mr. Sudhansu Kumar Kanungo	General Manager-PMO	Schneider Electric India Pvt Ltd, India	12.03.14
5.	Mr. Manish Gautam	Vice President & Cluster Head	Royal Bank of Scotland –Noida,	19.06.14
6.	Ms. Rimy Oberoi	Founder & CLO	OysterConnect.com, Oyster Learning, Noida	19.06.14
7.	Mr. Amit Saneja	Associate Director	MTS India	19.06.14
8.	Mr. Hari Parmeshwar	Sr. HR Consultant & Fmr. HR Head	Maruti Suzuki India	26.08.14
9.	Mr. Manish Puri	Head-Logistics	Pivot Consultants – India	30.08.14
10.	Mr. Samarth Masson	Founder & CEO	FutureQuest Consulting	30.08.14
11.	Dr. David Orton	Principal Lecturer	DeMontfort University	01.09.14
12.	Prof. Biswajit Chowdhury	Senior Corporate trainer	Free Lance Trainer	04.09.14
13.	Ms. Ruchi Bhalla	Head HR	Piteny-Bowes India	06.09.14

14.	Mr. Enayet Kabir	Associate Professor	KPMG-India	04.09.14
15.	Mr. Sharad Kumar Gupta	Senior General Manager	Yazaki India Ltd.	14.11.14
16.	Mr. Gary Jackson	Director	Qlik.com	17.11.14
17.	Dr. Chandresh Agarwal	Chief Executive & Managing Director	IMERYS France	28.09.13
18.	Dr. Anadi S Pande	Vice President - (HRM and Corp. Planning & Strategy)	Hero Moto Corp. Ltd.	05.02.13
19.	Prof. A.D. Amar	Professor of Management	Seton Hall University	06.03.13
20.	Prof. William Webster	Vice Provost	University of Stirling	11.03.13
21.	Dr. Phani Tej Adidam	Professor of Marketing and Sales Management	University of Nebraska	13.03.13
22.	Dr. Louis Pol	Associate Dean	College of Business Administration, University of Nebraska at Omaha	13.03.13
23.	Mr. Sandeep Gupta	General Manager - Service	Hitachi, India	25.06.13
24.	Mr. Sunil Kumar	Former General Manager	PEC of India Limited	26.06.13
25.	Mr. A.V. Surya S. Rao	Vice President	IMRB International	27.06.13
26.	Dr. Chandresh Agarwal	Chief Executive & Managing Director	IMERYS France	28.09.13

**2.3.6 Does the university formally encourage blended learning by using e-learning resources?**

Yes

**2.3.7 What are the technologies and facilities such as virtual laboratories, e-learning, open educational resources and mobile education used by the faculty for effective teaching?**



The Institute has an e-learning centre under NMEICT project of IIT Bombay. Faculty is encouraged to use these resources for curriculum enrichment and course delivery. Facility for using virtual lab is also available. As a policy, every year, student seminars, workshops, project exhibitions (Cyber Srishti) are arranged. Some activities during Cyber Srishti are - Open Source Developers Conference (OSDConf), Entrepreneur's Speak, Students Project Exhibition, Embedded Programming Competition, Execute - A Programming Competition, and Web Designing Competition. In these activities, experts from academia and industry closely interact with the students both in groups and individually. This helps in eliciting suggestions from the visiting experts and utilizing the same for improvement.

The Learning Resource Centre (Library) of the Institute has rich collection of e-resources along with print resources. The budget allocation for e-resources is kept invariably higher. The expenditure on e-resources in the last four years is presented in the table below:

<b>Financial Year</b>	<b>Expenditure (Rs. in Lac)</b>
2011 - 2012	50.55
2012 - 2013	50.31
2013 - 2014	48.67
2014 - 2015	59.29
<b>Total</b>	<b>208.82</b>

All lecture rooms are equipped with internet connection and multi-media projection facilities. Faculty in its delivery of lectures liberally uses these facilities to provide visual contents. Faculty also utilises courses from NPTEL, other universities like MIT, Stanford, CMU, Harvard etc. and open source facilities for enrichment of learning exercise of students. Lecture PPTs are made available in a study material folder which can be accessed through Wi-Fi connection by students within the campus including hostels. This makes all reading material and lectures available on 24X7 basis.

**2.3.8 Is there any designated group among the faculty to monitor the trends and issues regarding developments in Open Source Community and integrate its benefits in the university's educational processes?**

The Institute has a committee to monitor the trends and issues related to developments in open source community. The composition and role of the committee is given below:

**Advisory Committee:** Chairman of LRC, HOD of each department or his representative and Librarian. The committee meets generally twice a year.

**Function:** Assess the effective integration of open resources and advises accordingly. Librarian and Assistant Librarian shall monitor all open source educational materials and disseminate the same to faculty and students.

### **2.3.9 What steps has the university taken to orient traditional classrooms into 24x7 learning places?**

Students on the campus have 24x7 accessibility of e-resources (e-books, e-journals, case studies, etc.), study materials on the Institute file server, NPTEL, virtual labs of NMEICT, etc., through Wi-Fi/ internet facilities of the Institute.

### **2.3.10 Is there a provision for the services of counsellors / mentors/ advisors for each class or group of students for academic, personal and psycho-social guidance? If yes, give details of the process and the number of students who have benefitted.**

Yes. The Institute has a process of student mentoring in which a faculty member serves as a mentor for about 30 students of first and second year of B. Tech. programme. In the beginning of a semester, details of mentors (batch-wise) are put up on the Institute's website for the information of students and their parents. A mentor can access student's records like attendance and marks obtained through the web kiosk (an ERP system). Faculty holds at least two scheduled meetings in a semester with the underperforming students for guiding them appropriately. However, students are free to contact the mentor for any academic or personal problems. The details are as follows:

#### **A. Academic Guidance:**

HOD and teacher of a tutorial class of the concerned subject

#### **Procedure to be followed:**

1. In the beginning of each semester, a mentor to be decided by respective branch HOD for each group/ batch of 30 students of each year.
2. Name of mentors (batch-wise) to be placed on website of the IIIT.
3. These advisors would have access of academic record (attendance and marks obtained in tests) of students of their group through web kiosk which at any point of time can be viewed for assessment of performance of a student.
4. Advisors would meet with underperforming students at least two times in a semester (once after Test 1 and then after Test 2) and discuss their

problems, assess their requirements and advise them accordingly for better academic performance.

5. Advisors would keep a record of meeting with underperformers wherein performance of students before and after meeting would be mentioned along with any other relevant comments.
6. HOD, if feels that a student has a psycho-social problem, he should refer him to the parents/ DOSW for further guidance.
7. Vice-Chancellor will hold a meeting of HODs, Deans and Directors at the end of semester which will be mentioned in the academic calendar.

#### **B. Psycho-Social and Personal Guidance:**

1. Commodore K K Rohatgi, Dr. Neeraj Wadhwa, Mr. Prakash Kumar  
**Function/ Role:** Mentoring of students having improper conduct on campus/ hostel.
2. Dr. Alka Sharma, Dr. Badri Bajaj, Ms. Puneet Pannu, Dr. Ruchi Gautam  
**Function/ Role:** Mentoring of engineering students needing emotional/ social guidance
3. Dr. Sharmila Siwach and Dr. Yatinder Singh  
**Function/ Role:** Mentoring of students needing Psychological/ Medical guidance
4. Dr. Naseem Abidi, Dr. Hima Gupta, Dr. Debdeep De  
**Function/ Role:** Mentoring of MBA students needing emotional/ social guidance

#### **2.3.11 Were any innovative teaching approaches/methods/practices adopted/ put to use by the faculty during the last four years? If yes, did they improve learning? What were the methods used to evaluate the impact of such practices? What are the efforts made by the institution in giving the faculty due recognition for innovation in teaching?**

Faculty follows student centric and innovative practices for teaching. Some of these practices are:

- Interactive lectures using various audio-visual aids like computer presentation, Visualizer, etc., in addition to Black/White board
- Small group tutorials and assignments
- Laboratories
- Project based learning through mini, minor and major Projects

- Industrial internship
- Collaborative Teaching and Learning
- Cross-level peer mentoring
- Partially Flipped Classroom and Guided Reading
- Report writing and Seminars
- Technical competitions and large group Hackathons
- Participation in Conference, Guest lectures, and industry conducted workshops
- 24x7 academic connectivity of faculty with class using social media and other web services
- Use of online educational resources as supplements
- Simulation studies
- Role Play
- Interactive brainstorming sessions Debates and Discussions
- Socratic Method
- Reading assignments from journals, monographs, etc.
- Case analysis and discussion
- Presentations
- Review and reinforcement
- Field Work
- Live projects
- Learning by doing
- Regular organisation of various technical events

The impact of all these practices have been positive as evidenced from students feedback and acceptance with enthusiasm. Learning attainments in all these methods have been above average.

### **2.3.12 How does the university create a culture of instilling and nurturing creativity and scientific temper among the learners?**

Creative and scientific temperament and skill development in students is nurtured through:

- Activity hubs

- Cyber Srishti
- Project based learning
- Minor and major projects
- Seminar and term paper
- Participation in Seminars, Conference and Workshops
- Problem based learning

**2.3.13 Does the university consider student projects mandatory in the learning programme? If yes, for how many programmes have they been (percentage of total) made mandatory?**

- \* **Number of projects executed within the university**
- \* **Names of external institutions associated with the university for student project work**
- \* **Role of faculty in facilitating such projects**

Projects (minor and major) and Industrial Training/ Internship are essential components of all programmes. Generally all projects are executed in the Institute. However, some projects are executed in Industry.

**Project allocation**

Following are the involved steps for major project allocation:

**Step-1:** The process of major project allocation is initiated in the last week of April each year. Projects are allocated based on the domains/areas of faculty members and the interest of the students. Major projects are carried out in groups of 3-4 students.

**Step-2:** Students submit their choice form for major project giving their CGPA, and ordered list of faculty members/domain.

**Step-3:** Allocation of guides is made on the basis of choice proforma submitted by the students.

**Role of faculty in facilitating projects:**

1. On day to day basis, faculty members help major project student(s) in formulation of problem statement, solution approach, design, implementation, testing etc. If required, two faculty members can jointly supervise the major project.

2. Depending on the additional hardware, software, and consumables required for the major project, faculty members initiate the process of procurement.

### **Training outside**

1. Final semester project training of 16 weeks is offered by Infosys at their Mysore campus for B. Tech. CSE/IT. Almost 216 students have experienced live project at Infosys Training Centre so far.

2. Five day pre-joining programme by WIPRO at JIIT and three weeks pre induction training by Accenture at JUIT, Wagnaghat during June-July, 2012 have been conducted.

### **Training on the JIIT campus**

1. JIIT-Accenture Innovation lab was commissioned in October, 2012 and thereafter 46 students were trained in ERP by Accenture and certified.

2. Three weeks pre induction training was conducted by Accenture.

3. Ericsson conducted Empowerment training programme and issued certificates to the qualified students.

### **2.3.14 Does the university have a well qualified pool of human resource to meet the requirements of the curriculum? If there is a shortfall, how is it supplemented?**

The Institute has a rich pool of well qualified human resources to meet all requirements of the Curriculum. Summary of the faculty available in the Institute is:

<b>S. No.</b>	<b>Cadre</b>	<b>No. with Ph.D.</b>	<b>Total No.</b>
1	Professor	20	23
2	Associate Professor	23	23
3	Assistant Professor	94	210
<b>Total</b>		<b>137</b>	<b>256</b>

In addition, experts are invited to deliver lectures on topics of current and upcoming interest.

### **2.3.15 How are the faculty enabled to prepare computer-aided teaching/ learning materials? What are the facilities available in the university for such efforts?**

To prepare computer-aided teaching/ learning materials, each faculty is provided with a dedicated networked computer with broadband internet connection and required software. All class rooms are equipped with networked computer, multimedia projector, internet facility, and PA system. Faculty members are individually provided a password protected network drive (named N:) accessible from all class rooms/ Institute network.

**2.3.16 Does the university have a mechanism for the evaluation of teachers by the students / alumni? If yes, how is the evaluation feedback used to improve the quality of the teaching-learning process?**

At the end of every semester, students are required to give teacher-wise feedback on each subject studied by them in the semester. The feedback is obtained on ten parameters (section 1.4). This feedback is consolidated and an index is calculated. The feedback is communicated to concerned teacher and is advised to take suitable corrective action, if required. IQAC has designed an online system of collecting students' feedback and a report generation from the same which will be communicated to the concerned teacher.

## **2.4 TEACHER QUALITY**

**2.4.1 How does the university plan and manage its human resources to meet the changing requirements of the curriculum?**

JIT being a private unaided institution, the Board of Management (Governing Body) has approved that the faculty be decided and enrolled based on the assessed requirements. Flexibility has been allowed to cater for additional recruitment whenever needed without any restraint on the numbers. This ensures smooth conduct of programmes, and enables the Institute to meet the requirement due to changes in curriculum and additional courses. While doing so, the norms and parameters laid down by the UGC/AICTE for faculty are observed for compliance.

The Institute has a well defined system of recruitment in place to ensure that the best faculty with desired capability and qualification is inducted. For engineering and management programmes, the qualification for faculty position in the Institute is Ph.D. / M. Tech./ MBA from a reputed institution preferably with some teaching/industrial experience. For faculty in the departments like, PMSE, Mathematics, HSS and Biotechnology, the candidate with Ph.D. are recruited. The steps involved in the recruitment process are as follows:

**Step-1:** The faculty requirement of various departments is identified keeping in view the specialization of areas and courses to be taught, changes in curricula, availability of resources, additional requirement keeping the loads in

the forthcoming time and likely attrition. The process helps in identifying the required numbers and areas of specialization.

**Step-2:** Faculty positions are advertised in the National Dailies, besides uploading the requirement on the Institute website under career openings. Fliers/ information about faculty recruitment are also shared with important Institutes. On an average the Institute receives more than 10,000 applications every year.

**Step 3:** Applications are received online. The candidates are shortlisted for the interview based on specific requirements by screening committee constituted by Vice Chancellor.

**Step 4:** The interviews are held by the select panels as per the MOA of the Institute. Subject experts from the institutes of national repute like IITs are invited to be members of the select panels.

The strength of faculty in the last five years has gone up from 150 to 256.

Institute also employs visiting faculty. Such faculty is invited based on their experience, high degree of research knowledge or industrial experience to conduct the courses as part of curriculum. Approximately 50 visiting faculty including those from abroad have been invited in the past to conduct various courses in engineering and management programmes. Further, the Institute has been empowered to enrol adjunct faculty on its rolls. Such services were used in the past. In addition, guest lectures by eminent people from industry/ academia greatly assist in enriching the contents in the advanced courses. The Institute continuously strives to improve the faculty ratio, keeping the quality and experience as a prime requirement in view.

The rich quality and strength of faculty enables the Institute to launch the best of the courses in its curricula as necessitated by the changing trends.

Further, the Institute ensures the up-gradation of knowledge base of faculty through faculty development/ recharge programmes.

#### **2.4.2 Furnish details of the faculty**

At present, the strength of full-time faculty in the Institute is 256 (Refer to the table below). All the faculty members have strong academic background with most of them coming from IITs and other institutes of repute. More than 50% of the faculty has doctoral degrees while others have a minimum post graduate degree.



Highest Qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
<b>Permanent Teachers</b>							
D.Sc./ D.Litt.							
Ph.D.	17*	02	11	12	51	43	136
M. Phil.					01	01	02
PG	03	-	-	-	55	58	116
<b>Temporary Teachers - NIL</b>							
Ph.D.							
M. Phil.							
PG							
<b>Part-time Teachers</b>							
Ph.D.	01						01
M. Phil.							
PG						01	01
<b>Total</b>	<b>21*</b>	<b>02</b>	<b>11</b>	<b>12</b>	<b>107</b>	<b>103</b>	<b>256</b>

**2.4.3 Does the university encourage diversity in its faculty recruitment? Provide the following details (department/school-wise).**

To attract the best human resource, the Institute strongly supports diversity in its faculty recruitment. All the recruitments of faculty are pan-India (Refer to the Table below). In addition some of the faculty members have joined the Institute after serving abroad.

**Table: Diversity in the faculty recruitment**

Department/ School		Percentage* of faculty from			
		The same Univ	Other Universities within the state	Universities outside state	Other countries
CSE/IT	Ph.D.	29	00	61	10
	PG	04	10	83	03
ECE	Ph.D.	23	14	54	09
	PG	08	16	71	05
BT	Ph.D.	04	13	74	09
	PG	00	09	87	04
PMSE	Ph.D.	05	14	76	05

	PG	00	38	57	05
Maths	Ph.D.	00	12	88	00
	PG	00	44	56	00
HSS	Ph.D.	50	29	21	00
	PG	00	48	48	04
JBS	Ph.D.	35	35	30	00
	PG	00	41	59	00

\*For Ph.D., percentage is calculated out of total Ph.D. degree holders and Percentage of PG is calculated out of total strength of the Department.

**2.4.4 How does the university ensure that qualified faculty are appointed for new programmes / emerging areas of study (Bio-technology, Bio-informatics, Material Science, Nanotechnology, Comparative Media Studies, Diaspora Studies, Forensic Computing, Educational Leadership, etc.)? How many faculty members were appointed to teach new programmes during the last four years?**

For starting new programmes/ emerging areas of study, concerned Department carries out gap analysis in terms of required expertise. Thereafter it is considered at the Institute level and further steps are taken for the recruitment of new faculty as elaborated above. This process is carried out at least once in a year. During the last four years, about 148 faculty appointments have been made to cater for new programmes/ emerging areas of study, and attrition. Department-wise faculty recruited to address the needs including those of new programmes and emerging areas of study in the last four years is given in table below:

Department	Year of Recruitment			
	2011	2012	2013	2014
Computer Science and Engineering & IT	9	16	25	8
Electronics and Communication Engg.	12	9	14	9
Biotechnology	2	-	-	-
Physics and Materials Science and Engg.	5	2	1	-
Mathematics	3	2	6	2
Humanities and Social Sciences	8	3	4	-
Jaypee Business School	4	-	3	1
<b>Total</b>	<b>43</b>	<b>32</b>	<b>53</b>	<b>20</b>

#### **2.4.5 How many Emeritus / Adjunct Faculty / Visiting Professors are on the rolls of the university?**

In the past, the Institute invited number of distinguished academia to be on its rolls as adjunct professors/ professor emeritus. Total of 8 professors were nominated as adjunct faculty while one professor emeritus is currently on the rolls of IIIT.

The Institute also invites visiting faculty for conducting various advanced courses. About 50 visiting faculty including those from abroad have been invited in the past adding to the quality and diversity of the faculty and ensuring focussed conduct of the programme by best suited experts. The details of visiting faculty are given in Table 2.4.1, page 228.

#### **2.4.6 What policies/systems are in place to academically recharge and rejuvenate teachers (e.g. providing research grants, study leave, nomination to national/ international conferences/ seminars, in-service training, organizing national/ international conferences etc.)?**

The Institute has a well defined policy to academically recharge/ rejuvenate faculty members. Following are the details of such policies of the Institute:

- i. Continuous financial support for research** to the faculty members for consumables, like glassware, chemicals, etc., minor and major equipment, software, etc. The Institute has evolved a budgetary process for the same and carries out periodic allocation of funds based on the demands from the departments towards research.
- ii. Research scholars** are associated with the faculty. Full time research scholars are provided **Research fellowship of Rs. 18,000 per month** by the Institute.
- iii. Financial support for organizing national and international conferences/ workshops/ seminars etc.** More than 60 national and international conferences and workshops have been organized with the Institute's partial/ full support.
- iv. Financial support for organizing expert talks by distinguished visitors** from academia and industries to speak on key/emerging areas. So far 332 invited talks/seminars have been conducted by the Institute.
- v. Financial support for travel and registration** for two conferences/ workshops etc. per year held in India and one conference/ workshop etc. in two years held abroad to faculty members as part of the Institute's policy to encourages participation of faculty in national/ international events.

Details of such supports provided by the Institute in the last four years are presented in the table below:

**Table: Support towards faculty Recharging/ Rejuvenating**

S. No.	Item	Rs. in Lac
1	Research Equipment, Computer and Software	172.87
2	Fellowship/ TAs/ship	580.21
3	Support towards nomination of faculty and students to National and International conferences etc.	30.37
4	Support for organizing National and International conferences	96.47
5	Journals subscriptions	208.82
6	Consumables	86.75

**vi. Study leave to faculty:** A faculty member is entitled to avail study leave after minimum of five years of service in JIIT. The leave may be granted up to maximum two years with salary, subject to certain conditions. Institute also has policy to provide leave to the faculty for higher studies leading to Ph.D. and other study/ research work. So far seven faculty members have availed study leave as listed in the table below:

S. No.	Name/ Current Designation	Deptt	Duration	Financial support	Purpose
1	Ms. S. Sachdeva Asstt. Professor	CSE/IT	01/04/09- 21/03/12	LWP	Ph.D. Programme in Japan
2	Dr. R Sharma Asstt. Professor	JBS	18/04/09- 13/07/09	Basic, DA, HRA & PF	Short Term FDP at Indore M.P.
3	Dr. K Anil Asstt. Professor	JBS	13/06/09- 03/10/09	Basic, DA, HRA & PF	Short Term FDP at Ahmedabad.
4	Dr. H Sharma Asstt. Professor	JBS	3/06/10- 11/07/10	Basic, DA, HRA & PF	FDP Programme at Germany
5	Mr. B Gupta Asstt. Professor	CSE/IT	12/09/10- 10/09/14	LWP	Ph.D. at Univ of Westminster, UK
6	Dr. N. Singh Asstt. Professor	JBS	08/12- 11/12	Basic & DA	Fulbright-Nehru Environmental Leadership Programme

**2.4.7 How many faculty received awards / recognitions for excellence in teaching at the state, national and international level during the last four years?**

A number of faculty members of the Institute have received awards/ recognitions in research. A list of faculty members who received awards/ recognitions during the last four years is given in Table 2.4.2, page 231.

**2.4.8 How many faculty underwent staff development programmes during the last four years (add any other programme if necessary)?**

Faculty members are encouraged and supported to undergo faculty development programmes. The table below presents number of the faculty who underwent different faculty development programmes during last four years.

<b>Academic Staff Development Programmes</b>	<b>Number of Faculty*</b>
Refresher courses	<b>398</b>
HRD programmes	<b>419</b>
Orientation programmes	<b>168</b>
Staff training conducted by the university	<b>170</b>
Staff training conducted by other institutions	<b>186</b>
Summer/ winter schools, workshops, etc.	<b>826</b>

\*Figures are based on multiple attendances by a faculty

**2.4.9 What percentage of the faculty have**

- \* **been invited as resource persons in Workshops/ Seminars / Conferences organized by external professional agencies?**
- \* **participated in external Workshops/ Seminars/ Conferences recognized by national / international professional bodies?**
- \* **presented papers in Workshops / Seminars / Conferences conducted or recognized by professional agencies?**
- \* **teaching experience in other universities / national institutions and other institutions?**
- \* **industrial engagement?**
- \* **international experience in teaching?**

Summary of faculty participation in workshops/ conferences/ seminars and their teaching / industrial / research experience is given in table below:

<b>Particulars</b>	<b>Faculty Number (total visits)/ %age</b>
Resource persons in workshops/ seminars/ conferences organized by external professional agencies	39 (100)/ 15%

Participation in workshops/ seminars/ conferences recognized by external professional bodies	129 (344) /50%
Presented paper in workshops/ seminars/ conferences conducted or recognized by professional agencies	156 (390)/60.5%
Teaching experience in other universities/ national institutions and other institutions	151/58.5%
Industrial Engagement	26/10%
International experience in teaching	17/6.6 %

**2.4.10 How often does the university organize academic development programmes (e.g.: curriculum development, teaching-learning methods, examination reforms, content / knowledge management, etc.) for its faculty aimed at enriching the teaching-learning process?**

Academic development programmes are organized regularly by the Institute. The list of such programmes organized in last four years is given below:

<b>Name of the programme</b>	<b>Date</b>
Workshop on “Patent Search”	8 January, 2015
Two - Week ISTE Short Term Training Programme on Pedagogy for effective use of ICT in Engg. Education	5-21 January, 2015
Workshop on Computational Linguistics	14-15 Nov., 2014
Workshop on “IPR Awareness”	23 August, 2014
Faculty Development Programme on Effective Teaching	28 July - 2 Aug, 2014
One -Week ISTE Workshop on Computer Programming	16-21 June, 2014
Online ISTE Workshop on Computer Programming	11 May-15 June, 2014
Two-Week ISTE Main Workshop on Signals and Systems	2 -12 January, 2014
FDP on Super Attitude for Success	13 February, 2013
Two-Day ISTE Workshop on Research Methods in Educational Technology	2 & 9 February, 2013
ISTE Workshop on Aakash for Education	10-11 November, 2012
Virtual Workshop on “Scientific Writing & Publishing”	28 September, 2012
Workshop on “Research Methodology for Computer Science” by Prof. Rao Vemuri, Univ. of California, Davis	12 November, 2010
Workshop on “Teaching AI and Related Courses” by Prof. Rao Vemuri, Univ. of California, Davis	13 November, 2010

**2.4.11 Does the university have a mechanism to encourage**

- \* **Mobility of faculty between universities for teaching?**
- \* **Faculty exchange programmes with national and international**

**bodies?**  
**If yes, how have these schemes helped in enriching the quality of the faculty?**

The Institute also gives high importance to movement of faculty to foreign universities for teaching and research under faculty exchange programmes and fellowships. For this, the Institute has signed MOUs with several universities. The faculty utilizing the facility under such exchange programmes is provided salary with other benefits of the service. Two faculty members have been sponsored under the faculty exchange programme with Universities of Spain. Faculty members also have visited foreign universities as visiting fellows, post doctoral fellows on invitation of foreign universities. The Institute encourages and supports such academic endeavours as mentioned in detail in tables above.

## **2.5 EVALUATION PROCESS AND REFORMS**

### **2.5.1 How does the university ensure that all the stakeholders are aware of the evaluation processes that are in place?**

The evaluation process followed at the Institute is widely publicised to all its stakeholders (students, parents and faculty) and it is ensured that they have complete knowledge of the process at all stages. Various measures taken for this are as follows:

- a. Issue of hard copy of handbook “The Academic System and Standing Orders” on Regulations of various programmes to all students at the time of joining the Institute.
- b. The soft copies of the same are placed on the website, which can be accessed by all.
- c. The soft copy is also available to all the students and faculty on intranet /study material folder.
- d. Important extracts and procedures are also displayed on the notice boards.
- e. Changes in the rules and regulations are regularly informed to all concerned through e-mails, notice boards and website.
- f. All students are put through the orientation programme at the time of joining, where evaluation methods are explained.
- g. All subject teachers are required to explain the evaluation methodology to the students in the first period of each course at the beginning of semester/trimester.
- h. Results of various examinations are made available to the students and their parents through web kiosk (ERP software) maintained on Institute website.

**2.5.2 What are the important examination reforms initiated by the university and to what extent have they been implemented in the university departments and affiliated colleges? Cite a few examples which have positively impacted the examination management system.**

The Institute has always been open to reforms in evaluation/ examination process to achieve transparency, timeliness, objectivity and fairness in evaluation, student satisfaction etc. Some progressive examination related practices being followed are:

- a. An academic calendar is issued every year in March/April before commencement of the academic year in July. The calendar is strictly followed and no changes in it are permitted unless some unforeseen/unavoidable circumstances develop. The results of all programmes are announced on schedule as per the academic calendar. In addition, the grade sheets/transcripts are issued to the students at the end of each semester / trimester and programme respectively.
- b. The students are invited to see their answer books of a written examination after the teacher has evaluated them. They are free to put forward their arguments to the teacher wherever there is a disagreement. The teacher takes appropriate action as per merit of the case. Final result is prepared only after this exercise.
- c. The results and grades are discussed and moderated at the level of Department as well as institution for commonality and uniformity. Before finalizing the result, the provisional grades are displayed on the institutional notice boards and students are provided an opportunity to point out discrepancy, if any. The student is given every chance to seek redressal for any examination related grievances.
- d. Whenever a course is taught by more than one faculty member, all the members are involved in question paper setting, evaluation and grade calculation to maintain uniformity across batches.
- e. There is a system of question paper moderation so that the quality of question papers can be monitored and corrected if necessary. Dean (A&R) has issued well documented guidelines for question paper setting for both closed-book and open-book type of examinations. These guidelines give distribution of questions and type of questions to be set to emphasise higher level of learning.
- f. Variations in normal examination system in some subjects are permitted on the request of the teacher(s).



**2.5.3 What is the average time taken by the University for declaration of examination results? In case of delay, what measures have been taken to address them? Indicate the mode/ media adopted by the university for the publication of examination results e.g. website, SMS, email, etc.).**

Results are invariably declared within 15 days of the conclusion of the examinations. So far all results have been declared on schedule. Results are uploaded on the Institute's web kiosk (ERP software) which is accessible to all concerned.

**2.5.4 How does the university ensure transparency in the evaluation process? What are the rigorous features introduced by the university to ensure confidentiality?**

Question papers are prepared and printed in one specially allocated 'sanitised' room to ensure confidentiality. Computers in this room are not on the Institute network or internet. All question papers are then handed over to the Registrar in sealed covers one week before the examination. The registry takes care of all confidentiality and security during and after the conduct of examination.

Transparency in evaluation is explained in section 2.5.2 (b).

**2.5.5 Does the university have an integrated examination platform for the following processes?**

- \* **Pre-examination processes – Time table generation, OMR, student list generation, invigilators, squads, attendance sheet, online payment gateway, etc.**
- \* **Examination process – Examination material management, logistics, etc.**
- \* **Post-examination process – Attendance capture, OMR-based exam result, auto processing, generic result processing, certification, etc.**

**Pre-Examination Processes**

The Institute has a well established automated examination process for preparing schedules, invigilation charts, flying squads, lists of students eligible for appearing at the examinations, detention lists, recording of attendance at the examinations, communicating about examination rules and guidelines to all concerned.

**Examination Process**

During the examination room-wise pre-packaged examination material (like answer books, attendance sheets etc.) are collected by the invigilators from the examination cell in Registrar's Office, 20 minutes before the commencement of examination. Similarly the sealed room-wise question paper bundles are

also collected by the course coordinator from the Registrar/Dy. Registrar. They are distributed under arrangement of respective course coordinators. Before commencement of examination, the students are verbally apprised of the Do's and Don'ts to avoid unfair means. The invigilators are required to check the identity of each student against the identity card and also confirm that the student is sitting as per the seating plan. The invigilators are required to ensure that the number of copies collected back after the examination tally with the attendance sheet. The answer and attendance sheets are collected by the course coordinator from the invigilators at a nominated place and later distributed to the evaluators.

### **Post examination processes**

The post-examination process is also fully automated (except checking of answer books), and is time bound. The post examination processes are as follows:

- a. Course coordinators collect the answer books along with the absentee list from the invigilators.
- b. Course coordinators discuss detailed marking scheme with evaluators and distribute answer scripts to evaluators.
- c. After completion of evaluation, on or before the designated date, marked answer books are shown to students to maintain fairness, transparency and uniformity.
- d. Marks are entered and locked in the web-kiosk by evaluators. Tentative grades are allotted by the coordinator maintaining the parameters specified by the Institute.
- e. Departmental result committee discusses the results of various subjects of the department.
- f. The Institute Result Committee finalizes the grades of each subject and these grades are displayed by respective coordinators as provisional grades on the departmental notice boards for students to make observations, to the coordinator, if any.
- g. On the following day, grades are locked and a duly signed copy of the result is submitted in the registry through HOD.
- h. Registrar declares the results and the same are made available on web-kiosk to all concerned.
- i. The system of collation of marks, grade calculation, printing of grade-sheets, transcripts, provisional degree and related documents are system controlled.

### **2.5.6 Has the university introduced any reforms in its Ph.D. evaluation process?**

For the Ph.D. programmes, the Institute follows the evaluation process which is in compliance with the UGC Guidelines-2009.

Each Ph.D. Scholar is assigned a doctoral programme monitoring and advisory committee (DPMAC). The scholars are required to interact regularly with the DPMAC during all phases of the research. All scholars are required to present their work in a seminar at the end of each semester to qualify for continuation in the Programme.

The doctoral programme is monitored through the following well defined steps:

1. At the end of each semester, a Ph.D. scholar presents the work done during the semester before the DPMAC. Based on which DPMAC makes suggestions and recommends registration of the scholar for the next semester.
2. A mid course review of the progress is carried out by an Institute level committee formed by Chairman, Academic Council after three semesters, and candidate is suitably advised.
3. Before submission of the thesis, scholar puts a request to Dean (Academic and Research) through DPMAC for assessment of the fulfilment of the submission requirements (completion of course work; minimum publications in reputed indexed journals) and request for comprehensive presentation of the work before the DPMAC.
4. On the basis of this comprehensive presentation, DPMAC makes suggestions for improvements and recommendation for submission of synopsis.
5. On submission of the synopsis, Vice Chancellor constitutes a committee to review the same through a seminar by the scholar and upon recommendation by this committee the candidate is allowed to submit the thesis within the stipulated time period.
6. The Institute has included in its policy that each research paper, Ph.D. thesis, and M. Tech. dissertation report should undergo plagiarism check before submission. For this, Institute has subscribed to the "Turnitin" software.

The points 2-4 and 6 have been introduced during last three years as reforms for monitoring and evaluation of Ph.D. work.

The examiners for Ph.D. theses comprise two experts: one from India and the other from abroad. These examiners are selected from two panels each

consisting of five experts suggested by the supervisors. The final selection of examiners is done by the Vice Chancellor.

The recommendations of the examiners are reviewed by the Dean and extracts from the same are communicated to the concerned scholar through supervisor(s).

The open defence of the Ph.D. thesis is made before Indian external examiner in presence of all members of DPMAC, faculty and Ph.D. scholars.

The report of the open defence along with the examiners' reports is considered by the Chairman, Academic Council for award of the Ph.D. degree.

**2.5.7 Has the university created any provision for including the name of the college in the degree certificate?**

Not Applicable

**2.5.8 What is the mechanism for redressal of grievances with reference to examinations?**

The Institute provides full opportunity to students to seek redress in examination related matters. As indicated above under examination reforms, the student is allowed to see all the marks and view the answer-books of all written examinations. Thus, a student is fully aware of the written performance. In case of any query or grievance the student may first take his/her appeal to individual faculty and further appeal to the HOD/Director. The appeal may further be taken up with the concerned Dean or finally the VC, whose decision is final.

**2.5.9 What efforts have been made by the university to streamline the operations at the Office of the Controller of Examinations? Mention any significant efforts which have improved the process and functioning of the examination division/ section.**

The institute has streamlined the examination system by implementing computerized system (ERP system) which takes care of all examination activities in a time bound manner while maintaining security and confidentiality. The system has greatly helped in strictly adhering to the academic schedule and timely declaration of results.

## **2.6 STUDENT PERFORMANCE AND LEARNING OUTCOMES**

**2.6.1 Has the university articulated its Graduate Attributes? If so, how does it facilitate and monitor its implementation and outcome?**

JIIT has adopted the graduate attributes across all its academic programmes after in-depth study of the same listed in the NBA document in the light of engineering and management competencies, emerging job requirement, emerging societal challenges, and feedback from industry. The emphasis on higher level cognitive skills like apply, formulate, analyze, design, evaluate, create, select, identify, interpret, experiment, etc. as well as considerations for environment, health, and ethics are the hallmarks of these attributes.

<b>Knowledge</b>	<b>Skills</b>	<b>Attitudes</b>
• Awareness and understanding of concepts	• Problem solving	• Self confidence
• Latest developments in the field of knowledge	• Design & development of solutions	• Initiative taking
• Technology and society	• Technology usage	• Lifelong learning
• Environment & sustainability	• Project management	• Values & ethics
	• Business management	
	• Individual & team work	
	• Communication	
	• Self management	

**2.6.2 Does the university have clearly stated learning outcomes for its academic programmes? If yes, give details on how the students and staff are made aware of these?**

Yes. Details are given with the answer of section 2.6.3.

**2.6.3 How are the university’s teaching, learning and assessment strategies structured to facilitate the achievement of the intended learning outcomes?**

All the programmes and courses are developed with clearly defined learning objectives and outcomes. All faculty members across Departments and Business School are sensitized and encouraged to design, develop and conduct their courses in the context of specific learning outcomes.

All assessments, both continuous and end-term/ semester, in each of the programme and courses are geared to evaluate the extent to which students have been able to acquire the pre-decided learning outcomes and competencies. The course outcomes are linked with the graduate attributes and the programme outcomes. These attributes are adequately reflected in the

programme output, i.e., job placement, global acceptance for higher studies, student performance in various competitions and feedback from stakeholders.

Learning outcomes for all the academic programmes have been clearly articulated, documented and made available on the Institute website/ study material folder. The learning outcomes of each course are discussed among the faculty within the department and other Institute bodies such as BOS, Academic Council, etc., so that they are in-line with the programme outcomes. In order to make students aware of the learning outcomes of each course, mention of these outcomes is made mandatory in each course outline and every faculty member compulsorily mentions the learning outcomes of the course offered in the course content and schedule.

All programmes are designed and delivered in a manner to develop ability to apply knowledge besides learning the concepts and theory. The teaching-learning methodology adopted at JIIT is a mix of the following:

- Lectures
- Faculty/student led discussions
- Scenario/situation reactions
- Case discussion
- Projects
- Lab experimentation
- Workshops/seminars
- Term paper
- Dissertations
- Mentoring by faculty members
- Hand-holding by senior students and alumni
- Industrial/ corporate/ social training

#### **2.6.4 How does the university collect and analyse data on student learning outcomes and use it to overcome the barriers to learning?**

Students' progress and learning outcomes are monitored through continuous evaluations, tutorials and laboratory exercises, and live projects/assignments. The Institute conducts three tests in all courses and reviews the performance of students in the faculty meeting at departmental level and in the meeting of result committee under the chairmanship of the Vice Chancellor. At the end of each semester, student feedback is taken; course wise performance of students is discussed, analyzed and recorded in terms of grades. Based on discussion,

feedback of student and faculty, course contents are improved. Weak students are encouraged for special meetings and interaction with the faculty to identify their problems and means to solve them. It is JIIT experience, that mentoring by senior students is of immense help in achieving learning objectives and goals. The institute also considers the performance of the students and research scholars in various competitions at regional, state and national levels, higher studies, industry and field.

#### **2.6.5 What are the new technologies deployed by the university in enhancing student learning and evaluation and how does it seek to meet fresh/ future challenges?**

JIIT's focus is on IT and related emerging areas; therefore the Institute pays special attention to be at the fore-front of integrating latest technology in its teaching-learning process. Thus, most of the new technologies with respect to computer software, hardware and other automated tools are employed in teaching, learning and research. All class rooms are equipped with multimedia projection and internet facilities.

In addition, JIIT is also a remote centre for IIT Bombay under MHRD programme "National Mission on Education through ICT (NMEICT)". The workshops/courses organized by IITs in distance mode are available to students, research scholars and faculty members. The necessary infrastructure is also developed to facilitate access to various databases and web-based resources to all. The workshop on virtual labs for students is also conducted with the help of IIT Delhi.

The Institute focuses on the usage of open source software in addition to proprietary software. All course material is available on Institute network which are accessible from anywhere within the Institute campus. The Institute uses IT for its data handling and procedures such as student attendance, result preparation, student data- personal and academic. Dedicated IT staff is available for the maintenance of hardware, software and audio-visual aids. Thus JIIT is equipped and updated to meet emerging challenges in teaching and training.

## ***CRITERION III***

### **RESEARCH CONSULTANCY AND EXTENSION**

#### **3.1 PROMOTION OF RESEARCH**

**3.1.1 Does the university have a Research Committee to monitor and address issues related to research? If yes, what is its composition? Mention a few recommendations which have been implemented and their impact.**

Research and innovation are integral components of academic activities of the Institute as articulated in the vision statement. To promote and monitor the research, the Institute has three committees at different levels:

1. Doctoral Programme Monitoring and Advisory Committee (DPMAC)
2. Departmental Research Committee (DRC)
3. Institute Research and Development Council (IRDC)

The constitution and functions of these committees are as under:

- (a) **DPMAC** – A separate DPMAC for each Ph.D. scholar is constituted as per the following constitution:
- (i) Dean (Academic & Research)/ Dean (Research, Innovation and Development)
  - (ii) Director of School / HOD
  - (iii) Supervisor(s)
  - (iv) One faculty member of the department
  - (v) One faculty member from an allied department

The functions of DPMAC are as follows:

- (i) To review the progress of Ph.D. Scholar through semester presentation and advise suitably.



- (ii) To review the entire work done by the Ph.D. scholar when the scholar is prepared to submit synopsis and make suitable recommendation regarding submission of synopsis by the scholar.
- (iii) To assess and advise for improvement of the synopsis after the synopsis presentation is given by the Ph.D. Scholar.
- (iv) To be part of the committee to evaluate the final viva of the scholar and to suitably recommend for the award of degree.
- (v) To consider request of scholar for conversion from full time to part time, if any, and recommend the same suitably, considering suitability of the workplace of the scholar for required research facilities.

(b) **DRC** – Departmental Research Committee consists of:

- (i) HOD
- (ii) All Professors
- (iii) Two Associate Professors
- (iv) Two Assistant Professors

The term of members at (iii) & (iv) is three years by rotation and they should be eligible to be a Ph.D. guide.

The functions of DRC are as follows:

- (i) To arrange for mid-term review and advice for course correction, if any, of Ph.D. scholars of the department.
- (ii) To identify the areas of research, excellence and thrust for the department.
- (iii) To facilitate sponsored research projects.
- (iv) To identify the facilities needed for development of research environment and to strive to develop the same.
- (v) To identify the LRC resources required for the research in the department.

(c) **IRDC** – Institute Research and Development Council consists of:

- (i) Vice-Chancellor
- (ii) All Directors
- (iii) All Deans
- (iv) All HODs

- (v) Four External Experts (nominated by Vice Chancellor)
- (vi) Registrar (non member Secretary)

The functions of IRDC are as follows:

- (i) To promote, strengthen and facilitate research at different levels in the Institute.
- (ii) To identify directions of the academic development of the Institute.
- (iii) To facilitate academic development in the identified direction.

On the suggestion of these committees the following have been implemented:

- A system of presentation of complete work by research scholar to DPMAC before starting to prepare synopsis.
- Assessment of quality of papers published in journals prior to work presentation before the DPMAC.
- A system of communication of extracts from examiners reports to the research scholar prior to final viva.
- A requirement of submission of plagiarism check report from “Turnitin” software, available in LRC, on all submissions of research reports, papers, theses, project reports.
- A system of midterm comprehensive review of progress of Ph.D. scholars’ work.

**3.1.2 What is the policy of the university to promote research in its affiliated/ constituent colleges?**

Not Applicable

**3.1.4 What are the proactive mechanisms adopted by the university to facilitate the smooth implementation of research schemes/projects?**

- \* **advancing funds for sanctioned projects**
- \* **providing seed money**
- \* **simplification of procedures related to sanctions / purchases to be made by the investigators**
- \* **autonomy to the principal investigator/ coordinator for utilizing overhead charges**
- \* **timely release of grants**
- \* **timely auditing**
- \* **submission of utilization certificate to the funding authorities**

The Institute encourages sponsored research projects to be undertaken by the faculty. Principal Investigators (PIs) of such projects are supported and encouraged through following measures and facilities:

- (i) Institutional financial support in addition to project funds.
- (ii) Free and on the call extension of Institutional facilities.
- (iii) Dedicated laboratory space allocation to PIs.
- (iv) Paid leave for interaction with various agencies in connection with project work.
- (v) Freedom to PIs in matters of procurement, selection of project staff, and utilization of contingency and overhead funds.
- (vi) Simplified speedy sanction of purchases
- (vii) Timely auditing of project accounts and issue of utilization certificates.

The table below presents details of financial support extended (by the Institute) to the projects year wise since 2011-12.

<b>Year</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>Total</b>
<b>Financial Support (Rs. in Lac)</b>	8.80	-	4.97	5.65	19.42

The above support is in addition to the funds received from sponsoring agencies. It was mainly to cover the short falls. In addition, Institute supports the research projects at B. Tech. / M. Tech./ Ph.D. levels.

#### **3.1.4 How is interdisciplinary research promoted?**

- \* **between/among different departments/ schools of the university and**
- \* **collaboration with national/international institutes/ industries.**

To promote collaborative research, MOUs with different organizations are signed, whenever required. At present 7 funded collaborative projects are in progress. The collaborating Institutions are: University of Delhi and ICMR Virus Unit Kolkata, AIIMS New Delhi, IIP Dehradun, Jamia Hamdard New Delhi, TERI New Delhi, JUIT Waknaghat, and Sharda University Greater Noida. In addition, some collaborators for research activities (without funding) are from JNU New Delhi, Delhi University, National Physical Laboratory, Forest Research Institute Dehradun, University of Petroleum and Energy Studies Dehradun, Central Drug Research Institute Lucknow, AIIMS New Delhi, IISc Bengaluru, etc.

**3.1.5 Give details of workshops/ training programmes/ sensitization programmes conducted by the university to promote a research culture on campus.**

Answer clubbed with section 3.1.6.

**3.1.6 How does the university facilitate researchers of eminence to visit the campus as adjunct professors? What is the impact of such efforts on the research activities of the university?**

In order to sensitize faculty and research scholars towards the need for individual, group, interdisciplinary and sponsored research, national and international workshops/ seminars, visits of experts from premier institutions of India and abroad are organized from time to time. In addition, periodic interactions are conducted with the faculty and research scholars of various departments by Vice-Chancellor, Dean (A&R) and Dean (RID) to enthuse them and to settle issues, if any. Four visits of experts (Prof. Padam Kumar, IIT Roorkee, Prof. Manoj Mishra, IIT Roorkee, Prof. Karmeshu, JNU) have been organized in last two years in this connection. Experts are also invited to deliver lectures, and conduct workshops for scholars and students. Few select experts who have visited the campus in AY 2013-14 are given in section 2.4 and details of workshops/ seminars and other sensitization programmes are given in Table 3.1.1, pg. 234.

**3.1.7 What percentage of the total budget is earmarked for research? Give details of heads of expenditure, financial allocation and actual utilization.**

The Institute makes budgetary allocation for research in the heads mentioned in the table below. The table presents budget allocation and actual utilization of last four years:

Heads of Expenditure	Budgetary Allocation (BA)/ Actual Utilization (AE) (Rs in Lac)				
	2011-12	2012-13	2013-14	2014-15	Total
	BA/ AE	BA/ AE	BA/ AE	BA/ AE	BA/ AE
Research Equipment and Software	76/ 62	60/ 59	38/ 32	74/ 19	247/ 172
Consummables and Maintenance	25/ 22	23/ 19	21/ 20	30/ 25	99/ 86
Subscription of Research Journals	51/ 51	51/ 50	51/ 49	60/ 59	213/ 209
Ph. D. Fellowships	100/ 101	125/ 124	130/ 131	125/ 110	480/ 466
Support for Conferences/	15/ 16	15/ 02	15/ 08	15/ 04	60/ 30

Seminars/ Workshops to students and Faculty					
Organization of Conferences, Seminars/ Workshops	15/ 13	15/ 12	15/ 30	15/ 41	60/ 96
Expenses on Experts' visits	14/ 13	15/ 13	21/ 21	18/ 16	68/ 63
Internet and IT support	64/ 61	49/ 48	48/ 46	50/ 47	211/ 202
Electricity expenses	25/ 20	16/ 14	20/ 19	37/ 35	98/ 88
Research related miscellaneous expenses	47/ 43	49/ 33	34/ 29	46/ 27	175/ 132
Institute contribution to Research Projects	5/ 9	5/ 0	5/ 5	5/ 6	20/ 20
<b>Total</b>	437/ 419	423/ 373	398/ 398	475/ 400	1731/ 1564
<b>Percentage</b>	5%	5%	3%	4%	4%
<b>Total Budget</b>	8222	8907	11750	12412	41291

**3.1.8 In its budget, does the university earmark fund for promoting research in its affiliated colleges? If yes, provide details.**

Not Applicable

**3.1.9 Does the university encourage research by awarding Post Doctoral Fellowships/Research Associate ships? If yes, provide details like number of students registered, funding by the university and other sources.**

The Institute welcomes post-doctoral fellows/ Research Associates to carry out research. At present one Research Associate sponsored by DBT is working.

**3.1.10 What percentage of faculty have utilized the sabbatical leave for pursuit of higher research in premier institutions within the country and abroad? How does the university monitor the output of these scholars?**

The Institute provides facility of sabbatical leave to its faculty for pursuing research and related activities. Seven faculty members of different Departments have availed of this facility from 2007 onwards. The details of the faculty members are given below:

<b>S. No.</b>	<b>Name &amp; Department</b>	<b>Place of Visit</b>
1.	Prof. D K Rai, PMSE	National Taiwan University, Taiwan
2.	Dr. Navendu Goswami, PMSE	CINVESTAV, Mexico
3.	Dr. Aayushi Gupta, HSS	Ethiopia
4.	Dr. Divakar Yadav, CSE/IT	University of Carlos-III Spain
5.	Dr. Santoshi Sengupta, HSS	Universidad Pompeu Fabra, Spain
6.	Dr. Anirban Pathak, PMSE	Palacky University Czech Rep.
7.	Dr. J K Mishra, JBS	India
8.	Dr. V K Dwivedi, ECE	Cape Town University, South Africa

**3.1.11 Provide details of national and international conferences organized by the university highlighting the names of eminent scientists/scholars who participated in these events.**

The Institute organizes national and international workshops and conferences in which eminent Scientists and Scholars from India and abroad participate. The details of such eminent participants and the organized conferences are given below:

**1. IEEE International Symposium on Signal Processing and Information Technology, December 15-17, 2014**

**Eminent Participants:**

**S.S. Iyengar**, Florida International University USA, **Reda A. Ammar**, University of Connecticut USA, **Sartaj Sahni**, University of Florida USA, **S. Rajasekaran**, University of Connecticut USA, **Christos Douligeris**, University of Piraeus Greece, **Andreas Pitsillides**, University of Cyprus Cyprus, **Rachid Harba**, University of Orleans France, **Anibal Ferreira**, University of Porto Portugal, **Vinay Kumar Mittal**, IIT Chittor India, **Sanjeev Kubakaddi**, ITIE Knowledge Solutions India, **Pascal Bouvry**, University of Luxembourg, **Christos Xenakis**, University of Piraeus Greece

**2. International conference IC LIFE , August 29-30, 2014,**

**Outstanding Participants:**

**A Fernanadis**, MERC Singapore, **Julian Cadia**, University of Maryland Baltimore, **Pradeep Srivastava**, CDRI Lucknow, **J Bellare**, IIT Bombay, **V Menon and S P Singh**, BHU, **S Panda**, IIT Kanpur, **Manish**, Delhi University, **Y K Gupta**, AIIMS Delhi, **P Katiyar** IIT Roorkee, **B. K.**

**Murthy**, CDAC NOIDA, **Om Parkash** National JALMA Institute for Leprosy and Other Mycobacterial Diseases, **Gaurav Pathak** Glenmark Pharmaceutical Ltd Nashik.

3. **7th International Conference on Contemporary Computing (IC3-2014), August 08-10, 2014**

**Eminent Participants:**

**Martin Henson**, University of Essex UK, **Tirumale K Ramesh**, Amrita University, India, **Albert Y. Zomaya**, University of Sydney, Australia, **H. J. Siegel**, Colorado State University USA, **Azzedine Boukerche**, University of Ottawa, **Krithi Ramamritham**, IIT Bombay, **Prem Kalra**, IIT Delhi.

4. **CyberSrishti– An IT symposium, April 26 – 27, 2014**

**Eminent Participants:**

**Jacob Singh** (Acquia), **Ankit Maheshwari** (InnovAccer), **Shubhamoy Chakrabarty** (Dynofy), **Tavish** (BaseApp Systems and IIIT alumnus), **Kanav Hasija** (InnovAccer), **Pragun Bhutani** (Pixpa and IIIT alumnus), **Saurav Tomar** (Wecure), **Piyush Kumar** (MakeMyTrip), **Shobha Tyagi** (GNOME), **Rudraksh** (MathHarbor), **Gurteshwar Singh** (Plivo Inc), **Konark Modi** (MakeMyTrip), **Pravin Kumar Mishra** (Runtime Systems), **Saleem Ansari** (Impetus Technologies Inc), **Nikhil Wason** (Cofounder- Cardback, IIIT Alumnus), **Juhi** (Cofounder - Mathharbor), **Vineesh** (Founder – Qureus), **Yogi Raj** (Cofounder – 24 Idea Street, IIIT Alumnus).

5. **National Conference on Social Media and E-Marketing, March 1, 2014.**

**Eminent Participants:**

**Arvind Mehrotra**, President, Asia Pacific, India and Middle East, NIIT Ltd., India, **Guneet Singh**, Head, Consumer Marketing, Google India, **Premjeet Sodhi**, COO, Lintas India, **V. S. R. Krishnaiah**, Senior Technical Director, National Informatics Centre – India.

6. **IEEE International Conference on Signal Processing and Communication (ICSC-2013), December 12-14, 2013**

**Eminent Participants:**

**R K Shevgaonkar**, IIT Delhi, **Surendra Prasad**, IIT Delhi, **Kiseon Kim**, GIST, South Korea, **Jaromir Pistora**, Tech. Univ. of Ostrava, Czech Republic, **Banmali Singh Rawat**, University of Reno USA.

7. **6th International Conference on Contemporary Computing (IC3-2013), August, 08-10, 2013**

**Eminent Participants:**

**Yves Robert LIP**, ENS Lyon, France, **Laxmi Narayan Bhuyan**, University of California, **R. Govindarajan**, IISc Bangalore, **Srikanth Sundararajan** IIT Bhubaneshwar, **Rajat Moona**, C-DAC Pune.

8. **International Conference on Bioproducts and the OMICS Revolution, March 16-17, 2013**

**Outstanding Participants:**

**Michael Goodfellow**, Newcastle University, U.K., Chair of Bergey's Manual Chair of Governors', Gosforth Academy, Newcastle, **Rup Lal**, Delhi University, **A.K. Srivastava**, IIT Delhi, **Amit Saxena**, Reliance Life sciences Mumbai, **Gulshan Wadhwa**, DBT, GOI, **Sanjay Shahi** - Xcelris Genomics Ahmedabad, **Jyoti Bajpai Dikshit** Strand Life Sciences Bangalore

9. **5th International Conference on Contemporary Computing (IC3-2012), August, 6-8, 2012**

**Eminent Participants:**

**H. T. Kung**, Harvard University, **Nageswara S. V. Rao**, Oak Ridge National Laboratory USA, **Chandrajit Bajaj**, University of Texas at Austin, **Alok Choudhary**, Northwestern University USA, **Ishwar Parulkar**, Cisco Systems Bangalore, **Ramesh Hariharan**, Chief Technology Officer, Strand Life Sciences Bangalore, **Sunil D. Sherlekar**, Principal Engineer and Director of Parallel Computing Research at Intel Labs Bangalore, **M. Balakrishnan**, IIT Delhi.

10. **Ninth National Conference on Solid State Ionics (NCSSI-9), Dec 15-17, 2011**

**Eminent Participants:**

**S. Chandra**, BHU Varanasi, **K. Hariharan**, IIT Madras Chennai, **M. Patri**, NMRL Thane, **S. K. De**, IACS Kolkata, **R. C. Agrawal**, Pt. Ravi Shankar University Raipur, **Amita Chandra**, Delhi University Delhi, **A. Kumar**, Tezpur University Tezpur, **D. K. Kancha**, The M. S University Baroda, **Rajendra Kumar Singh**, BHU Varanasi, **Sujata Tarafdar** Jadavpur University Kolkata, **G. Govindaraj**, Pondicherry University Puducherry, **J. P. Tiwari**, CECRI Karaikudi, **Anshuman Dalvi**, BITS, Pilani, **C. S. Sunandana**, University of Hyderabad Hyderabad, **Amresh Chandra**, IIT Kharagpur, **S. S. Bhoga**, RTM Nagpur University Nagpur, **S. A. Hashmi**, Delhi University Delhi, **Ramaswamy Murugan**, Pondicherry University Puducherry, **S. Austin Suthanthirara**, University of Madras Chennai, and **Ashok Kumar**, IGIB New Delhi

11. **4th International Conference on Contemporary Computing (IC3-2011), August 8-10, 2011**

**Eminent Participants:**



**Jitendra Malik**, University of California at Berkeley, USA, **Paul Mc Kevitt**, University of Ulster, Northern Ireland, **M P Ranjan**, Design Thinker, National Institute of Design, **Sanguthevar Rajasekaran**, BECAT, USA, **Arun K Pujari**, Sambalpur University, India, **Jose D. P. Rolim**, University of Geneva Switzerland, **Guna Seetharaman**, Principal Engr, Information Directorate, Air Force Research Laboratory Rome.

12. **International Conference on Quantum Optics and Quantum Computing (ICQOQC-11), March 24-26, 2011**

**Eminent Participants:**

**Barry Sanders**, IQIS, Calgary, Canada, **G. Dueck**, University of New Brunswick, Canada, **M. R. Wahiddin**, Cyber Security Cluster, MIMOS, Malaysia, **Apostolos Vourdas**, University of Bradford, **P. N. Ghosh** Jadavpur University, **Ajoy Ghatak**, IIT Delhi, **Anil Kumar**, IISc Bangalore

13. **International Conference on Bioproducts from Natural Sources, February 3, 2011**

**Outstanding Participants:**

**Michael Goodfellow**, Newcastle University, UK Chair of Bergey's Manual Chair of Governors', Gosforth Academy, Newcastle; **Subhash Chand**, IIT Delhi; **Javed Ali**, Jamia Hamdard University Delhi; **V K Tripathi**, CEO - Oscar Ozone Group.

14. **3rd International Conference on Contemporary Computing (IC3-2010), August 9-11, 2010**

**Eminent Participants:**

**Amit Singhal**, Fellow Google Inc., **Arvind, Johnson**, Massachusetts Institute of Technology, **Manish Gupta**, Director of IBM Research - India, **Gautam Shroff**, TCS Innovation Labs - Delhi, **S.N Maheswari**, IIT Delhi, **Sanjay Ranka**, University of Florida, **Vijay K. Vaishnavi**, Georgia State University.

## **3.2 RESOURCE MOBILIZATION FOR RESEARCH**

### **3.2.1 What are the financial provisions made in the university budget for supporting students' research projects?**

JIT makes adequate financial provisions to support students' research projects. The budget provisions are made in following heads:

- a) Research Equipment and software
- b) Consumables and maintenance

- c) Subscription to research journals
- d) Ph.D. Fellowships
- e) Sponsorship for conference/seminars/workshops to Ph.D., M. Tech., and B. Tech. Students
- f) Organization of conferences/ workshops/ seminars

The budget and actual expenditure made on the above provision are given in the table in section 3.1.7.

The Institute also keeps budgetary provision of Rs 40-50 Lac every year specifically towards lab expenses and lab equipments for research. In addition, infrastructure such as dedicated lab space, workstations and storage space, air conditioning in labs, electricity and backup provision, UPS & 24X7 IT support and housekeeping, etc., are provided for smooth running of projects.

**3.2.2 Has the university taken any special efforts to encourage its faculty to file for patents? If so, how many have been registered and accepted?**

JIIT promotes awareness about patenting and encourages its faculty to file patents. JIIT has framed and notified its IPR policy and an IPR & Patenting Activities Committee has been constituted. There have been several lectures/workshops to enthuse faculty and research scholars into patenting activity as listed below:

S. No.	Patents and related lectures / workshops / seminar
1.	Workshop on “Patent Search”, 08/01/2015 <b>Speaker: Mr. Bijay Kumar Sahu</b> , National Research and Development Corporation (NRDC), Govt of India
2.	Workshop on “IPR Awareness”, 23/08/2014 <b>Speakers: Mr. Chandrashekhar Tanikella</b> , Director & Head, Patent Facilitating Centre, TIFAC, DST, Govt of India <b>Mr. Bijay Kumar Sahu</b> , Deputy Manager, IPR, National Research and Development Corporation (NRDC), Govt of India <b>Mr. Abhishek Sen</b> , Senior Patent Attorney & Head-Patent Operations at S. Majumdar & Co.
3.	Expert lecture “Techno-commercial issues related to Industrial Bioprocessing”, 10/02/2014 <b>Speaker: Prof. Subhash Chand</b> , IIT Delhi

4.	Expert lecture “Therapeutic implications of targeting innate immune response against cancer and viral infection”, 21/01/2013 <b>Speaker: Dr. Babal Kant Jha</b> , Cleveland Clinic, Cleveland, USA.
5.	Workshop on “IP Awareness and Innovation”, 21/02/2012 <b>Speakers: Mr. R Saha</b> , Advisor, Global Institute of Intellectual Property (GIIP), New Delhi <b>Dr. Deepa Kachroo Tiku</b> , Director-Programs, GIIP, New Delhi

JIIT is currently exploring the possibility of establishing an Innovation Centre in collaboration with NRDC and entering in MOU. Existing faculty of the Institute have eight patents and three technology transfers to their credit. Further, seven patent applications of the faculty are pending.

**3.2.3 Provide the following details of ongoing research projects of faculty.**

Details are given in table in section 3.2.6.

**3.2.4 Does the university have any projects sponsored by the industry/ corporate houses? If yes, give details such as the name of the project, funding agency and grants received.**

Yes. Details are given in table in section 3.2.6.

**3.2.5 How many departments of the university have been recognized for their research activities by national / international agencies (UGC-SAP, CAS; Department with Potential for Excellence; DST-FIST; DBT, ICSSR, ICHR, ICPR, etc.) and what is the quantum of assistance received? Mention any two significant outcomes or breakthroughs achieved by this recognition.**

Nil

**3.2.6 List details of**

**a. research projects completed and grants received during the last four years (funded by National/International agencies).**

**b. Inter-institutional collaborative projects and grants received**

**(i) All India collaboration**

**(ii) International**

JIIT has sponsored projects funded by national funding agencies like DST, DBT, DRDO, ICMR, ISRO, AYUSH, AICTE, etc. The tables below present details of ongoing and completed major research projects:

**Table: Ongoing research projects**

<b>Year wise</b>	<b>Number</b>	<b>Name of the project</b>	<b>Name of the funding agency</b>	<b>Total grant received (Rs in Lac)</b>
2014	03	Identification of cellular targets of Chikungunya virus non structural proteins <b>(Sanctioned)</b>	ICMR	34.10
		Development of inhibitors to target glyoxylate and methylcitrate cycles essential for persistence of Mycobacterium tuberculosis <b>(Sanctioned)</b>	ICMR	20
		Study of mitochondrial DNA copy number variation, its possible genetics and their correlation with pathophysiological features of diabetes mellitus: A pilot study <b>(Sanctioned)</b>	ICMR	26.0
	03	Nanoparticles based amperometric biosensor for detection of thyroid dysfunctioning	DST	34.49
		Development of a biocatalyst for the removal of nitrogen and sulphur from diesel	DST	24.9
		Development of reagents for simple immunochemical tests for the detection of Chikungunya infection	DBT	18
2013	06	Purification of Chikungunya virus nsP3 Protein for peptide based inhibitor and structural studies	DBT	68.6
		Structural Biology of CysE from pathogenic organisms –	DBT	40.5

		Potential for rational drug design		
		Studies on the phylogenomics and population genomics of Indian Drosophila	DST	34.10
		Development and evaluation of green tea catechins based intravaginal nanoemulsion gel for the treatment of urinary tract infections	DBT	15.99
		Development of a biocatalyst for dearomatization of diesel, Department of Biotechnology	DBT	6.92
		Ability of select PGPM strains to remediate organophosphate pesticides commonly used in agriculture	DBT	6.59
2012	02	Stage specific microRNA profiling from developing chick heart	DBT	41.65
		Effect of curcumin on cardiac hypertrophy	DBT	29.89
2011	01	Theoretical study of higher order non-classicality and its applications	DST	12.75
<b>Total</b>	<b>15</b>			<b>414.63</b>

**Table: Completed research projects sponsored by national funding agencies**

S. No.	Name of Project	Duration	Grants Received (Rs in Lac)	Funding Agency
1	Nanoparticle based Drug Delivery System of some Antiepileptic Drugs for Brain Drug Delivery through Nasal Route	2011-14	25.18	DBT
2	Investigations on Multifunctional Properties of Alkaline Earth and	2011-14	51.31	DST

	Rare Earth Doped $BFe_{1-x}Ti_xO_3$ Solid Solutions			
3	Bistability due to Intra-Molecular and Inter-Molecular Charge Transfer in Different Environments	2010-14	9.36	DST
4	Synthesis and Study of Structural, Dielectric, Magnetic and Magnetoelectric Properties of Multiferroic Materials	2010-14	11.58	DST
5	Viral-Viral and Viral-Host Protein Interactions in Chandipura Virus Mediated Encephalitis	2010-13	35.57	DST
6	Investigation on Multi Functional Properties in Substituted Multi ferroics	2010-12	16.12	DRDO
7	Mapping Viral Host Protein Interactions of Chikungunya Virus	2009-12	15.45	AICTE
8	Designing a Nanoparticles Based Glucose Biosensors	2009-12	8.4	AICTE
9	Cardio Protective Properties of Curcumin: Molecular Interaction of Cardiac Transcription Factors	2009-12	19.99	DST
10	Lab up-gradation	2012	10.00	AICTE
11	Development of IP Core for Real Time Audio Video Surveillance System	2012	5.0	AICTE
12	Development of Algorithms for Narrow Band Interference Reduction in Indian Regional Navigational Satellite System Received Signal	2012	5.77	ISRO
13	Psyche Monitoring and Regulating System For E-Counselling	2009-12	12.65	AICTE
14	Scientific Documentation and Digitization for Selected Indian Medicinal Plants for Antidiabetic and other Activities	2009-11	7.0	AYUSH

15	Mapping of Interactions among Chikungunya Virus Proteins	2008-11	23.02	DBT
<b>Total</b>			<b>256.4</b>	

The Institute also has inter-institutional collaborative projects. The principal/co-principal investigators in these projects are from IIIT and other Indian institutions. The following table presents details of such collaborative research projects and funds received therein.

**Table: Details of Inter-institutional collaborative projects**

S. No.	Name of the project	Granting Agency	Grants Received by IIIT (Rs in Lac)	PI/Co-PI from IIIT	PI/Co-PI from other institutions
1.	Development of reagents for simple immunochemical tests for the detection of Chikungunya infection <b>Duration:</b> 2014-17	DBT	18.0	Dr Sanjay Gupta	University of Delhi and ICMR Virus Unit Kolkata
2.	Structural Biology of CysE from pathogenic organisms – Potential for rational drug design <b>Duration:</b> 2013-16	DBT	40.5	Dr Vibha Gupta	Punit Kaur AIIMS, New Delhi
3.	Development of a biocatalyst for dearomatization of diesel <b>Duration:</b> 2013-14	DBT	6.92	Dr. Nidhi Gupta/ Dr. Sanjay Gupta	Dr D.K. Adhikari, IIP, Dehradun
4.	Development and evaluation of green tea catechins based intravaginal nanoemulsion gel for the treatment of urinary tract infections <b>Duration:</b> 2013-14	DBT	23.53	Dr Shweta Dang, /Dr Reema Gabrani	Javed Ali Jamia Hamdard, New Delhi
5.	Formulation of Microbial Consortia With Parallel Biofertilizer and Biocontrol Properties <b>Duration:</b> 2010-14	DBT	24.22	Dr Krishna Sundari,	Dr. Reena Singh TERI, New Delhi

6.	Development of inhibitors to target glyoxylate and methylcitrate cycles essential for persistence of Mycobacterium tuberculosis (Sanctioned) <b>Duration:</b> 2015-18	ICMR	20.00	Dr. Vibha Gupta	Dr. Chittaranjan Rout, JUIT Waknaghat
7.	Study of mitochondrial DNA copy number variation, its possible genetics and their correlation with pathophysiological features of diabetes mellitus: A pilot study (Sanctioned) <b>Duration:</b> 2015-18	ICMR	26.00	Dr. Shalini Mani	Dr. Pankaj Bansal and Dr. Mohd Rashid, Sharda University
<b>Total Grant</b>			<b>159.17</b>		

The Centre for MEMS Design was setup at JIIT in the year 2009 as a part of Institute's response to launch MEMS activity in NPMASS programme, GOI. The programme focuses on collaborative research related to MEMS and smart sensors of the Departments of ECE and PMSE.

Under this project, JIIT has been provided with three industry standard software packages namely CoventorWare (1 license), Intellisuite 8.7 (1 license) and COMSOL Multiphysics (32 licenses). The hardware support for the project has been provided by JIIT, which includes a dedicated Server, Vector Network Analyzer and twelve workstations. The involved departments promote the area of sensors and smart systems through independent departmental courses at UG/PG level to involve students and faculty in developing MEMS related projects and research activities. The research areas targeted by the MEMS group are RF Spiral Inductor development, SAW based Temperature/Gas Sensor design and advanced and smart materials. In the absence of required in-house comprehensive facilities for complete fabrication of MEMS/sensors, the strategy is to focus on design, modelling and characterization and outside foundry was chosen for fabrication and packaging.

Research work carried out in JIIT MEMS Design centre are as follows:

1. Design, Characterization and Modelling of On-Chip Inductors on Silicon Substrate
2. SAW Oscillator for Temperature/Gas Sensor - design and layout



## **Industry Sponsored Project (Mentor Graphics, India)**

1. A Low-Voltage CMOS Test Chip for Thermal Sensor and RF Application on AMS 0.35  $\mu\text{m}$  technology node using Mentor Graphics PDK.

A Chip Prototyping programme was undertaken at JIIT to develop selected categories of basic digital/analog building blocks specific to thermal sensors. The chip prototyping was implemented keeping in view of the following:

- (a) Research goal to develop sub 1.0 volt analog/digital basic CMOS building blocks for thermal sensing.
- (b) Compatibility with entire Mentor Graphics CAD environment.
- (c) Minimal prototyping costs.

The test chip consisting of various test structures of Analog/ Digital/RF domain for the validation of concepts and development of models and characterization protocols/procedures using specific foundry process was developed.

In addition to the funded inter-institutional projects, the Institute has faculty working in collaboration with researchers of other national and international institutes with no formal funding. These research collaborations have also produced significant academic outputs. Summary of such collaborations is given below, and details are given in Table 3.2.1, page 249.

No. of collaborating institutions/ organizations:	80
No. of JIIT faculty involved in the collaborations:	75
No of researchers involved in the collaborations from outside:	137
Output of collaborations:	
Publications:	379
Ph.D. theses (completed/ ongoing):	6

## **3.3 RESEARCH FACILITIES**

### **3.3.1 What efforts have been made by the university to improve its infrastructure requirements to facilitate research? What strategies have been evolved to meet the needs of researchers in emerging disciplines?**

JIIT envisions to become an institution of excellence in imparting quality teaching to empower young generation with knowledge, skills and research attitude. The Institute is continuously making efforts to improve the lab facilities for research and innovative activities including IT infrastructure.

Every year, present and future needs for upgrading and creating research facilities in the emerging research areas are assessed through departmental faculty meetings and communicated to the Institute Academic Management Committee. The requirements of all departments and JBS are discussed and provision is made in the budget of the Institute accordingly. For long term requirement of infrastructure, the Planning and Monitoring Board of the Institute prepares the proposal for the Finance Committee and Board of Management (BOM). On approval of BOM, year wise financial break up is included in the budget of the Institute.

The Institute formulates strategies for the following to meet the needs of researchers:

- Human resource development
- Addition of new research facilities
- Creation of new research space

The table below summarizes the efforts of the Institute for the above in the last four years:

<b>Infrastructure</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Human Resource <i>Faculty</i>	183	204	227	244
<i>Research Scholars</i>	117	175	180	211
Research related Expenses (Rs in Lac)	411	374	390	389
Research space	Sufficient space for research labs, LRC, and office space for research scholars has been provided and there is space for future needs of research activities.			

JiIT has state-of-the-art IT infrastructure. The following table summarizes the IT infrastructure.

<b>IT Infrastructure</b>	<b>Summary</b>
Desktop	1638
Servers	36
Networking	More than 5 kms optical fibre laid, Academic area fully wi-fi, all hostels rooms are networked
Software	More than 50 latest proprietary software in addition to a large number of open source software

### Proprietary software

S. No.	Software Name	S. No.	Software Name	S. No.	Software Name
1	3-DMax	12	LANTanner	23	RationalRose
2	Adobe Software Suite	13	LotusDomino	24	SAP
3	ADS	14	Macromedia Software Suite	25	SigmaPlot
4	Animo	15	Mathematica	26	Softlink Liberty
5	BorlandC++	16	Matlab	27	SPSS
6	Gaussion	17	Memspro	28	SymantecAntivirus
7	HEP-I	18	Msoffice	29	Virtuoso (Cadense VLSI UG Bundle)
8	Illustratorpe	19	MSPProject	30	VisualStudioNET
9	Jboss	20	Oracle11g	31	Xilinx
10	KEIL	21	Photoshop Pe		
11	LabView	22	PSPICE		

**Note:** Faculty is encouraged to use open source software and virtual lab facilities.

Modern lab facilities (worth over Rs 800 lac in addition to state-of-the-art IT infrastructure) are available for teaching and research activities. Department of Biotechnology has equipment worth over Rs 375 Lac and software over Rs 31 Lac. Department of ECE is having equipment totalling over Rs 170 Lac, Department of PMSE possesses equipment totalling over Rs 140 Lac for teaching and research activities. CSE and IT Department has over 700 PCs and state of the art IT infrastructure.

For the maintenance of instruments, hardware and software, adequate facilities are available in departments and IT section of the Institute. The Institute periodically takes feedback of the necessity of required equipment/ labs from HODs/ Principal Investigators/ faculty and augments such facilities to meet the requirements of researchers in emerging disciplines.

In addition to the above, faculty and research scholars make use of lab facilities available at other institutes/ research organizations. Some examples are given below:

- (a) TEM, SEM imaging facility (for nanoparticles size and morphology analysis), advanced Instrumentation and Research Facility (AIRF), JNU
- (b) EM, SEM imaging facility (for nanoparticles size and morphology analysis), Sophisticated Advanced Instrument Facility (SAIF), AIIMS
- (c) Neurobiology Lab (for phytochemical analysis of various Indian medicinal plants for CNS disorders) at BHU, Varanasi.
- (d) Department of Biochemistry (sequencing facility), University of Delhi South Campus (UDSC), New Delhi.
- (e) Peptide and Proteomics Division, Defence Institute of Physiology and Allied Sciences (DIPAS), DRDO, Delhi
- (f) Department of Pure and Applied Chemistry, University of Kota, Rajasthan
- (g) School of Life Sciences, Central University of Gujarat, Gandhinagar
- (h) Microwave Lab ( for simulation software: HFSS13 and CST2013) at ISM, Dhanbad
- (i) Antenna Fabrication Lab (for antenna fabrication and measurement purpose) at Ambedkar Institute of Technology, New Delhi.
- (j) Faculty members of PMSE department use large number of materials characterization facilities of other organizations. These facilities are Raman Spectroscopy, Differential Thermal Analysis, Thermo-gravimetric Analysis, Cyclic Voltammetry, SEM, TEM, AFM, NMR etc. of the organizations like National Physical Laboratory, New Delhi, IIT Delhi, IIT BHU, IIT Roorkee, JNCSR Bangalore, Delhi University, National Science Centre Delhi, etc.
- (k) Sometimes lab facilities of IIT Delhi are used by some faculty members and students of CSE department.

JIT has reasonable collaborative research activities with industry and other institutes. Department of Biotechnology has MOU with IIP Dehradun and is involved in collaborative research with The Energy Resources Institute (TERI), Centre of Excellence in Material Sciences AMU, Dr R M L Hospital, University of Delhi, Jamia Hamdard, DIPAS, DRDO, etc. At present, research grant for such collaborative projects in the department is over 150 Lac.

### **3.3.2 Does the university have an Information Resource Centre to cater to the needs of researchers? If yes, provide details of the facility.**

LRC manages Information Resource Centre as its sub-section and provides various services to cater for the needs of the research scholars, faculty members and students.

- Dedicated staff is assigned to interact with research scholars to understand their needs
- User orientation Programme to research scholars on e-resources
- Inter Library Loan through DELNET– to get specific research materials from other libraries
- Collecting/downloading demand based resources for research scholars
- Providing plagiarism software ‘Turnitin’ related services to research scholars
- Document Scanning and printing facility
- Online Public Access Catalogue to search required materials
- Developed Institutional Repository to facilitate intellectual output of the Institute in the campus (all Ph.D. theses, dissertations, faculty research papers and project reports are uploaded into repository for smooth access of available resources)
- Encourage research scholars to make optimal use of ShodhGanga and ShodhGangotri research repository (established by INFLIBNET, UGC) for their research work
- Need based support to research scholars like visit to other institutional library, etc.

**3.3.3 Does the university have a University Science Instrumentation Centre (USIC)? If yes, have the facilities been made available to research scholars? What is the funding allotted to USIC?**

The Institute has established a Materials Characterization laboratory in the department of PMSE. The major facilities available in this laboratory are XRD, FTIR, UV-VIS spectrophotometer, and Luminescence spectrophotometer. These facilities are used by PMSE and Biotechnology departments of JIIT and different departments of JUIT Wagnaghat and JUET Guna. These facilities are also extended to the scientists of other organizations with whom faculty members of PMSE department are engaged in joint research. Department is planning to make these facilities available to scientists working in other research organizations. Biotechnology department has Central Instrument Facility (CIF), well equipped with modern instruments/infrastructure for carrying out research. This facility is availed by faculty/researchers from Biotechnology and PMSE Department.

**3.3.4 Does the university provide residential facilities (with computer and internet facilities) for research scholars, post-doctoral fellows, research associates, summer fellows of various academies and visiting scientists (national/ international)?**

JIIT has adequate hostel accommodation (for up to 100 research scholars) and guest house facilities for researchers. These facilities have been provided with all amenities including wi-fi connectivity.

### **3.3.5 Does the university have a specialized research centre/ workstation on-campus and off-campus to address the special challenges of research programmes?**

Following research centres have also been established for focused research and innovations:

- (i) Micro Electro Mechanical Systems (MEMS)
- (ii) Centre for Emerging Diseases
- (iii) Centre for performance evaluation of computing systems and techniques
- (iv) Prayag – A centre of knowledge informatics for sustainable development

#### **Facilities/Infrastructure in the research centres:**

##### **(i) Centre for MEMS**

Scope and activities of the centre have been discussed in section 3.2. The facilities available in the centre are:

**Software Support** - MEMS Design Tools (provided under NPMASS programme, ADA, Govt. of India)

1. CoventorWare (Licenses - 1)
2. Intellisuite (Licenses - 1)
3. COMSOL Multiphysics (Licenses - 32)

**Hardware Support** (provided by JIIT)

1. Dedicated Server
2. Twelve Workstations
3. Vector Network Analyzer

##### **(ii) Centre for Emerging Diseases**

Centre for Emerging Diseases addresses the questions of molecular mechanism/pathogenesis/host pathogen interactions of emerging and re-emerging viral (Chikungunya & Chandipura) and bacterial pathogens (Mycobacterium) and life style diseases such as cancer, cardiovascular and CNS disorders using laboratory as well bioinformatics approaches. Research emphasis is also on peptide based therapeutics, biosensor and ELISA based

diagnostics, drug encapsulated nanoparticles and nanoemulsions to improve the delivery and bioavailability.

**Research Grants:** Total Number of Projects: 20  
Total Funds Received: ~ Rs. 520 Lac  
Funding agencies: DBT, DST, ICMR and AICTE

**Facilities/Infrastructure:** Well equipped cell culture, genomics and nanotechnology labs, Real time PCR, Gradient PCR, Fluorescent microscope, Nanodrop, Protein Purification system, Ultracentrifuge, Ultrasonicator, HPLC and Dissolution apparatus, etc.

**Collaborations:** Strategic collaborations with scientists from research centres of repute [DU, ICGB, THSTI, JNU, AIIMS, DRDO, etc.] for exchange of research reagents and expertise.

**Training and Academic Achievement:** Ongoing Ph.D./ M. Tech./ B. Tech.: 17/26/38 students and 4 JRFs; Degree Awarded: 5 Ph.D., 70 M. Tech. and 320 B. Tech. Well-trained UG and PG students from centre have joined Universities of National and International repute like Universities of Georgia, Pennsylvania, California, Illinois, Iowa, John Hopkins, Ludwigs Maxmillan, Calagry (Canada), Singapore (NUS), etc. for their MS or Ph.D. degrees. R. Sreejith (Ph.D. student) was selected by DST for prestigious 64<sup>th</sup> Lindau Nobel Laureate meeting 2014.

**Number of Publications:** 132 in reputed international journals e.g., Biosens. Bioelectronics (IF: 6.5), Virus Research (IF: 3.0), FEMS Patho. Dis. (IF: 2.4), PLOS One (IF: 3.7), BBRC (IF: 2.4), NAR (IF: 8.3), Altern Med Rev. (IF: 3.5), Food Chemistry (IF: 3.3), J Nanopart Res (IF: 2.2) etc.

**Faculty Members: 13**

### **(iii) Centre for Performance Modelling of Computing Systems**

This centre provides a platform to researchers to share their experiences, insights, and challenges regarding modelling, simulation and performance evaluation in all areas of computer science engineering and information technology. Specifically, the academic activities of this centre are focused on modelling and simulation of computer networks (wired & wireless), wireless sensor networks, distributed systems, multimedia systems and techniques, databases & data mining techniques, computer architectures and processors, algorithms, social networks, software & information systems, etc. A core course on *Performance Evaluation of Computing Systems* has been introduced in the curriculum of M. Tech. (CSE).

In the last few years, a rich body of area specific research work has been generated. Eighteen faculty members and their research scholars at departments of CSE & IT have produced more than 30 research papers.

#### **(iv) Prayag Research Centre**

According to World Commission on Environment and Development (1987), Sustainable development means - development which meets the needs of the present without compromising the ability of future generations to meet their own needs. It is concerned about environmental, economic, social, and cultural aspects. Sustainability has following dimensions:

1. Conservation and enrichment of physical environment and cultural heritage
2. Enhancement of the accessibility and quality of basic facilities
  - Nutrition, water supply, housing, sanitation, health care, energy, transport, and safety
3. Advancement of the support system for enhancing human happiness by focusing on intrinsic psychological needs – social, cognitive, aesthetics, and self actualization.
  - Competence - quality of education
  - Equity, Empowerment and Autonomy
  - Relatedness, cooperation, and collaboration
  - Creativity
4. Risk analysis and management

In the last few years, a rich body of discipline specific research work has been generated by IIIT faculty and students. 40 faculty members and their scholars at departments of CSE&IT, ECE, HSS, Biotech, and Maths and also at Business school in IIIT have collectively produced more than 100 publications as papers and book chapters. However, often the sustainability problems are complex and are beyond the realm of any single discipline. Sometimes they are also beyond the realm of documented knowledge and even awareness. Creations of sustainable systems require holistic thinking, cross-disciplinary approach, multi-perspective integration, and innovation. Prayag, a virtual centre of research, has an active community of researchers at IIIT, and is making humble contributions for creating opportunities of multidisciplinary collaborations in this interdisciplinary task.

#### **3.3.6 Does the university have centres of national and international recognition/ repute? Give a brief description of how these facilities are made use of by researchers from other laboratories.**

No



### 3.4 RESEARCH PUBLICATIONS AND AWARDS

3.4.1 Does the university publish any research journal(s)? If yes, indicate the composition of the editorial board, editorial policies and state whether it/they is/are listed in any international database.

No

3.4.2 Give details of publications by the faculty.

The Institute emphasizes on publications in reputed international/national journals and conferences, books, edited books, book chapters etc. The faculty is actively engaged in these activities. The details of these publications upto June, 2015 are given below:

Category	Peer reviewed	All
International Journals	1108	1126
National Journals	71	76
International Conferences	718	949
National Conferences	91	276
<b>Total</b>	1988	2427

**Other Publications:**

Publications	Number
Monographs	01
Chapter in Books	60
Edited Books	16
Books with ISBN	14

Number listed in International Database:

Publications in	Indexed in			Others	
	SCOPUS	Web of Science (SCI)	DBLP	Peer Reviewed	Non-Peer Reviewed
International Journals	622	368	45	380	18
National	12	09	-	55	5

Journals					
International Conferences	439	22	10	247	231
National Conferences	03	-	-	91	182
<b>Total</b>	<b>1076</b>	<b>399</b>	<b>55</b>	<b>766</b>	<b>436</b>

#### Indexing details of Publications:

Indexing parameter	Details
<b>Citation Index</b>	<p><b>In Scopus</b> Total citations: 2190 Range: 0 – 48 Average: 2.03</p> <p><b>In Google Scholar</b> Total citations: 4117 Range: 0 – 85 Average: 1.85</p>
<b>SNIP</b> (Average SNIP for journals is computed among the Scopus indexed papers published in International/national journals only)	Average: 1.01
<b>SJR</b> (Average SJR for journals is computed among the Scopus indexed papers published in International/national journals only)	Average: 0.65
<b>Impact Factor</b> (Average Impact factor for journals is computed among the papers published in SCI indexed International/national journals only)	Range: 0 – 8.8 Average: 1.85
<b>h-index</b> (Average h-index for journals is computed among the Scopus indexed papers published in International/national journals only)	Average: 47

#### 3.4.3 Give details of

- \* **faculty serving on the editorial boards of national and international journals**
- \* **faculty serving as members of steering committees of international conferences recognized by reputed organizations/ societies**

## **Name of Faculty and Journal details**

### **D. K. Rai**

- **Guest Editor** of special issue of Indian Journal of Pure and Applied Physics, volume 51 (5), May 2013.

### **Navendu Goswami**

- Journal of Lasers, Optics & Photonics
- International Scientific Research Forum (ISRF) Journal

### **Suneet Kumar Awasthi**

- International Journal of Scientific and Innovative Research (P-ISSN 2347-2189, E-ISSN 2347-4971).
- National Journal of multidisciplinary entitled research quest (ISSN: 2347-3509).

### **Mukta Mani**

- Journal of Business Management and Social Sciences Research, Blue Ocean Research Journals, Blue Ocean Publications

### **Sharmistha Bhattacharjee**

- Member of the editorial board of Journal of Social Welfare and Human Rights, ISSN: 2333-5920 (Print Version), ISSN: 2333-5939 (Electronic Version), Frequency: Semi-annually (2 issues per year)

### **Shirin Alavi**

- **Member on the Editorial Advisory Board (EAB)** for the book published by IGI Global Publication titled "**Marketing in the Cyber Era: Strategies and Emerging Trends**" ISBN13: 9781466648647

### **Vandana Ahuja**

- **Guest Editor**, Special Conference Issue-Conference on Social Media and EMarketing, International Journal of Online Marketing, IGI Global, 2014.
- **Guest Editor**, Special Conference Issue-Conference on Social Media and EMarketing, International Journal of Virtual Communities and Social Networking, IGI Global, 2014.
- **Guest Editor**, Special Conference Issue-Conference on Social Media and EMarketing, International Journal of Logistics Management, Inderscience, 2014.
- International Journal of Business Research and Development, 2013-14
- **Member**, Editorial Advisory Board-IGI Global Book, "Cultural and Technological Influences on Global Business", IGI, 2013.(Book)
- **Member**, Editorial Advisory Board, Effective marketing in Contemporary Globalism, IGI, 2013.(Book)

**Nripendra Singh**

- **Associate Editor** - Global Journal of Flexible Systems Management (GJFSM), Springer.

**Dr. Rajnish K. Misra**

- Member Editorial Board – International Journal of Management and Business - USA

**Asit Bandyopadhyay**

- Journal of Management Research, Macrothink Institute, USA. ([www.macrothink.org/jmr](http://www.macrothink.org/jmr))
- **Managing Editor**, Global Journal of Enterprise Information System, India.

**Anuj Bhardwaj**

- American Journal of Signal Processing, Scientific & Academic Publishing, USA

**Amir Srivastava**

- Member of Editorial Board of International Journal of Mathematical Analysis and Applications and American Journal of Science and Technology.

**R. C. Jain**

- Member, Program Committee, International Conference on VLSI System and Applications (VLSI-SATA - 2015), at Amrita University, Bangalore.
- Member, Program Committee, ICIIS -14, Dec, 2014, IIT, Gwalior.

**Jitendra Mohan**

- Journal of Advanced Electrical and Computer Engineering

**Shweta Srivastava**

- International Journal on Science and Technology

**Sujata Mohanty**

- Associate Editor, World Research Journal of Genome Biology, Bioinfo Publications.
- International Journal of Basic and Applied Medical Sciences

**Akhilesh Kumar Singh**

- American Journal of Mathematics and Statistics (Scientific and Academic Publishers USA)

**Parul Tiwari**

- International Journal of Fuzzy Mathematics and Systems (IJFMS), Research India Publication, India
- International Journal of Applied Computational Science and Mathematics, Research India Publication, India

**FACULTY ON STEERING COMMITTEES OF INTERNATIONAL CONFERENCES/ WORKSHOPS**

<b>Name of Faculty</b>	<b>Conference/ workshop details</b>
D. K. Rai	<ul style="list-style-type: none"> <li>• Fourth International Conference on Electroactive Polymers, 21-26 November, 2010 Surajkund, India (General Secretary, Programme)</li> </ul>
Anirban Pathak	<ul style="list-style-type: none"> <li>• International Conference on Quantum Optics and Quantum Computing (ICQOQC-11), 24-26 March, 2011(Convener).</li> <li>• International Workshop on Optical Quantum Information, 1-2 September, 2013 (Convener).</li> </ul>
Nripendra Singh	<ul style="list-style-type: none"> <li>• Eighth Global Conference on Flexible Systems Management, Steven Institute of Technology, New Jersey (USA), 14-16 June.</li> </ul>
Shweta Srivastava	<ul style="list-style-type: none"> <li>• International Conference on Devices &amp; Communications, 24-25 February, 2011, BIT Mesra</li> </ul>
Sanjay Goel	<ul style="list-style-type: none"> <li>• General Co-chair IC3, 2008-2014</li> <li>• Publication Co-chair ISSPIT, 2014</li> </ul>
Shelly Sachdeva	<ul style="list-style-type: none"> <li>• Member, Programme Committee, International Conference on Advances in Communication, Network, and Computing (CNC), 2010-2014</li> <li>• Member, Programme Committee, International Conference on Advances in Information and Communication Technologies (ICT), 2010-2012</li> <li>• Member, Programme Committee, International Conference on Information Technology in Signal and Image Processing , 2012-2014</li> <li>• DNIS, 2010, Publications Committee Chair and Volume editor</li> <li>• DNIS 2011, Publications Committee Co-chair and Volume editor</li> </ul>
Amit Srivastava	<ul style="list-style-type: none"> <li>• IEEE International Conference on MOOCs, Innovation and Technology in Education(Annual)</li> </ul>
Sajai Vir Singh	<ul style="list-style-type: none"> <li>• As a part of National Advisory Board in Workshop on Biomedical Instrumentation and Measurements, 11-13 Mar, 2014, Anand Engineering College, Agra</li> </ul>

### 3.4.4 Provide details of

- \* research awards received by the faculty and students
- \* national and international recognition received by the faculty from reputed professional bodies and agencies

Name of Faculty	Detail of Research Award
Navendu Goswami	<ul style="list-style-type: none"> <li>• Best Paper-Poster awards in International Conference on Quantum Effects in Solids of Today in I-ConQUEST-2010, NPL New Delhi</li> <li>• Best research paper in National Conference on Recent Trends in Materials Science (RTMS-2011) held at JUIT, Waknaghat</li> <li>• Best research paper oral presentation in National Conference on Recent aspects of Research in Applied Sciences (RRAS-2011), IPEC, Ghaziabad</li> <li>• 3<sup>rd</sup> prize for poster presentation in Annual symposium (2004) held in School of Physical Sciences, JNU New Delhi</li> </ul>
Santosh Dev Santoshi Sengupta	<ul style="list-style-type: none"> <li>• '2014 Highly Commended Paper Award' given away by Emerald Literati Network, for the paper "What makes employees stay? Exploring the dimensions in context of urban-centric business process outsourcing industry in India'. Strategic Outsourcing: an International Journal, Vol. 6, No. 3, pp. 695-704</li> </ul>
Nidhi Sinha	<ul style="list-style-type: none"> <li>• Awarded the Second Prize for the Best Paper Award in the 3rd International Conference on Innovative Marketing, organized by IMS, Noida, December 2013.</li> <li>• Awarded the First Prize for Best Paper Presentation Award in the National Conference, ITS, Business School, Greater Noida, September 2010.</li> <li>• Awarded the First Prize for Best Paper Award in the 6th National Research Paper Presentation Competition”, organized by Gitarattan International Business School, New Delhi, 2011.</li> <li>• Awarded the First Prize for the Best Paper Award in the International Conference on “India Emerging Opportunities and Challenges”, organized by Indus Business Academy, Greater Noida, 2011.</li> <li>• Awarded the First Prize for the Best Paper Award in the 4th National Conference on Management of</li> </ul>

	<p>Innovation and Technology (NCMIT), organized by Galgotias Business School, Greater Noida, 2012.</p> <ul style="list-style-type: none"> <li>• Awarded the First Prize for the Best Paper Award in the First Global Conference on Management, organized by Gitarattan International Business School, New Delhi, 2012.</li> <li>• Awarded the First Prize for the Best Paper Award in the 3rd International Conference organized by Jagan Institute of Management Studies, New Delhi, 2013.</li> <li>• Awarded the First Prize for the Best Paper Presenter in the National Conference on Innovation: The Key to Sustainable Prosperity, Organized by Gitarattan International Business School, New Delhi, 2013.</li> <li>• Awarded the Third prize for the Best Paper Award in the 5th National Conference on Management of Innovation &amp; Supply Chain Strategies, Organized by Galgotia Business School, Greater Noida, 2013.</li> </ul>
Vinky Sharma	<ul style="list-style-type: none"> <li>• 'Best Paper Award'in 5th National Conference on Management of Innovation &amp; Supply Chain Strategies (NCMIS) 2013.</li> </ul>
Pato Kumari	<ul style="list-style-type: none"> <li>• Award for best paper presentation in 2nd International Science Congress (ISC-2012) in Mathematical Science section.</li> </ul>
Vibha Gupta	<ul style="list-style-type: none"> <li>• Second prize for oral presentation in Biogenesis-3 “Emerging Trends in Medical Biotechnology and Health Care, IILM, Greater Noida, 6-7 March, 2014.</li> </ul>
Neeraj Wadhwa	<ul style="list-style-type: none"> <li>• 3rd Prize for Poster in International Conference on "Future Prospects of Advancements in Biological Sciences, Health Issues &amp; Environmental Protection”, Indira Gandhi Pratishthan, Lucknow, 7-8 February, 2014.</li> <li>• Best paper award in National Conference on “Energy, Environment &amp; Biotechnology Research”- NCEEER, Mewar Institute of Management, Ghaziabad, 5-6, October 2013.</li> </ul>
Shalini Mani	<ul style="list-style-type: none"> <li>• Second best oral presentation in International Conference on Health, Environment and Industrial Biotechnology (Biosangam), MLNIIT, Allahabad, 21-23 Nov, 2013.</li> </ul>
Sanjay Gupta Sanjeev Sharma and	<ul style="list-style-type: none"> <li>• 2nd Prize for poster in National Symposium on Microbes in Health and Agriculture, under UGC</li> </ul>

I.P. Sarethy	Resource Networking, JNU New Delhi, India, 12-13 March, 2012.
Vibha Rani	<ul style="list-style-type: none"> <li>• 1st Prize for the paper in National Seminar on Transcriptomics: A Recent Era, BCS- Lucknow, 7 April, 2012.</li> </ul>
Sudha Srivastava	<ul style="list-style-type: none"> <li>• 1st Prize for poster in National Conference on Nanoscience &amp; Nanotechnology ALIGARH NANO-II, AMU, Aligarh, March 10 - 12, 2012.</li> </ul>
Sanjeev K Sharma	<ul style="list-style-type: none"> <li>• First Prize in Oral in National Conference of BioLife;; SGPGI Lucknow, 9-10 March 2013.</li> </ul>
Reema Gabrani and Shweta Dang	<ul style="list-style-type: none"> <li>• Best poster award in AICTE Sponsored National Seminar on New Horizons in Drug Delivery and Development, Jamia Hamdard, New Delhi, 17-18 September 2011.</li> <li>• Third prize for poster presentation in National Seminar on "Industry Expectations from Pharmacy College", ITS Paramedical (Pharmacy) College, Ghaziabad, U.P. 5-6 August, 2011.</li> <li>• First Prize for poster presentation in 2nd Annual Conference organized by SPER, Jamia Hamdard, New Delhi. 9 March, 2013.</li> </ul>

**NATIONAL AND INTERNATIONAL RECOGNITION RECEIVED BY FACULTY FROM PROFESSIONAL BODIES AND AGENCIES**

<b>Name of Faculty</b>	<b>National and international recognition</b>
D K Rai	<ul style="list-style-type: none"> <li>• Elected as recorder in the Materials Science section of Indian Science Congress for the years 2010-2011 and 2011-2012.</li> </ul>
Anirban Pathak	<ul style="list-style-type: none"> <li>• Elected as MNASc (Member of National Academy of Science, India), 2009</li> </ul>
Navendu Goswami	<ul style="list-style-type: none"> <li>• District Winner (Ghaziabad, U.P.) of Broad-Outlook Learner-Teacher (BOLT)-2008 award (By Air-India &amp; Dainik Jagran)</li> </ul>
Badri Bajaj	<ul style="list-style-type: none"> <li>• Received membership of prestigious Consortium for Research on Emotional Intelligence in Organizations, USA. The Consortium has 10 members from Asia and 90 members globally</li> </ul>
Vandana Ahuja	<ul style="list-style-type: none"> <li>• Member, Advisory Council, (2008), Customerthink</li> </ul>



	Corp., U.S.A (formerly crmguru.com)-The Global Thought Leader in Customer Centric Business Strategy, by virtue of being a Top 25 author on the forum, for sharing research findings in the field of CRM.
Shalini Mani	<ul style="list-style-type: none"> <li>• Endeavour Research fellowship, 2015, Australia</li> </ul>
Shuchi Arora (Research Scholar)	<ul style="list-style-type: none"> <li>• National winner - Gold medal –UNRIO + 20 INDIA Hall of Fame, The Future we want”, UNRIO +20 India certification programme jointly conducted by IARC, Mumbai &amp; UN Conference on Sustainable Development (UNSCD), June 2013.</li> </ul>
Sreejith Rajasekharan (Research Scholar)	<ul style="list-style-type: none"> <li>• Selected as student delegate to attend “64th Lindau Nobel Laureate Meeting”, by Department of Science and Technology, Government of India &amp; Council for the Lindau Nobel Laureate Meetings, Germany, 29th June - 4th July 2014.</li> </ul>

**3.4.5 Indicate the average number of successful M.Phil. and Ph.D. scholars guided per faculty during the last four years. Does the university participate in *Shodhganga* by depositing the Ph.D. theses with INFLIBNET for electronic dissemination through open access?**

There are total 66 Ph. D. and 407 M. Tech. scholars guided in the last four years. The table below presents average number of Ph. D. and M. Tech. projects guided.

Theses	Average per faculty
Average number of Ph.D. Theses Guided	0.53 (66/125*)
Average number of Ph.D. Theses in Progress	1.63 (204/125*)
Average number of M. Tech. Theses Guided	2.40 (407/170**)
Average number of M. Tech. Theses in Progress	0.76 (129/170**)

\*No. of faculty eligible for Ph.D. supervision

\*\*No. of faculty of departments having M. Tech. programmes

The Institute participates in *ShodhGanga* and *ShodhGangotri* by depositing Ph.D. theses with INFLIBNET.

**3.4.6 What is the official policy of the university to check malpractices and plagiarism in research? Mention the number of plagiarism cases reported and action taken.**

Institute has a well defined official policy to check malpractices and plagiarism in research which has been elaborated in its policy draft. All student reports – B. Tech. major project, M. Tech. & DD/ID – Project and dissertation, Ph.D. theses, are accepted only after they have gone through a plagiarism check by ‘Turnitin’ software available in the Learning Resource Centre of the Institute. Faculty and students of the Institute are required to get their research papers checked for plagiarism by “Turnitin” software before submitting for publication in conferences / seminars/ journals etc. The policy statement of the Institute for malpractices and plagiarism is as below:

## **Guidelines and Policy for Ethical Conduct in Research**

### **1. Plagiarism:**

Presentation or publication of research data, idea or text of someone else in any form without reference or citation and implying it as own is plagiarism. This research misconduct should be strictly avoided at all levels, whether research carried out as part of curriculum (under- and post graduate including Ph.D.), theses, project reports, sponsored research projects (Proposals/ Reports) or in reviews, books, monographs, case studies, etc.

- (i) Authors should cite/quote others’ work whether published or unpublished in all communications. Others’ work may be published in journal / proceedings of conference / seminar / workshop, available on website, orally presented in seminar or personally discussed
- (ii) As JIIT policy plagiarism check must be done before submission of project proposals/reports, theses, research papers, review articles, books, monographs, case studies etc.

### **2. Forgery of Research Data:**

Data forgery and misrepresentation are very serious transgression. These may include fabricated result, false statement, deliberate exclusion which present results in desired manner, and reporting anticipated results for which experiments have not been performed.

Withholding results not anticipated or which do not confirm the hypothesis is also considered scientific misconduct.

Complete and accurate record of experimental data from which final conclusion or theses is being prepared should be maintained. Data Storage whether electronically or hand written should have dates.

Publication should not be listed as submitted (in anticipation) or accepted unless author has received letter of acceptance from the editor handling manuscript.

Author should not publish same research in two places including abstracts, even if publishing a portion for unavoidable reasons; citation must be included to avoid 'self-plagiarism'.

If plagiarism has been noticed, it is the authors' responsibility to correct or retract article as per journals specifications.

### **3. Misuse of Confidential Information:**

Confidential information can be received as reviewer of grant application, peer reviewer of journal or as examiner of project viva/theses seminars/examinations. Misuse of privileged information in such cases deprives original thinker of prior publication benefit and subsequent credit, and is severe form of research misconduct.

Person contributing confidential information to unauthorised person, who indulges in plagiarism, will share responsibility of misconduct.

### **4. Research involving Human Subjects:**

In case of research involving human subjects or human samples (body fluids or tissue), the work will only initiate after the approval from JIIT Institutional Ethical Committee (IEC) [which has been formed as per ICMR guidelines]. Faculty members may submit the application to IEC in prescribed format with details of protocol of the proposed research, ethical issues involved in the study and plans to address these issues. Social or behavioural projects involving confidentiality of patients/subjects also require clearance from IEC.

### **5. Bio-safety:**

The research projects involving laboratory experiments in biotechnology should be brought to the notice of IBSC (Institutional Bio-safety Committee) which works under the guidance of DBT (Department of Biotechnology, Govt. of India). Prior permission from IBSC should be taken for projects involving genetic engineered organisms, human/animal cells, transgenic plants, known/unknown microorganisms, toxic and allergic compounds, human samples (project cleared by IEC). Any issue related to bio-safety should be brought to the notice of Chairman of IBSC.

As a policy all members (faculty, scholars, project/member and students) shall follow the above meticulously and

- (i) While communicating with JIIT administration regarding any of the items mentioned in 1.(iii) above will attach a plagiarism report from LRC using the software available there.
- (ii) In case of items (2) to (5) give a certificate categorically certifying that no such issue is involved and own full responsibility for issues, if any, which may arise at a later date.

In case of any serious scientific misconduct, a committee constituted by VC, comprising of a Dean, concerned HOD and three other members will investigate the charges and VC may take appropriate action based on the findings / recommendations.

The institute promotes interdepartmental and interdisciplinary research. Faculty members belonging to different departments work together on the topics of common interest and publish research papers.

**3.4.7 Does the university promote interdisciplinary research? If yes, how many interdepartmental/ interdisciplinary research projects have been undertaken and mention the number of departments involved in such endeavours?**

Presently there are no interdepartmental funded projects in progress; however, faculty members work jointly on different topics of mutual interest. The Institute encourages interdisciplinary research. Ph.D. theses, M. Tech. projects and dissertations, and B. Tech. projects can be guided jointly by faculty of different departments. The research facilities created by the Institute for research may be used by all Departments jointly.

**3.4.8 Has the university instituted any research awards? If yes, list the awards.**

Nil

**3.4.9 What are the incentives given to the faculty for receiving state, national and international recognition for research contributions?**

Nil

### **3.5 CONSULTANCY**

**3.5.1 What is the official policy of the University for Structured Consultancy? List a few important consultancies undertaken by the university during the last four years.**

The Institute has an official policy for structured consultancy. The draft policy is as follows:

### **Rules for undertaking Industrial Consultancy/ Testing/ Investigation Works**

1. All faculty members of JIIT, Noida are allowed to undertake industrial consultancy work with prior permission of competent authority.
2. No consultancy should be provided without prior permission of competent authority and receipt of consultancy fee by the Institute.
3. The consultancy fee shall be divided between Institute and consultant involved in the consultancy work as per the following :
  - (a) Works where Institute's laboratory facilities have to be used. The fee shall be shared between the Institute and the Consultant on 50%:50% basis.
  - (b) For works where laboratory equipments and other institute facilities are not required for example, works requiring, design verification, design, consultation etc. The distribution between the Institute and the Consultant shall be on 30%:70% basis.
  - (c) Works requiring personal consultation only at the Institute shall be charged on hourly basis at the rate of Rs. 2,000/- per hour. Fee shall be shared as in 3(b) above.
  - (d) The minimum charges per day of consultation work outside the Institute shall be charged at a minimum rate of Rs. 5,000/- per day and shall be subject to a maximum of Rs. 10,000/- per day. The exact fee to be charged by the consultant shall be as decided by the consultant and approved by the competent authority. This fee shall be in addition to TA/DA and hospitality charges to be paid by the organization seeking the consultancy and it shall be shared as in 3(b) above.
4. The total earning of a faculty member from the consultancy job in a financial year will be limited to 50% of his/her annual salary and any amounts exceeding this will automatically become the Institute's share.
5. No consumable resources of the Institute or of another project like chemicals, stationery, spare parts and components etc. will be used for the consultancy work. Wherever such things are needed the same shall be purchased from the funds of the organization seeking consultancy following the Institute's purchase rules.
6. All consultants will ensure that the Institute work always gets top priority and is not allowed to suffer on account of any consultancy work.

The consultant will submit to finance department the distribution of consultancy fee to all persons involved in the consultancy job, as per the specified share, in the prescribed format after deducting expenses in connection with the consultancy job, any such expenses be limited to about 15% of the total fee charged. This shall be done after having completed the consultancy job and submitting the report of the same to the organization seeking consultancy. One copy of this report shall be attached with the distribution of the consultancy fee and shall be kept in records.

**3.5.2 Does the university have a university-industry cell? If yes, what is its scope and range of activities?**

There is no separate University-Industry cell however the Training and Placement Cell and academic departments interact with industry on regular basis within following scope and range of activities:

- Expert talks
- Collaborative M. Tech. dissertation
- Training workshops
- Showcasing student projects

**3.5.3 What is the mode of publicizing the expertise of the University for Consultancy Services? Which are the departments from whom consultancy has been sought?**

Expertise of the faculty is available on the Institute website.

**3.5.4 How does the university utilize the expertise of its faculty with regard to consultancy services?**

The Institute encourages its faculty to take up consultancy and has a well laid and articulated policy in this regard.

**3.5.5 List the broad areas of consultancy services provided by the university and the revenue generated during the last four years.**

Three consultancy works in the areas of Power Transformers and Biotechnology are in progress.

**3.6 EXTENSION ACTIVITIES AND INSTITUTIONAL SOCIAL RESPONSIBILITY (ISR)**

Response to items 3.6.1 to 3.6.8 is consolidated in section 3.6.8.

**3.6.1 How does the university sensitize its faculty and students on its Institutional Social Responsibilities? List the social outreach programmes which have created an impact on students' campus experience during the last four years.**

- 3.6.2 How does the university promote university-neighbourhood network and student engagement, contributing to the holistic development of students and sustained community development?**
- 3.6.3 How does the university promote the participation of the students and faculty in extension activities including participation in NSS, NCC, YRC and other National/ International programmes?**
- 3.6.4 Give details of social surveys, research or extension work, if any, undertaken by the university to ensure social justice and empower the underprivileged and the most vulnerable sections of society?**
- 3.6.5 Does the university have a mechanism to track the students' involvement in various social movements / activities which promote citizenship roles?**
- 3.6.6 Bearing in mind the objectives and expected outcomes of the extension activities organized by the university, how did they complement students' academic learning experience? Specify the values inculcated and skills learnt.**
- 3.6.7 How does the university ensure the involvement of the community in its outreach activities and contribute to community development? Give details of the initiatives of the university which have encouraged community participation in its activities.**
- 3.6.8 Give details of awards received by the institution for extension activities and/contributions to social/community development during the last four years.**

JIT was established under the umbrella of Jaiprakash Sewa Sansthan, a not-for-profit trust envisioned by Shri Jaiprakash Gaur, the founder Chairman of Jaypee group, to discharge its responsibility towards the society. All constituents of the Institute are made aware of its Institutional Social Responsibility.

The Institute offers a Social Internship programme of 3-credit which is mandatory for all MBA students and is equivalent to one full course. It requires each student to work with NGO to learn about the social issues, activities and finally apply their managerial learning to improve the effectiveness of the NGO. Evaluation is done on the basis of project report submitted by the students on the basis of their work with community. There are 155 NGOs (Refer to Table 3.6.1 page 258) with whom students have carried out their projects.

The department of HSS offer some courses such as Ethics, Values and Stress Management, Industrial Sociology, Development Economics, Organizational Psychology, International Studies, etc. to inculcate social and ethical responsibility among students. Projects undertaken by students to apply their learning on real life situations specially the problems of underprivileged communities is given due weightage.

Several committees have been set up under the Jaypee Youth Club to infuse social awareness and responsibility among students. Initiatives taken by the students include simulation and role plays of United Nations committees to deliberate and debate over contemporary social and economic issues around the globe with feasible and implementable solutions; organizing blood donation camps; educating underprivileged slum children, children of construction labourers and street vendors around the Institute campus; collecting and distributing books, items of need, old clothes in neighbouring underdeveloped areas; teaching computer to under privileged children through NGOs; planting trees in and around the campus to name a few. Few student organizations have been formally registered as NGOs such as It's Your Earth, Support Foundation, and start-ups such as ScrapLabs. These organizations provide items of need and consumables to such people around the campus; awareness by conducting workshops for such children on issues such as cleanliness, anti-begging, anti-drugs and importance of work; create sports and physical fitness awareness among such children by giving them opportunity to participate in competitive events; and conduct activities to build logic and reasoning, and perceptual abilities of underprivileged children. Besides all these, faculty and students have participated in blood donation camps held in collaboration with Rotary Club.

Many projects have been undertaken in the Industrial Sociology course wherein students have conducted social surveys at Bhushan Steel Ltd., Gail India Ltd., Shakti Bhog, Expert Founders and Engineers Agra, Parle Agro, Ayur Vet (in the year 2012 to 2014) to name a few and researched the labour problems related to working conditions, housing, basic amenities, gender and ethnic inequalities, working poor, drugs, crime and deviant behaviour etc. The Institute has a mechanism to track students' involvement in various social awareness activities and citizenship roles. The Institute has set up committee viz., Parola, The Literary Hub and The Thespian Circle that conduct events based on social agenda. The hubs inspire students to actively participate in it. The participation is acknowledged through certificates, commendations and is mentioned in the Institute's annual report. The Institute also conducts events and competitions to foster social awareness and responsibility, such as street plays, stage shows, youth parliament, mock United Nations and debates, to name a few.



The extension activities complement students' academic learning experience by instilling in them the feelings of philanthropy, compassion, gratitude; imbuing values, integrity, patience and perseverance; motivating them to follow more ethical practices and show commitment in all their endeavours.

### **3.7 COLLABORATION**

#### **3.7.1 How has the university's collaboration with other agencies impacted the visibility, identity and diversity of activities on campus? To what extent has the university benefitted academically and financially because of collaborations?**

JIT has established collaboration with several educational institutions, industries and research organisations. These collaborations have on one hand promoted visibility of Institute activities while on the other impacted positively on all other academic activities and outcomes. It has helped in bringing new ideas in research, improving the quality of research by sharing information/data/reagents, improving quality of publications, training and internship, placement, sharing of facilities, generation of extra mural grants and curriculum development.

#### **3.7.2 Mention specific examples of how these linkages promote**

- \* **Curriculum development**
- \* **Internship**
- \* **On-the-job training**
- \* **Faculty exchange and development**
- \* **Research**
- \* **Publication**
- \* **Consultancy**
- \* **Extension**
- \* **Student placement**
- \* **Any other (please specify)**

#### **Curriculum Development**

The Institute, through its linkages and interactions with academia, industry and research institutions, has brought about many changes in already existing courses or by introduction of new courses. Based on the industry feedback, in the new M. Tech. Curriculum revised in the year 2013, a provision of one semester long industrial project in the final semester as an alternative to dissertation has been introduced. In order to facilitate students to carry out courses at University of Florida or carrying out project in industry, curriculum has been made flexible.

### **Internship and On-the-Job Training:**

JIIT has collaborated with some of the Industry leaders such as SAP, Infosys, Accenture, etc., wherein the final year students are taken as interns and assigned relevant projects under the mentorship of Industry experts. These internships to select-students have not only helped the students in up-skilling their technical skills in industry relevant domains, but also given them the opportunity to showcase their talent to IT diaspora. Although no financial gains have been achieved as yet by JIIT, the collaborations have greatly helped in building its image whereby it is now considered as one of the best private institution.

The internship not only provides students an opportunity to interact with experienced professionals, it also brings great learning opportunity in real life environment. JIIT students are invariably allowed by the Companies conducting inter-university/college competitions such as Cyber hacking, Programming, Robotics, etc. Good performances by these students have led to higher placement year after year. Besides, JIIT students are given priority during on-boarding, which is generally within a month of students passing out.

### **Faculty/ Student Exchange and Development**

Institute has already started to execute the MOUs with the Institutions of National/International importance. Two faculty members were sent to University of Carlos III, Madrid and Universitat Pompeu Fabra, Barcelona under the A4U agreement in 2011 for one year for teaching and research. As a result of this exchange, several research papers were published.

Under the exchange programme with University of Florida, Gainesville, a total of 50 JIIT students over the years have benefited by spending final semester of their B. Tech. programme for completing course work with credit transfer. Similarly, with alliance of 4 Universities (A-4U) of Spain, four students from Spain spent a semester each in JIIT.

### **Research and Publications**

Department of Biotechnology has MOU with IIP Dehradun and is involved in collaborative research with TERI, Centre of Excellence in Material Sciences AMU, Dr R M L Hospital, University of Delhi, Jamia Hamdard, DIPAS, DRDO, etc. At present, research grant for such collaborative projects in the department is over 150 Lac. These interactions have resulted in several research publications besides intended project outputs.

Department of CSE and IT is involved in joint research activities with other institutes. Research of some of the Ph.D. scholars of JIIT is jointly supervised with faculty from other universities. Similarly, faculty members of JIIT also

supervise research scholars registered at other Universities.

Since 2008, IIIT and University of Florida, USA jointly organize an annual conference “International Conference on Contemporary Computing” which is growing in popularity (H-index = 10). In 2014, more than 730 submissions were received in the conference with acceptance rate of <20%. In association with IIT Bombay, some students and faculty members are working under Aakash Project for R&D activity and for conducting ISTE workshops as remote centre for IIT Bombay under National Mission on Education through Information and Communication Technology (NMEICT), funded by MHRD, Govt. of India.

Department of PMSE is engaged in collaborative research activities with many institutes/ organizations in India and abroad (over 30) such as NPL, IISc Bangalore, IITs, IISER Kolkata, Bose Institute, IISc Chennai, HHVC Pvt Ltd, Bruker India Scientific Ltd Kolkata, CSIR Hyderabad, VNIT, Universidad Autonoma del Estado de Morelos, Mexico, Palacky University, Olomouc, Czech Republic, Mickiewicz University, Poznan, Poland, University of Malaya, Malaysia, University of Calgary, Canada, University of New Brunswick, Canada, University of Kassel, Germany. These interactions have resulted in research publications.

Department of Mathematics is also doing joint research activities with other institutes such as IIT Roorkee, DRDO, ISM Dhanbad, Nakhonratchasima Rajabhat University, Thailand, MNNIT Allahabad, BITS NOIDA Centre, Indus International University, Una, Himachal Pradesh, Department of Biomechanics and Aerospace, Gort Engovation, England, UK. These interactions have resulted in research contributions.

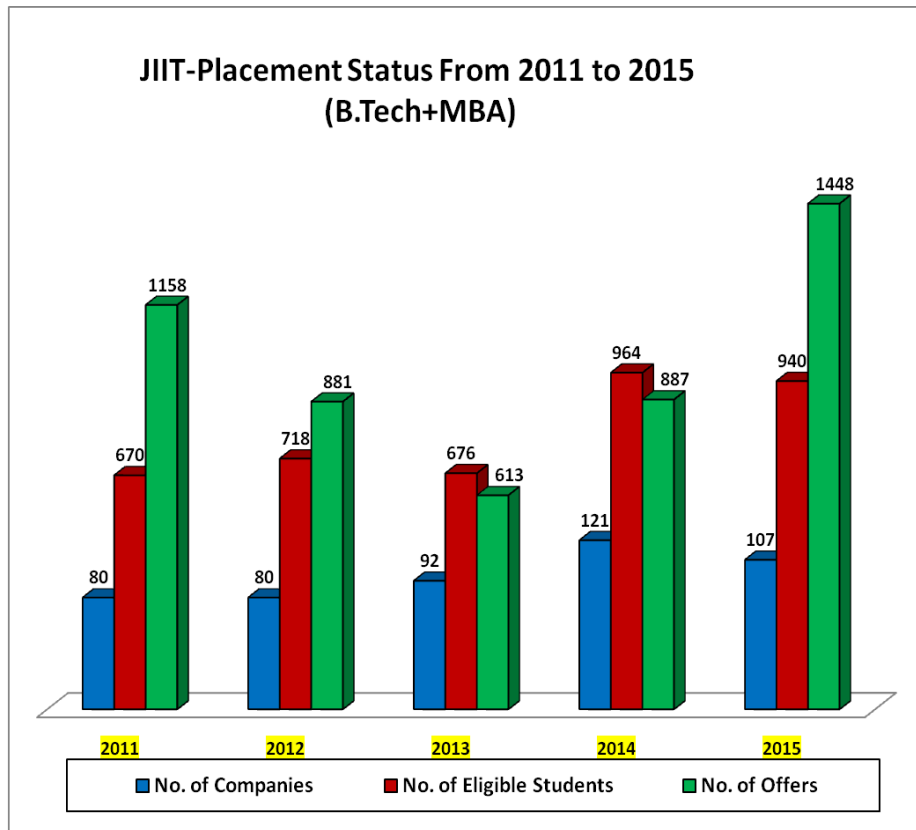
### **Student Placement**

As a result of linkages with industries, the placement of students has been consistently good. About 123 companies visited IIIT campus in 2014 for students’ recruitment. The placement data of the last four years is given in the table below:

**Table:** Summary of placement offers

<b>Graduating Year</b>	<b>2011</b>	<b>2012</b>	<b>2013*</b>	<b>2014*</b>	<b>2015</b>
<b>No. of Companies</b>	80	80	92	121	107
<b>No. of Eligible Students</b>	670	718	676	964	940
<b>No. of Offers</b>	1158	881	613	887	1448

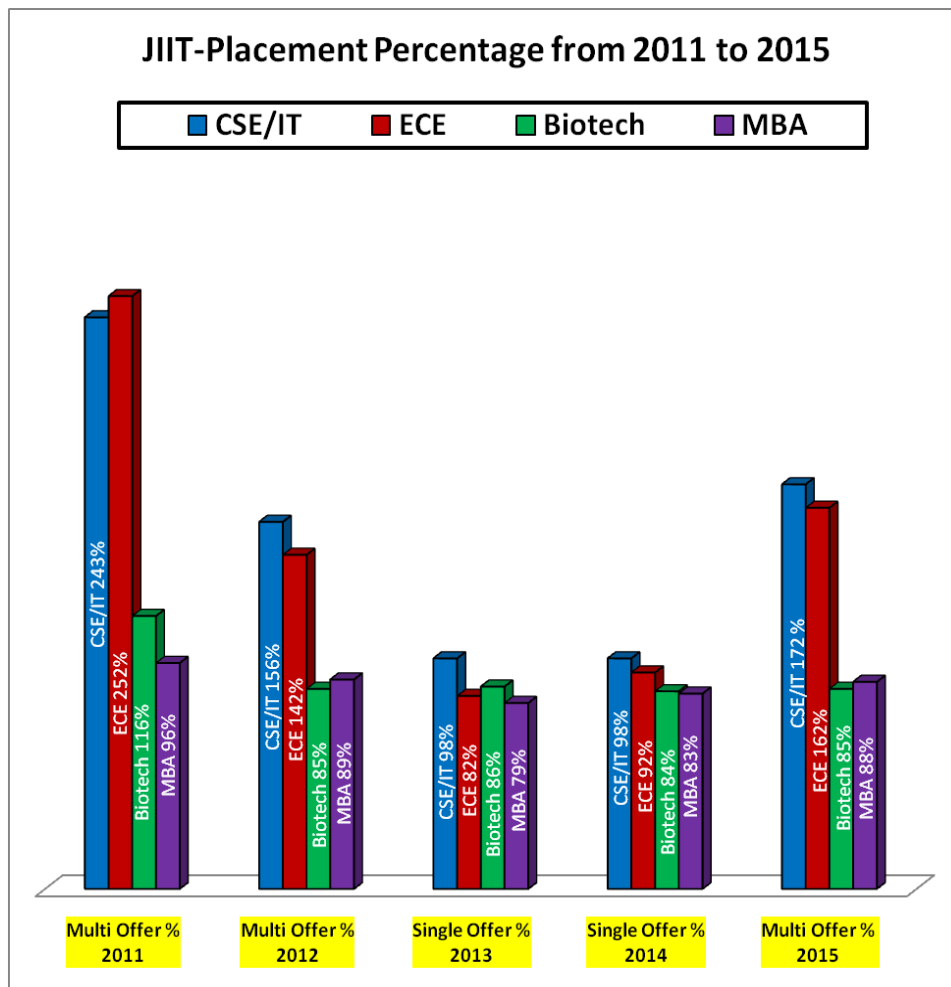
\*Single offer policy in 2013 and 2014



**Table:** Programme-wise placement details

Graduating Year	2011	2012	2013	2014	2015
Branch	Multi Offer %	Multi Offer %	Single Offer %	Single Offer %	Multi Offer %
CSE/IT	243	156	98	98	172
ECE	252	142	82	92	162
Biotech	116	85	86	84	85
MBA	96	89	79	83	88

Data as on 30/06/2015



**3.7.3 Has the university signed any MoUs with institutions of national/international importance/ other universities/ industries/ corporate houses etc.? If yes, how have they enhanced the research and development activities of the university?**

JIIT has established formal linkages through MOUs signed with several institutions for exchange of faculty, researchers and students for teaching, research and training. These universities/ organizations are:

1. The Finnish Universities of Applied Sciences, Finland (A consortium of 26 universities)
2. The Alliance of 4 Universities (A-4U) of Spain
3. University of California, Berkeley, USA
4. University of Florida, Gainesville, USA
5. University of Nebraska, Omaha, USA

6. University of Westminster, London
7. University of Abertay, Dundee, UK
8. Cheng Shiu University, Taiwan

Details of the Institutions and the scope of MOUs are given in Table 3.7.1 page 261.

#### **3.7.4 Have the university-industry interactions resulted in the establishment/ creation of highly specialized laboratories/facilities?**

The collaborations have resulted in the establishment of following specialized laboratories:

##### **(i) IIIT-Accenture Innovation lab**

This lab was commissioned in October 2012. Lab has Intel Xeon 2.27 GHZ server with following configuration -8 MB CACHE, 16GB DDR-3 (2X8GB) RAM, HDD-2X500GB SAS 10K RPM, RAID-0 controller card, Dual Power Supply, DVD ROM, 18.5” TFT monitor. First workshop on Enterprise Resource Planning was conducted from 30 Oct–6 Nov, 2012 in which 46 students were trained free of cost in ERP and certified. Another Workshop on Cloud computing with Azure features, services and leveraging Azure for Asynchronous computing was conducted from 8-9 March, 2013 for approx 40 students.

##### **(ii) Centre for MEMS (Micro Electro Mechanical System) Design**

The Centre for MEMS design was set-up at IIIT in the ECE department in the year 2009 as part of Institute’s response to launch MEMS activity supported under National Programme on Micro and Smart Systems (NPMASS) by the Govt. of India. The software support has been provided by Aeronautical Development Agency (ADA).

ECE department has another Industry Sponsored Project, where University-Industry Interaction resulted in creation of Chip design expertise in this center. Mentor Graphics (Sponsoring Agency) provided the Software and financial support for prototyping IIIT’s first CMOS Chip using a commercial foundry in Europe.

## ***CRITERION IV***

### **INFRASTRUCTURE AND LEARNING RESOURCES**

#### **4.1 PHYSICAL FACILITIES**

##### **4.1.1 How does the university plan and ensure adequate availability of physical infrastructure and ensure its optimal utilization?**

The Institute maintains adequate physical infrastructure for teaching-learning, research, extra-curricular activities for faculty, students, and staff through an established mechanism of resource planning and execution. Adequacy of physical infrastructure is discussed by Institute Administrative Committee from time to time.

The physical infrastructure of the Institute is created as per AICTE norm with 20-30% extra space for futuristic planning. The JIIT campus is spread in 25.45 Acres. The total built-up area of the Institute is 1,58,097 sqm, which includes 47 Class Rooms, 27 Tutorial Rooms and 71 Laboratories. The following table presents facilities/ amenities-wise built-up area:

<b>Infrastructure</b>	<b>Approximate Carpet Area (Sqm)</b>
Admin and Academic	61714
Hostels	41836
Faculty Residences	10234
Facilities	25479
Miscellaneous	18834
Total Area	1,58,097

For optimal utilization of physical infrastructure, the Institute has developed a model of resource sharing in which academic infrastructure like lecture theatres, tutorial rooms and laboratories are shared by all the departments to run their programmes. Sharing is made possible by making the timetable centrally for all the programmes. Provisions have also been made for need

based use of infrastructure outside the timetable through the web-kiosk (ERP software). Availability of these resources can be seen online by all faculty and staff for appropriate planning.

**4.1.2 Does the university have a policy for the creation and enhancement of infrastructure in order to promote a good teaching-learning environment? If yes, mention a few recent initiatives.**

The Institute Administrative Committee reviews the requirements of infrastructure and identifies the enhancements needed. The needs, so identified, are placed before the Planning and Monitoring Board, Finance Committee and Board of Management for their respective approvals.

Recent addition in the physical infrastructure is a 22 storey building of built up area 43012 sqm having space for labs, library, sports, offices for faculty, administration and Training and Placement Cell, cafeteria, and hostel accommodation for 1371 students. In addition, an underground parking area of 5677 sqm for 310 cars has also been created.

**4.1.3 How does the university create a conducive physical ambience for the faculty in terms of adequate research laboratories, computing facilities and allied services?**

Details are clubbed with section 4.1.5.

**4.1.4 Has the university provided all departments with facilities like office room, common room and separate rest rooms for women students and staff?**

Details are clubbed with section 4.1.5.

**4.1.5 How does the university ensure that the infrastructure facilities are disabled-friendly?**

The Institute has created necessary infrastructure for smooth conduct of academic and administrative activities by departments. Each faculty member is provided all necessary infrastructure for teaching and research upon their joining the Institute. To make conducive atmosphere, the Institute has established a hassle free procedure for accessibility of all infrastructures to faculty. Some of the existing support is summarised below:

- A furnished office space with office furniture, storage space etc.
- Desktop computer with internet connectivity
- Subscription to latest academic resources
- Printing and photocopying facilities



- Stationary
- Intercom
- Centrally air conditioned seating spaces
- Centrally air conditioned research laboratory spaces
- Pantry for faculty and staff
- Efficient round the clock maintenance support
- Common rooms
- Separate rest rooms for men and women
- Seating spaces with intercom and internet connectivity to all research scholars
- Hostel for research scholars

All lecture theatres on the campus are equipped with latest audio-visual equipment and internet connectivity backed by adequate maintenance support for their smooth functioning.

In order to impart best of the laboratory training, all UG and PG labs have been created with adequate facilities in terms of furniture, fixtures, equipment and manpower. The curriculum of the programmes considers lab as independent course with flexible content. Institute allocates funds in the planned budget for up-gradation of lab facilities.

The institute has created necessary infrastructure for research laboratories and has allocated fund for maintenance and smooth running of these labs. The entire campus is networked for voice and data including internet facility so that all relevant academic and administrative content can be accessed from anywhere on the campus and from outside.

To facilitate the activities of differently-abled, all buildings have approach ramps, lifts and handicap toilet facilities.

#### **4.1.6 How does the university cater to the requirements of residential students? Give details of**

- \* **Capacity of the hostels and occupancy (to be given separately for men and women)**
- \* **Recreational facilities in hostel/s like gymnasium, yoga centre, etc.**
- \* **Broadband connectivity / wi-fi facility in hostels.**

Details are clubbed with section 4.1.8.

#### **4.1.7 Does the university offer medical facilities for its students and teaching and non-teaching staff living on campus?**

Details are clubbed with section 4.1.8.

#### **4.1.8 What special facilities are available on campus to promote students' interest in sports and cultural events/activities?**

The Institute, with a view that campus life substantially contributes towards building of good teaching learning environment in a centre of learning, has created a residential campus since its inception. Institute has two hostels for girls (Total seats = 648) and three hostels for boys (Total seats = 1899) and residences for faculty (Total = 38), and the Vice Chancellor. The campus maintains all other amenities like canteen, student clubs, sports facilities, gyms, laundry, medical dispensary, tuck shop, auditorium, Bank ATM, guest house, 24 hours 100% power back-up by 4 Generators of total capacity 3740 KVA and an exclusive building for dining in which 1468 students can take their meals at a time. These keep the environment vibrant.

All academic blocks, hostels, auditorium, guest house, and dining spaces are air-conditioned, fully supported by 24 hours power backup, maintenance support, water boiler for hostels and central RO water supply. The Institute has installed 161 CCTV cameras for creating a safe and secure campus. A robust maintenance system is in place to run these amenities smoothly.

Each department has a common room and separate rest rooms for women students and staff. Institute has a special focus on cleanliness. It has, therefore, made a robust setup for maintaining a clean and green environment of the campus including seating spaces and rest rooms.

To facilitate the activities of differently-abled, all buildings have approach ramps, lifts and handicap toilet facilities.

The Institute has created following recreational facilities for students as has also been elaborated in the profile of the Institute:

- Separate swimming pools for boys and girls
- Separate gym for boys and girls
- Table tennis
- Lawn Tennis
- Volley ball
- Basket ball
- Snooker/Billiards table

- Badminton
- TV room
- Squash court
- Cricket ground
- Football ground

There is an on-campus medical dispensary with round the clock availability of male and female doctors. The medical centre has appropriately trained support staff for medical aid, ambulance, and all adequate facilities for primary care for students and staff. In addition, all faculty and staff are provided with medical insurance and students are provided with accidental insurance.

In addition to the sports facilities mentioned above, auditorium with a seating/viewing capacity of around 1800/2500 people and open air theatre for cultural activities have also been created on the campuses. JYC organizes sports and cultural activities through different hubs on a regular basis which promotes students to engage in the extracurricular activities.

## **4.2 LIBRARY AS A LEARNING RESOURCE**

### **4.2.1 Does the library have an Advisory Committee? Specify the composition of the committee. What significant initiatives have been taken by the committee to render the library student/user friendly?**

Library of the Institute is known as Learning Resource Centre (LRC). LRC has an advisory committee for planning and development of resources, facilities, and their effective utilization. The composition of committee is as follows:

- Prof. D.K. Rai –Chairman, LRC Advisory Committee
- Dr Abhinav Gupta – Member
- Dr. Sudha Srivastava – Member
- Dr. Nidhi Sinha – Member
- Dr. Rajnish Misra- Member
- Mr. M.K. Jha – Member
- Dr. Vikas Saxena – Member
- Dr. Lokendra Kumar-- Member
- Dr. Sanjay Kataria – Member Secretary

The committee has taken many significant initiatives which have been implemented to make LRC user friendly such as:

- Wi-Fi facility
- PCs’ with internet
- Development of Institutional Resource “LRC-DRS” for accessing Project reports, dissertation, theses, etc.
- Development of Dynamic Library Website with detailed information
- Extended working hours of LRC especially during examination days
- Dedicated space for Research Scholars within LRC

**4.2.3 Provide details of the following:**

- \* **Total area of the library (in Sq. Mts.)**
- \* **Total seating capacity**
- \* **Working hours (on working days, on holidays, before examination, during examination, during vacation)**
- \* **Layout of the library (individual reading carrels, lounge area for browsing and relaxed reading, IT zone for accessing e-resources)**
- \* **Clear and prominent display of floor plan; adequate sign boards; fire alarm; access to differently-abled users and mode of access to collection.**

Area (Covered)	<b>Total: 6856 Sq Mts.</b> Approx. LRC (Sec-62) = 5276 Sq. Mts. approx. LRC (JBS) = 316 Sq. Mts. Approx LRC(Sec-128) = 1264 Sq. Mts. Approx
Seating capacity	<b>Total: 587</b> LRC (Sec-62) = 350 LRC (JBS) = 55 LRC (Sec-128) = 182
Working hours	08.30 AM to 09.00 PM (Monday to Friday) 08.30 AM to 05.00 PM (Saturday and Holidays) 08.30 AM to 10.00 PM (during examinations)
Layout	<b>LRC-62</b> is located in the basement of newly constructed building (Arya Bhatt Bhawan-III). Whole LRC building is Air-Conditioned. There are two floors i.e. Basement-I and Basement –II. On each floor, there is reading area along with computers for accessing internet and e-resources (e-books and e-journals). Each floor has access of print stacking

	<p><b>LRC-JBS</b> is located on 2<sup>nd</sup> floor at Arya Bhatt Bhawan-II. It has a reading area with OPAC for accessing books and other resources.</p> <p><b>LRC-128</b> spans two floors. LRC has reading area with OPAC and computers for accessing internet and e-resources.</p> <p>All the three libraries are Wi-Fi enabled.</p>
Accessibility	The Layout of LRC is displayed for better accessibility and also the user guide charts have been fixed for ease of use of the students.
Safety	The fire alarms have been fixed in the whole building. The LRC is fitted with CCTV cameras.
Provisions for differently-abled users	LRC has made special arrangement for differently-abled students like dedicated lift for entering into LRC. A dedicated terminal is provided for accessing e-resources and OPAC facilities. One staff member is assigned to help them for finding literature or other kind of assistance.

#### 4.2.3 Give details of the library holdings:

- a) **Print (books, back volumes and theses)**
- b) **Average number of books added during the last three years**
- c) **Non Print (Microfiche, AV)**
- d) **Electronic (e-books, e-journals)**
- e) **Special collections (e.g. text books, reference books, standards, patents)**
- f) **Book Banks**
- g) **Question Banks**

#### A. Print

Item	Title	Volume
Print Books	19202	49092
Back Volumes	173	1369 (Bound Periodicals)
Ph.D. Theses	80	80

#### B. Average number of books added during the last three years

<b>Year</b>	<b>Title</b>	<b>Volume</b>
2012-13	565	1973
2013-14	391	1333
2014-15	231	781
<b>Total</b>	<b>1187</b>	<b>4087</b>

Average number of books added	<b>1362 per year</b>
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### C. Electronic (e-books, e-journals)

<b>Item</b>	<b>Nos.</b>	<b>Details</b>
e-books	631	Siam, John Wiley, Pearson
Lecture Notes	7079	LNCS (Lecture Notes in Computer Science)
e-journals	5006	ACM, IEEE, Springerlink, Emerald, ProQuest-ABI Inform, etc.

### D. Special collections (e.g. text books, reference books, standards, patents):

<b>Item</b>	<b>Nos.</b>	<b>Details</b>
Standards	5100	IEEE

#### 4.2.4 What tools does the library deploy to provide access to the collection?

OPAC	Yes	LRC has been using international standard Integrated Library Management Software i.e. Liberty. Software has in-built feature for personalized OPAC for searching the resources.
LRC Website	Yes	The LRC has designed and developed dynamic Library Website by using Joomla content Management software. Information related to the LRC is uploaded on LRC website at <a href="http://jiit.ac.in/lrcjiit/">http://jiit.ac.in/lrcjiit/</a>
In-house/remote access to e-publications	Yes	The LRC has designed and developed Institutional Repository "LRC-DRS" to maintain intellectual output of the Institut by using DSpace open source

		software. At present, LRC has uploaded 1700 documents into the repository containing Ph.D. theses, M. Tech. dissertations, B. Tech. Project reports and faculty research papers.
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**4.2.5 To what extent is ICT deployed in the library? Give details with regard to**

- \* **Library automation**
- \* **Total number of computers for general access**
- \* **Total numbers of printers for general access**
- \* **Internet band width speed**
- \* **Institutional Repository**
- \* **Content management system for e-learning**
- \* **Participation of resource sharing networks/ consortia (like INFLIBNET)**

Library automation	Yes	LRC is using International Standard Integrated Library Management Software and almost all in-house activities of LRC are automated. All print resources are bar-coded for easy handing of issue/return and other activities of the LRC.
Total number of computers	69	Terminals have been placed for accessing e-resources, internet surfing, and project work.
Printer	02	Two heavy duty printers are available for general access
Internet band width speed	1.10 Gbps	Full band width is available for general access
Institutional Repository	Yes	Institutional Resource known as “LRC-DRS” has been developed with the help of DSpace, an open Source Software, and is available on LAN at <a href="http://172.16.90.72:8080/jspui/">http://172.16.90.72:8080/jspui/</a> . At present 1700 documents have been uploaded into repository.
Content management system for e-learning	Yes	LRC has subscribed to “Turnitin” – Anti Plagiarism Software which have in-built feature of e-learning. Faculty can give assignment through “Turnitin” and the same can be evaluated, graded, and checked for plagiarism.

Open Source Content Management	Yes	LRC uses Open Source Content Management i.e. JOOMLA.
Resource sharing network/ consortia	Yes	JIIT is a member of INFLIBNET, UGC and DELNET. JIIT has been a member of INDEST-AICTE Consortium for about 10 years.

#### 4.2.6 Provide details (per month) with regard to

- \* Average number of walk-ins
- \* Average number of books issued/returned
- \* Ratio of library books to students enrolled
- \* Average number of books added during the last four years \*
- \* Average number of login to OPAC
- \* Average number of login to e-resources
- \* Average number of e-resources downloaded/printed
- \* Number of IT (Information Technology) literacy training organized

Average number of walk	12000 (per-month)
Average number of book issued/returned	1954 (per-month)
Ratio of library books to students enrolled	9:1
Average number of books added during last four years	1356
Average number of login to OPAC	3051 (per-month) Approx.
Average number of login to e-resources	5546 (per-month) Approx.
Average number of e-resource downloaded/printed	5546 (per-month) Approx.
IT Literacy Training	LRC organizes orientation programme for all new students and also conducts literacy programme on demand of students.

#### 4.2.7 Give details of specialized services provided by the library with regard to

- \* Manuscripts



- \* **Reference**
- \* **Reprography/Scanning**
- \* **Inter-library Loan Service**
- \* **Information Deployment and Notification**
- \* **OPACS**
- \* **Internet Access**
- \* **Downloads**
- \* **Printouts**
- \* **Reading list/ Bibliography compilation**
- \* **In-house/remote access to e-resources**
- \* **User Orientation**
- \* **Assistance in searching Databases**
- \* **INFLIBNET/IUC facilities**

Manuscripts	Yes	LRC provides book lending service to the users
Reference	Yes	LRC provides the reference services to the users on demand.
Reprography/ Scanning	Yes	Both facilities are available in LRC
Inter-Library Loan	Yes	LRC is member of DELNET for ILL/DDS
Information Deployment and Notification	Yes	LRC has facilities for information display and notifications
OPAC	Yes	LRC has OPAC for resource information
Internet Access	Yes	LRC having 1.10 Gbps internet Band width for accessing r-resources
Downloads	Yes	Students can download subscribed resources and other e-resources
Printouts	Yes	LRC provides printing facility for all students
Reading list/ Bibliography compilation	Yes	LRC extends Bibliography services
In-house/ remote access to e-resources	Yes	All subscribed e-resources are accessible throughout the campus along with local institutional repository
User	Yes	LRC organizes orientation programme for all new

Orientation		users to make them aware of the available resources, services and rules and regulations.
Assistance in searching Databases	Yes	LRC Staff helps the users for getting access of e-resources and databases.
INFLIBNET/ IUC facilities	Yes	Jiit is a member of INFLIBNET for subscribing e-resources and other facilities.
Information Resource Centre	Yes	A subsection of LRC. Details in section 3.3

#### 4.2.4 Provide details of the annual library budget and the amount spent for purchasing new books and journals.

FY	2011-12	2012-13	2013-14	2014-15
Annual Budget (Rs in Lac)	85	90	80	90
Actual Expense (Rs in Lac)	74	69	67	73

#### 4.2.5 What initiatives has the university taken to make the library a 'happening place' on campus?

The following make LRC a happening place:

- State-of-the-art LRC infrastructure
- Air-conditioned area
- Good ambience
- Large collection of books and other reading materials of general interest
- Wi-Fi connectivity
- Computers with internet facility
- Accessibility of all institutional repository including study materials
- Permission to carry laptop inside the Library
- Additional power points and extension cords for battery charging of Laptop
- Extended library hours

**4.2.6 What are the strategies used by the library to collect feedback from its users? How is the feedback analysed and used for the improvement of the library services?**

- LRC has a suggestion register for its users where-in they can write their feedback/suggestions. Based on these, LRC improves its facilities and services.
- LRC staff regularly meets and interacts with the students and faculty members to understand their requirements. LRC is planning to put into practice a feedback mechanism through structured questionnaires online/off line.
- Feedback is also collected from passing out students about LRC, digital information access. Based on this feedback, LRC makes improvements in the services.
- IQAC takes feedback from all stakeholders including LRC.

**4.2.7 List the efforts made towards the infrastructural development of the library in the last four years.**

- Wi-Fi installation
- Up-gradation of Library Management Software “Liberty”
- Started facility of automatic e-mail notification on overdue books
- A new floor has been added at Sector-128.
- New LRC server has been added at Sector-128.
- CCTV cameras have been installed in LRC-62 and LRC-128

LRC at sec-62 has been shifted in a new space of 5276 sq m in the newly built Aryabhata Bhawan-III where around 700 users can be accommodated at a time. Presently it is furnished for 350 users at a time. New LRC has space for quiet reading, project work and group discussions, audio-visual facilities etc. The entire area of LRC is Wi-Fi enabled providing the readers and the users a seamless connectivity to carry out their required research and learning activities.

## **4.3 IT INFRASTRUCTURE**

**4.3.1 Does the university have a comprehensive IT policy with regard to**

- **IT Service Management**
- **Information Security**
- **Network Security**
- **Risk Management**
- **Software Asset Management**

- **Open Source Resources**
- **Green Computing**

JIIT Campus has a full-fledged Information Technology Centre (IT Centre). The centre manages all IT services and develops the IT infrastructure in the Institute. All Faculty, Staff and students are allocated user id and password to avail these services.

### **IT Service Management**

IT service management open source software OSTicket system is deployed and any incident / problem detected or reported are recorded in software and a call ticket is opened. Systems keeps records for all the closed and opens tickets.

### **Information Security:**

The Institute has a policy for security of information and information systems in order to ensure that the integrity of information is maintained, so that it is accurate, up to date and fit for purpose. Information is always available to those who need it and confidentiality is not breached. The information can be accessed and/ or modified only by those who are authorized to do so.

### **Network Security:**

The Institute has deployed all major network security tools such as Firewall, IDS, IPS and Antivirus software to safeguard Institute network.

The Institute Computer and Network Resources may be accessed or used only by individuals authorized by the Institute. Issuance of an account to the system users are approved by the designated Institute authority.

### **Risk Management:**

Risk is an inherent aspect of all academic, administrative and commercial business activities. Sound risk management principles have become part of routine management activity across the Institute. Utmost care is taken to safeguard the Institute's critical information.

### **Software Asset Management:**

The Institute is committed to the appropriate use of Information Technology and Services in support of its teaching, research, administrative and service functions. The University's IT Acceptable Use Policy defines the acceptable behavior expected of users and intending users of the facilities, including the web facilities and systems. The Institute requires users to accept the IT

policies and associated requirements governing the use of IT facilities as a condition of their use. These are accessible on the Institute Policy Directory.

### **Open Source Resources:**

JIIT promotes Open Educational Resources (OER) as a part of the global open content movement which is shared for teaching, learning, and research activities. These are available under legally recognized open licenses—free for people to reuse, revise, remix, and redistribute. OER can save teachers’ significant time and effort on resource development and enhance the student learning inside and outside the classroom. An advisory committee for monitoring the trends and issues regarding developments in open source community and integrating its benefits in the Institute’s educational process is in place.

### **Green Computing:**

Being environmentally responsible organization, JIIT promotes Green computing which includes the implementation of best practices, such as energy efficient central processing units (CPUs), peripherals and Servers. In addition, green technology aims to reduce resource consumption and improve the disposal of electronic waste (e-waste).

### **4.3.2 Give details of the university’s computing facilities i.e., hardware and software.**

#### **Number of systems with individual configurations**

<b>Sr. No.</b>	<b>Location</b>	<b>System Configuration</b>	<b>Qty.</b>
1	JIIT Sector 62	Intel Core i3 (HDD-500GB RAM-2GB)	300
		Intel Core2Duo (HDD-160GB RAM-2GB /1 GB)	350
		Intel P-IV Desktops (HDD-80GB RAM-1GB)	400
		Laptop (HDD 500GB/80GB/40GB RAM 4GB/2GB/1GB)	5
		Servers/ Storage Server	27
2	JIIT Sector 128	Intel Core i3 (HDD-500GB RAM-2GB)	470
		Intel Core2Duo (HDD-160GB RAM-2GB /1 GB)	110
		Laptop (HDD 500GB/40GB RAM 4GB/1GB)	2
		Servers/ Storage Server	7
		<b>Total desktops</b>	<b>1637</b>

#### **Computer-student ratio**

1:3.11

### **Dedicated computing facilities**

Dedicated computing facilities are provided to all Faculty/Staff for their Teaching and office/ administrative work.

### **LAN facility**

- State of the art switched Local Area Network
- Fiber Optics Backbone
- 7000 network access points
- 104 Cisco Switches, 4 Routers, 152 Wireless access points and 26 VLANs
- Cyberoam 1000ia Firewall/Anti spam/ Antivirus/BW management

### **Proprietary software**

<b>Sr. No.</b>	<b>Software Name</b>	<b>Sr. No.</b>	<b>Software Name</b>	<b>Sr. No.</b>	<b>Software Name</b>
1	3-DMax	12	LANTanner	23	RationalRose
2	Adobe Software Suite	13	LotusDomino	24	SAP
3	ADS	14	Macromedia Software Suite	25	SigmaPlot
4	Animo	15	Mathematica	26	Softlink Liberty
5	BorlandC++	16	Matlab	27	SPSS
6	Gaussion	17	Memspro	28	SymantecAntivirus
7	HEP-I	18	MSOffice	29	Virtuoso (Cadense VLSI UG Bundle)
8	Illustratorpe	19	MSProject	30	VisualStudioNET
9	Jboss	20	Oracle11g	31	Xilinx
10	KEIL	21	Photoshop Pe		
11	LabView	22	PSPICE		

### **Number of nodes/ computers with internet facility**

3685 nodes are provided in the Institute. Institute has provided 1637 computers with internet facilities for offices, and laboratories. Other facilities are dedicated and secured Data centre, video conferencing for academic and other purposes.

#### **4.3.3 What are the institutional plans and strategies for deploying and upgrading the IT infrastructure and associated facilities?**

Upgradation of IT infrastructure is done as and when required. Departmental requirements are obtained from HODs and financial provisions are made in budget. Quotations are invited from vendors and after careful consideration of relevant configurations, procurement is finalized. Regular maintenance of computers, network devices, servers, etc., is carried out by IT section.

#### **4.3.4 Give details on access to on-line teaching and learning resources and other knowledge and information database/packages provided to the staff and students for quality teaching, learning and research.**

The staff and students can access e-journals, e-books and resources from the LRC and through the internet facilities available on the campus. The quality of teaching-learning process is enhanced through the utilization of online resources by faculty and students. Following online resources are subscribed and are accessible from the Institute network:

DELNET, ACM Digital Library, IEEE Xplore, SpringerLink with LNCS, AIP (American Institute of Physics), APS (American Physical Society), EMERALD, ABI/INFORM COMPLETE, NPTEL, CMIE Database.

#### **4.3.5 What are the new technologies deployed by the university in enhancing student learning and evaluation during the last four years and how do they meet new/ future challenges?**

Institute's focus is on IT and related areas; therefore the Institute pays special attention towards being at the fore-front of integrating latest technology in the teaching-learning, evaluation, and research. For the above, most new technologies with respect to computer software, hardware and other automated tools are employed. The infrastructure is also developed to facilitate access to various databases and web-based resources to all. The Institute focuses on the usage of open source software in addition to proprietary software.

The Institute is connected with National Knowledge Network started under NMEICT project since 2012. Ekalavya and Aakash Projects are running under NMEICT funded by MHRD.

#### **4.3.6 What are the IT facilities available to individual teachers for effective teaching and quality research?**

Each faculty has been provided a dedicated desktop with LAN and Internet connectivity in their offices. Also they are equipped with all required software

and tools for teaching and research. All faculty have access to network printer installed in each faculty cluster.

**4.3.7 Give details of ICT-enabled classrooms/ learning spaces available within the university? How are they utilized for enhancing the quality of teaching and learning?**

There are 40 ICT enabled lecture theatres/ class rooms in the Institute which are utilized for enhancing quality of teaching and learning. Multimedia projectors are available in Lecture theatres and class rooms along with visualizers for interactive teaching.

**Table: Class room details with facilities available**

Class Room	Location	Purpose/ Status	Proj-ector & Screen	PA System	L A N	P C	Mike	Emer-gency Lights	No of Seats	White / Green Board
<b>SECTOR-62</b>										
<b>G-1</b>	ABB-I	Lecture/ Shared	Y	Y	Y	Y	Y	Y	120	White
<b>G-2</b>	ABB-I	-do-	Y	Y	Y	Y	Y	Y	90	White
<b>G-3</b>	ABB-I	-do-	Y	Y	Y	Y	Y	Y	120	White
<b>G-4</b>	ABB-I	-do-	Y	Y	Y	Y	Y	Y	88	White
<b>G-5</b>	ABB-I	-do-	Y		Y	Y		Y	88	White
<b>G-6</b>	ABB-I	-do-	Y		Y	Y		Y	88	White
<b>G-7</b>	ABB-I	-do-	Y	Y	Y	Y	Y	Y	111	White
<b>G-8</b>	ABB-I	-do-	Y	Y	Y	Y	Y	Y	89	White
<b>G-9</b>	ABB-I	-do-	Y	Y	Y	Y	Y	Y	110	White
<b>G-10</b>	ABB-II	Lecture/ JBS	Y	Y	Y	Y	Y		72	White
<b>G-11</b>	ABB-II	-do-	Y	Y	Y	Y	Y		72	White
<b>G-12</b>	ABB-II	-do-	Y	Y	Y	Y	Y		72	White
<b>G-13</b>	ABB-II	-do-	Y	Y	Y	Y	Y		72	White
<b>LT-1</b>	ABB-I	Lecture/ Shared	Y	Y	Y	Y	Y	Y	200	White
<b>LT-2</b>	ABB-I	-do-	Y	Y	Y	Y	Y	Y	276	White
<b>LT-3</b>	ABB-I	-do-	Y	Y	Y	Y	Y	Y	275	White
<b>LT-4</b>	ABB-II	-do-	Y	Y	Y	Y	Y		241	White
<b>LT-5</b>	ABB-II	-do-	Y	Y	Y	Y	Y		238	White
<b>F-1</b>	ABB-I	-do-	Y	Y	Y	Y	Y	Y	90	White
<b>F-2</b>	ABB-I	-do-	Y	Y	Y	Y	Y	Y	77	White
<b>F-4</b>	ABB-II	Lecture/ JBS							50	White
<b>F-5</b>	ABB-II	-do-							50	White
<b>F-6</b>	ABB-II	Lecture/ Shared	Y	Y	Y	Y	Y		83	White
<b>F-7</b>	ABB-II	Tut/							40	White



		Shared								
<b>F-8</b>	ABB-II	Lecture/ Shared	Y	Y	Y	Y	Y		83	White
<b>F-9</b>	ABB-II	-do-	Y	Y	Y	Y	Y		61	White
<b>F-10</b>	ABB-II	Tut/ Shared							46	White
<b>TS-1</b>	ABB-I	-do-						Y	34	Green
<b>TS-2</b>	ABB-I	-do-						Y	32	Green
<b>TS-5</b>	ABB-I	-do-						Y	30	Green
<b>TS-6</b>	ABB-I	-do-						Y	30	Green
<b>TS-7</b>	ABB-I	-do-						Y	30	Green
<b>TS-8</b>	ABB-I	-do-						Y	30	Green
<b>TS-9</b>	ABB-I	-do-						Y	30	White
<b>TS-10</b>	ABB-I	-do-						Y	30	Green
<b>TS-11</b>	ABB-I	-do-						Y	30	Green
<b>TS-12</b>	ABB-I	-do-						Y	30	Green
<b>TS-13</b>	ABB-II	-do-							33	White
<b>TS-14</b>	ABB-II	-do-							25	White
<b>TS-15</b>	ABB-II	-do-							36	White
<b>TS-16</b>	ABB-II	-do-							33	White
<b>TS-17</b>	ABB-II	-do-							33	White
<b>TS-18</b>	ABB-II	-do-							36	White
<b>TS-19</b>	ABB-II	-do-							36	White
<b>TS-20</b>	ABB-II	-do-							33	White
<b>CS-2</b>	ABB-I	Lecture/ Shared	Y	Y	Y	Y	Y		77	White
<b>CS-3</b>	ABB-I	-do-	Y	Y	Y	Y	Y		89	White
<b>TPCR</b>	ABB-I	-do-	Y	Y	Y	Y	Y	Y	45	White
<b>ER-I</b>	ABB-II	Lecture/JBS							30	White
<b>ER-II</b>	ABB-II	Lecture/JBS							30	White
<b>SECTOR-128</b>										
LT 1	Block A	Lecture/ Shared	Y	Y	Y	Y	Y	Y	210	White
LT 2	Block A	-do-	Y	Y	Y	Y	Y	Y	96	White
LT 3	Block B	-do-	Y	Y	Y	Y	Y	Y	115	White
LT 4	Block B	-do-	Y	Y	Y	Y	Y	Y	115	White
LT 5	Block B	-do-	Y	Y	Y	Y	Y	Y	172	White
LT 6	Block B	-do-	Y	Y	Y	Y	Y	Y	172	White
LT 7	Block B	-do-	Y	Y	Y	Y	Y	Y	120	White
LT 8	Block B	-do-	Y	Y	Y	Y	Y	Y	120	White
LT 9	Block B	-do-	Y	Y	Y	Y	Y	Y	90	White
CR 1	Block A	-do-	Y		Y	Y		Y	60	White
CR 2	Block A	-do-			Y			Y	42	White
CR 3	Block A	-do-	Y		Y	Y		Y	60	White
CR 4	Block A	-do-	Y		Y	Y		Y	60	White
CR 5	Block A	-do-	Y		Y	Y		Y	60	White

CR 6	Block A	-do-	Y		Y	Y		Y	106	White
CR 7	Block A	-do-			Y			Y	60	White
CR 8	Block B	Tut/ Shared			Y			Y	42	White
CR 9	Block B	-do-			Y			Y	42	White
CR 10	Block B	Lecture/ Shared			Y			Y	96	White
CR 11	Block B	-do-			Y			Y	60	White
CR 12	Block B	-do-			Y			Y	60	White
TR 1	Block A	Tut/ Shared						Y	36	White
TR 2	Block A	-do-						Y	30	White
TR 3	Block A	-do-						Y	30	White
TR 4	Block A	-do-						Y	36	White
TR 5	Block A	-do-						Y	36	White
TR 6	Block A	-do-						Y	30	White
TR 7	Block B	-do-						Y	30	White
MPH	Block A	Multi- purpose			Y			Y	600	-
CR-1	Perf. Blk	Discussion Room			Y			Y	10	White
CR-2	Perf. Blk	-do-			Y			Y	10	White
CR-3	Perf. Blk	-do-			Y			Y	10	White
CR-4	Perf. Blk	-do-			Y			Y	10	White
CR-5	Perf. Blk	-do-			Y			Y	36	White
CR-6	Perf. Blk	-do-			Y			Y	36	White
CR-7	Perf. Blk	-do-			Y			Y	36	White
CR-8	Perf. Blk	-do-			Y			Y	8	White
CR-9	Perf. Blk	-do-			Y			Y	8	White
CR-10	Perf. Blk	-do-							20	White
CR-11	Perf. Blk	-do-							20	White
CR-12	Perf. Blk	-do-							20	White
CR-13	Perf. Blk	-do-							20	White

**Table:** Laboratory details

Laboratory	Location	L A N	P C	Power backup	Capacity	Display Board	White Board
<b>Biotechnology Dept: Student's Laboratories</b>							
Microbiology	ABB-I	Y	Y	Y	30	Y	Y
Molecular Biology	ABB-I	Y	Y	Y	30	Y	Y
Biochemistry/Immunology	ABB-I	Y	Y	Y	30	Y	Y
Animal Cell Culture	ABB-I	Y	Y	Y	06	N	-
Plant Tissue Culture	ABB-I	Y	Y	Y	06	N	-

Biotech Lab- 1	ABB-I	Y	Y	Y	40	Y	Y
Biotech Lab- 2	ABB-I	Y	Y	Y	40	Y	Y
Biotech Lab- 3	ABB-I	Y	Y	Y	30	Y	Y
Central Instrumentation Facility	ABB-I	Y	Y	Y	30	Y	Y
<b>Biotechnology Dept: Research Laboratories</b>							
Functional Genomics/ Centre for Emerging Diseases	ABB-I	Y	Y	Y	-	Y	Y
Novel Drug Delivery Systems/Nano-Biotechnology	ABB-I	Y	Y	Y	-	Y	Y
Microbial Biotechnology	ABB-I	Y	Y	Y	-	N	-
Transcriptome Laboratory	ABB-I	Y	Y	Y	-	N	Y
Drosophila Laboratory	ABB-I	Y	Y	Y	-	N	-
<b>Electronics Dept: Student's Laboratories (Sector-62)</b>							
Basic Electronics Lab -1	ABB-I	N	N	Y	32	Y	Y
Basic Electronics Lab -2	ABB-I	N	N	Y	32	Y	Y
Electronic Devices Lab	ABB-I	N	N	Y	32	Y	Y
Electrical Machines Lab	ABB-I	N	N	Y	32	Y	Y
Signal Processing Lab	ABB-I	Y	Y	Y	32	Y	Y
Communication Systems Lab	ABB-I	N	N	Y	32	Y	Y
Advance Communication Systems Lab	ABB-I	Y	Y	Y	32	Y	Y
VLSI / VHDL Lab	ABB-I	Y	Y	Y	32	Y	Y
B Tech Project Lab – 1	ABB-2	Y	Y	Y	40	Y	Y
Embedded Systems Lab	Under Development						
<b>Electronics Dept: Research Laboratories (Sector-62)</b>							
MEMS Lab	ABB-2	N	N	Y	13	Y	Y
B Tech Project Lab – 2	Under Development						
M Tech Project Lab	Under Development						
<b>Electronics Dept: Student's Laboratories (Sector-128)</b>							
Basic Electronics Lab	Block A	N	N	Y	30	Y	Y
Communication Systems Lab	Block B	N	N	Y	30	Y	Y
VLSI Lab	Block B	Y	Y	Y	37	Y	Y
DSP Lab	Block B	Y	Y	Y	30	Y	Y
Electromagnetics Lab	Block B	Y	Y	Y	30	Y	Y
Analog & Digital Electronics Lab	Block A	N	N	Y	30	Y	Y
Creativity and Innovation Lab	Block B	N	N	Y	20	Y	Y
Electrical Machines and Instrument Lab.	Block A	N	N	Y	30	Y	Y
<b>Computer Science and Information Technology : Student's Laboratories (Sector-62)</b>							
CL1-A	ABB-III	Y	Y	Y	30	Y	Y
CL1-B	ABB-III	Y	Y	Y	30	Y	
CL1-C	ABB-III	Y	Y	Y	30	Y	Y
CL1-D	ABB-III	Y	Y	Y	30	Y	Y
CL2 –A	ABB-III	Y	Y	Y	30	Y	Y
CL2 –B	ABB-III	Y	Y	Y	30	Y	
CL2 –C	ABB-III	Y	Y	Y	30	Y	Y
CL2 -D	ABB-III	Y	Y	Y	30	Y	Y

CL3 –A (under development)	ABB-III	Y	Y	Y	30	Y	Y
CL3 –B (under development)	ABB-III	Y	Y	Y	30	Y	
CL4-A	ABB-III	Y	Y	Y	30	Y	Y
CL4-B	ABB-III	Y	Y	Y	16	Y	Y
MML-A	ABB-I	Y	Y	Y	30	Y	Y
MML-B	ABB-I	Y	Y	Y	30	Y	
MML-C	ABB-I	Y	Y	Y	30	Y	Y
MML-D	ABB-I	Y	Y	Y	28	Y	
<b>Computer Science and Information Technology : Research Laboratories (Sector-62)</b>				All above Labs are used for Research also			
<b>Computer Science and Information Technology : Student's Laboratories (Sector-128)</b>							
CL1-A	Block A	Y	Y	Y	30	Y	Y
CL1-B	Block A	Y	Y	Y	30	Y	
CL1-C	Block A	Y	Y	Y	30	Y	Y
CL1-D	Block A	Y	Y	Y	25	Y	
CL2-A	Block A	Y	Y	Y	30	Y	Y
CL2-B	Block A	Y	Y	Y	30	Y	Y
CL2-C	Block A	Y	Y	Y	30	Y	Y
CL3-A	Block B	Y	Y	Y	32	Y	Y
CL3-B	Block B	Y	Y	Y	33	Y	Y
MML	Block B	Y	Y	Y	35	Y	Y
MPC Lab	Block B	Y	Y	Y	35	Y	Y
Project Lab	Block B	Y	Y	Y	20	N	Y
<b>Computer Science and Information Technology : Research Laboratories (Sector-128)</b>				All above Labs are used for Research also			
<b>Physics Department : Student's Laboratories (Sector-62)</b>							
Physics Lab-1	ABB-I	Y	Y	Y	30	Y	Y
Physics Lab-2	ABB-I	Y	Y	Y	30	Y	Y
Material Science & Engineering Lab	ABB-I	Y	Y	Y	20	Y	Y
<b>Physics and Materials Science and Engineering Department : Research Laboratories (Sector-62)</b>							
Materials Characterisation Lab	ABB-I	Y	Y	Y	-	Y	N
<b>Physics and Materials Science and Engineering Department : Student's Laboratories (Sector-128)</b>							
Physics Lab	Block A	N	N	Y	30	Y	Y
<b>Jaypee Business School : Student's Laboratories (Sector-62)</b>							
IT-Lab S6	ABB-II	Y	Y	N	51		Y
IT-Lab S7	ABB-II	Y	Y	N	51		Y
<b>HSS Department: Student's Laboratories (Sector-128)</b>							
Psychology	Block B	Y	Y	Y	30	Y	Y
English	Block A	Y	Y	Y	30	Y	Y

#### 4.3.8 How are the faculty assisted in preparing computer-aided teaching-learning materials? What are the facilities available in the university for such initiatives?

Faculty members are provided with dedicated desktop with LAN and Internet connectivity to aid them in preparing the course content, lectures and in

updating their knowledge. The course materials and lecture PPTs are also available in study material folder on the Institute's network.

#### **4.3.9 How are the computers and their accessories maintained?**

Computer and accessories are maintained and managed by a dedicated IT team hired from JIL Information Technology Limited (JILIT). Institute has Annual Maintenance Contract also with OEMs.

#### **4.3.10 Does the university avail of the National Knowledge Network connectivity? If so, what are the services availed of?**

National Knowledge Network is connecting universities under NMEICT project. Ekalavya and Aakash Project are running under NMEICT funded by MHRD.

Project Ekalavya was initiated in 2004 to generate an interactive platform for the creation, absorption, dissemination and usage of knowledge in the Open Source. One of the offshoots of this initiative was the conception of the eOUTREACH programme. This programme creates high quality digital contents in several formats. These are DVDs, VCDs, HTML, text and power point slides, audio and streaming videos and audio. These digital contents are of specialized workshops, courses, lectures, nutshell series of lectures and seminars of educational value. These events are either arranged specially for the eOUTREACH programme or take place as a part of the regular events that are held on the IIT Bombay campus.

IIT Bombay has started 'Train 10,000 Teachers' programme for the e-OUTREACH programme under NMEICT, which empowers teachers throughout the nation. JIIT is a remote center of NMEICT programme since November 2012. Being a Remote Center, JIIT is part of all workshops conducted by IIT, Bombay under NMEICT.

As a remote center, JIIT participated in Aakash project. Institute has received 246 tablets for faculty and students to supplement research and development activities. JIIT has received a grant of Rs. 1.0 Lac for the establishment of Aakash Server in the Institute.

#### **4.3.11 Does the university avail of web resources such as Wikipedia, dictionary and other education enhancing resources? What are its policies in this regard?**

The resources of Wikipedia, dictionary, e-books, google search, video tutorials and PPTs are used extensively by the students and faculty.

Policy is to provide access to websites, e-books, e-tutorials, PPTs, course material, webinars, virtual class room lectures, e-mail, and other services.

**4.3.12 Provide details on the provision made in the annual budget for the update, deployment and maintenance of computers in the university.**

There is adequate budgetary provision for purchase, upgrading and maintenance of computers and IT related services. The budget for the year 2014-15 is as below:

<b>S.NO.</b>	<b>PARTICULARS</b>	<b>BUDGETED AMOUNT (Rs in Lac)</b>
<b>A.</b>	<b>CAPITAL EXPENDITURE</b>	
a)	Servers 4	8.00
	<b>Sub-Total (a)</b>	<b>8.00</b>
b)	<b>Networking</b>	
	Active components	12.00
	Passive components	1.00
	ABB- III Hostel- Wi Fi Connectivity	100.00
	<b>Sub-Total (b)</b>	<b>113.00</b>
c)	<b>Others</b>	
	Printer / scanners 8	3.50
	<b>Sub-Total (c)</b>	<b>3.50</b>
	<b>TOTAL - A (a+b+c)</b>	<b>124.50</b>
<b>B.</b>	<b>RECURRING EXPENDITURE</b>	
a)	<b>AMC</b>	
	<b>Switches</b>	
	CISCO WS-C3750 X-48TL - 76	12.50
	Cisco Wireless Access Points -45	
	<b>Servers (IBM/HP)</b>	1.50
	<b>Printers</b>	1.50
	<b>Sub-Total (a)</b>	<b>15.50</b>
b)	<b>Renewal/ Annual Subscription</b>	
	Lotus Domino Mail Server License	7.00
	Symantec Antivirus Server License -	2.50

	<b>1000 User Licenses</b>	
	Cyberoam Firewall - 2 Nos	12.00
	<b>Sub-Total (b)</b>	<b>21.50</b>
<b>c)</b>	<b>Others</b>	
	<b>Internet Lease Link</b>	
	BSNL	5.50
	Airtel (Internet Link Quarterly Charges@55000 Per Quarter)	2.20
	Airtel (Loop Link between JIIT 62 to JIIT 128)	4.70
	Repair	2.00
	Mass Mail Software	0.25
	<b>Sub-Total ( c )</b>	<b>14.65</b>
	<b>TOTAL - B (a+b+c)</b>	<b>51.65</b>
	 <b>GRAND- TOTAL (A+B)</b>	 <b>176.15</b>

**4.3.13 What plans have been envisioned for the gradual transfer of teaching and learning from closed university information network to open environment?**

The faculty members are encouraged to prepare their course and teaching content in electronic format and upload the same on server for access by the Institute community.

## **4.4 MAINTENANCE OF CAMPUS FACILITIES**

**4.4.1 Does the university have an estate office/ designated officer for overseeing the maintenance of buildings, class-rooms and laboratories? If yes, mention a few campus specific initiatives undertaken to improve the physical ambience.**

**4.4.2 How are the infrastructure facilities, services and equipments maintained? Give details.**

There is a dedicated and well equipped maintenance team comprising of 50 technical personnel under a Chief Engineer to undertake maintenance jobs of the entire above mentioned infrastructure besides roads, buildings and; electrical and mechanical installations/plant. The maintenance budget for the last four years is as under:

<b>Year</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>
<b>Budget</b>	211	272	263	315

The Institute has built an underground parking space for 310 cars and about 150 two wheelers to be able to overcome the vehicle congestion on campus. For providing good quality drinking water, installation of RO water system has been done on a large scale. The central air-conditioning system has been upgraded to enhance the services. Much emphasis has always been given by the Institute to constantly increase greenery on the campus.

There are established procedures and systems for maintaining and utilizing physical and academic support facilities, library, sports complexes, computer and IT infrastructure, classrooms etc.

The funds allocated for maintenance of infrastructure are utilized in total for the planned activities.



## ***CRITERION V***

### **STUDENT MENTORING AND SUPPORT**

#### **5.1 STUDENT MENTORING AND SUPPORT**

##### **5.1.1 Does the university have a system for student support and mentoring? If yes, what are its structural and functional characteristics?**

The Institute has a structured system to provide support, guidance and mentoring to the students in all their activities as follows:

- (i) Dean (A & R) and Dean (RID): Overall academic activities
- (ii) Dean (Student Welfare): Complete support to students for their well being on campus including hostel
- (iii) HODs: Overall mentoring and monitoring of students of the Department
- (iv) Faculty: Small groups of students (30) have been assigned to designated faculty for their mentoring and guidance
- (v) Wardens: Hostel related issues of students
- (vi) Faculty in-charge of extra-curricular and co-curricular hubs: Hub activities
- (vii) Registrar: Complete support in terms of Admission, registration, documentation, attendance, monitoring of programmes, etc.

##### **5.1.2 Apart from classroom interaction, what are the provisions available for academic mentoring?**

- (i) Students have been divided into small groups of 30 each and assigned to faculty members for guidance & support on academic issues
- (ii) Workshops/seminars are organized periodically
- (iii) Technical events, programming quizzes, etc., are conducted regularly
- (iv) Technical competitions to encourage students to enhance their technical skills such as robotics, coding competition, etc., are held regularly

**5.1.3 Does the university have any personal enhancement and development schemes such as career counselling, soft skill development, career-path-identification, and orientation to well-being for its students? Give details of such schemes.**

Soft skill enhancement is an integral part of the curricula. Students are encouraged to participate in both technical & cultural activities to enhance their skills, qualities of leadership and team spirit. Formal sessions for the students in career counseling, career identification are also held. Individual guidance is also provided by Training and Placement Cell. Students are also guided to draw their strategies to succeed in Campus placement.

Details of activities wherein students are encouraged to participate are given at 5.3.

**5.1.4 Does the university provide assistance to students for obtaining educational loans from banks and other financial institutions?**

The Institute facilitates the loan availability by arranging banks interested in providing education loans to set up their counter alongside admission desk during the counseling process.

**5.1.5 Does the university publish its updated prospectus and handbook annually? If yes, what are the main issues / activities / information included / provided to students through these documents? Is there a provision for online access?**

Institute publishes its brochure providing all the required information to admission seekers such as details of the Programmes, Course structure, syllabus, credit system, etc. This information is also available on the website. Complete study material is also available to the students on the Institute's web kiosk. Additionally students can access all information pertaining to their academic grades, attendance, discipline, standing orders etc.

**5.1.6 Specify the type and number of university scholarships / freeships given to the students during the last four years. Was financial aid given to them on time? Give details (in a tabular form) for the following categories: UG/PG/M.Phil/Ph.D./Diploma/others (please specify).**

**(A) For UG Students**

**(i) The Jaypee India Scholars Fund**

The Jaypee India Scholars Fund had been launched to provide financial assistance to meritorious students with poor financial and economic conditions for pursuing higher technical education w.e.f. 2008.

Students are being provided financial assistance equivalent to the total fee (Tuition Fee and Development Fee as applicable to the batch of their entry) every year for pursuing the programme starting from the admission year. The students are required to repay back the total scholarship amount over a period of 3 years, after graduating from the Institute.

The numbers of students and total financial assistance provided to them during last four years is as below:

<b>FY</b>	2010-11	2011-12	2012-13	2013-14	<b>Total</b>
<b>No of students</b>	30	35	39	30	<b>134</b>
<b>Amount (Rs. In Lac)</b>	35.60	40.90	21.25	24.80	<b>122.55</b>

#### **(ii) William Webster Merit-Cum-Means Scholarship**

The managing trust has setup an initial corpus of Rs. 20 Lac for the Merit-Cum-Means Scholarship. The scholarship is provided to students from the Academic Year 2004-05 onwards. Selected students get a tuition fee waiver for the year up to a maximum of one semester.

The numbers of students and total amount of scholarship provided during last four years are as follows:

<b>FY</b>	2011-12	2012-13	2013-14	2014-15	<b>Total</b>
<b>No of students</b>	7	9	8	6	<b>30</b>
<b>Amount (Rs. In Lac)</b>	2.40	3.20	3.00	2.65	<b>11.25</b>

#### **(B) For PG Students**

##### **Teaching Assistantship:**

Teaching Assistantship of Rs. 8,000/- per month is provided to the students admitted to M. Tech. based on their GATE Score. In addition some students admitted through PGET Programme are also considered based on their performance in first year. The numbers of students and total amount of scholarship provided during last four years are as follows:

<b>FY</b>	2011-12	2012-13	2013-14	2014-15	<b>Total</b>
<b>No of students</b>	68	72	52	87	<b>279</b>
<b>Amount (Rs. In Lac)</b>	28.53	26.88	20.99	38.15	<b>114.55</b>

### (C) For Ph.D. Students

#### Research Fellowship:

Research Assistantship is available for all Ph.D. Scholars registered in full-time category provided they are not in receipt of any assistance/ scholarship/ fellowship/ salary, etc., from any organization/ Institution/ source, etc. The same is provided @ Rs. 18,000/- per month. The numbers of students and total amount of scholarship provided during last four years are as follows:

FY	2011-12	2012-13	2013-14	2014-15	Total
No of students	87	86	98	78	253
Amount (Rs. In Lac)	101	124	131	110	466

### (D) For UG/PG & Ph.D. Students

#### Financial Assistance for conferences/ seminars:

In addition to above, IIIT provides financial assistance to the UG/PG/ Ph.D. students for attending conference/ seminars/ workshop etc under the incentive programme available to them, as per the Institutional policy. Students also avail assistance from Govt. agencies.

The details of number of students and total financial assistance provided to them during last four years are as follows:

FY	2011-12	2012-13	2013-14	2014-15	Total
No of students	4	2	4	9	17
Amount (Rs. In Lac)	1.67	0.02	0.09	0.15	1.93

#### 5.1.7 What percentage of students receive financial assistance from state government, central government and other national agencies (Kishore Vaigyanik Protsahan Yojana (KVPY), SN Bose Fellow, etc.)?

The Government of Uttar Pradesh provides scholarship to the students of all categories pursuing higher technical education in the state of Uttar Pradesh. The amount of scholarship is directly transferred in the students' bank account as per the policy under 'Direct Benefit Transfer', hence the data on numbers of students got benefited is not available with IIIT. However numbers of applications received and submitted to concerned authorities of Government of Uttar Pradesh during last four years are as follows:

<b>Year</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>
Number of applications received	2	83	111	95

#### **5.1.8 Does the university have an International Student Cell to attract foreign students and cater to their needs?**

Due to limited number of students, either going abroad or coming to attend the courses, no separate cell has been created. However, the issues pertaining to foreign students are directly handled by the Registrar assisted by one more member from the central academic section. The details of International students who attended various courses /Programmes in JIIT are as below:

<b>Year</b>	<b>Bhutan</b>	<b>Spain</b>	<b>Libya</b>	
2003-04	-	1	-	
2004-05	01	-	-	
2005-06	04	-	-	
2006-07	06	-	-	
2007-08	06	-	09	
2008-09	05	-	-	
2009-10	05	-	-	
2010-11	04	-	-	
2011-12	06	2	-	
2012-13	05	3	-	
2013-14	04	-	-	
2014-15	05	-	-	

#### **5.1.9 Does the university provide assistance to students for obtaining educational loans from banks and other financial institutions?**

The Institute facilitates the students for obtaining educational loans from bank. To ease the process, kiosks of various banks are set up at the time of admission.

JIIT is also tied up with various branches of banks like IDBI, ICICI and Axis Bank to process the loan applications of the students admitted to the Institute.

To help the students and simplify the process of loan applications, JIIT also makes available all certificates/documents required, as per the banks' requirements and customized requests of students.

### **5.1.10 What types of support services are available for:**

#### **(a) For Overseas Students**

Guidance is provided to decide on the programmes/courses to be taken, hostel, specific food requirements, establishing contact with Embassy or Foreign Regional Registration Office (FRRO), Ministry of External Affairs. A dedicated faculty from the Department is nominated as an advisor for the students.

#### **(b) For Physically challenged/ differently-abled students**

The Institute buildings are differently-abled students' friendly. Special help required by such students is provided on case to case basis.

#### **(c) For SC/ST/OBC and economically weaker sections**

- Facilitation for receiving and claiming benefits under various Govt. schemes
- Reservation for admission in all programmes for SC/ST candidates
- Merit-cum-means scholarship
- Facilitation for bank loans

#### **(d) For Students participation in competitions/ conferences**

- Financial support
- 5% relaxation in attendance
- Faculty mentorship

#### **(e) For Health centre/Health Insurance**

- Dispensary with two Medical Officers including a resident lady doctor
- Basic Medicines free of cost
- Ambulance service
- Insurance under accidental death scheme of General Insurance Company
- Refund of entire fee paid by the student in case of death during the study

#### **(f) For Skill development**

- Computer skills in-built in curricula

- Availability of computer labs beyond course work
- Audit course in English
- Hubs for honing technical, literary, cultural and soft skills

**(g) For Performance enhancement of slow learners**

- Extra classes
- Summer Term
- Facility for registering for lesser number of credits in a semester
- Mentorship

**(h) For Exposure of students to external Institutions etc.**

- Corporate Internship
- Social Internship
- Industrial training
- Visits to Industry
- Seminars/Conferences
- Inter-institutional competitions/ techfests
- Sponsored activities (e.g. India Today Youth Conclave, Formula One Race, TV Shows, etc.)

**(i) For Publications of students' magazines**

RIBOSE (Resonance in Biotechnologists and Engineers) is the technical hub of the Department of Biotechnology. It provides a platform for students to interact and engage in raising scientific awareness of modern biotechnology through technical and creative events, writing competitions, and an e-publication "The Ribose Times".

**5.1.11 Does the university provide guidance and/or conduct coaching classes for students appearing for Civil Services, Defence Services, NET/SET and any other competitive examinations? If yes, what is the outcome?**

Coaching classes are not held in the Institute.

**5.1.12 Mention the policies of the university for enhancing student participation in sports and extracurricular activities through strategies / schemes such as**

- \* **additional academic support and academic flexibility in examinations**
- \* **special dietary requirements, sports uniform and materials**
- \* **any other (please specify)**

Jaypee Youth Club (JYC) - a student body under faculty mentorships extends all help in promotion of participation in various extracurricular activities. Details are given at section 5.3.

**5.1.13 Does the university have an institutionalized mechanism for students' placement? What are the services provided to help students identify job opportunities, prepare themselves for interview, and develop entrepreneurship skills?**

Details are clubbed with section 5.1.14.

**5.1.14 Give the number of students selected during campus interviews by different employers (list the employers and the number of companies who visited the campus during the last four years).**

The Institute has a dedicated placement cell comprising three full time members headed by Dean (student welfare). The cell invites over 100 companies every year to facilitate placement of B. Tech., M. Tech. & MBA students. Students are provided all required support to prepare for the selection process. Over 90% absolute offers year after year are achieved by our students. For B. Tech., the main recruiters are Infosys, Accenture, Wipro, Cognizant, etc. The campus is also visited by many Startups such as Kuliza, Minjar, Mtree and high end companies such as Amazon, SAP, Deloitte, etc. CTC varies from 3.1 Lac to 19 Lac per annum.

For MBA almost 60 companies including S&P Capital IQ, Berger Paints, LG, HT media, Honda, etc., visit the JIIT campus. The summary of placements is given below:

<b>Graduating Year</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
<b>Branch</b>	<b>Multi Offer %</b>	<b>Multi Offer %</b>	<b>Single Offer %</b>	<b>Single Offer %</b>	<b>Multi Offer %</b>
CSE/IT	243	156	98	98	172
ECE	252	142	82	92	162
Biotech	116	85	86	84	85
MBA	96	89	79	83	88

Data as on 30/06/2015



The details of visiting companies and the number of students selected are given below for last four years.

### B. Tech. Placement 2011

S. No.	Company	No. of offers	S. No.	Company	No. of offers
1	1E	1	11	INFOPRO India Pvt. Ltd.	2
2	ACCENTURE	346	12	INFOSYS	351
3	APOTHECARIES	1	13	JUBILANT ORGANOSYS	1
4	BIRLASOFT	11	14	MTree	3
5	CAPITAL IQ	1	15	RNCOS E-Services Pvt Ltd	3
6	CSC	16	16	SAMSUNG Eng. Lab (R&D)	1
7	DREAMWORKS	3	17	SYSCOM	1
8	ERICSSON	32	18	TECH MAHINDRA	2
9	ERNST & YOUNG	8	19	WIPRO	33
10	HCL	91	20	WIPRO VLSI	6
<b>Total offers</b>					<b>913</b>

### MBA Placement 2011

S. No.	Company	No. of offers	S. No.	Company	No. of offers
1	ADI Media	-	31	Institute of Competiveness	1
2	Allahabad Bank	1	32	Jaypee Group	62
3	American Express	1	33	Laksh HR Consultancy	4
4	Ansals	1	34	Max NewYork Life	1
5	Apex TG India	2	35	Milagrow	1
6	Augere telecom	1	36	New Tech Instruments Pvt Ltd.	1
7	B & K Securities Ltd.	1	37	NEXT EDUCATION	7
8	Bajaj Energy	1	38	NIIT Tech	2
9	Capital IQ	6	39	Oxylane, Ludhiana	1
10	Carte Blanche	-	40	Para Military Forces	1
11	CII	4	41	Pearson Education	3
12	Copal Partner	1	42	Pioneer Fabrics	1

13	CSC	3	43	Pricewaterhouse	1
14	Dainik Jagran	1	44	Protivity	1
15	Dhriti Infotech	5	45	Redington	6
16	Ericsson	1	46	Reebok	1
17	Ernst & Young	1	47	Religare	2
18	F1F9	4	48	RKCO group	1
19	Future Agrovat Ltd.	1	49	Santa Fe	2
20	Global Infoways	2	50	Syscom Corporation Ltd.	7
21	Grail Research	3	51	Tactical Tech.	1
22	Havells - Supply Chain	2	52	Tally Solutions	1
23	HCL Infosystems	5	53	Tata Mcgrawhill	2
24	HCL Technologies	18	54	TCS	1
25	HDFC	1	55	UG SOFTWARE	3
26	Honda Siel	3	56	Varun Beverages	1
27	ICRA Ltd.	4	57	WNS	1
28	IMRB	2	58	Xeyei HR Consultants	2
29	India Can Education	3	59	YES BANK	25
30	Infosys	16	60	Zomato.com	1
<b>Total offers</b>					<b>245</b>

### B.Tech. Placement 2012

S. No.	Company	No. of offers	S. No.	Company	No. of offers
1	Infosys	330	14	XLT-Jaypee	0
2	Accenture	109	15	Mtree	6
3	HCL Tech	82	16	MAQ Software	4
4	Wipro	47	17	Motherson Sumi Infotech & Design Ltd.	2
5	Wipro VLSI	6	18	Continental Corporation	8
6	S&P Capital IQ	3	19	SAP Labs	9
7	Ernst & Young	6	20	CMC Ltd.	2
8	Amazon	2	21	LandisGyr Ltd.	6
9	Aptuit Informatics	0	22	Mentor Graphics	1
10	ERA Group	0	23	Aircom International	2
11	Grail Research	0	24	Stellarix Consultancy	0

				Services Pvt. Ltd.	
12	Microsoft	1	25	Cadence Design Systems	2
13	CSC	30	26	Flipkart	1
			27	Optimus Information	4
<b>Total offers</b>					<b>663</b>

### MBA Placement 2012

S. No.	Company	No. of offers	S. No.	Company	No. of offers
1	ABC Consultants	3	27	IIFL - Securities.	3
2	Aditya Birla Finance ltd	2	28	IMRB	3
3	Advait Life-Education	6	29	India Infoline	4
4	American Express	3	30	IndiaCan	4
5	AFCONS Infrastructures Ltd.	1	31	Indian Infrastructure, Power Line	3
6	Collective Growth Realty Pvt. Ltd	1	32	Inventum Technologies	5
7	Aptuit Informatics	4	33	ITC	3
8	Benchmark Six Sigma	8	34	Jaro Education	5
9	BPTP	2	35	Jaypee Group	50
10	Career Launcher	2	36	Laxis Reality Consulting	4
11	Ceasefire Industries Ltd	3	37	LETs GoMO Labs.	3
12	1APAC Sourcing Solutions	1	38	MAQ Consulting	1
13	Corbus	1	39	Markit India	4
14	Ernst & Young	1	40	Matrix Cellular International	4
15	Executive Search	2	41	Mazars Advisory Private Ltd.	3
16	F1F9	6	42	Naukri.com	5
17	Focus Energy Limited	1	43	Neer Info Solutions	3
18	Franchise India	3	44	Pact India	4
19	Future First Tutorials	2	45	Pearson Education	4
20	Genpact	4	46	Redington	2
21	Global Visas	1	47	RMSI	3
22	Grail Research	2	48	RNCOS E-Services	2
23	HCL Infosystems Ltd.	6	49	S&P Capital IQ	7
24	HCL Tech	8	50	Syscom Corporation	4
25	HDFC Bank	2	51	TechSci Research	2

26	Honda Siel Cars India Ltd	1	52	UNICON Investment solutions	4
			53	WNS Global	2
<b>Total offers</b>					<b>218</b>

### B. Tech. Placement 2013

S. No.	Company	No. of offers	S. No.	Company	No. of offers
1	Delloite	8	19	VinSol	0
2	Amazon.com	2	20	Tectura	3
3	Accenture	191	21	Aircom International	5
4	Infosys	70	22	NTT Data	15
5	Dell	34	23	Aptara Corporation	1
6	HCL Tech	20	24	APAC	1
7	MAQ Software	3	25	Lucky Gp	1
8	S&P Capital IQ	2	26	Innvoaccer	0
9	Ernst & Young	9	27	RNCOS E-Services	1
10	Kuliza.com	7	28	Innox Apps	1
11	XL capital	0	29	LandisGyr	8
12	Laurus Infosystem	1	30	Thinks Sys	1
13	SAP Labs	4	31	WACORP	2
14	Mtree	3	32	Stellarix	1
15	Minjar	2	33	Mu Sigma	9
16	McAFee	1	34	Caterpillar	1
17	Protivity	2	35	Evalueserve	3
18	Microsoft	1	36	Optimus Information	4
<b>Total offers</b>					<b>417</b>

### MBA Placement 2013

S. No.	Company	No. of offers	S. No.	Name of Company	No. of offers
1	6Dtech	2	29	iXceed Infosolutions Pvt. Ltd.	3
2	ADI Media	2	30	Jaro Education	3
3	Allan Lloyd	12	31	L.B. Associates Private Limited	2
4	Axis Bank	12	32	Laxis Infrastructure	3
5	Bajaj Allianz	2	33	LIC Housing Finance	4
6	Benchmark Sigma	6	34	Manglam Electricals.	1

7	Berkshire India Limited	2	35	Mansukh Securities	10
8	Broadridge Financial	6	36	Markit India	6
9	Click Labs Pvt Ltd	2	37	Mastech	4
10	Copal Partners	2	38	Matrix Cellular International Services	4
11	Dion Global Solutions	2	39	Mazars Advisory Private Ltd.	5
12	Drishti Soft	3	40	Moody	3
13	Encyclopedia Britannica India	4	41	NIIT Tech	5
14	EyeBridge Soft Solutions Pvt. Ltd.	1	42	NMTronics India Pvt. Ltd.	2
15	F1F9	4	43	PropTiger Realty Pvt. Ltd.	2
16	Global Logic	5	44	PTC India	3
17	HCL Infosystems	3	45	Redington India	3
18	HDFC BANK	3	46	RNA Life Sciences	3
19	Home credit India	6	47	S&P Capital IQ	4
20	Honda Cars India Ltd. (HCIL)	1	48	Smart Chip Limited (Syscom)	2
21	Hyatt Regency	1	49	Smartcube	3
22	India Infoline - Equity division	2	50	Sourcekey Media Pvt Ltd	1
23	India Infoline - Reality division	2	51	Spice Digital	1
24	IndiaCan Education Pvt. Ltd.	2	52	Supertech	2
25	IndusInd Bank	12	53	Tectura - ERP solutions	5
26	INFO EDGE - 99acres.com	2	54	Trustline Securities Ltd.	1
27	Intelivesto	1	55	UG Software	5
28	ITC Limited	1	56	Unicon Investment Solutions	3
<b>Total offers</b>					<b>196</b>

#### **B.Tech. Placement 2014**

<b>S. No.</b>	<b>Name of Company</b>	<b>No. of offers</b>	<b>S. No.</b>	<b>Name of Company</b>	<b>No. of offers</b>
1	Delloite	15	29	SunLife Financial	2
2	Amazon	3	30	Orange Business Services	1
3	Accenture	165	31	Evalueserve	5

4	Infosys	201	32	TCS	24
5	S&P Capital IQ	4	33	IBM	7
6	ThoughtFocus	4	34	Steria	4
7	MAQ Software	3	35	Abyeti Technologies	1
8	Kuliza	7	36	Trilogy	0
9	Minjar	2	37	Grapecity	0
10	InnovAccer	3	38	Continental Corporation	1
11	MTree	2	39	Bioxcel	2
12	EY	16	40	Damco Solutions	0
13	NEC	4	41	Aircom International	0
14	Wipro	73	42	RMSI	2
15	SAP Labs	5	43	Progen Business Solution	2
16	Yamaha Motors	2	44	Ericsson India	0
17	Zomato	2	45	Optimus Information Inc	1
18	Navyug Infosolutions	1	46	Home Credit India	2
19	Kritical Securescan	1	47	Vinculum Solution Pvt.Ltd.	3
20	VinSol	2	48	Aptatra Corpotion	4
21	NTL Electronics	11	49	Smart Utility Systems	2
22	NewGen	13	50	Markit India	3
23	Cognizant Tech	49	51	Secure Meters	1
24	MphasiS	2	52	Exevo	9
25	Hindustan Times	1	53	Rohde & Schwarz	1
26	NTT DATA	24	54	Adobe	1
27	CSC	17	55	Thinksys	1
28	Primary Modules	2	56	HCL Technologies	19
<b>Total offers</b>					<b>732</b>

#### MBA Placement 2014

S. No.	Company	No. of offers	S. No.	Company	No. of offers
1	iAct (International Academy for Certifications and Training)	4	33	Jabong.com	4
2	99 Acres	5	34	Jaro Education	2
3	Abdullah Haider Trading Establishment (AHT)	2	35	Kamdhenu Ispat Ltd.	1
4	AgreeYa Solutions	1	36	LG	1
5	AMR Group	8	37	Lintas Media	1
6	Axis Bank Ltd.	6	38	Mahindra Logistics	1

7	Bajaj Capital	1	39	Mansukh Securities & Finance Ltd	15
8	Bench Mark Six Sigma	1	40	Markit India	5
9	Berger Paints	3	41	Markit India	2
10	Blackrock Services India Pvt. Ltd,	3	42	Mastech	1
11	Capital Via Global Research Pvt. Ltd.	1	43	Matchbox venture	1
12	CL Educate	2	44	Mazars LLC	1
13	Click Labs	2	45	Naukri.com	3
14	Club Mahindra	1	46	Nestle	2
15	Copal Amba	4	47	Nucleus Software	1
16	Datsun Consulting	1	48	Primary Modules	1
17	Exevo	2	49	Prop Tiger Realty Ltd.	1
18	Exl Services	1	50	Redington India	1
19	Exotica Housing	1	51	RMSI	2
20	First Naukri	1	52	S&P CIQ	5
21	Global Logic	1	53	Shiksha.com	1
22	Godrej	1	54	SHUBHASHRAY Housing India	1
23	Grail Research	2	55	Skyline Finmart	4
24	HCL Infosystem	2	56	Squareyards Consulting Pvt. Ltd.	5
25	HCL Technologies	9	57	Tectura	3
26	Hi Impact Consultants	4	58	UG Software Technologies	1
27	Home credit India	1	59	Uninor	1
28	Honda Cars	1	60	University18	1
29	Hyatt Regency	1	61	VIP Industries Limited	2
30	IDBI Federal	1	62	Vodafone	3
31	Indusind Bank	2	63	WA Corp Hyundai India Ltd.	4
32	InnovAccer	1	64	Wipro	1
			65	Zomato	1
<b>Total offers</b>					<b>155</b>

### B. Tech. Placement 2015

S. No.	Company	No. of offers	S. No.	Name of Company	No. of offers
1	Abyeti Technologies	4	32	Practo Technology	5
2	Algo scale Technologies	2	33	Pariksha Labs	3

3	Amazon	7	34	RNA Life science	1
4	Aricent Technologies	90	35	S&P Capital IQ	10
5	Browser Stack	1	36	SAP Labs	6
6	Cognizant Tech	373	37	Scrap Labs	3
7	Contata Solution	2	38	Steria	1
8	Continental Corporation	5	39	Tectura	3
9	Crisp Analytics	1	40	Verizon	3
10	CSC	6	41	VinSol	5
11	Deloitte	21	42	Wipro	236
12	Ernst & Young	13	43	Zycus Infotech	3
13	Grofers	4	44	Press Play	1
14	HCL Technologies	28	45	MAZ Digital	3
15	IBM	35	46	India Bulls Technology	10
16	Infosys	329	47	Air Com	1
17	InnovAccer	2	48	XL Group	3
18	Kritical Securescan	1	49	Akosha	2
19	Kuliza	6	50	Delve Insight	6
20	Magic Software	9	51	Nestle	1
21	Maginitude Software	1	52	Pitny Bose	1
22	Minjar	7	53	Hike Messenger	3
23	MTree	4	54	Technofocus	1
24	Naukri.Com	1	55	ABSAS	13
25	NEC Technologies	0	56	Indus Valley Partners	1
26	Net Scribe	2	57	Astrea IT Service	3
27	NewGen	21	58	Paytm	4
28	NTT DATA	13	59	Tolexo	3
29	NIIT Tech	1	60	Pine Labs	3
30	Optimus Information Inc	2	61	IRIS Software	1
31	Polaris Financial Technology	13	62	SAMSUNG	2
			63	Ericsson	9
<b>Total offers</b>					<b>1354</b>

### MBA Placement 2015

S. No.	Company	No. of offers	S. No.	Company	No. of offers
1	Practo Technologies	2	23	Fox Global International	4
2	HCL TECHNOLOGIES	7	24	University -18	2
3	Naukri.Com	5	25	Cyient Ltd.	1
4	99acres.com	6	26	Jsimple	1



5	APAC Sourcing Solutions Ltd	1	27	Copal Amba	1
6	FinEdge	1	28	NetScribe	3
7	Berger Paints	1	29	Mansukh Securities	2
8	Markit India	1	30	Mettl	1
9	GMtx Med Services Pvt Ltd	4	31	Grofers	5
10	Honda Cars India Ltd	1	32	Rudra Build Well Pvt Ltd	4
11	Rednigton India	1	33	ACS Courier	1
12	LAVA International	4	34	Elitify.com	1
13	Tectura	5	35	Fluid Fitness	1
14	NaukriGulf.Com	2	36	Sapient	1
15	CSC India Pvt.Ltd.	1	37	Felicity Group	2
16	F1F9	1	38	Axis Bank	1
17	Mirus Solutions	2	39	Supertech Limited	1
18	Perception World	2	40	ITC Ltd.	1
19	VIP Industries	1	41	MAZ Digital	1
20	I ACT	3	42	TalentNiti	1
21	HDFC Bank	3	43	ExtraMarks	3
22	Matrix Cellular	1	44	Samsung	1
<b>Total offers</b>					<b>94</b>

**5.1.15 Does the university have a registered Alumni Association? If yes, what are its activities and contributions to the development of the university?**

A faculty has been assigned as Alumni Relation Officer to facilitate the alumni activities. There is a dedicated Alumni website and regular interaction with the Alumni takes place. Last alumni meet was held on 14 February, 2015.

**5.1.16 Does the university have a student grievance redressal cell? Give details of the nature of grievances reported. How were they redressed?**

The Institute has an open door policy wherein any student can walk into any office to seek remedy to his problem. There is also a grievance cell headed by a Professor. The committee comprises:

- |                           |          |
|---------------------------|----------|
| 1. Prof. G. S. Srivastava | Chairman |
| 2. Prof. Samir Dev Gupta  | Member   |
| 3. Prof. Naseem Abidi     | Member   |
| 4. Dr. Shweta Srivastava  | Member   |
| 5. Dr. Neeraj Wadhwa      | Member   |

6. Mr. Prakash Kumar                      Member

No significant grievances have been reported so far.

**5.1.17 Does the university promote a gender-sensitive environment by (i) conducting gender related programmes (ii) establishing cell and mechanism to deal with issues related to sexual harassment? Give details.**

A committee headed by a Professor looks after the gender related issues and sexual harassment cases. The committee comprises:

1. Prof. Alka Sharma      Chairman
2. Prof. D. K. Rai              Member
3. Dr. Neeraj Wadhwa      Member
4. Sh. S. B. Upadhyaya      Member, Sr. Advocate, Supreme Court of India, Chamber No. 30, Legal advisor
5. Ms. Savita Singh      Member, 32, Lawyers' Chambers, Supreme Court of India, New Delhi-110001

Served as NGO representative (Centre for Legislative Research and Advocacy) for Gender Sensitization against Sexual Harassment at work place in 2009-10 of Jawaharlal Nehru University, New Delhi  
-Advocate-on-record for Lawyers' collective HIV unit  
-Member: Res Publica Law Society  
-Member Manav Seva Sansthan

JIT's environment is very cordial and no case of sexual harassment has been reported so far.

**5.1.18 Is there an anti-ragging committee? How many instances, if any, have been reported during the last four years and what action has been taken in these cases?**

There is an Anti-ragging Committee headed by Dean (Student Welfare) to prevent and take appropriate action in case of ragging. Committee details are displayed on the Institute website. No case of ragging has been reported during last 4 years.

In the beginning of first semester, an extensive campaign is carried out to sensitize the students about ragging and its consequences. Flying squads and faculty are put on special duty to monitor students to prevent ragging in any form. Details of wardens including their mobile numbers are displayed on all notice boards for reporting any untoward incidents.

### 5.1.19 How does the university elicit the cooperation of all its stakeholders to ensure the overall development of its students?

The Institute takes cooperation from all stake holders for overall development of students. Industry is very important stake holder. Industries provide focused training and internship, workshops, sponsorships and establish specialized centre on campus. Cooperation received from stakeholders is as below:

- Collegiate Cyber Threat Competition - Wave III was organized by Deloitte for selected 11 colleges across the country and over 3000 students participated in it. Deloitte concluded the Grand Finale on May 2, 2014 with teams from JIIT, ITM Gurgaon and IIT Roorkee featuring in the Top 5. Results were as follows:

Activity	Winners from JIIT	Prize/Rank
Fire in the Hole	Abhinav Gupta, Utkarsh Garg, Ujjwal Dua	2 <sup>nd</sup> Runners-up Cash prize of Rs. 75,000
SoS	Umang Chaturvedi, Siddharth Srivastava, Shivam Tiwari	Fourth

- SAP Utility of Tomorrow Contest 2013: The contest was held to generate ideas amongst the students which would improve people's lives through digital technology.
- SAP University Alliance App Rumble India 2013: This was aimed to challenge engineering students' creativity in pursuing innovation and come out with new ideas, product or a solution which would help the world run better.
- Ernst & Young Campus Anchor programme provided opportunity to pre final year students to interact with EY leadership and HR team and know their business in greater detail by spending a day at their Gurgaon office.
- Accenture: Innovation Jockeys Contest 2013: Contest was organized to seek ideas for innovation with regard to categories (Digital Government, Internet of Things) from the students of the college.
- Deloitte: HR Workshop - Campus to Corporate for pre final year students.
- Aricent Technology: Seminar on Career in IT industry.
- Orange Business Services: Shadowing Day, 5 pre final year students spent entire day in office interacting with department Heads and discussing about career in telecom industry.

- Deloitte: Junior Achievement Seminar on Education & Employability - IMPACT DAY 2013.
- Deloitte: Business Challenge Competition” Organized for MBA 1st year students.

**5.1.20 How does the university ensure the participation of women students in intra- and inter-institutional sports competitions and cultural activities? Provide details of sports and cultural activities where such efforts were made.**

In all extra/co-curricular and sporting activities both male & female students actively participate. There are girls’ teams in Basket Ball, Volleyball, Badminton, Table tennis, etc., competing against each other. Girls actively participate and in many cases, in majority, in The Page Turner Society and different hubs like  $\mu$ CR (Robotic), Multimedia, Radiance, Parola, RIBOSE, Knuth Programming, Kalakriti (Rangoli), Rachnavriti (Graphic and Animation), Painting and Sketching, Swar Sangam (Music), CICE, Jhankar (Dance, Drama and Theatre, Google Developers, and Sports. Girls are active members of Jaypee Youth Club (JYC).

## **5.2 STUDENT PROGRESSION**

**5.2.1 What is the student strength of the university for the current academic year? Analyse the Programme-wise data and provide the trends for the last four years.**

The current student strength studying in the Institute in the academic session 2014-15 is as below:

<b>Programme</b>	<b>Students on rolls</b>
<b>B. TECH.</b>	
BIOTECH	217
CSE	1829
ECE	1531
IT	299
<b>DUAL DEGREE</b>	
DD-BT	166
DD-CSE	147
DD-ECE	68

<b>MBA</b>	316
<b>M. TECH</b>	
BT	18
ECE-CS	57
ECE-MET	32
CSE	44
CSE-IS	9
ITE	12
ACM	3
PMSE	5
<b>Ph.D.</b>	204
<b>TOTAL</b>	<b>4957</b>

The Institute does not have a systematic data on the progression of students after graduating from the Institute like proceeding for higher studies or joining the companies after placements, etc. However, the details of alumni available with the Institute indicate following trends:

<b>Student progression</b>	<b>Percentage</b>
UG to PG	~10-20%
PG to M.Phil.	NA
PG to Ph.D.	~15-18%
Ph.D. to Post-Doctoral	~10%
<b>Employed</b>	
Campus selection	~85-90%
Other than campus recruitment	~5%
Entrepreneurs	~1%

### **5.2.2 What is the programme-wise completion rate during the time span stipulated by the university?**

Upto 98% students complete their degree requirements within the specified duration stipulated in the academic rules and regulations for each programme (B. Tech., M. Tech. and MBA). The balance students have to extend the

period of studies by 1-2 semesters/ trimesters to complete the degree requirements. The dropout rate after joining the programme ranges from 5-6% for undergraduate, 1-2% for PG & about 5% for the Ph.D. programmes. The Institute however, provides all opportunities including additional classes, counseling, fee assistance, etc. to ensure that the dropout rate is minimized.

**5.2.3 What is the number and percentage of students who appeared/ qualified in examinations like UGC-CSIR-NET, UGC-NET, SLET, ATE / CAT / GRE / TOFEL / GMAT / Central / State services, Defense, Civil Services, etc.?**

The Institute does not maintain the data on percentage of students/ alumni who qualify in the examinations like UGC-CSIR-NET, UGC-NET, SLET, ATE/ CAT/ GRE/ TOFEL/ GMAT/ Central/ State services, Defense, Civil Services, etc. However, it is estimated that around 15-20% of students attempt the above said examination.

**5.2.4 Provide category-wise details regarding the number of Ph.D./ D.Litt./D.Sc. theses submitted/ accepted/ resubmitted/ rejected in the last four years.**

Department	Theses			
	Accepted	Submitted	Re-submitted	Rejected
Biotechnology	9	1	-	-
CSE/IT	9	2	1	-
ECE	9	-	-	-
HSS	1	-	-	-
JBS	23	3	1	-
Mathematics	11	-	-	-
PMSE	9	3	-	-

**5.3 STUDENT PARTICIPATION AND ACTIVITIES**

**5.3.1 List the range of sports, cultural and extracurricular activities available to students. Furnish the programme calendar and provide details of students' participation.**

Extra/Co-curricular activities including sports are essential for overall grooming of students which include building of confidence, high self esteem, adaptability, leadership skills, soft skills etc. In order to ensure wider

participate by both boys and girls, 16 Hubs have been constituted under different faculty-in-charge who themselves have the flare for the activities conducted by their respective Hubs.

In addition a techno cultural fest “**IMPRESSIONS**” is also organized annually, over a period of two days. Many technical and cultural competitions are organized during the Fest and students from outside Institutions are also invited to participate and compete. All these activities are primarily organized by the students and overseen by the designated faculty. Highlight of the Hubs and their activities conducted during the academic year are enumerated below.

(i) **μCR (ROBOTICS HUB):** Workshop on Image processing, Manual robotics, embedded system Autonomous Robotics, on the spot Microcontroller Coding etc.

(ii) **Multi Media Hub:** To promote & practice Multi Media related activities that include various streams such as Gaming Development, Digital Center development etc.

(iii) **Radiance Hub:** Activities such as Mr & Ms Ebullience, Theme night etc.

(iv) **Parola Literary Hub:** Parola Literary Hub is a place where all students of JIIT are welcome to engage in free speech, debate, and merriment. Its aim to produce competitive debaters and writers whilst ensuring membership of the society is pleasurable experience for all.

(v) **Jaypee Youth Placement and Jaypee Model United Nation** are also held annually. Both these events evoke tremendous response from reputed institutes from NCR and outstation. Over 400 students participate in each of these events by replicating the proceedings of Parliament and United Nations and debate on current national/international issues.

(vi) **The Page Turner Society:** It is a book club. With no restriction to the subject, book reviews, critical analysis of interesting ideas & share and exchange books were organized.

(vii) **Ribose Hub:** The aim and objective of this hub is to provide student’s exposure to the upcoming technologies and to spread awareness among students in the field of Biotechnology. Article Writing, Bio Quizzo, Poster competitions etc are held.

(viii) **Knuth Programming Hub:** Knuth is a Programming Hub of JIIT Noida and was started in year 2011 with a vision to develop a community of coders/programmers at JIIT. Programming workshops and contests are held periodically and is very popular with the students.

- (ix) **Kalakriti (Rangoli Hub):** Rangoli competitions are organized.
- (x) **Rachnavriti (Graphics and Animation Hub):** A Hub highly committed to academic and designing excellence, offering a unique designing experience to the students to enhance their imaginative and relative aspects.
- (xi) **Painting and Sketching Hub:** Not everyone can make a living depicting their moods by way of creative endeavors, but almost everyone can pick up a brush and find a new way to convey emotions. This was the main motive behind the painting hub which organizes painting competitions on various themes and forms.
- (xii) **Swar Sangam (Music Club):** Swar Sangam, the Indian music society of the Institute is actively involved in learning Indian classical music and in encouraging maximum exposure to each of its members through active participation in competitions and events.
- (xiii) **CICE:** CICE is a hobby club of IIIT that aims to teach and help students in understanding the seemingly incomprehensible electronic concepts. It also assists students in understanding the existing gadgets and developing their own devices.
- (xiv) **Jhankar (Dance Hub):** Jhankar, a dance club organizes all the intra Institute and inter Institute dance activities.
- (xv) **Drama and Theater Hub:** This provides platform for the students in theatrical activities including Street plays.
- (xvi) **Google Developers' Group:** Also known as GDG IIIT NOIDA, this is a platform made for every tech-savvy who needs to quench his thirst for technology, and take him to dizzying heights. Made from a team of high-spirited members, hubs strive to spread their love for Google and its widespread works. The team's motto is 'Giving Direction to Greatness'. Activities such as 'Introduction to Internet Marketing', 'MAKE IT OR BREAK IT: PHP', 'C Workshop Phase 2.0' etc are promoted.
- (xvii) **Sports Hub:** Students organized inter hostel competitions in basket ball, Volley ball, Cricket, Badminton etc. Sports event by the name "FUN SPORTS MEET 2014" was held in the month of February 2014. Eight disciplines for boys namely, badminton, table tennis, snooker, basket ball, volleyball, football and cricket featured in the event. Sports for girls included badminton, table tennis, basket ball and football. Chess competition was contested together by boys and girls.

There was overwhelming response to the Sports Meet as almost 900 students participated in the preliminary round.



### Programme Calender – 2014

Date	Hub	Event
15/1/14	μCR (Robotic Hub)	Embedded System
20/1/14		Autonomous Robotics
08/3/14		Manual Robotics, Autonomous Robotics, Manual+Autonomous Robotics and on the spot Microcontroller Coding
08/3/14	Multi Media Hub	AndroGamia, MovoDigital, Bolloywood Gyan
06/2/14	Radiance Hub	Theme Night' 14
08/3/14		Theme Walk
09/3/14		Mr & Miss Impression' 14
22/2/14	Parola Literary Hub	Jaypee Model United Nation 2014
08/3/14		Impression 2014
05/2/14	The Page Turner Society	Newbies
08/3/14		Treasure Trove, The 5Ws and Acrostics-old wine in new bottle
08/3/14	Ribose Hub	Scavenger Hunt, Microbe Premier League, and Campus Green
18/1/14	Knuth Programming	Execute 14.1
01/3/14		Execute 14.2
08/3/14		Crack the Bug, Knuth Cup' 14, Quest of Thrones, Knuth Entrevista
08/3/14	Kalakriti (Rangoli Hub)	Swarnakriti, Junk Rangoli, Sand Art
30/1/14	Rachnavriti (Graphics and Animation Hub)	Adobe Light Room
04/3/14		Adobe after Effects
08/3/14		Pixel Shuffler, Indlusio
09/3/14		Genesis
08/3/14	Painting and Sketching	Filmistaan-The Bollywood Art Galley
25/1/14	Swar Sangam (Music)	Karaoke Night
08/3/14		Jashan-E-Antakshari, Purvaang,
06/5/14		Acoustic Night
06/3/14	CICE	OrCAD
07/3/14		Technology and Motivation
08/3/14		Wire Junkies, OrCAD-O-Mania and Matlab Kings

08/3/14	Jhankar (Dance Hub)	Step Up
09/3/14		Jhoom le Zara, Bop N Pop
08/4/14	Drama and Theater Hub	Jharokha, Abhinay
09/4/14		Mono ya Dono
08/3/14	Google Developers Gp	God of Leaks, Bermuda Triangle, Codopoly
Feb 14	Sports Hub	Fun Sports Meet 2014

**5.3.2 Give details of the achievements of students in co-curricular, extracurricular and cultural activities at different levels: University/ State/ Zonal / National/ International, etc. during the last four years.**

Details of activities are provided in departmental reports. A representative list is given for the year 2013-14 and 2014-15.

**Jhankar- The Dance Hub**

**2013-14**

Student/ Team	Activity	Level	Winners
28 participants	Bop n Pop – Solo Dance Competition, Impressions 2014	Inter-Institutional	1 Vikrant Chauhan 2 Gauri Malviya
22 participants	On the Spot Dancing - Impressions 2014	Inter-Institutional	1 Nikhil Soni & Ashish Masih 2 Vikrant Chauhan,

**Kalakriti**

**2013-14**

Student/ Team	Activity	Level	Winners
14 teams (2 students in each)	Conventional rangoli making competition (Gulal & Flowers)	Intra Institute, Impressions 2014	1 <sup>st</sup> prize – Nancy, Muskaan

**Knuth Programming Hub**

**2013-14**

Student/ Team	Activity	Level	Winners
20 Teams of 2 students each	Grape City Codequest organized at Grape City, Noida in 2014	National	1 <sup>st</sup> rank: Dhananjay Tomar and Abhishek Prasad
20 Teams of 2 students	Grape City Codequest organized at Grape	National	2 <sup>nd</sup> rank Anshit Agarwal

each	City, Noida in 2014		and Hitesh Sethi
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## 2014-15

Student/ Team	Activity	Level	Winners
15 Teams of 3 students each	Mind Sweeper event (First Round – Online Programming Contest) held as a part of Cognizance Zonal, IIT Roorkee, 2015	National	2 <sup>nd</sup> rank Shubham Dhingra, Shubham Rastogi, Rishabh Jain
1500 Teams of 3 students each	ACM ICPC Asia Amritapuri Site Regional in 2014	International	155 <sup>th</sup> rank: Dhananjay Tomar, Abhishek Prasad

## RIBOSE

### 2013-14

Activity	Level	Winners
Campus Green	Intra- Institute	<b>Winners-</b> Pankaj , Rishabh, Shashank, Raman
Microbe Premier League	Intra- Institute	Winners- Sukriti Srivastava, Sweekriti Jain

## GDG

No of Participants	Activity	Level	External Expert
<b>2014</b>			
Approx 200	Java Workshop	Intra-Institute	Workshop
Approx 250	Graphics in C	Intra-Institute	Workshop
Approx 150 students + 25 external participants	Rise of Open Source Data Science Tools	Inter-Institute	Hari Prasanna and Pranav Prakash (Slide Share)
Approx 150 students + 25 external participants	Avoiding single point of failures in a multi- services architecture	Inter-Institute	Gurteshwar Singh (Plivo Inc)
Approx 150 students + 25 external participants	Machine Learning with Apache Mahout and Scala	Inter-Institute	Saleem Ansari (Impetus Technologies Inc)

Approx 150 students + 25 external participants	Perfect recipe for data wrangling: IPython Notebook+ Pandas + Visualizations	Inter-Institute	Konark Modi (MakeMyTrip)
Approx 150 students + 25 external participants	An intro to Open Source Telephony	Inter-Institute	Gurteshwar Singh (Plivo Inc)

### Graphic and Animation Club

2013-14

Student/ Team	Activity	Level	Winners
25 participants	GO 3-D	Intra College, Impressions 2014	Winner- Aditi Khare Utkarsh Smosh Indaliya
21 participants	Merge And Sketch	Intra College, Impressions 2014	Winner-Sohal Bharadwaj Utkarsh Smosh Indaliya

### Literary Hub (PAROLA)

2013-14

Student/ Team	Activity	Level	Winners
500 Students 10 Teams from across the country	Jaypee Model United Nations 2014 (Feb 2014)	Post- Graduate/ Graduate/ School	Winners for the six councils that were constituted Executive Board from Delhi University

### Page Turner Society

In each of the event organized by Page Turner Society, the participation ranged from 30-60 individuals, where girls participation was always 60-70 %.

2013-14

Student/Team	Activity	Level	Winners
162 Students / 54 Teams	Treasure Trove	UG/ PG level	1 <sup>st</sup> - Shashwat, Tanvi, Ananya
150 Students/50 Teams	Acrostics	UG/ PG level	1 <sup>st</sup> - Shruti Thakur, Srishti Dangayach
114 Students/ 55 Teams	The 5 Ws	UG/ PG level	1 <sup>st</sup> - Meghna Srivastava, Prateek Gupta, Alok Dwivedi

### **5.3.3 Does the university conduct special drives / campaigns for students to promote heritage consciousness?**

Students are encouraged to visit national museum, national gallery of modern art, various monuments, etc. In 2012, more than 20 M. Tech. students did a group project on documentation of idioms and phrases, recipes, lesser known monuments, traditional handicrafts in their home district. JIIT also organizes classical and folk performances. Some B. Tech. and M. Tech. projects have also been carried out in the field of cultural informatics.

### **5.3.4 How does the university involve and encourage its students to publish materials like catalogues, wall magazines, college magazine, and other material? List the major publications/materials brought out by the students during the last four academic sessions.**

An e-publication “The Ribose Times” is published by RIBOSE- a technical hub.

### **5.3.5 Does the university have a Student Council or any other similar body? Give details on its constitution, activities and funding.**

Jaypee Youth Club (JYC), a students’ body, has been in existence since inception of the Institute. Its main role is to organize and execute various extra/co-curricular activities of the students.

A students Organizing Committee under a Faculty adviser, is responsible for the entire functioning of JYC including finance. Committee members are selected from the volunteer students of different seniority (upto 3<sup>rd</sup> year) and streams. Recommendations of outgoing committee members and academic performance of students are given due weightage for selection. Students below 6 CGPA are not allowed to be part of the Committee.

The main source of revenue of JYC is annual subscription by students. For specified activities sponsorships are also sought. All activities of students such as cultural/technical, annual fest are funded by JYC and coordinated by the students under the guidance of Faculty in charge.

### **5.3.6 Give details of various academic and administrative bodies that have student representatives on them. Also provide details of their activities.**

Students are encouraged to take responsibilities by being part of some the administrative bodies to promote camaraderie and leadership. Some of the activities are as follows:

- a. Around 25 students are selected as T&P coordinators every year. These students play a key role in smooth conduct of entire placement process in the Institute. They also get valuable exposure by interacting with corporate executives and helping them in coordination.
- b. Students play leading administrative role under the guidance of faculty to coordinate execution of Hub/ Fest activities. Students are involved in the entire event management including selection of items/theme, short listing of participants, Chief Guest, schedule, publicity, hospitality, security, etc.
- c. Students are chosen as Captains of their hostel floors to help Wardens in administration of hostel.
- d. Students are invariably assigned responsibility to coordinate administration whenever any Industry sponsored workshops/ seminars/ lectures are held in the University.

## ***CRITERION VI***

### **GOVERNANCE, LEADERSHIP AND MANAGEMENT**

#### **6.1 INSTITUTIONAL VISION AND LEADERSHIP**

**6.1.1** State the vision and the mission of the university.

##### **Vision**

To become a centre of excellence in the field of IT and related emerging areas of education, training and research comparable to the best in the world for producing professionals who shall be leaders in innovation, entrepreneurship, creativity and management.

##### **Mission**

- To develop as a benchmark university in emerging technologies
- To provide state-of-the-art teaching learning process and R&D environment
- To harness human capital for sustainable competitive edge and social relevance

In order to become a benchmark University as stated in the mission, JIIT provides all the resources and facilities to its students and faculty to achieve excellence in their desired field including research and innovation.

**6.1.2 Does the mission statement define the institutions' distinctive characteristics in terms of addressing the needs of the society, the students it seeks to serve, the institution's tradition and value orientations, its vision for the future, etc.?**

Mission of the Institute focuses on the systematic and structured grooming of students to become professionals who can serve the society. Students are encouraged to imbibe good value system and are sensitized to human needs for their smooth transition from the Institute to corporate and society at large.

JiIT was set up by Jaiprakash Seva Sansthan (JSS) a 'not for profit' trust. It believes that education is the cornerstone of economic development and it alone can assist India to become a developed nation.

### **6.1.3 How is the leadership involved**

- \* **in ensuring the organization's management system development, implementation and continuous improvement?**
- \* **in interacting with its stakeholders?**
- \* **in reinforcing a culture of excellence?**
- \* **in identifying organizational needs and striving to fulfill them?**

Details are clubbed with section 6.1.5.

### **6.1.4 Were any of the top leadership positions of the university vacant for more than a year? If so, state the reasons.**

Details are clubbed with section 6.1.5.

### **6.1.5 Does the university ensure that all positions in its various statutory bodies are filled and meetings conducted regularly?**

The Institute leadership has introduced a management structure to foster innovation and participatory development.

The Institutional leadership is provided by statutory bodies, and individual position holders. These are

1. Statutory Bodies
  - Board of Management (BOM)
  - Academic Council (AC)
  - Finance Committee (FC)
  - Planning and Monitoring Board (PMB)
  - Board of Studies (BOS)
2. Administrative/ Leadership Positions
  - Chancellor
  - Vice Chancellor
  - Director
  - Dean
  - Head of Department

**BOM** is the highest body of the Institute for all academic, administrative and financial matters.



It meets regularly to review the Institute progress in line with its vision and mission. It makes all policy decisions and gives directions for smooth functioning, development and continuous improvement. The recommendations of the Academic Council, Planning and Monitoring Board, and Finance Committee are considered by the Board of Management.

**Academic Council** is the highest academic body of the Institute empowered to make all academic matters including policy decisions. It also considers the recommendations of BOS regarding new programmes and for reorientation of existing programmes. Academic Council approves rules and structures for smooth conduct of academic process.

**Finance Committee** considers all financial matters, prepares budget, balance sheet and gets the accounts pre-audited and audited. Its recommendations are considered for approval by BOM.

**Planning and Monitoring Board** plans all infrastructural and academic requirements of the Institute for the systematic growth and development. Its recommendations are sent to all academic and administrative bodies.

**Board of Studies** initiates, reviews, plans all courses of programmes of respective academic departments. Its recommendations are put to Academic Council for its consideration and approval.

All above bodies have representation of stakeholders including faculty.

### **Chancellor**

Chancellor, an eminent educationist or a distinguished public figure, is the highest statutory position of the University providing total leadership. Chancellor nominates persons to authorities, to the extent necessary, nominates persons to represent the various interests for the furtherance of the objectives of the institution. Chancellor issues directions to various bodies and authorities of the Institute as deemed fit.

### **Vice Chancellor**

(i) The Vice Chancellor is the Principal Executive Officer of the institute and exercises general supervision and control over the affairs of the institute and is mainly responsible for implementation of the decisions of all the authorities of the institute, (ii) The Vice Chancellor is Ex-officio Chairman of the Board of Management, the Academic Council, the Finance Committee, the Planning and Monitoring Board and Selection Committee, (iii) The Vice Chancellor convenes or causes to be convened meetings of the various authorities of the institute, (iv) The Vice Chancellor may exercise any power conferred upon any authority of the institute under its Regulations and Rules in urgent matters

and report the action taken to the concerned authority, (v) Vice Chancellor ensures that the provisions of the Rules of the institute are duly observed and implemented, (vi) Vice Chancellor ensures proper maintenance and discipline of the institute, (vii) The Vice-Chancellor can re-delegate some of his powers and functions to any of his/her subordinate officers with concurrence of BOM. Regular review of the Institute plan for growth and accompanying infrastructural requirements are taken by Vice Chancellor.

### **Dean**

The Departments dealing with allied subjects could be grouped into faculties. Each faculty may be headed by a Dean.

### **Head of the Department**

Head of the Department is the leader of the Department coordinating all academic and administrative activities of the Department. He/She is chairman of the BOS.

#### **6.1.6 Does the university promote a culture of participative management? If yes, indicate the levels of participative management.**

Departmental meetings are regularly held for allocation of courses in the beginning of semester/trimester, to assess academic progress, resolve problems, discuss issues pertaining to elective courses, lab management and its development, etc. Additionally HODs interact with students and faculty informally. The issues arising thereof are also discussed in these meetings.

Regular HOD meetings with Deans, Directors and Vice Chancellor are organized to discuss the department and Institute level issues, planning of new programmes, results, attendance, extra and co-curricular activities, etc. The issues proposed to be taken to Academic Council are also deliberated.

In the overall structure, participatory decision making and accountability are emphasized. The Institute ensures timely filling of vacancies in statutory bodies and leaderships positions. It also ensures regular meetings of statutory bodies.

#### **6.1.7 Give details of the academic and administrative leadership provided by the university to its affiliated colleges and the support and encouragement given to them to become autonomous.**

Not Applicable

**6.1.8 Have any provisions been incorporated / introduced in the University Act and Statutes to provide for conferment of degrees by autonomous colleges?**

Not Applicable

**6.1.9 How does the university groom leadership at various levels? Give details.**

Discovering and inculcating the leadership qualities is vital for the inclusive growth of any institution. JIIT makes special efforts in this direction. Almost every faculty member is allocated responsibility of coordinating at least one activity at department and/or Institute level. Jaypee Youth Club (JYC) coordination, Training & Placement coordination, Hostel management, Proctorial Board, Course coordination, Laboratory coordination, Minor Project coordination, Major Project coordination, M. Tech. coordination, Time Table coordination are few examples.

These and other similar participations provide an ample opportunity and ensure systematic and sustained development of leadership and management skills by practice.

Institute has constituted Training and Placement Advisory Council with Dean (Student Welfare) as Chairman, and departmental representatives and student coordinators as members to plan and monitor placement and training related activities. Both faculty and students are assigned coordination responsibilities during placement events.

Similarly, all major activities/ events like conferences, workshops, fests, etc., have multiple faculty coordinators with active student participation. The initiatives, dynamism, overall performance, contributions to department and /or Institution are recognized and duly reflected in the annual appraisal of the faculty.

**6.1.10 Has the university evolved a knowledge management strategy? If yes, give details.**

Yes. Details are clubbed with section 6.1.11.

**6.1.11 How are the following values reflected in the functioning of the university?**

- \* **Contributing to national development**
- \* **Fostering global competencies among students**
- \* **Inculcating a sound value system among students**
- \* **Promoting use of technology**
- \* **Quest for excellence**

Knowledge creation, acquisition and dissemination are three arms of Knowledge Management. The Institute maintains all the academic rules, academic calendar, course details, faculty profile, student attendance, grades, etc. on its website, [www.jiit.ac.in](http://www.jiit.ac.in), which can be viewed by all.

The Study Material and Student Assignments for different subjects are made available to students online and students can view them from anywhere within the campus by logging to JIIT sever. The institute adapted ERP system to manage all important academic, administrative, financial activities and information.

Subject wise technical knowledge is realm of Learning Resource Centre (LRC) i.e. Library. Details of LRC facilities are available under section 4.2.

All faculty and staff are provided official email id through which they can interact. They are also provided with login id for internet which enables them to access knowledge globally.

### **Quest for Excellence**

The Institute management is fully involved in building the culture of overall excellence in every field viz. teaching, learning, and research with focus on technology as well as social issues. The efforts highlighted earlier clearly emphasize this aspect.

‘Excellence’ culture building in faculty is supported through yearly assessment of their performance. The Institute provides funding for organizing and attending conferences, seminars, workshops to individual faculty, LRC staff and departments. To remain abreast with new developments in technology, Institute regularly invites experts from academia and industry for lectures, workshops, conferences, etc. (Details in section 2.3)

The Institute leadership through its efforts has been successful in creating atmosphere where excellence in all fields is recognized and encouraged.

- Institute follows the credit based evaluation system with continuous assessment.
- The attendance of students is regularly monitored and feedback for short attendance is conveyed to students and their parents.
- The nature of examination questions emphasizes understanding of concepts and ability to apply them rather than memorize the same.
- Highest CGPA holder among all B. Tech. students is awarded Chancellor’s Gold Medal every year.

- Vice Chancellor's Gold Medal is awarded every year to students with highest CGPA in each Under Graduate, Post Graduate and MBA programmes.
- Merit certification for Projects/Dissertations/Thesis has been instituted.

For extracurricular activities, a number of cultural/technical hubs provide platform for students' active participation, expression and honing of their talent. A number of events are organized every year by these hubs.

Details of hubs and their activities are given in section 5.3. Various awards and competitive activities create a quest for excellence in JIIT.

### **Interaction with Stakeholder**

Institute regularly interacts and collects feedback from students, alumni, faculty members and industry on their experience in learning – teaching facilities, resources, etc. Parents of the students are encouraged to visit Institute and interact on the progress of their wards. Vice Chancellor, Directors, Deans and HODs also interact with different student groups to take their viewpoint.

Institute Quality Assurance Cell (IQAC) has been instituted to oversee the academic and administrative processes. Based on feedback and suggestions from all stakeholders it makes suggestions to improve the quality and growth of the Institute.

All courses and programmes are benchmarked with the leading universities and there is continuous effort to update them. This ensures that the students are exposed to latest developments in technology and engineering thereby enabling them to become globally competent. Students are also provided opportunity to go abroad in the leading institutions (with which JIIT has MOU) for full semester to study under credit transfer scheme.

Growth with Human Face has been the motto of JSS and is followed by JIIT. Sound value system which believes in inclusive development is promoted as concept as well as practice.

All these efforts lead to creation of technical manpower which is up to date in knowledge, socially conscious and believes in excellence as objective of life.

## **6.2 STRATEGY DEVELOPMENT AND DEPLOYMENT**

**6.2.1 Does the university have a perspective plan for development? If yes, what aspects are considered in the development of policies and strategies?**

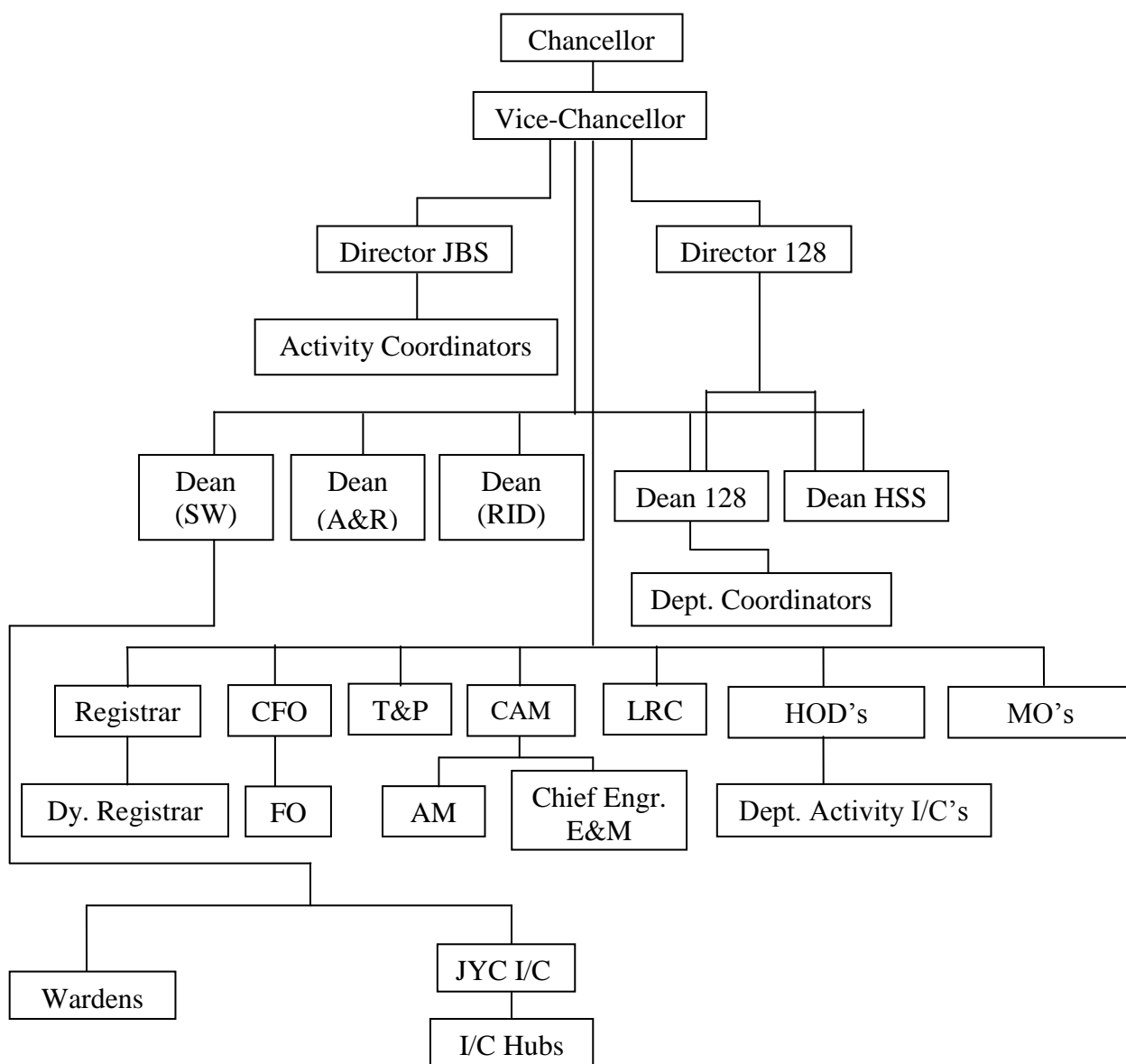
- \* **Vision and mission**
- \* **Teaching and learning**
- \* **Research and development**
- \* **Community engagement**
- \* **Human resource planning and development**
- \* **Industry interaction**
- \* **Internationalisation**

Yes. The Institute has started the practice of framing five year perspective plan and implementation of the same. The first formal perspective plan was framed in 2013 for the period 2013-18. This plan was framed keeping in view the vision and mission of the Institute and the following aspects were considered:

- Strengthening and modernization of existing courses and introduction of new PG programs
- Strengthening research through increase in strength of research scholars, identification and strengthening of research centers, enhancement of research facilities, and facilitation of research through collaborations and funded research and development projects.
- Growth of human resources in accordance with above and development of existing human resources through conferences, workshops, faculty development programs, both in-house as well as of other institutions, and interaction with outside experts.
- Concerted efforts for recruitment of quality faculty and to review standards for recruitment.
- Develop and improve physical infrastructure commensurate with growth plans.
- Improve interaction with industry, community and other stakeholders.
- Enhance international interaction.

**6.2.2 Describe the university's internal organizational structure and decision making processes and their effectiveness.**

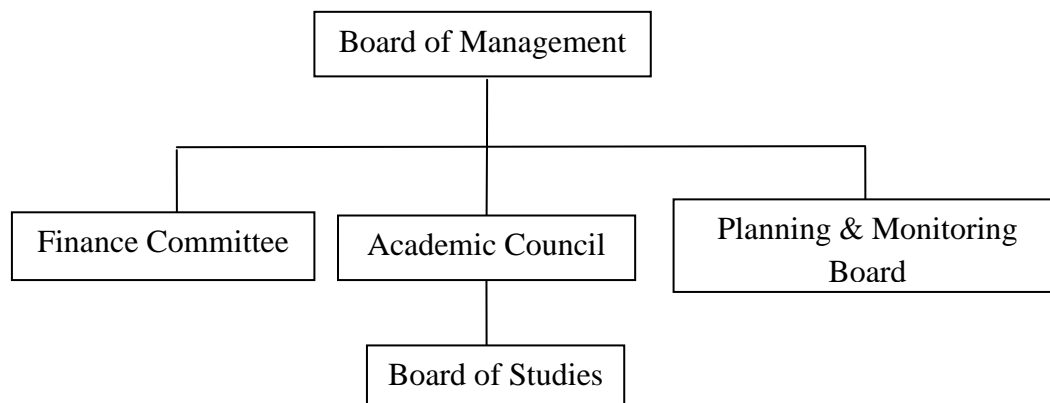
## ORGANIZATIONAL STRUCTURE



HOD's: Biotechnology , Computer Science Engineering & Information Technology (CSE&IT), Electronics & Communication Engineering (ECE), Mathematics, Physics and Material Science and Engineering, Humanities and Social Sciences

- CFO/FO** : Chief Finance Officer/ Finance Officer  
**CAM/AM** : Chief Administrative Manager/ Administrative Manager  
**LRC** : Learning Resource Centre  
**MO's** : Medical Officers  
**JYC I/C** : Jaypee Youth Club In-charge

## MANAGEMENT STRUCTURE



The decision making processes and their effectiveness are detailed in section 6.1 above.

### **6.2.3 Does the university have a formal policy to ensure quality? How is it designed, driven, deployed and reviewed?**

The Institute has a formal policy to ensure quality of academic and administrative processes through the Institute Quality Assurance Cell established in 2014. The system was designed based on the past experience and feedback (formal / informal) from various stakeholders with participation of a sizeable section of faculty and staff. The system has been deployed w.e.f. academic session 2014-15.

### **6.2.4 Does the university encourage its academic departments to function independently and autonomously and how does it ensure accountability?**

Each department and the Business School have departmental coordinators for various academic activities and its administration. Most decisions regarding these activities are taken by HoDs based on the inputs provided by coordinators, faculty and students. Major suggestions emanating from these interactions are considered by the Institute Administrative Committee and Board of Studies. Accountability of academic processes and department's performance is exercised by IQAC and Academic Council.

### **6.2.5 During the last four years, have there been any instances of court cases filed by and against the institute? What were the critical issues and verdicts of the courts on these issues?**

A student approached Hon'ble G B Nagar court against the Institute



decision to debar him from appearing in T3 examination of even semester 2012 because of short attendance. The Hon'ble court granted him relief through ad-interim injunction. The case was later withdrawn by the student.

**6.2.6 How does the university ensure that grievances/ complaints are promptly attended to and resolved effectively? Is there a mechanism to analyse the nature of grievances for promoting better stakeholder-relationship?**

Yes. The Institute has an open door policy wherein any student can walk into any office to seek remedy to his problem. There is also a grievance cell headed by a Professor. The committee comprises:

- |    |                        |          |
|----|------------------------|----------|
| 1. | Prof. G. S. Srivastava | Chairman |
| 2. | Prof. Samir Dev Gupta  | Member   |
| 3. | Prof. Naseem Abidi     | Member   |
| 4. | Dr. Shweta Srivastava  | Member   |
| 5. | Dr. Neeraj Wadhwa      | Member   |
| 6. | Mr. Prakash Kumar      | Member   |

Faculty and staff with any grievance may represent to Vice-Chancellor, who may constitute a committee depending upon the nature and gravity of the grievance and take appropriate measures based on the recommendations of the committee.

The grievances related to sexual harassment at work place is looked after by a duly constituted committee as per Vishakha guidelines. Details are given in section 5.1.

**6.2.7 Does the university have a mechanism for analyzing student feedback on institutional performance? If yes, what was the institutional response?**

Yes. The Institute has a formal mechanism for taking feedback from students regarding the course work, LRC, administration, and facilities. The student feedback is regularly analyzed and necessary measures are taken. Some of the responses of the Institute based on student feedback are:

- Hostel capacity more than doubled
- Hostel created at sector-128
- Introduction of new elective courses, revision of syllabi on regular basis and periodic review, up-gradation and introduction of new courses

**6.2.8 Does the university conduct performance audit of the various departments?**

Performance of the departments is regularly reviewed by Institute Academic Management Committee and Academic Council. In 2014, Institute has established IQAC which will audit the departmental performance and its recommendations will be reported to Academic Council.

**6.2.9 What mechanisms have been evolved by the university to identify the developmental needs of its affiliated institutions?**

Not Applicable

**6.2.10 Does the university have a vibrant College Development Council (CDC) / Board of College and University Development (BCUD)? If yes, detail its structure, functions and achievements.**

Not Applicable

**6.3 FACULTY EMPOWERMENT STRATEGIES**

**6.3.1 What efforts have been made to enhance the professional development of teaching and non-teaching staff?**

For sustained growth of an institution, continuous enhancement in professional abilities of its human resources is an essential requirement. JIIT is conscious of its responsibility on this aspect. The following steps have been taken in this direction for professional development of teaching and non-teaching staff of JIIT:

- (i) JIIT provides an environment and encouragement to its faculty to conduct research leading to Ph.D. both from JIIT and other Institutions. 28 faculty members have already completed and another 63 are pursuing their Ph.D.
- (ii) JIIT is a member of IUCEE (Indo-US Collaboration for Engineering Education). This collaboration provides for most up-to-date trends in Engineering Education, Faculty Development Programme (FDP), discussions and online webinars for over all professional growth. The following workshops have been arranged.

S. No.	Date	Title	Faculty
1.	28.06.10 to 02.07.10	Distributed Operating Systems	<b>Prof. Prashant Shenoy</b> , Univ. of Massachusetts, USA
2.	01.07.13 to 05.07.13	Embedded System	<b>Prof. V. Narayanan</b> Penn State University, USA
3.	23.07.13 to 27.07.13	Design for Testability	<b>Prof. K. Chakrabarty</b> Duke Univ, USA

- (iii) JIIT is a remote centre of IIT Bombay initiative, under National Mission on Education through Information & Communication Technology (NMEICT) project of MHRD, GOI. Under this project, it conducts FDPs for professional development of faculty and non teaching staff. The following FDP have been arranged under this programme:

S. No.	Name	Duration	Participants from	
			JIIT	Outside
1	ISTE Workshop on Aakash for Education	10-11 Nov., 2012	30	Nil
2	ISTE Workshop on Research Methods in Educational Technology	2, 9 February, 2013	27	9
3	ISTE Main Workshop on Signals and Systems	2-12 January, 2014	24	12
4	Online ISTE Workshop On Computer Programming	11 May – 15 June, 2014	11	07
5	ISTE Workshop On Computer Programming	16 – 21 June, 2014	11	07
6	Online ISTE Workshop on Computer Networking	22 May – 29 June, 2014	12	06
7	ISTE Workshop on Computer Networking	30 June – 5 July, 2014	12	06
8	ISTE Main Workshop on Control Systems	2-12 Dec, 2014	21	4
9	ISTE Short Term Training Programme on Pedagogy for effective use of ICT in Engineering Education	05-21 January, 2015	07	Nil

- (iv) JIIT conducts in-house FDPs on its own also. The following FDP have been arranged in addition to those given under item (ii) above:

S. No.	Department	Name of FDP	Period	Participants from	
				JIIT	Outside
1	Biotechnology	Applications of Bioinformatics in Disease and Drug discovery	28 July to 02 Aug. 2014	24	0
2	CSE	Embedded Systems	28 July to 02 Aug. 2014	35	01

3	CSE	Wireless Sensor Networks	21 July to 26 July 2014	43	08
4	Mathematics	Advanced Computing Methods	21 July to 26 July 2014	47	08
5	ECE	Communications and Signal Processing	21 July to 26 July 2014	23	0
6	HSS	Effective Teaching	28 July to 02 Aug. 2014	36	03
7	HSS	Computational Linguistics	14 Nov to 15 Nov 2014	30	2
8	PMSE	Recent Trends in Physics and Material Sciences	21 July to 26 July 2014	23	0

- (v) IIIT sponsors teaching and non-teaching staff to training programme and workshops.
- (vi) It conducts Workshops / Seminars and Conferences. Details of those arranged are given in Section 3.1.
- (vii) Faculty is supported partially in its research activities both in terms of facilities and finances.
- (viii) IIIT allows paid study leave and sabbatical leave.
- (ix) Experts are invited to IIIT on regular basis for interaction and delivery of lectures on current topics of interest.
- (x) It encourages and financially supports its faculty and students to attend Conferences / Seminars / Workshops in India and abroad.

### **6.3.2 What is the outcome of the review of various appraisal methods used by the university? List the important decisions.**

Two different appraisal methods are used viz

- (i) Yearly self-appraisals in case of faculty and yearly appraisals by controlling officer in case of non-teaching staff.
- (ii) Semester and subject wise students' feedback.

The results of the review of these appraisals are informed to concerned individuals, and wherever necessary, the concerned individual is advised for suitable corrective action. Based on student feedback, required corrective action at Institute level, in terms of enhancement of LRC resources, introduction of new electives, syllabi modifications have been taken in the past.

**6.3.3 What are the welfare schemes available for teaching and non-teaching staff? What percentage of staff have benefitted from these schemes in the last four years? Give details.**

Several welfare schemes for teaching and non-teaching staff are in place. Some of these are:

- Study leave (a) with full pay (b) with reduced pay and (c) without pay.
- Sabbatical leave
- 90 days paid Maternity leave.
- Registration charges in full and 50% TA/DA for attending Conferences / Seminars / Workshops / Training Programme along with paid leave in India and abroad.
- Paid leave for visits in connection with research work.
- Paid leave for meetings of statutory bodies/government agencies/regulatory bodies, etc.
- Partial financial support for research.
- Medical facilities
- Medical insurance
- EPF and gratuity
- Advance increments for exemplary work
- Leave Travel Allowance
- Conveyance Allowance
- Furnishing Allowance
- Book Allowance
- Medical Allowance
- Leave Encashment
- Loan for medical emergency

**6.3.4 What are the measures taken by the University for attracting and retaining eminent faculty?**

Following are the measures taken by the Institute to retain faculty:

- Highly conducive academic and research environment
- Freedom to pursue Academic and Research interest of one's choice area
- Significant emphasis on research orientation and the facilities for the same

- Freedom to organize workshops/ conferences with logistic, administrative and financial support
- Freedom to organize and participate in FDP
- Sponsorship to workshops/ conferences
- Opportunity to revise course content and introduce new electives
- Augmenting funds of sponsored research projects
- Facilitating and encouraging in securing sponsored research projects
- Timely promotions under fully transparent policy
- Higher compensation package along with facilities

**6.3.5 Has the university conducted a gender audit during the last four years? If yes, mention a few salient findings.**

No. However the Institute has gender based student and faculty data. There is a healthy gender ratio in the Institute. The Female/ Male ratio among students is 33:67 and 46:54 among faculty.

**6.3.6 Does the university conduct any gender sensitization programmes for its faculty?**

Recently a programme to sensitize faculty towards gender sensibilities was held. A similar programme for students and support staff is planned in near future. The Institute has a committee to look after any reported cases of intemperate gender sensitive behavior.

**6.3.7 What is the impact of the University's Academic Staff College Programmes in enhancing the competencies of the university faculty?**

Not Applicable

## **6.4 FINANCIAL MANAGEMENT AND RESOURCE MOBILIZATION**

**6.4.1 What is the institutional mechanism available to monitor the effective and efficient use of financial resources?**

The Institute has an effective in-built institutional mechanism to monitor the effective and efficient use of financial resources. The Processes of the institutional mechanism are as follows:

1. **Annual Budget** –The Annual Budget / Financial estimates are prepared based on the prioritized need assessment considering projected Income and

resources of the Institute.

2. **Finance Committee Meetings (FCM)** - Budget proposals, fixing limits of total annual recurring & non-recurring expenditure and recommendation of the Institute are considered by FC.

3. **Board of Management Meetings (BOM)** – The recommendations of the FC are received by the BOM for considerations and approval.

4. **Review of the Budgets versus Actual** - A review of the Actual versus Budget are made periodically in order to have a better internal control. Actual expenditure incurred is compared with budgeted expenditure and the variances are worked out and examined/reviewed against the fund availability. Based upon the budget review, payment plans are revised to meet all expenditure on priority basis for the remaining Budget period.

5. **Investment of surplus Funds** - Other than the immediate requirements, surplus funds are continued to remain invested in Fixed Deposit (both Linked as well as unlinked FDs) with the Institute's Bankers to earn interest on the idle funds. Due to the better fund management, the Institute was able to earn an interest income of more than Rs 3 Crore during the FY 2013-14. The Corpus Fixed Deposit of Rs 5 Crore has been invested in long term Fixed Deposit (10 Years) with cumulative interest option (interest earned Qtly being reinvested). The maturity value of the corpus FD of Rs 5 Crore will be about Rs. 12.20 Crore (maturity -2017).

**6.4.2 Does the university have a mechanism for internal and external audit? Give details.**

Yes. The details are clubbed with section 6.4.3.

**6.4.3 Are the institution's accounts audited regularly? Have there been any major audit objections, if so, how were they addressed?**

The Institute accounts are subjected to annual statutory audit. The statutory audits of the Institute are conducted annually by external auditors M/S Dass Gupta Associates, New Delhi - a firm of Chartered Accountants of repute. The auditors conduct annual audits of the Institute accounts under the income Tax Act, also. There have been no major audit objections.

Although, there is no separate internal Audit Department, the day to day accounts of the Institute are under concurrent audit by the Finance officer/CFO. Besides this, before making any payments, the accounts are thoroughly scanned/ audited. No expenditure is booked/ passed for payment without the Vice Chancellor's sanction / approval.

**6.4.4 Provide the audited income and expenditure statement of**

academic and administrative activities of the last four years.

Audited income and expenditure statement of the last four years:

<b>Summary of Income &amp; Expenditure Account for last four years (Rs in lac)</b>				
<b>Particulars</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>
Collection from Students	4338	5240	5787	6827
Interest & Misc. Income	198	239	352	437
<b>Total Income</b>	<b>4536</b>	<b>5479</b>	<b>6139</b>	<b>7264</b>
Expenditure :-				
Institute Expenses	1469	1164	1336	1521
Salary & Allowances	2990	3250	3622	3957
Students & Hostel expenses	504	615	717	887
Interest & Financial charges	786	885	882	962
Depreciation	463	429	369	310
<b>Total Expenditure</b>	<b>6212</b>	<b>6344</b>	<b>6926</b>	<b>7637</b>
Surplus/ (Deficit)	(1,676)	(865)	(787)	(373)

<b>Summary of Balance Sheet for last four years</b>				
<b>Particulars</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>
<b>Assets:</b>				
Fixed Assets (Incl. CWIP)	5905	7575	10403	13435
Current Assets	1472	2638	3680	4386
<b>Total Assets</b>	<b>7377</b>	<b>10213</b>	<b>14083</b>	<b>17821</b>
<b>Liabilities:</b>				
Corpus Fund	500	500	500	500
General Fund & Reserves (Incl. Development Fee)	2185	3627	5314	7515
Research Project Grants	32	37	76	43
Secured Loans	2121	2331	3970	3892
Current Liabilities	2539	3718	4223	5871
<b>Total Liabilities</b>	<b>7377</b>	<b>10213</b>	<b>14083</b>	<b>17821</b>



Audited Balance Sheet and Income & Expenditure Statement of the last four years along with the Annual Report of the Institute are enclosed as **Annexure-6.4.**

**6.4.5 Narrate the efforts taken by the University for Resource Mobilization.**

To augment the Institute's Resources for meeting the infrastructure developmental activities, term loans have been taken from the banks and financial Institutions. Details of the bank loans taken and their current status are given below:

<b>Bank's Name</b>	<b>Loan Amount (Rs in Lac)</b>	<b>Balance outstanding as on 31/03/2015</b>
Punjab National Bank	492	NIL (Since paid)
Axis Bank Loan-I	2300	1025
Axis Bank Loan-II	3400	2867

As regards semester fee mobilization from the existing students, JIIT has offered various facilities/options to students/ parents for fee depositions - online payment gateway, net banking and direct deposit of fee at Axis banks branches through its pan India network and payments at the Institute fee counters on the registration dates.

**6.4.6 Is there any provision for the university to create a corpus fund? If yes, give details.**

Yes. The Institute has created a corpus fund of Rs. 5 Crore in the form of a long term fixed deposit (10 Years maturity) with a scheduled bank (ICICI Bank) with cumulative interest option (interest earned Qtly being reinvested). The maturity value of the corpus FD of Rs 5 Crore will be about Rs. 12.20 Crore (maturity - 2017).

**Research Grants**

The Institute has received research grants to the tune of Rs. 781 Lac in the last 4 years from various sponsoring agencies like DST, DBT etc.

**Support from sponsoring Trust**

The Institute receives financial support from sponsoring Trust, Jaypee Sewa Sansthan, from time to time. The refundable financial support received from the Trust is as below:

Year	2011-12	2012-13	2013-14	2014-15	Total
Support (Rs. in Lac)	435.77	0.00	906.83	591.22	1933.82

## **6.5 INTERNAL QUALITY ASSURANCE SYSTEM**

### **6.5.1 Does the university conduct an academic audit of its departments? If yes, give details.**

Yes. IQAC has been established in July 2014 to perform the audit. Details are given in section 6.5.8.

### **6.5.2 Based on the recommendations of the academic audit, what specific measures have been taken by the university to improve teaching, learning and evaluation?**

First annual report is expected shortly.

### **6.5.3 Is there a central body within the university to continuously review the teaching learning process? Give details of its structure, methodologies of operations and outcome?**

Yes. Academic Council and Institute Academic Management Committee are the bodies to review the teaching-learning process.

#### **Structure of Academic Council:**

**Chair person:** Vice Chancellor

**Members:** PVC, All Directors, All Deans, All HODs, Ten Professors other than HODs, Three Associate Professors, Three Assistant Professors, Three educationists of repute or persons from other fields related to activities of the Institute, Three co-opted members having specialized knowledge other than from teaching faculty.

**Member Secretary:** Registrar

#### **Structure of Institute Academic Management Committee:**

**Chair person:** Vice-Chancellor

**Members:** All Directors, All Deans, All HODs

**Secretary:** Registrar

### **6.5.4 How has IQAC contributed to institutionalizing quality assurance strategies and processes?**

IQAC has formalised quality assurance policies and processes which

are detailed in section 6.5.8.

**6.5.5 How many decisions of the IQAC have been placed before the statutory authorities of the University for Implementation?**

First annual report is awaited.

**6.5.6 Does the IQAC have external members on its committees? If so, mention any significant contribution made by such members.**

No

**6.5.7 Has the IQAC conducted any study on the incremental academic growth of students from disadvantaged sections of society?**

First annual report is awaited.

**6.5.8 What policies are in place for the periodic review of administrative and academic departments, subject areas, research centres, etc.?**

The Institute conducts regular academic review of the departments and units. For this purpose it draws inputs from feedback by students, faculty, alumni and employers. The regular interaction of students with faculty, HODs, Deans, Directors as well as Vice Chancellor also provide input for these review processes.

Considering the need for institutionalizing the audit process, JIIT has established the Institute Quality Assurance Cell in 2014 to take feedback from all stake holders and audit the performance of programmes, departments, centers and administration.

Institute Quality Assurance Cell (IQAC) is responsible for the day to day administration of quality assurance at JIIT through the Institute Quality Assurance Process (IQAP).

IQAC interacts and works with Deans, academic units (departments/ centers/ research groups) for new programmes approval and cyclic programmes/ courses reviews and also to support the implementation of review outcomes. IQAC is also responsible for auditing academic and administrative activities and utilization of the Institute resources. The cell works both collaboratively and transparently and provides guidelines for reports and outcomes.

### **Management**

The Institute Academic Management Committee (IAMC) is responsible for Quality Assurance, its implementation and administration. It considers the report of the Committee for the Institute Quality Assurance Cell (CIQAC).

IAMC has Vice Chancellor as chairman and Directors, Deans and HODs as members. Vice Chancellor monitors the progress of the implementation of recommendations agreed to in the action plan.

CIQAC is responsible for overseeing the implementation of the Institute Quality Assurance Process (IQAP) for academic and administrative activities. The committee through its Convener reports regularly to the Vice Chancellor. The CIQAC has 15 members and consists of Directors, Deans, Registrar and faculty members at various levels drawn from different departments.

There is provision for an external member in IQAC, preferably drawn from leading institutions.

### **Methodology of Operation**

The academic processes of the Institute have been categorized as –

- Academic (Teaching and Learning)
- Academic (Research)
- Stakeholder Relationship
- Professional and Social Activities

The activities to be monitored and feedback analysis under each category have been defined with frequency of monitoring.

#### **Academic (Teaching and Learning)**

- Student feedback analysis of theory and laboratory courses [Semester wise]
- Faculty feedback [Semester wise]
- Department feedback on use of equipment [Semester wise]
- Department feedback on learning resources [Year wise]

#### **Academic (Research)**

- Publications [Year wise]
- Sponsored R&D projects [Year wise]
- Master and Ph.D. projects/ dissertations [Semester wise]
- Patents [Year wise]
- Individual achievements/awards [Year wise]
- B. Tech. Major projects [Year wise]

- Review articles and books [Year wise]
- Interdisciplinary Research [Year wise]

### **Stakeholder Relationship**

- Faculty feedback [Year wise]
- Trustee feedback [Year wise]
- Non teaching staff feedback [Year wise]
- Student feedback on complete experience in Institute [Year wise for passing out students]
- Corporate (Industry) feedback [Year wise at the time of placement]
- Parent feedback [Year wise]
- Alumni feedback [Any time 2 years after passing out]

### **Professional and Social Activities**

- Professional consultancy [Year wise]
- Professional and special courses/workshops [Semester wise]
- Conferences [Year wise]
- Industrial Interactions [Semester wise]
- Social Activities [Year wise]

The feedback proforma for all the above activities have been developed and computerized to facilitate on line feedback collection and analysis. These activities will be further strengthened by benchmarking academic practices with the leading departments of other reputed institutes/universities.

IQAC focuses on academic processes and is aimed at improving the systems of the Institute. Various measures have been taken to oversee academic and administrative practices and processes for quality assurance. These include participatory ways of approval of rules, regulations, guidelines, courses, course appraisal through student feedback, regular department level meetings, BOS, Academic Council and BOM meetings. Regular meeting of the Institute Administrative Committee is also held to discuss various administrative and academic issues. Thus the Institute has standard and transparent operating procedures for most of its administrative and academic processes.

IQAC is also taking steps to conduct a study on growth of students from disadvantaged section of society.

Even though IQAC has started working in 2014, JIIT had been collecting and analyzing feedback and performing academic and administrative audit and continuously involved in monitoring and improving the quality of its processes.

Based on academic review through feedback at different levels adequate measures have been taken in the past for continuous improvement in the quality of teaching, learning and evaluation process. The measures have been approved by statutory bodies like Board of Studies (BOS), Academic Council and Board of Management (BOM). Some of the prominent measures taken in last 2 years are:

- Basket system consisting of four baskets of elective courses for B. Tech 4<sup>th</sup> year. Each student has to choose one subject from each basket. This enables students to opt for subject of their choice in a systematic manner.
- A number of new subjects have been introduced as elective courses. This is based on interactions amongst HODs, Faculty, Students, other academic institutes and industry.
- The maximum marks for T1, T2 and End Semester examinations have been revised to 20, 20 and 35 (earlier 15, 25 and 35) with examination duration as 1 hr, 1 hr and 2 hr (earlier 1 hr, 1.5 hr and 2 hr), respectively.
- The curriculum structure of M. Tech. and MBA programmes of the Institute have been revised with the approval of Academic Council in 2013 and 2014, respectively. New structure provides more options to students in the form of elective subjects in the light of current trends.
- The grade improvement facility has been provided to students (with CGPA less than 6.0).
- Summer term classes and evaluation has been introduced for the benefit of weak students.
- The doctoral programme regulations have been revised to bring stringent measures for publications and plagiarism.
- The curriculum structure of B. Tech. programme is being reviewed and modifications are being worked out keeping in line with current trends in academics. The modified structure will be put up for consideration of Academic Council and Board of Management.

The above measures are just a few examples to illustrate that academic thinking in JIIT is dynamic and is continuously evolving. The Institute Quality Assurance Cell will be involved in taking feedback from all stakeholders. The feedback will be analyzed and decisions on improvement will be taken.

## ***CRITERION VII***

### **INNOVATIONS AND BEST PRACTICES**

#### **7.1 ENVIRONMENT CONSCIOUSNESS**

##### **7.1.1 Does the university conduct a Green Audit of its campus?**

No

##### **7.1.2 What are the initiatives taken by the university to make the campus eco-friendly?**

- \* **Energy conservation**
- \* **Use of renewable energy**
- \* **Water harvesting**
- \* **Check dam construction**
- \* **Efforts for Carbon neutrality**
- \* **Plantation**
- \* **Hazardous waste management**
- \* **e-waste management**
- \* **any other (please specify)**

The Institute has a green audit committee and well defined norm for green audit. JIIT campus displays an environmental friendly design and architecture. The Institute has incorporated several green principles and has won the prestigious Governor General's Medal - 2008, the highest Architectural award instituted in Canada for incorporating sustainable and environmentally friendly architectural design. Some green architecture practices incorporated include:

- Employing porous terracotta brick as external surface of the entire building, a sustainable indigenous option that permits free air exchange and works on principle of internal thermal insulation.
- The external structures are completely devoid of any synthetic paint or heat reflecting glass that hugely contributes to heat island effect.
- Roof top insulation was provided to limit energy losses.
- The central atrium of the campus functions with zero electricity. The upper half of the atrium is covered with partially tilted panels as roofing which allows ample amount of day light and cool air contributing to day light saving.

- The orientation of the panels is such that the rain water is diverted to collecting channels and does not drip in atrium keeping it dry even in rainy season.
- Every segment of the building has double screened terracotta & brick walls facing to the exterior incorporating effective energy utilization principles.

The campus respects power conservation and has implemented certain measures to ensure power saving like: use of CFL lamps instead of GLS lamps in residential flats, use of solar backed LED landscape lights instead of par lamps, operating all the 1637 computers on campus on a 5 minute auto power save mode (when left inactive), use of day light harvesting and electronic ballast in institutional, health, recreational and other buildings.

The campus believes in use of renewable energy and recycling resources. The New Hostel Block of JIIT has 2500 LPD ETC based solar water heating system. The campus has 6 water recharging pits constructed on the campus for rain water harvesting. Watering of the entire green area of the campus is done by recycled water. JIIT campus has ample greenery and is the proud recipient of 'Best Gardens' award from Horticulture Society for Noida and Greater Noida for the last eight consecutive years in the category of colleges and universities.

The campus maintains a clean and effective waste management strategy. The Institute has an annual waste management contract with M/S Synergy Waste Management (P) Ltd. for Bio-medical waste management. The e-waste generated from the campus is very limited and is handed over to authorized e-waste management dealer. All the biodegradable waste generated from the campus is collected on a daily basis by a local pig-farming unit.

The Institute offers an environmental studies course across all streams for creating environmental awareness and sensitivity among students.

## **7.2 INNOVATIONS**

### **7.2.1 Give details of innovations introduced during the last four years which have created a positive impact on the functioning of the university.**

JIIT recognizes that constant innovation is required for continuous evolution of an organization and its processes. It is even more important for an institution that is primarily focused on rapidly evolving field of information technology. Since beginning, JIIT has been introducing several innovative approaches in its education and functioning. Some of these were dropped



while some of these have gradually evolved and continued in our system. Few of these are as follows:

- 1. Large number of elective choices:** Students are offered several choices for each elective slot. For example, department of CSE and IT has taught nearly 100 different B. Tech. and M. Tech. core and elective theory courses in the last few years.
- 2. Emphasis on student projects:** Our curriculum emphasizes project work. Students have to work on two minor and one year long major projects. In addition, in many courses, there is a great emphasis on active learning and students are required to complete a mini project as part of the course assignment. As a result, the students get experience of working on several projects and self learning aspects even before their final year.
- 3. Infusion of contemporary issues:** Web, mobile technology, information security, multimedia, etc., in most CSE and IT courses.
- 4. Algorithmic puzzle solving:** It has been introduced in the first course on computer programming.
- 5. Cross-level peer mentoring:** For the last several years, many final year students in CSE and IT and ECE departments act as cross-level peer mentor for guiding their juniors.

Following invited chapters have been published on this innovative model:

- Goel Sanjay (2013), Peer Mentoring in a Technical Institution: Undergraduate Mentoring in Software Engineering, in Smith, T. (Ed.), Undergraduate Curricular Peer Mentoring Programmes: Perspectives on Innovation by Faculty, Staff, and Students. Lanham, MD: Lexington Books, UK, pp 107-120.
  - Goel Sanjay (2011), Cross level Peer Mentoring, in Kirpal, V. (Ed.) Engineering Education: Challenges, Changes, Champion Teachers, WIPRO.
- 6. Allowing one M. Tech. course to be taken by B. Tech. students** as an elective in 7<sup>th</sup> and 8<sup>th</sup> semester each.

In addition, few other innovations introduced in the last four years are as follows:

- 1. Launch of several new M. Tech. programmes** including two programmes of interdisciplinary nature. M. Tech. (IT and Entrepreneurship) and M. Tech. (Data Analytics), started in 2014 and

2015 respectively, are probably among the first of their type in the entire country.

2. **Restructuring of M. Tech. and integrated dual degree B. Tech.-M. Tech. curricula** to include the option of semester long industrial project.
3. **Restructuring of B. Tech. curricula to offer much higher academic flexibility** as well as enhanced curriculum integration to support student centric as well as deep learning.

**The academic flexibility** is increased by offering much higher number of electives and also an option for an additional minor specialization.

**Curriculum integration** level is enhanced through composite courses as well as open ended projects and term papers. Further, being an IT centric Institute, several of non-computer science courses offered by departments of Mathematics, ECE, PMSE, Biotechnology, and HSS after second semester try to leverage students' exposure to IT by giving IT linked assignments in their courses.

4. Establishment of Jaypee Centre for Entrepreneurship Development to motivate and facilitate JIIT students to incubate their start-up ventures. Students are encouraged to work on their minor/major projects with an aim to create their own start-up.
5. Establishment of inter-departmental faculty discussion groups for the following purposes:
  - a. Discuss possibilities for interdisciplinary work both in terms of research and education
  - b. Share the teaching approaches to help each other for improvement in teaching

## **6. Emphasis on Research**

### **a. Sensitization towards IPR**

IPR and Patenting Activities Committee at JIIT, puts in a conscious effort to sensitize faculty and students on significance of innovation through research, protecting their intellectual potential, and strive to build a competitive and rewarding research environment in the Institute. It organizes IPR awareness workshops periodically, motivating students as well as faculty members to inculcate innovation culture in research and technology development. An IPR policy document of the Institute is developed defining guidelines for filing of patents and copyrights.

## **b. Institutional Research Fellowships and Conferences**

In order to enhance research activities in the Institute, a policy to institute research fellowships was made. Under this policy, full time research fellows and eligible M. Tech. students are provided a monthly fellowships of Rs. 18000/- and Rs. 8000/- respectively from the Institute funds. As a result of this policy, the Institute has been able to attract good number of full time research fellows, increase in quality publications and number of Ph.D. awarded, and steady flow of M. Tech. students.

Further, the Institute encourages all its departments to organize quality conferences periodically with funding from the Institute. A few examples are International Conference on Contemporary Computing (IC3), International Conference on Signal Processing and Communications (ICSC), and Emerging Trends and Technologies in Libraries and Information Services (ETTLIS). All these conferences are attended by internationally renowned experts and are technically sponsored by internationally reputed societies like IEEE. Details of the conferences are available in section 3.1.11.

The Institute has a well defined and transparent promotion policy which emphasizes good quality research and teaching. This has impacted positively on research output, academic environment and faculty profile. Faculty pursuing Ph.D. is provided facilities for the same. On completion of Ph.D., faculty is considered for promotion.

## **7.3 BEST PRACTICES**

### **7.3.1 Give details of any two best practices which have contributed to better academic and administrative functioning of the university.**

#### **BEST PRACTICE-I**

##### **Title: Research as Integral Part of Learning**

##### **1. Objective:** To provide early research involvement for

- a. Enhancing technical competencies and
- b. Nurturing and accentuating creativity and innovation.

##### **2. The Context:**

Research, development and innovation are inherent in the context of engineering which has to deliver new tools and systems, procedures, applications and respective mechanisms and theories. Individual curiosity and structured research environment/education system among societies has been

the driver for development. The globalisation in recent times has further increased the pace of research and development as a means not only to prosper but also to survive. It is essential in this context that the graduates passing out not only have sound theoretical and practical knowledge and experience but they are also inquisitive, curious and creative. For the later attributes an integral R & D experience is desired.

### **3. The Practice:**

JIIT has adopted all round approach to enhance early research experience for its graduate students through following practices:

- a. Curriculum: Inclusion of two minor projects (each one semester long) along with one year long major project under the guidance of different supervisors. These projects provide opportunity to identify problem, thinking critically to solve the problem and implement and verify the solutions found.
- b. Practicals: Experiment based learning. Most of theoretical aspects taught in classes have corresponding laboratory based experiments.
- c. Hands on learning beyond syllabus by small projects (in many courses) and compulsory industry based training.
- d. Mentoring by Faculty: JIIT recognises that well qualified faculty can guide the student to deep learning and innovative thinking. Faculty drawn from national/international institutions of repute with experience in academia/industry forms intergral part of the pool required for research atmosphere.
- e. Promotion for R&D: Institute promotes its R&D activities by following:
  - (i) Support and encouragement for sponsored research projects
  - (ii) Creation of specialised labs, research centres and groups
  - (iii) Procurement of instruments/software for high end research
  - (iv) Encouragement for publications in high quality journals
  - (v) Sponsorship to attend workshops/conferences
- f. Student involvement in research: Research being carried out in specialised labs, research centres and groups as well as sponsored research projects provide intense engagement and interface with technology/research being carried out globally.

- g. **Research, Ethics and Environment:** JIIT identifies innovation as a means of advancement of society. Practicing ethics in research and environment safety are part of social responsibility. Institute has put in practice the guidelines for ethics in research.

#### **4. Evidence of Success:**

The practice followed by JIIT has led to the creation of specialised labs. The Institute has received over twenty research grants from agencies such as DST, DBT, DRDO, ICMR, etc. As a result, the Institute publication profile rose significantly. Involvement of students in the projects and publications has significantly improved over the years. The success of JIIT students in jobs, higher education enrolment in institutions of international repute, and technical competitions, is a true indicator of success of our practice of early research involvement.

#### **5. Problem Encountered and Resources required:**

Research requires extensive funding. Being self financing Institution, fund allocation for research is a challenging task. However, this has been partially addressed by active encouragement from management. Funding from external agencies is made possible by the Institute policy of hiring high quality faculty and active pursuance and perseverance of faculty.

### **BEST PRACTICE-II**

#### **1. Title: E-management: For Effectiveness and Transparency**

#### **2. Objective:** To use E-management tools for effective:

- a. Teaching and Learning
- b. Monitoring and Mentoring
- c. Transparency.

#### **3. The Context:**

Use of Information technology in management can enhance the productivity and quality. Its use in the domain of education can greatly help students by ready availability of subject resources, time tables, performance, attendance, schedules related to examinations and other activities, and more importantly transparency. Similarly e-management resources are extremely helpful in providing teaching aids to faculty and creating a culture of transparency which is very important for healthy and unbiased working atmosphere.

#### **4. The Practice:**

JIIT has adopted usage of information technology in management of several systems for its students and faculty through following practices:

- a. Website: (1) Availability of complete information starting from departments, courses and faculty including mail/phone contacts. (2) Complete details about course structure, subject details, time tables, exams procedure, rules and regulations, etc
- b. Intranet for effective dissemination of knowledge/ information and storage space (N: drive) accessible to anywhere on campus
- c. Study Material for uploading course/subject contents for 24x7 teaching
- d. Webkiosk: several personal and professional activities/aspects related to Institution can be entered and retrieved making the system transparent. These activities are related to (i) Personal: Employee salary, benefits details, types of leave, attendance, details in case of emergency, help in tax information (ii) teaching: student attendance, information about student not attending, class room booking (iii) exam: marks entry, grade entry, result, invigilation duty, (iv) Counseling & Mentoring: to view student grades and performance (by parents and teacher), (v) provide feedback: e.g. IQAC.

#### **5. Evidence of Success:**

The practice followed by JIIT has led to the creation of healthy and transparent work culture.

Transparency and easy dissemination of knowledge/information through IT enabled systems starting from lecture room experience to exams has greatly helped students and concerned parents. The policy to view exam copies, mechanism to redress issues along with e-management has provided unbiased and effective mechanism.

For employee, the information about salary, benefits, types of leaves, etc are available online. This type of transparency along with healthy policy for promotion and help in career advancements makes JIIT attractive place to work. JIIT has very good rate of faculty and staff retention. The confidence of faculty in system has led to long term thinking and planning.

#### **6. Problem Encountered and Resources required:**

Change from paper work to paperless work needs change in habit and mindset. Moreover, it's a matter of training. JIIT having large number of young and enthusiastic faculty and staff has been able to implement several aspects of e-management successfully.

### **BEST PRACTICE-III**

#### **1. Title: Cross level Peer mentoring**

**2. Objective:** The objectives of this practice are to:

- a. improve the learning support system and personal attention for the junior students through easily accessible senior student mentors
- b. deepen the technical competence of senior students and also to nurture their leadership skills

### **3. The Context:**

Personal attention to every student is perhaps the most important aspect of good education systems. However, Universities and colleges are finding it increasingly difficult to build enough faculty capacity to provide a long term individual attention to all students.

Mentoring has been recognised to offer advantages to both the mentees as well as the mentors. Mentees get benefitted by mentor's support in many ways: analysis and reflection, problem solving, self-confidence, acceptance of criticism, as well as broadened horizon and maturity. On the other hand, teaching has been well recognized as one of the most effective ways of learning. Mentors also draw several benefits by mentoring others: improved awareness of the gaps in their own learning, ability to give and take criticism, leadership, organizational and communication skills, and ability to reflect.

### **4. The Practice:**

At JIIT, cross-level peer mentoring was initiated in 2005. During one decade, more than 2,500 students have mentored more than 7,500 juniors under this practice and most of these students have played the roles of mentees as well as mentors in different years.

During 2005 - 2008, a total of 164 final year undergraduate students were engaged in mentoring their junior students in laboratory work as part of their formal assignment in 'Learning Sciences' or 'Theory of Knowledge, Learning, and Research.' They assisted in the laboratory classes of many host courses offered to 1<sup>st</sup> and 2<sup>nd</sup> year students. In the presence of concerned faculty of the junior level (host) course, they provided guidance, clarifications, and support to needy junior students. Juniors did not hesitate in asking questions and many weaker students got individual attention from their mentor.

In 2007-08, 40 students of another fourth-year elective course, 'Software Engineering Management', were engaged to mentor juniors' second-year project as part of their project management practice. In 2008-09, all 200 students of this course, group mentored five credit minor projects of third-year students. In the same semester, through the facilitation of the 'Software Engineering' course, a total of 205 third-year students were engaged as project mentors for mini projects of juniors. In the second semesters of 2007-08 and 2008-09, when the mentor facilitating courses were not operational, many students of the final year, and also the third year, volunteered to mentor the juniors' laboratories even without credit.

Based on positive experiences, feedback from industry, and consultation, in 2009, more than 40 faculty members of the department of CSE and IT, mentoring was considered as an integral part of their day-to-day work for a mentor's own year-long final year project. 2009-10 onwards more than 2000 final year B. Tech. students have been engaged to mentor laboratory work and projects of more than 6,000 juniors.

### **5. Evidence of Success:**

The feedback received from host faculty, facilitating faculty, mentee students, and mentor students during different stages of this scheme's implementation was positive. The mentors of 'Introduction to Computer Programming' reported helping their mentees in removal of syntactical errors, problem understanding, programming logic development, mapping logic to programming language constructs, debugging, providing study resources, project formulation, etc. More than 70% of these mentors claimed that they revised the old content of the host subject, and also learnt the new content that was added for the juniors, through self study.

As the seniors guided the juniors, it provided them opportunities not just for rehearsing their knowledge, but also for reflective knowledge building by recognizing and repairing their own misconceptions, and gaps in knowledge, integrating new and prior knowledge, and also generating new ideas.

Mentors reported several other benefits for themselves: experiencing joy and satisfaction, enhanced confidence, self-esteem, and hence, enhanced motivation for more challenging work in their own final year project, improved understanding of self and others, development of patience, empathy, and out-of-box thinking, improvement of analytical and debugging skills, insights for project management issues, handling quality and late delivery, and also enhancement of communication, collaboration, leadership and decision making skills.

JIT is now working to further extend this practice by creating course specific online communities of junior students, faculty, senior students and alumni as mentors. This model has already been tested in Programming Hub in which a Facebook group of 3,500 members is now very active. The juniors often use this group to raise their programming related doubts and some senior student or an alumnus usually responds without much delay. Sometimes alumni and seniors also throw challenging tasks for the juniors.

### **6. Problem Encountered and Resources required**

The practice has gradually evolved at JIT. We did not face any great problem in implementing this practice. No additional resources are required for this practice. However, it requires careful management by the faculty. Motivating mentor students is an important and critical aspect of the practice.



**Table 1.2.1 M. Tech. Curricula Structure**

**FIRST SEMESTER**

S. No.	Course		Contact Hours				Credits
	Code	Title	L	T	P	Total	
1.		M. Tech. - 1	3	-	-	3	3
2.		M. Tech. - 2	3	-	-	3	3
3.		M. Tech. - 3	3	-	-	3	3
4.		M. Tech. - 4	3	-	-	3	3
5.		M. Tech. - 5 (Elective )	3	-	-	3	3
6.		M. Tech. Lab – 1	-	-	4	4	2
		<b>TOTAL</b>				19	17

**SECOND SEMESTER**

S. No.	Course		Contact Hours				Credits
	Code	Title	L	T	P	Total	
1.		M. Tech. -6	3	-	-	3	3
2.		M. Tech. -7	3	-	-	3	3
3.		M. Tech. -8 (Elective)	3	-	-	3	3
4.		M. Tech. -9 (Elective)	3	-	-	3	3
5.		M. Tech. -10 (Elective)	3	-	-	3	3
6.		M. Tech. Lab – 2	-	-	4	4	2
		<b>TOTAL</b>				19	17

**THIRD SEMESTER**

S. No.	Course		Contact Hours				Credits
	Code	Title	L	T	P	Total	
1.		M. Tech. -11 (Elective )	3	-	-	3	3
2.		M. Tech. -12 (Elective)	3	-	-	3	3
3.		Project (Continued From Summer Semester)	-	-	8	8	4
4.		Dissertation	-	-	8	8	4
5		Seminar & Term Paper	-		-	2	4
		<b>TOTAL</b>				24	18

**FOURTH SEMESTER**

S. No.	Course		Contact Hours				Credits
	Code	Title	L	T	P	Total	
1.		Dissertation (Continued From 3 <sup>rd</sup> Semester )	-	-		24	18
		<b>TOTAL</b>				24	18

**Total Credits: 70**

**Table 1.2.2 5 Year Integrated M. Tech. (B. Tech. and M. Tech.)  
Curriculum Structure**

**FIRST SEMESTER**

Sr. No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1.		HSS-1				3	3
2.		Mathematics-1				4	4
3.		Physics -1				4	4
4.		ECE - 1				4	4
5.		CSE - 1				4	4
6.		English ( Audit)				2	-
7.		Physics Lab-1				2	1
8.		ECE Lab - 1				2	1
9.		CSE Lab - 1				4	2
		Instituitional Orientation				1	-
		<b>TOTAL</b>				<b>30</b>	<b>23</b>

**SECOND SEMESTER**

Sr. No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1.		HSS-2				3	3
2.		Mathematics-2				4	4
3.		Physics -2				4	4
4.		ECE - 2				4	4
5.		CSE - 2				4	4
6.		Physics Lab-2				2	1
7.		ECE Lab – 2				2	1
8.		CSE Lab - 2				4	2
		Departmental orientation				1	
		<b>TOTAL</b>				<b>28</b>	<b>23</b>

**THIRD SEMESTER**

Sr. No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1.		HSS-3				3	3
2.		Mathematics-3				4	4
3.		Discipline Specific - 4				4	4
4.		Discipline Specific - 5				4	4
5.		Discipline Specific - 6				4	4
6.		Lab Courses				8	4
		<b>TOTAL</b>				<b>27</b>	<b>23</b>

#### FOURTH SEMESTER

Sr. No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1.		HSS-4				3	3
2.		Discipline Specific - 7				4	4
3.		Discipline Specific - 8				4	4
4.		Discipline Specific - 9				4	4
5.		Discipline Specific - 10				4	4
6.		Environmental Science				3	3
7.		Lab Courses				8	4
		TOTAL				30	26

#### FIFTH SEMESTER

Sr. No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1.		HSS -5				3	3
2.		Discipline Specific - 11				4	4
3.		Discipline Specific - 12				4	4
4.		Discipline Specific - 13				4	4
5.		Discipline Specific - 14				4	4
6.		Minor Project - 1				10	5
7.		Lab Courses				8	4
		TOTAL				37	28

#### SIXTH SEMESTER

Sr. No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1.		HSS -6				3	3
2.		Discipline Specific - 15				4	4
3.		Discipline Specific - 16				4	4
4.		Discipline Specific - 17				4	4
5.		Discipline Specific - 18				4	4
6.		Minor Project-2				10	5
7.		Lab Courses				8	4
		TOTAL				37	28

Students will undergo 6 weeks Industrial Training during Summer Vacation after 6th Semester.

### SEVENTH SEMESTER

S. No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1.		HSS Elective-1				3	3
2.		Discipline Specific Elective – 1				3	3
3.		Discipline Specific Elective – 2				3	3
4.		Discipline Specific Elective – 3				3	3
5.		M. Tech-1				3	3
6.		M. Tech-2				3	3
7.		Major Project -1				20	10
		TOTAL				38	28

### EIGHTH SEMESTER

Sr. No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1.		HSS Elective-2				3	3
2.		Discipline Specific Elective– 4				3	3
3.		M. Tech – 6				3	3
4.		M. Tech. – 7				3	3
5.		M. Tech – 8 (Elective)				3	3
6.		M. Tech – 9 (Elective)				3	3
7.		Major Project -2				20	10
		TOTAL				38	28

### SUMMER SEMESTER

Sr. No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1.		Discipline Specific Elective-5				3	3
2.		Discipline Specific Elective-6				3	3
3.		M. Tech Lab-1				8	2
4.		M. Tech Project				16	4
		Total				30	12

### NINETH SEMESTER

Sr. No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1.		M. Tech-3				3	3
2.		M. Tech-4				3	3
3.		M. Tech-5 (Elective)				3	3

4.		M. Tech-10 (Elective)				3	3
5.		M. Tech-11 (Elective)				3	3
6.		M. Tech-12 (Elective)				3	3
7.		Term Paper & Seminar				2	4
8.		M. Tech. Lab-2				4	2
		<b>TOTAL</b>				<b>24</b>	<b>24</b>

**TENTH SEMESTER**

Sr. No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1.		Dissertation / Industrial Project					22
		<b>TOTAL</b>					<b>22</b>

**Total Credits = 265**

**Table 1.2.3 Four year B. Tech. degree Curriculum Structure**

**FIRST SEMESTER**

S. No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1	Xxxxx	HSS-1				3	3
2	Xxxxx	Mathematics-1				4	4
3	Xxxxx	Physics -1				4	4
4	Xxxxx	ECE-1				4	4
5	Xxxxx	CSE-1				4	4
6	Xxxxx	English ( Audit)				2	-
7	Xxxxx	Physics Lab-1				2	1
8	Xxxxx	ECE Lab-1				2	1
9	Xxxxx	CSE Lab-1				4	2
		Institutional orientation				1	-
		<b>TOTAL</b>				<b>30</b>	<b>23</b>

**SECOND SEMESTER**

S. No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1	Xxxxx	HSS-2				3	3
2	Xxxxx	Mathematics-2				4	4
3	Xxxxx	Physics-2				4	4
4	Xxxxx	ECE -2				4	4
5	Xxxxx	CSE-2				4	4
6	Xxxxx	Physics Lab-2				2	1
7	Xxxxx	ECE Lab-2				2	1
8	Xxxxx	CSE Lab-2				4	2
		Departmental orientation				1	
		<b>TOTAL</b>				<b>28</b>	<b>23</b>

**THIRD SEMESTER**

S. No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1	Xxxxx	HSS-3				3	3
2	Xxxxx	Mathematics-3				4	4
3	Xxxxx	Discipline Specific-4				4	4
4	Xxxxx	Discipline Specific-5				4	4
5	Xxxxx	Discipline Specific-6				4	4
6	Xxxxx	Lab Courses				8	4
		<b>TOTAL</b>				<b>27</b>	<b>23</b>

#### FOURTH SEMESTER

S. No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1	Xxxxx	HSS-4				3	3
2	Xxxxx	Discipline Specific-7				4	4
3	Xxxxx	Discipline Specific-8				4	4
4	Xxxxx	Discipline Specific-9				4	4
5	Xxxxx	Discipline Specific-10				4	4
6	Xxxxx	Environmental Science				3	3
7	Xxxxx	Lab Courses				8	4
		TOTAL				30	26

#### FIFTH SEMESTER

S. No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1	Xxxxx	HSS -5				3	3
2	Xxxxx	Discipline Specific-11				4	4
3	Xxxxx	Discipline Specific-12				4	4
4	Xxxxx	Discipline Specific-13				4	4
5	Xxxxx	Discipline Specific-14				4	4
6	Xxxxx	Minor Project - 1				10	5
7	Xxxxx	Lab Courses				8	4
		TOTAL				37	28

#### SIXTH SEMESTER

S. No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1	Xxxxx	HSS -6				3	3
2	Xxxxx	Discipline Specific-15				4	4
3	Xxxxx	Discipline Specific-16				4	4
4	Xxxxx	Discipline Specific-17				4	4
5	Xxxxx	Discipline Specific-18				4	4
6	Xxxxx	Minor Project-2				10	5
7	Xxxxx	Lab Courses				8	4
		TOTAL				37	28

Students will undergo 6 weeks industrial training during summer vacation after 6th Semester.

#### SEVENTH SEMESTER

S. No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1	Xxxxx	HSS Elective-1				3	3
2	Xxxxx	Discipline Specific Elective-1				3	3

3	Xxxxx	Discipline Specific Elective-2				3	3
4	Xxxxx	Discipline Specific Elective-3				3	3
5	Xxxxx	Major Project-1				20	10
		TOTAL				32	22

### **EIGHTH SEMESTER**

S. No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1	Xxxxx	HSS Elective-1				3	3
2	Xxxxx	Discipline Specific Elective-1				3	3
3	Xxxxx	Discipline Specific Elective-2				3	3
4	Xxxxx	Discipline Specific Elective-3				3	3
5	Xxxxx	Major Project-2				20	10
		TOTAL				32	22

**Total Credits for B. Tech. = 195**



**Table 1.2.4 Curricula Structure of MBA Programme**

<b>FIRST YEAR</b>			
<b>Trimester - I</b>			
<b>S. No.</b>	<b>Area</b>	<b>Course(s)</b>	<b>Credits</b>
1	Economics and International Business	1	3
2	Accounting and Finance	1	3
3	Marketing	1	3
4	Organizational Behavior/ Human Resource	1	3
5	General Management	2	6
6	Employability Skill Courses	1	3
	<b>Total Credits</b>		<b>21</b>
<b>Trimester - II</b>			
<b>S. No.</b>	<b>Area</b>	<b>Course(s)</b>	<b>Credits</b>
7	Economics and International Business	1	3
8	Accounting and Finance	1	3
9	Marketing	1	3
10	Organizational Behavior/ Human Resource	1	3
11	General Management	2	6
13	Operations Management	2	6
	<b>Total Credits</b>		<b>24</b>
<b>Trimester - III</b>			
<b>S. No.</b>	<b>Area</b>	<b>Course(s)</b>	<b>Credits</b>
14	Economics and International Business	1	3
15	Accounting and Finance	1	3
16	Organizational Behavior/ Human Resource	1	3
17	General Management	1	3
18	Employability Skill Courses	1	3
19	Operations Management	1.5	4.5
20	Information Technology	1	3
21	Business Analytics	0.5	1.5
22	<b>Comprehensive Viva-I</b>	1	3
	<b>Total Credits</b>		<b>27</b>
	<b>First Year Total Credits</b>		<b>72</b>
<b>SECOND YEAR</b>			
<b>Trimester - IV</b>			
<b>S. No</b>	<b>Area</b>	<b>Course(s)</b>	<b>Credits</b>
23	Strategic Management	1	3
24	General Management	0.5	1.5
25	Operations Management	0.5	1.5
26	Employability Skill Courses	0.5	1.5
27	4 elective courses from one Functional Basket of total 8 courses	4	12
28	2 Elective Courses from Sectoral Basket of	2	6

	total 4 courses		
29	Corporate Internship	2	6
	<b>Total Credits</b>		<b>31.5</b>
<b>Trimester - V</b>			
<b>S. No.</b>	<b>Area</b>	<b>Course(s)</b>	<b>Credits</b>
30	Information Technology	1	3
31	Employability Skill Courses	1	3
32	2 elective courses from one Functional Basket of total 8 courses	2	6
33	1 Elective Courses from Sectoral Basket of total 4 courses	1	3
34	Comprehensive Viva-II	1	3
	<b>Total Credits</b>		<b>18</b>
<b>Trimester - VI</b>			
<b>S. No.</b>	<b>Area</b>	<b>Course(s)</b>	<b>Credits</b>
35	General Management	0.5	1.5
36	2 elective courses from one Functional Basket of total 8 courses	2	6
37	1 Elective Courses from Sectoral Basket of total 4 courses	1	3
38	Social Internship	1	3
	<b>Total Credits</b>		<b>13.5</b>
	<b>Second Year Total Credits</b>		<b>63</b>
	<b>Total Credits of the Programme</b>		<b>135</b>

**Table 1.2.5 Student Feedback Form for Theory Courses**

Subject Name:		Semester				
Subject code:		Calendar Year				
Faculty Name:						
Respond against each item using the following parameters: <b>Excellent [E]; Very Good [V]; Good [G]; Satisfactory [S]; Unsatisfactory [U]</b>						
S. No.	Item(s)	E	V	G	S	U
1	Regularity and Punctuality,					
2	Maintaining discipline and classroom management					
3	Delivery of the lectures, if applicable					
4	Frequency of questions and quality of answers					
5	Level of assignments/ projects and tests					
6	Integration of subject with real world problems/ situations					
7	Concern for students learning and help extended outside the classes					
8	Evaluation & Assessment (if done by the teacher) and appreciation for good/ innovative work by students					
9	Engagement of students in critical and creative thinking					
10	Interest and curiosity evoked in the subject					

**Suggestions, if any:**

**(A) COURSE CONTENT**

\_\_\_\_\_

**(B) CONCERNED FACULTY**

\_\_\_\_\_

**Table 1.2.6 Student Feedback Form for Laboratory Courses**

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Subject Name: ----- Semester: -----  
 Subject Code: ----- Calendar Year -----  
 Faculty Name: -----

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Respond against each item using the following parameters:

**Excellent [E]; Very Good [V]; Good [G]; Satisfactory [S];  
 Unsatisfactory [U]**

S. No.	Item	E	V	G	S	U
1	Regularity and Punctuality					
2	Maintaining discipline and classroom management					
3	Guidance and support extended to carry out the Lab work					
4	Making students aware of Safety and Risk issues					
5	Encouragement to students to ask questions and express opinion					
6	Contribution of the laboratory work on conceptual understanding					
7	Concern for students learning and help extended outside the lab classes					
8	Evaluation & assessment and appreciation for good / innovative work by students					
9	Interest and curiosity evoked in the practical aspects of the subject					

**Suggestions, if any:**

**A. COURSE** -----  
 -----  
**FACULTY** -----  
 -----

**Table 1.2.7 Teaching feedback proforma of Jaypee Business School**

Name		Date	
Course name		Course code	
Faculty name			

**Dear Student:**

Your feedback on course and course instruction is very valuable for review and improvement in the teaching-learning process. Please provide your free and frank response on the following attributes mentioned below by putting a check or cross mark in the appropriate column. Please read each statement carefully and rate each one as objectively as you can.

Your identity will be kept strictly confidential and will be for the eyes of the Director JBS only.

**OS=Outstanding; VG=Very Good; G=Good;**  
**A=Average; F=Fair; P=Poor; VP=Very Poor**

S. No.	Statement	OS	VG	G	A	F	P	VP
1	Clarifies the concept							
2	Comes prepared to the class to ensure learning							
3	Uses of exercises, games and case let etc.							
4	Encourages to ask questions and seek clarification							
5	Answers queries in the class							
6	Encourages to think through problems rather than giving direct answer							
7	Provides guidance outside class							
8	Is fair and objective in assessment							
9	Generates curiosity about course topics							
10	Clarity in Communication							
11	Encourages participation in class							
12	Provides feedback to students as to how they are doing							

13	Maintains discipline in the class								
14	Is regular and punctual to the class								
15	Difficulty Level of the course content								
16	Clarity in course outline and course content								
17	Learning through assignments/projects etc								
18	Variety in internal assessment components								
19	Coverage of the course by the faculty								
20	Relevance of the course to business and management								

**Additional feedback if any:**

**Table 1.2.8 Student feedback Analysis**

Subject Code	10B11BT311	Subject Name	Thermodynamics And Chemical Processes						
Faculty Name	ABC	Number of Registered Students in class							68
	Maximum Number of Respondents							59	
Examination Code	Odd Semester 2013 (July-December 2013)								
<b>ITEM</b>	<b>E</b>	<b>V</b>	<b>G</b>	<b>S</b>	<b>U</b>	<b>Tot</b>	<b>W</b>	<b>Item Rating</b>	
Concern for students learning and help extended outside the classes	21	6	7	10	15	59	402	6.81	
Delivery of the lectures, if applicable	18	9	5	10	17	59	388	6.58	
Engagement of students in critical and creative thinking	18	9	6	9	17	59	390	6.61	
Evaluation & Assessment(if done by the teacher) and appreciation for good/ inn	23	7	6	10	13	59	417	7.07	
Frequency of questions and quality of answers	17	9	9	6	18	59	389	6.59	
Integration of subject with real world problems/ situations	18	7	8	8	18	59	386	6.54	
Interest and curiosity evoked in the subject	18	9	7	8	17	59	392	6.64	
Level of assignment/ projects and tests	20	9	5	12	13	59	406	6.88	
Maintaining discipline and classroom management	15	11	7	8	18	59	381	6.46	
Regularity and punctuality	21	7	10	8	13	59	415	7.03	
<b>TOTAL</b>	<b>189</b>	<b>83</b>	<b>70</b>	<b>89</b>	<b>159</b>	<b>590</b>	<b>3966</b>	<b>67.22</b>	
Overall Average Rating	6.27								

i = Responses

j = Items

W = Weight Count of the item

Weightage(wi):

E = 10

V = 8

G = 7

S = 5

U = 3

Cij = Count of Respondents

Item Rating, Ij =  $\text{Sum}(C_{ij} \cdot W_{ij}) / \text{Sum}(C_{ij})$

Overall Average Rating =  $\text{Sum}(\text{Item Rating}) / 10$

**Table 2.4.1 List of visiting faculty**

<b>S. No.</b>	<b>Name of the Faculty</b>	<b>Courses Taught</b>	<b>Year</b>
1.	Dr. Patrick McNamara, Professor, University of Nebraska, Omaha, USA.	Social Entrepreneurship	July-2014 July-2013 July-2012 July-2011
2.	Mr. SR Balasubramaniam, Former Sr. Executive, Godfrey Phillips	Integrating Information Systems into Business	Oct-Dec 2014
3.	Dr. Ahindra Chakrabarty, Professor, Great Lakes Gurgaon	Project Appraisal and Financing	Oct-Dec 2014
4.	Dr. Prachee Mishra, Faculty, JIM, Vasundhara, Ghaziabad	Leadership Skills for Managers	Jan-Mar, 2014
		Organizational Transformation and Change	Oct-Dec 2014
5.	Mr. Prashant Verma, Faculty, NIILM, Greater Noida.	Business Research Methods	Jan-Mar, 2014
6.	Dr. Sweta Goel, Faculty, IILM, Greater Noida.	Financial Management-II	Jan-Mar, 2014
7.	Dr. D.R. Bains, Professor, Lingaya's University, Faridabad	Business & Corporate Laws	Jan-Mar. 2013
8.	Mr. Anubhav Jain, Co-Founder at StudyBud, New Delhi	Business Analytics	Jan - Feb 2013
9.	Mr. Uday Lakkar, Manager- Corporate Planning, Ireo, Gurgaon	Financial Engineering	Jan - Feb, 2013
10.	Mr. Amit Gupta, Consultant	Consulting Management	Oct-Dec. 2013
11.	Dr. Sunaina Nickels, Professor, St. John's College, Agra	Economic Environment & Policy	Jan-Mar 2013
12.	Mr. Avneesh Makkar, Elements Akademia, Gurgaon	Written Analysis & Communication	Jan-Mar, 2013
		Managerial Communication - II	Dec., 2012
13.	Mr. GVP Ranjan, Sr. Consultant, 3I Strategy, Noida	Organisation Development & Change	Oct. - Dec, 2013 Oct. - Dec, 2012
		Strategic HRM	Jan- Feb, 2013
14.	Dr. Anadi S Pande, VP (HR), Hero Group, New Delhi	Strategic Management	July-Sep, 2012
		Business Strategy	Jul-Sep 11
15.	Dr. Anurag Priyadarshi, Global Project Leader, IKEA, New Delhi	Corporate sustainability and Ethics	Oct.- Dec., 2012
16.	Mr. Ranjan Kumar, VP & Head,	Financial Institutions and	Oct-Dec,



	Research and Analytics at Religare Technova Ltd., Noida	Markets	2012
		Consulting Management	Jan-Mar 2009
17.	Mr. Deepak Gaur, Managing Director, Saif Partners, India	Consulting Management	July-Sep, 2012
18.	Mr. Hari Krishna Pandey	Integrated Marketing Communication	Jul-Sep 2011
19.	Mr. Sharat Chander, PMO, Govt. of India, New Delhi	Media Planning	Jul-Sep 2011
20.	Prof. B.D. Singh, Professor, APIM, New Delhi	Industrial Relation	Jul-Sep 2011
21.	Dr. Ganesh Singh, Professor, AIMA, New Delhi	Organizational Behaviour	Oct-Dec 2010
22.	Dr. Naveen Jain, Akron University, USA.	International Marketing & Strategy	Jul-Sep 2010
23.	Dr. Ram Singh, Prof., IIFT New Delhi	International Trade Operations & Logistics	Oct-Dec 2010
24.	Dr. Shailender Nigam, Faculty, IILM, Greater Noida.	Talent Management	Jan.-Apr. 2010
		Talent Management	Oct - Dec 2009
		Group Dynamics	Jul-Sep 2009
25.	Dr. Sudhir Kapur, MMTC, New Delhi	Air & Maritime Transport Mgmt.	Jul-Sep 2010
26.	Dr. Ivan Costa Maniere, Professor, SKEMA Business School, France	Brand Management	Jul-Sep. 2010 Jul-Sep. 2009
27.	Mr. A.V. Surya. S. Rao, VP, IMRB International, New Delhi	Advanced Marketing Research	Jan-Mar 2010
		Qualitative Research	Jul-Sep 2010
		Research in Marketing	Oct-Dec 2010
28.	Mr. Ashok Kapoor, Professor, IIFT New Delhi	Forex Management	Oct - Dec 2009
29.	Mr. Biswajit Roy, Dy GM, Indian Oil Corporation	Employee Relations & Grievance Resolutions	Jan-Mar 2010
		Strategic HRM	Oct - Dec 2009
30.	Mr. Goutam Dutta, Manager Indian Oil Corporation, Noida	Employee Relations & Grievance Resolutions	Jan-Mar 2010
		Strategic HRM	Oct - Dec 2009
31.	Mr. GP Sharma, Professor, IIFT, New Delhi	Transport Services	Jan-Mar 2009
32.	Mr. Jayanti Sahay, Ex. Faculty JIIT, Noida	Organizational Behaviour	Oct - Dec 2009
33.	Mr. Kartik Raina, Ex-Director	Rural Marketing	Oct - Dec

	HLL		2009
34.	Mr. Gopi Menon, Director, Melon Media	Managerial Written Communication	Jul-Sep 2010
		Business Strategy	Oct-Dec 2010
		Media Tools for Public Relations	Jan-Mar 2010
35.	Mr. Rajesh Chandra Shukla, Professor, SPA, Delhi	Strategic Infrastructure Mgmt.	Nov.-Feb. 2009
36.	Mr. Sajal Mukherjee, Ex-VP, Media and Planning, HTA	Integrated Marketing Communication (IMC)	Jul-Sep 2010
		Managerial Written Communication	Jul-Sep 2010
		Media Planning & Strategy	Oct-Dec 2010
		Managerial Written Communication	Jan-Mar 2010
		Media Planning & Application	Jan-Mar 2010
		Managerial Oral Communication	Jul-Sep 2009
		Planning & Execution of Adv. Campaign	Oct - Dec 2009
Principle & Concept of Corporate Communication	Oct - Dec 2009		
37.	Mr. T.K. Sengupta, MMTC, New Delhi	Air & Maritime Transport Mgmt.	Jul-Sep 2010
38.	Mr. T.S. Srinivasan, Adjunct Professor, IIM Lucknow	International Trade & Finance	Oct-Dec 2010
39.	Mr. Vipul Goyal, Equity Analyst, Karma Capital Management, New Delhi.	Commodity Trading & Markets	Oct-Dec 2010
40.	Ms. Smita Divekar, Retail Consultant, IILM, New Delhi	Visual Merchandising & Promotion	Oct - Dec 2009
41.	Ms. Nivedita Jha, Consultant, HR, New Delhi	Human Resource Management	Oct - Dec 2009
42.	Mr. Pankaj Vajpayee	Corporate Treasury Services	Jan-Mar 2009
		Security Analysis & Portfolio Management	Jan-Mar 2010
43.	Prof. Bandana Chadha, DGM-CA, Apeejay Satya Group, New Delhi	Forex Management	Jul-Sep 2010
44.	Mr. Rajat Bakshi, Ex. Professor, IIFT, New Delhi	Strategic Management	Jan-Mar 2009
45.	Mr. Siddhartha Mishra, VP Samsung India, New Delhi.	Strategic Management	Jan-Mar 2009
		Franchising Management	Jan-Mar 2009
46.	Mr. Vikas Prakash, Head-CCE, UPES, New Delhi	Power & Energy Services	Jan-Mar 2009

**Table 2.4.2 Awards/ Recognitions received by faculty during the last four year**

<b>Sr. No</b>	<b>Name of Faculty</b>	<b>Award/Recognition</b>
1.	Prakash Kumar	Best paper award for his paper "VIMCLOUD: A Trust Aware Cloud Computing Framework", at 2nd International Conference on Eco-friendly Computing and Communication Systems (ICECCS 2013).
2.	Shelly Sachdeva	Dr. Sachdeva was awarded "Japanese Government (Monbukagakusho: MEXT) Scholarship for pursuing Ph.D at Japan from 2009 to 2012.
3.	AnkitaWadhwa	Awarded Chancellor's Gold Medal for topping the M.Tech./MBA program at Delhi Technological University in 2013
		Vice Chancellors Gold Medal for topping the M.Tech. (IT) program at Delhi Technological University in 2013
		Gold Medal for topping the B.Tech. (IT) program GGSIP University in 2011
4.	Hari Om Gupta	Awarded "Mathur Vaishya Ratna" (Highest Community award on social work) 2012.
5.	Dr. PatoKumari	Best Oral Presentation Award in "2nd International Science Congress" dated 8-9th December 2012, held in Vrindavan (Mathura).
6.	Prof. D K Rai	Recorder, Materials Science Section of Indian Science Congress for the year 2011.
7.	Prof. Anirban Pathak	Visiting Scientist, RCPTM, PalackyUniveristy, Czech Republic(14.02.2012 to 13.02.2013)
		Member, National Academy of Science, Allahabad
8.	Dr. Prashant Chauhan	Awarded FCT Fellowship to work at Lisbon, Portugal, April 2011 to December 2011
		HiPER post doctorate fellowship for two years from April 2009 to March 2011, Lisbon, Portugal
9	Ashwani Mathur	Indian Institute of Chemical Engineers (IIChE) Awards 2012: Sisir Kumar Memorial for second best technical paper in 'Indian Chemical Engineers' IIChE NRC Award 2012 for second best Best Paper in 'Indian Chemical Engineers'

10	Shalini Mani	Endeavour Research fellowship, By Australian (2015). 2 <sup>nd</sup> Prize, Oral Presentation, International Conference on Health, Environment and Industrial Biotechnology (Biosangam), MLNIIT, Allahabad, (Nov 21-23, 2013).
11	Dr. Santosh Dev & Dr. Santoshi Sengupta	Highly Commended Paper winner for Strategic Outsourcing: an Emerald Journal 2014. Paper Title: "What makes employees stay? Exploring the dimensions in context of urban-centric business process outsourcing industry in India"
12	Dr. Santosh Dev	Research acknowledged in a famous magazine GOVERNANCE now LET'S MAKE IT WORK, December 1-15, 2014.
13	Dr. Badri Bajaj	Research recognized and used by HayGroup (Global HR Consulting firm, USA) for promoting Emotional Intelligence for Leadership Effectiveness, 2015
		Dr. Bajaj's research is used by Prof. Richard Boyatzis (Distinguished Professor & Emotional Intelligence thought leader) in his Coursera MOOC "Inspiring Leadership through Emotional Intelligence". In this MOOC more than 327000 participants have enrolled from 205 countries, 2014
		Dr. Bajaj received membership of prestigious Consortium for Research on Emotional Intelligence in Organizations, USA. The Consortium has 12 members from Asia and 90 members globally.
		Dr. Bajaj's research work was shared by Dr. Daniel Goleman (Management Expert) through his blog post. This post is viewed around 29000 times globally.
14	Dr. Nidhi Sinha	First prize for the Paper Award in the 7th International Conference on "Managing Organizations of Tomorrow by Capitalizing Generation Next", organized by Bharti Vidyapeeth Deemed University, New Delhi, 2015
		Awarded the Second Prize for the Paper Award in the 3rd International Conference on Innovative Marketing, organized by IMS, Noida, December 2013.

		Awarded the First Prize for the Paper Presenter in the National Conference on Innovation: The Key to Sustainable Prosperity, Organized by Gitarattan International Business School, New Delhi, 2013.
		Awarded the Third prize for the Paper Award in the 5th National Conference on Management of Innovation & Supply Chain Strategies, Organized by Galgotia Business School, Greater Noida, 2013.
		Awarded the First Prize for the Paper Award in the 3rd International Conference organized by Jagan Institute of Management Studies, New Delhi, 2013.
		Awarded the First Prize for the Paper Award in the 4TH National Conference on Management of Innovation and Technology (NCMIT), organized by Galgotia Business School, Greater Noida, 2012.
		Awarded the First Prize for the Paper Award in the First Global Conference on Management, organized by Gitarattan International Business School, New Delhi, 2012.
		Awarded the First Prize for Paper Award in the 6TH National Research Paper Presentation Competition”, organized by Gitarattan International Business School, New Delhi, 2011.
		Awarded the First Prize for the Paper Award in the International Conference on “India Emerging Opportunities and Challenges”, organized by Indus Business Academy, Greater Noida, 2011.
15	Dr. Nripendra Singh	Fulbright Nehru Environmental Leadership Program (FNELP) 2012-13
16	Dr. Vinky Sharma	'Best Paper Award', for the paper entitled "E-Recruitment: A Preference of Today" presented at the 5th National Conference on Management of Innovation & Supply Chain Strategies (NCMIS) 2013.

**Table 3.1.1 Workshops/ seminars and other sensitization programmes organized by the Institute**

**Workshops/ Conferences/ FDPs at JIIT:**

1. IEEE International Conference on Signal Processing and Communication (ICSC-2015), March 16-18, 2015.
2. Two - Week ISTE Short Term Training Programme on Pedagogy for effective use of ICT in Engg. Education, 5-21 Jan, 2015
3. Workshop on “Patent Search” Jan 8, 2015.
4. Workshop on Statistical and Numerical Trends in Sciences and Engineering, Jan 01, 2015.
5. IEEE International Symposium on Signal processing and Information Technology, Dec 15–17, 2014.
6. Two weeks ISTE Workshop on Control Systems, Dec. 2-12, 2014.
7. Workshop on “Emerging Trends in Biomathematics” Nov 29, 2014.
8. Workshop on Computational Linguistics, Nov 14-15, 2014.
9. Round table Seminar on “Catalyzing new opportunities and innovations in Corporate Finance” on Oct 11, 2014.
10. Workshop on Advanced Optimization Techniques, Sept 23, 2014.
11. Workshop on Social media Attack, Sept, 2014.
12. International conference “IC LIFE” Aug 29-30, 2014
13. Workshop on “IPR Awareness” Aug 23, 2014.
14. Two days workshop on Low Voltage and Low Power VLSI Design, Aug. 22-23, 2014.
15. International Conference on Contemporary Computing (IC3), August 7-9, 2014.
16. Faculty Development Program on Advanced Computing Methods, July 21-26, 2014.
17. FDP on Recent Trends in Physics and Materials Science, July 21-26, 2014.
18. ISTE Workshop on Computer Networking by IIT Bombay (sponsored by MHRD, Govt of India), 30 June -5 July, 2014.
19. FDP on “Embedded System”, 28th July to 2nd August 2014, around 45 participants. Also had invited talk on “Clock and Power supply considerations in embedded system applications and Physical Interfacing

for embedded applications” by Prof. Dhananjay Gadre, Director, TI Centre for Embedded Systems, NSIT, and Delhi.

20. FDP on Applications of Bio informatics in Disease and Drug Discovery, July 28-Aug 2, 2014.
21. Faculty Development Programme on Effective Teaching, July 28- Aug 02, 2014.
22. FDP on “Wireless Sensor Networks”, 21-26 July 2014, Around 60 participants.
23. FDP on Signal Processing & Communications, July 21-26, 2014.
24. ISTE Main Workshop on Computer Programming by IIT Bombay (sponsored by MHRD, Govt of India), June 16-21, 2014. This was preceded by five week long online activity during 11 May-15 June, 2014.
25. Basic Internet and Cyber Security by i3 Indya Technologies Ltd., Delhi, May 3, 2014.
26. National Conference on Social Media and E-Marketing, March 1, 2014.
27. Workshop on Structural Equation Modeling, Jan 18-19, 2014.
28. Two weeks ISTE Workshop on “Signals and Systems”, Jan. 2-12, 2014.
29. IEEE International Conference on Signal Processing and Communication (ICSC-2013), Dec. 12-14, 2013.
30. Workshop on “COMSOL Multiphysics for MEMS Modeling”, Nov. 15, 2013.
31. Expert Interaction “Innovative approaches for biomedical research-students of today are research leaders of tomorrow” Oct 29-30, 2013
32. Workshop on “Semiconductor Device Modeling using TCAD Tools”, Oct. 4, 2013.
33. International Workshop on Optical Quantum Information (IWOQI), Sept 1-2, 2013.
34. International Conference on Contemporary Computing (IC3), August 8-10, 2013.
35. A 5-days workshop on “Design for Testability”, K Chakraborty, FIEEE, Duke Univ., USA, July 23-27, 2013.
36. A 5-days IUCEE workshop on “Embedded Systems”, by Vijaynarayanan, FIEEE, Penn State Univ., USA, July 1-5, 2013.
37. Two Days Workshop on Quantum Mechanics and its Applications, April 18-19, 2013.
38. International conference on “Bioproducts and the OMICS Revolution”,

as part of the Biotechnology Conference Series in association with Scientity Inc, March 16-17, 2013.

39. ISTE Workshop on Research methodology in Education technology (RMET-2013), 02-09 Feb 2013. ~ 30 Participants. It was conducted by Prof. Sahana Murthy and Prof. Sridhar Iyer.
40. FDP on Super Attitude for Success, Feb 16, 2013.
41. ISTE Workshop on Aakash for Education, ~ 40 Participants, 10-11 Nov 2012.
42. Virtual Workshop on “Scientific Writing & Publishing”, Sept 28, 2012.
43. One Day Seminar on Wealth creation & Web Entrepreneurship, Sept, 2012
44. International Conference on Contemporary Computing (IC3), August 6-8, 2012.
45. Workshop on ‘Flow Cytometry and Cytometric Applications’, Aug 6, 2012
46. CMOS Technology and Spice Model: MOS-AK India, Tutorial, March 18, 2012.
47. A 2-daysworkshop on “Device Modeling for Microsystems”, March 16-17, 2012.
48. Workshop on "IP Awareness and Innovation", Feb 21, 2012.
49. Ninth National Conference on Solid State Ionics (NCSSI-9), Dec 15-17, 2011
50. International Conference on Contemporary Computing (IC3), August 8-10, 2011.
51. One day seminar on Customer Relationship Management and Marketing in a digital ecosystem, Nov, 2011.
52. One-day Workshop on Emerging trends in Business and Information Management Nov, 2011
53. Seminar on Customer Relationship Management and Marketing in a digital ecosystem, Nov 19, 2011.
54. Seminar on Entrepreneurial Development, Nov 12, 2011.
55. Workshop on “Cloud Computing” by Accenture on April 23, 2011
56. A 1-day workshop on “Wavelets & its Applications”, April 20, 2011.
57. International Conference on Quantum Optics and Quantum Computing (ICQOQC-11), March 24-26, 2011.



58. Workshop on “Mobile Peer to Peer Computing” by Prof. Sanjay Madria, Missouri Univ. of Science and Technology, Rolla, USA on March 8, 2011.
59. Workshop on Wavelets and Applications in Signal Processing (jointly with Electronics Department), April 20, 2011.
60. Workshop on ‘Idea Generation’, Feb 23, 2011.
61. International Conference “Bioproducts from Natural Sources” Feb 3, 2011.
62. A 1-day workshop on “Microwave Tubes”, Nov 27, 2010.
63. Workshop on “Research Methodology for Computer Science” by Prof. Rao Vemuri, University of California, Davis on Nov. 12, 2010.
64. Workshop on “Teaching AI and Related Courses” by Prof. Rao Vemuri, University of California, Davis on Nov. 12, 2010.
65. Mini Conference on “Advanced Artificial Intelligence and Applications”, 11th Nov, 2010, IIIT.
66. Short course on “Genetic Algorithms” Prof. Rao Vemuri, University of California from 8-10 Nov, 2010.
67. Workshop on conducting Design Science Research in Information Technology, by Prof. Vijay K. Vaishnavi, Board of Advisors Professor of Computer Information Systems & Professor of Computer Science Georgia State University, 19 Oct 2010.
68. Workshop on “Advances in Wireless Sensor Networks” by Prof. Sajal K Das, of University of Texas, Arlington on Sep. 2-3, 2010. (conducted by Anish Arora, Ohio State University)
69. International Conference on Contemporary Computing (IC3), August 9-11, 2010.
70. IUCEE Workshop on Distributed OS, 28, by Prashant Shenoy, University of Massachusetts Amherst, 28 Jun- 2 July 2010.
71. IUCEE Workshop on Soft Computing, by Rao Vemuri, University of California, San Diego.
72. Workshop on Advanced Computing and Software Tools (ACST-2010), Oct 30, 2010.
73. "Plant Bioproducts & Industrial Scale-up", July 5 - 9, 2010.
74. One Day Workshop on Advanced Materials and Nano Technology (AMNT-09), Nov 21, 2009.
75. Training the Trainers Programme on logistics and Transportation Management April 24-25, 2009.

76. One Day Workshop on Fundamentals and Applications of Optics, Sept 20, 2008.

**Expert Lectures Organised:**

<b>S. No.</b>	<b>Expert</b>	<b>Topic</b>	<b>Date</b>
1	Prof. Sat N Gupta The University of North Carolina at Greensboro USA	On estimating finite population mean for sensitive variables 1	01/ 2015
2	Prof. R. K. Mohanty South Asian University, New Delhi	Compact Cell Numerical Methods for Fourth Order Elliptic Boundary Value Problems	01/01/ 2015
3	Prof. Karmeshu, Professor, JNU, New Delhi	Computational Neuroscience	29/11/2014
4	Prof.Subhadip Raychaudhuri, IITD, New Delhi	In silico single cell biology of apoptotic cell death in healthy and diseased cells	29/11/2014
5	Prof Sitabhra Sinha (Institute of Mathematical Sciences (IMSc), Chennai	Exploring the complex networks of biology	29/11/2014
6	Prof Peeyush Chandra IITK, Kanpur	Mathematical Models for HIV infection in vivo	29/11/2014
7	Prof. Karmeshu, Professor, JNU, New Delhi	Maximum Entropy Principle and Optimization- Power Law Behavior in Communication Network	23/09/2014
8	Prof. Kusum Deep, IIT Roorkee	Nature-Inspired Optimization Techniques	23/09/2014
9	Dr. Millie Pant IIT Roorkee	Metaheuristics for Global Optimization	23/09/2014
10	Dr. Ankur Goswami, University of Alberta, Canada	Microfluidics in Energy harvesting and Superhydrophobicity	06/09/2014
11	Dr Nirpendra Singh, King Abdullah University of Science and Technology, Thuwal, Saudi Arabia	Topological phases of novel two-dimensional materials	05/08/2014
12	Prof. P N Ghosh,	Bose Einstein	01/04/2014

	F.A.Sc.T. and former VC, Jadavpur University Kolkata	Condensation and Laser Cooling: Basic Concept	
13	Dr. Uma Shanker, Consultant Scientist, Biotek Park Lucknow, India	Future Eyes on Biotechnology	12/03/2014
14	Prof. Subhash Chand, IIT- Delhi	Techno-commercial issues related to Industrial Bioprocessing	10/02/2014
15	Professor H. C. Taneja - Delhi Technical University, New Delhi	Residual and Past Life-time Distributions and Information Theoretic Measures Approach	04/02/2014
16	Prof. Binod Kumar, UDRI, Dayton, Ohio, USA	Special Need and Emerging Lithium-Air Technology	18/11/2013
17	Dr. Vijay Raj Singh, Singapore-MIT Alliance for Research and Technology (SMART), Singapore	3D fluorescence Microscopy Systems Development for Tissue Imaging Applications.	30/10/2013
18	Prof. B. S. Panda, IIT Delhi	Probabilistic Method in Graph Theory	08/10/2013
19	Prof. Madhav Bhatia, University of Otago, Christchurch, New Zealand.  Prof. S. P. Singh, Banaras Hindu University (BHU), India.	Innovative approaches for biomedical research- students of today are research leaders of tomorrow	29/10/2013- 30/10/2013
20	Dr. Anup Madan, Genomics/Associate Director, Sequencing Group at Covance, Seattle, USA.	Role of Biomarkers in P4 medicine	11/10/2013
21	Prof. B. K. Dass, University of Delhi, Delhi	Interdisciplinary Nature of Mathematics	23/09/2013
22	Prof. Subodh Kumar De, IACS, Kolkata	Self-Assembly: An Important Aspect of Nanomaterials	21/06/2013
23	Prof. D Kumar, IIT BHU	Laser Spectroscopic Studies on Rare earth	06/06/2013

		doped Oxides Materials	
24	Dr. Babal Kant Jha, Cleveland Clinic, Cleveland, USA	Therapeutic implications of targeting innate immune response against cancer and viral infection	21/01/2013
25	Dr. B D Malhotra, Delhi Technological University (DTU), New Delhi.	Prospects of Nanomaterials Based Biosensors for Cancer Detection	09/11/2012
26	Professor P. V. Subrahmanyam, Professor and former HoD, Dept of Mathematics	Mathematical Analysis & Applications	07/08/2012
27	Prof. V Agarwal, Autonomous State Univ. of Morelos, Cuernavaca, Mexico	Porous Silicon Nanostructures and its Applications: From Light Emitting Devices to Sensors	28/07/2012
28	Dr. Himadri Chakraborty, Northwest Missouri State University, Missouri, USA	From the Brog to Humans: Collectivised, Coupled, and Lonely Electrons in Excited Nanostructures	03/07/2012
29	Dr. Shyamala Mani, Centre for Environment Education (CEE), New Delhi	Environmental Laws	03/05/2012
30	Prof. Rup Lal, Delhi University	Metagenomic analysis and its prospects for environmental remediation	07/05/2012
31	Prof. D K Agrawal, Pennsylvania State University, USA	Microwave Processing of Ceramics, Composites and Metals: An Overview	26/05/2012
32	Prof Arghya Taraphder, IIT Kharagpur & IIT Mandi	Transition Metal Dichalcogenides: A Novel Perspective	03/04/2012
33	Prof. R K Mandal, IIT BHU	Metallic Materials at Different Length Scales	02/04/2012
34	Prof. Kasturi Datta, Jawaharlal Nehru University (JNU), New Delhi,	Journey from protein purification to cloning to identifying function - Case history of HABP1	26/03/2012
35	Prof. Malcolm Schug, University of North Carolina, Greensboro,	The genetic structure and evolution of mating isolation between	11/03/2011

	USA	worldwide <i>Drosophila ananassae</i> populations	
36	His Excellency (Prof.) Sead Avdic, Ambassador of Bosnia and Herzegovina	Innovation Model of Industrial Development	24/08/2011
37	Prof. Narendra Kumar Govil, Auburn University, Auburn, USA	Erdos-Lax Theorem on Extremal Properties of Polynomials and Its Generalization	21/07/2011
38	Prof. Takeshi Yasui, Inst. of Tech. and Sci., Univ. of Tokushima, Japan	Terahertz Color Scanner for Moving Objects	10/05/2011
39	Prof. Tsutomu Araki, Osaka University, Japan	Observation of Human Skin Collagen Using a Second Harmonic Generation Microscope	10/05/2011
40	Dr. Anupam Mazumdar, Lancaster University (UK) & Niels Bohr Institute (Denmark)	Big Bang Universe	12/01/2011
41	Dr. Umar Farooq, AMU, Aligarh	Wavelet Based Processing of Speech Signals	20/04/2011
42	Prof. Pradeep Sirkar, IIT Kanpur	2D-Continus Wavelet Transform and its Applications in Image Processing	20/04/2011
43	Dr. Mani Mehra, IIT Delhi	Wavelets and its Applications	20/04/2011
44	Prof. S. D. Joshi, IIT Delhi	Some Studies of Signal Representation	20/04/2011
45	Prof G W Dueck, New Brunswick University, Canada	Visited Departments	20/03/2011- 22/03/2011
46	Dr G D Varma, IIT Roorkee	Functional Nano Material	29/01/2011
47	Dr. Anavaj Sakuntabhai, Pasteur Institute, Paris, France and Dr. Estella Poloni, Geneva University, Switzerland.	Interaction and lecture	18/11/2010
48	Dr. Bhaskar Rao, Vice- President, Eppendorf India Ltd., India	Novel Technologies in Molecular Biology/Biotechnology	16/09/2010

49	Dr. Mani Mehra, Asstt. Prof., IIT Delhi	Wavelets and Applications	10/2010
50	Prof. Karmeshu, Professor, JNU	Stochastic Modelling	10/2010
51	Prof. Rama Bhargava, Professor, IIT Roorkee	Mesh Free Methods	10/2010
52	Prof. U.S. Gupta, Professor, IIT Roorkee	Vibration Problems	10/2010
53	Prof. R. S. Gupta, Professor, University of Roorkee	Moving Boundary Problems	10/2010
54	Prof K T Arasu of Wright University, USA	Perfect Sequence construction	06/08/2010
55	Prof. Abul Hasan Siddiqi (Ex. Pro-Vice-Chancellor AMU & Senior Associate ICTP), Sharda University, Greater Noida	Variants of Wavelets and Their Applications	12/05/2010
56	Prof. Khalil Ahmad, Jamia Millia Islamia University New Delhi	Wavelets and Their Applications	14/04/2010
57	Dr. I. V. Singh, IIT Roorkee	Mesh Free Methods	13/03/2010
58	Prof. Petr Grig, Univ. of West Bohemia, Univerzita, Czech Republic	Quasilinear Boundary Value Problems: Theory, Numerical Experiments and Symbolic Calculations	29/07/2009
59	Prof. S. L. Singh, Gurukula Kangri University Hardwar	The Recent Developments in Computational Techniques	22/04/2009
60	Prof. C.K. Raju, Director (Academic), INMANTEC Ghaziabad & Professor Centre for Studies in Civilizations, New Delhi	Calculus without Limits	08/04/2009
61	Prof. P. N. Rathie, Department of Statistics, University of Brasilia, BRAZIL	Lambert W-Function, Statistical Distributions and Reliability Analysis	25/02/2009
62	Prof. R. S. Chhikara, Department of Mathematics & Statistics, University of Houston, U S A	Beyasian Analysis of the Inverse Gaussian Distribution	04/02/2009

**Distinguished Expert visits and interaction organized at the Institute:**

<b>S. No.</b>	<b>Expert</b>	<b>Date</b>
1	Ms. Anjali Hegde, Chief Executive Officer - India	30.06.15
2	Mr. Santosh Desai, Managing Director and CEO	30.06.15
3	Ms. Gouri Gupta, Research Head	30.06.15
4	Prof. A.D. Amar, Professor of Management, Seton Hall University - USA	11.03.15 and 04.03.14
5	Mr. Ajay Sahai, DG-CEO, Federation of Indian Exporters Organization	17.01.15
6	Mr. Shashank Gupta, Head-Finance, Sterlite Industries, Vedanta Group	13.02.15
7	Prof. Preetpal Singh, Former Head, Deptt. Of Management Studies, IIT Delhi	02.02.14
8	Prof. William Webster, Vice Provost, University of California, Berkeley, USA	01.03.14
9	Mr. Sudhansu Kumar Kanungo, General Manager-PMO, Schneider Electric India Pvt Ltd, India	12.03.14
10	Mr. Manish Gautam, Vice President & Cluster Head, Royal Bank of Scotland – Noida, India	19.06.14
11	Ms. Rimy Oberoi, Founder & CLO, OysterConnect.com, Oyster Learning, Noida	19.06.14
12	Mr. Amit Saneja, Associate Director, MTS India	19.06.14
13	Mr. HarI Parmeshwar, Sr. HR Consultant & Fmr. HR Head, Maruti Suzuki India	26.08.14
14	Mr. Manish Puri, Head-Logistics, Pivot Consultants - India	30.08.14
15	Mr. Samarth Masson, Founder & CEO, FutureQuest Consulting	30.08.14
16	Dr. David Orton, Principal Lecturer, DeMontfort University	01.09.14
17	Prof. Biswajit Chowdhury, Senior Corporate trainer, Free Lance Trainer	04.09.14
18	Ms. Ruchi Bhalla, Head HR, Piteny-Bowes India	06.09.14
19	Mr. Enayet Kabir, Associate Professor, KPMG-India	04.09.14
20	Mr. Sharad Kumar Gupta, Senior General Manager,	14.11.14

	Yazaki India Ltd.	
21	Mr. Gary Jackson, Director, Qlik.com	17.11.14
22	Sumantra Dutta Roy, IIT, Delhi	05.11.14
23	Sh. R. K. Singh, Consultant (Former Engineer-in-Chief, Doordarshan), New Delhi,	18.04.14
24	N. N. Sharma, Coordinator-Nanomaterials and National MEMS Design Centre, BITS, Pilani	22.02.14
25	Dr. Chandresh Agarwal, Chief Executive & Managing Director, IMERYS France	28.09.13
26	Dr. Anadi S Pande, Vice President - (HRM and Corp. Planning & Strategy), Hero Moto Corp. Ltd.	05.02.13
27	Prof. A.D. Amar, Professor of Management, Seton Hall University	06.03.13
28	Prof. William Webster, Vice Provost, University of Stirling	11.03.13
29	Dr. Phani Tej Adidam, Professor of Marketing and Sales Management, University of Nebraska	13.03.13
30	Dr. Louis Pol, Associate Dean, College of Business Administration, University of Nebraska at Omaha	13.03.13
31	Mr. Sandeep Gupta, General Manager - Service, Hitachi, India	25.06.13
32	Mr. Sunil Kumar, Former General Manager, PEC of India Limited	26.06.13
33	Mr. A.V. Surya S. Rao, Vice President, IMRB International	27.06.13
34	Dr. Chandresh Agarwal, Chief Executive & Managing Director, IMERYS France	28.09.13
35	R K Shevgaonkar, IIT Delhi	12.12.13
36	Surendra Prasad (Ex-Director, IIT Delhi)	12.12.13
37	Jaromir Pistora	13.12.13
38	Banmali Singh Rawat, Univ. of Nevada, Reno, USA	14.12.13
39	Sneh Anand, IIT, Delhi	14.12.13
40	Sunil Kumar, Professor, San Diego State University, San Diego	03.08.13
41	Dr. C.D. Wadhwa, Eminent Professor, IIM Ahemdabad	26.12.12
42	Mr. Varoon Raghavan, Consultant, Planning Commission, Govt. of India	08.02.12
43	Dr. Anadi S Pande, Vice President - (HRM and Corp. Planning & Strategy), Hero Moto Corp. Ltd	01.07.11
44	Dr. M. Ravi Sunder, Head Planning and Strategy, ICICI Securities Ltd.	01.07.11
45	Mr Gopal Krishnan, Audience Head & interim MD,	08.08.11



	Yahoo Inc	
46	Dr. Deepak Khazanchi, Professor & Associate Dean for Academic Affairs, University of Nebraska at Omaha	08.02.11
47	Mrs. Anita Gupta, Managing Director, Northern Stella Singapore	24.01.11
48	Mr. Herve Biauxserm, Director, France, Ecole Centrale Paris	03.03.11
49	Mr. Cristopher Crips, Director – Relations (international), France, Ecole Centrale Paris	03.03.11
50	Mr. Nishit Jain, India Representative, France, Ecole Centrale Paris	03.03.11
51	Prof. A. D. Amar, Professor, Stillman School of Business, Seton Hall University, South Orange, NJ USA	09.03.11
52	Ms. Sharon Gorman, Recruitment & University Liaison Manager, Association International Accountants	09.07.10
53	Mr. Mahender S Khari, AIA representative for India & Managing Director, Khari & Co., Association International Accountants	09.07.10
54	Mr. Praveen Jain, Senior Director (Engineering), CISCO, USA	27.07.10
55	Prof. K. T. Arasu, Professor, Wright State University, USA	06.08.10
56	Mr. Manoj Sharma, VP & Chief Information Officer, Jones Lang LaSalle	03.09.10
57	Mr. SR Balasubramanian, Executive Vice President - IT & Corporate Development, Godfrey Philips India Ltd.	11.09.10
58	Mr. Daya Prakash, Chief Information Officer, LG Electronics	18.09.10
59	Mr. Parminder Singh, Chief Information Officer - Group	19.10.10
60	Prof. Vijay K. Vaishnavi, IEEE Fellow, Professor of CIS	19.10.10
61	Mr. Ajay K Dhir, Chief Information Officer, JSL Stainless Ltd.	23.10.10
62	Mr. Peter Brady, Associate Dean for International Development, Edinburgh Napier University	25.10.10
63	Prof. (Dr.) Chris Cane, Director of Taught Graduate Programmes, University of Leicester	26.10.10
64	Prof. Jose Luiz Fiadeiro, Professor and Head, Department of CS, University of Leicester	26.10.10

65	Mr. VSP Srivastav, Head (Computer Division), IGNOU	30.10.10
66	Mr. Rajesh Uppal, Executive Officer (IT) and CIO, Maruti Suzuki India Ltd.	02.11.10
67	Dr. Ramesh C Vaish, Tax Consultant, Non ED of JP Power & JP Infratech Ltd.	09.11.10
68	Mr. Parminder Singh, Chief Information Officer - Group, Jubilant Life Sciences Ltd.	09.11.10
69	Mr. Arvind Mehrotra, Executive Vice President, NIIT Technologies Ltd.	10.11.10
70	Mr. Vijay Sethi, Vice President, Hero Honda Motors Ltd.	13.11.10
71	Mr. Basant Chaturvedi, Head IT, Perfetti Van Melle India	13.11.10
72	Professor G.W. Dueck, Faculty, University of New Brunswick	15.11.10
73	Prof. Akhilesh Chandra, Director, The Institute for Global Business, Univ. of Akron, USA	26.11.10
74	Mr. Punish Oberoi, Private Equity Professional, Rocsearch India Pvt.Ltd.	16.11.10
75	Dr. Kevin Truman, Faculty, University of Missouri-Kansas	08.12.10
76	Mr. Shehzad Azad, Head - Business Development & Alliances, Cellebrum Technologies Ltd.	14.03.10
77	Mr. Deepak Sehajpaul, General Manager International Business, Fresenius Kabi Oncology Ltd.	14.03.10
78	Prof. Robert Brown, President, Boston University	13.01.10
79	Mr. Dagan Potter, Head, Effects, DreamWorks Animation, Northern California, USA	14.01.10
80	Dr. Anavaj Sakuntabhai, Pasteur Institute, Paris, France	18.11.10
81	Dr. Estella Poloni, Geneva University, Switzerland	18.11.10
82	Mr. Tony Harker, Director & Chief Executive, ISLI	12.01.09
83	Mr. Pinku Biswas, Country Representatives (India), ISLI	12.01.09
84	Mr. Sanjiv Garg, Joint Secretary, CILT India	24.01.09
85	Mr. David Maunder, International Development Officer, CILT Intl.	24.01.09
86	Mr. Savitur Prasad, Joint Secretary, Ministry of Industries	29.01.09

87	Mr. Pankaj Vajpayee, President, Value Research India (P) Ltd.	30.01.09
88	Mr. Swarup Goswami, Consultant, SAP India (P) Ltd.	04.02.09
89	Mr. Christopher, Faculty, Edith Cowen University, Australia	04.02.09
90	Prof. William Webster, Vice Provost, University of California	25.02.09
91	Prof. G.P. Sharma, Professor, IIFT	25.02.09
92	Mr. Rahul Gangal, General Manager - Commercial and Business Development, Tata Industrial Services Ltd.	28.02.09
93	Mr. N.M. Ahuja Vice President, ONGC Videsh Ltd.	28.02.09
94	Mr. Sudhir Kapur, Coordinator to CMD, MMTC	01.03.09
95	Ms. Luna Das Bangia, Educational Advisor North India, United States-India Educational Foundation (USIEF)	04.03.09
96	Prof. Rajat Bakshi, Former Director State Trading Corporation (Delhi)	07.03.09
97	Dr. Syed Haque, Professor and Chairman, Department of Health Informatics, University of Medicine and Dentistry, New Jersey - USA	17.03.09
98	Dr. D. P. Mital, Faculty, University of Medicine and Dentistry, New Jersey - USA	17.03.09
99	Mr. Pankaj Vajpayee, President, Value Research India (P) Ltd. - India	21.03.09
100	Dr. Ranjeet Mehta, Director (Sales) Eureka Forbes	23.03.09
101	Prof. Sartaj Sahni, Distinguished professor and Chair, CSE, University of Florida -USA	25.03.09
102	Dr. Siddharth Mishra, Head - Sales and Marketing, Next Education India Pvt Ltd - India	01.04.09
103	Prof. Nilanjan Chattopadhyay, Professor, SP Jain IMR	06.04.09
104	Mr. Pankaj Vajpayee, President, Value Research India (P) Ltd.	06.04.09
105	Mr. A.V. Surya S. Rao, Vice President, IMRB International	10.04.09
106	Mr. Sanjay Gandhi, Head, Kenhal Digital	10.04.09
107	Mr. Manek Dhodi, Head - Mall Management, DLF Emporio	11.04.09
108	Mr. Saurabh Singh, Regional Head North, Orix Auto Infrastructure Services Ltd.	11.04.09
109	Mr. Ashish Agarwal, External Financial Consultant,	14.04.09

	AADA & Co.	
110	Mr. Ashish K Banerjee, Professor, IIM-Calcutta	30.05.09
111	Mr. Rajesh Butta, MMS, BITS Pilani, Vishubh Consulting Services	29.05.09
112	Dr. Ivan Coste, Professor, CERAM, France	12.08.09
113	Prof. Petr Girg, Professor, Department of Mathematics, University of West Bohemia	29.07.09
114	Prof Shree K. Nayar, Professor, Department of CS, Columbia University-USA	17.08.09
115	Prof Oscar H. Ibarra, Professor, Department of CS, University of California - USA	17.08.09
116	Prof Viktor K. Prasanna, Professor, University of Southern California - USA	17.08.09
117	Prof. William Norris, Professor, Department of CS, University of Minnesota-USA	17.08.09
118	Prof. Shingo Igarashi, Associate Professor, Kyushu University, Fukuoka, Japan	07.09.09
119	Mr. Laurent HUA Director Development (ECE), Paris	24.09.09
120	Prof. Wolfgang Stephen, Head of the Biology Department, LMU, Munich, Germany	03.12.09
121	Prof. Pinkaki Das Gupta, Professor, IIFT -Delhi	05.12.09

**Table 3.2.1 National Collaborations (without grants)**

<b>S. No.</b>	<b>Faculty from IIIT</b>	<b>Faculty/ Scientist from other Institutions</b>	<b>Subject Area</b>	<b>Outcome of the collaboration (Research Publications)</b>
1	Vibha Rani	Manish Sharma, Defence Institute of Physiology and Allied Sciences (DIPAS), DRDO	Cardiovascular research	2
		Umesh C. S. Yadav, School of Life Sciences, Central University of Gujarat, Gandhinagar	Cardiovascular research	2
2	Ashwani Mathur	Subhash Chand, Department of Biochemical Engineering and Biotechnology, IIT Delhi	Bioprocess engineering	2
		Sanjay Dhakate, Physics and Engineering of Carbon, Department of Materials Physics and Engineering, CSIR-NPL	Biopolymer Sciences	2
3	Chakresh K Jain / Sanjeev K Sharma	Gulshan Wadhwa, Deputy Director, DBT	Bioinformatics	6
4	Chakresh K Jain	Yamuna Prasad, Department of Computer Science and Engineering, IIT Delhi	Application of Computer Sciences and Engineering in bioinformatics	4
		Vijay Khare, Department of Electronics and Engineering, IIIT,	Biomedical research	1
5	Shalini Mani	Pankaj Bansal, Sharda University	Biomedical research	2
6	Prof. Bani Singh	Dr. Ajay Vikram Singh, Amity Institute of Information Technology, Noida, UP	Adhoc Networks	3
7	Prof. G. S. Srivastava	Dr. Susheel Kumar, JUIT, Wagnaghat	Entire Functions	1

8	Dr. Bhagwati Prasad	Prof. S. L. Singh & Dr. P. Pradhan, Gurukul Kangri Vishwavidyalaya, Haridwar	Fixed Point Theory	5
9	Dr. Akhilesh Kumar Singh	Dr. Manoj Kumar, Motilal Nehru National Institute of Technology, Allahabad	Numerical Methods	5
10	Dr. A. K. Aggarwal	Dr. Vivek Kumar, University of Petroleum and Energy Studies, Dehradun	Magneto hydro dynamics	1
11	Dr. Sanjeev Sharma	Dr. Ila Sahay & Mr. Ravindra Kumar, Birla Institute of Technology, Noida Centre, UP	Theory of Plasticity and Creep	7
12	Dr. Sanjeev Sharma	Dr. Manoj Sahni, Navrachana University, Vadodara	Theory of Plasticity and Creep	18
13	Dr. Sanjeev Sharma	Dr. Pankaj Thakur, Indus International University, Una, HP	Theory of Plasticity and Creep	1
14	Dr. Lokendra Kumar	Prof. Rama Bhargava, IIT, Roorkee.	Computational Fluid Dynamics	3
15	Dr. Pankaj Kumar	Dr. Manoj Kumar, MNNIT, Allahabad	Numerical Methods	2
16	Dr. Pato Kumari	Dr. Vikash Kumar Sharma, Institute for System Studies and Analysis, DRDO	Elasto dynamics	10
17	Dr. Pato Kumari	Prof. A. Chattopadhyay, ISM, Dhanbad	Elasto dynamics	7
18	Prof. Alka Tripathi	Prof. G. D. Mishra, G. L. Bajaj Institute of Tech & Mgmt., Gr Noida	Queuing Theory	4
19	Dr. Dinesh Bisht	Dr. Prakash Mathpal, ITM University, Gurgaon	Image Processing	1
20	Dr. Dinesh Bisht	Mr. M. Manne Raju, Irrigation and Command Area Development (Projects Wing) Department Govt. of Andhra Pradesh	Hydrology	6
21	Dr. Puneet Rana	Dr. Shilpi Agarwal, Amity University Noida, U.P.	Stability Analysis	2
22	Yaj Medury	Dr Seema Sanghi, StyraX Consultants Pvt. Ltd and	Human Resource	4

		Fiserv India Pvt. Ltd., Gurgaon.	Management	
23	Sharmistha Bhattacharjee	Dr. K.M. Ziauddin and Dr.Kasi Eswarappa, Maulana Azad National Urdu University, Hyderabad.	Gender Studies	1
24	Prof. D K Rai	Dr. S A Hashmi University of Delhi	Solid State Ionics	03
25	Prof. S C Katyal	Dr. Rajesh Kumar, Dr. Pankaj Sharma, JUIT, Waknaghat	Compound Semiconductor s	04 (with RK) 09 (with PS)
		Prof. Mahavir Singh, Prof. Nagesh Thakur, Prof. V S Rangram, HP University, Shimla	-do-	14 + 01 PhD (with MS) 03 (with NT) 10 (with VSR)
26	Prof. A Pathak	Dr. S Banerjee, IIT Jodhpur	Quantum Optics and Quantum Information	03
		Prof. P K Panigrahi, Prof. J Banerji, PRL, Ahmedabad	-do-	02 (with PKP)
		Prof. S Mandal Visva Bharati, Santiniketan	-do-	01
		Dr. B Sen, Vidyasagar Teachers Training College, Midnapore	-do-	07
		Dr. R Srikanth, Poorna Prajna Institute of Scientific Research, Bangalore	-do-	12
		Dr. Anu Venugopalan GGSIPU, Delhi	-do-	01
27	Dr. R K Dwivedi	Dr. R P Tandon Delhi University	Multiferroic Materials	01
		Dr. H K Singh, NPL Delhi	-do-	04 + 1PhD
		Dr A K Jha, DTU, Delhi	-do-	02
		Prof. R Ranjan, Prof. A M Umarji, IISc Bangalore	-do-	02
		Dr. K Asokan, IUAC Delhi	-do-	03
		Dr. O P Thakur SSPL, DRDO, Delhi	-do-	06
		Dr. Avneesh Anshul AMPRI, CSIR Bhopal	-do-	01
		Prof. Om Prakash, IIT BHU	-do-	03
		Dr. S K Mishra, Moser Baer	-do-	01

		India Ltd, G Noida		
28	Dr. P Chowdhury	Prof. C B Narayan JNCASR, Bangalore	Spectroscopy	02
		Prof. S Chakravorty, IACS Kolkata	-do-	08
		Dr. S K Goswami, Bruker India Scientific Ltd.	Fluorescent Materials	01
		Prof. Vinay Gupta Delhi University	Nanomaterials	02
		Prof. P Sen , JNU Delhi	-do-	06
29	Dr. N Goswami	Prof. Vinay Gupta Delhi University	Nanomaterials	02
		Prof. P Sen , JNU Delhi	-do-	06
30	Dr. M Kumar	Dr. R K Kotnala, Dr. V N Singh, Dr. M Jewariya, Dr. V P S Awana NPL Delhi	Multiferroic Materials	04 (with RKK) 01 (with VNS) 01 (with VPSA) 03 (with MJ)
		Dr. A K Pawar, DTU Delhi	-do-	01
		Prof. K L Yadav IIT Roorkee	-do-	02
		Dr. Naresh Kumar MNIT, Allahabad	-do-	02
		Prof. A K Shukla, IIT Delhi	Nanomaterials	01
31	Dr. S K Awasthi	L. Shiveshwari K B Women's College, Vinoba Bhave University, Hazaribag	Photonics and Metamaterials	02
32	Dr. G Srivastava	Prof. A M Umarji, IISc Bangalore	Ferroelectrics	02
33	Dr. V Sajal	Prof. V K Tripathi IIT Delhi	Plasma Physics	01
		Dr. Anil Malik, MM Modi PG College, Modinagar	-do-	01
		Dr K P Singh, Singh Simutech Pvt Ltd Bharatpur	-do-	03
34	Dr. R Kumar	Dr. P. K. Kulriya IUAC, Delhi	Diluted Magnetic Semiconductor s	02
		Dr. Govind Gupta, NPL, Delhi	-do-	01
35	Dr. S Chhoker	Prof. V D Vankar, IIT Delhi	-do-	-
36	Dr. B C Joshi	Dr. R J Choudhary, Dr. D	Thin Film	-



		M Phase, UGC-DAE, CSR, Indore	Devices	
37	Prof. J. P. Gupta	Sangeeta Sabharwal, NSIT, New Delhi	Software Requirement Engineering	01(Thesis) 09 (Research Publication)
38	Prof. J. P. Gupta	AK Sharma, YMCA University, Faridabad	Incremental Parallel Web crawler	01(Thesis) 08 (Research Publication)
39	Sandeep Kumar Singh & Divakar Yadav	AK Sharma, YMCA University, Faridabad	Context Based Focused Search Engine	01(Thesis) 03 (Research Publication)
40	Vikas Saxena	Prof. J.P Gupta, Sharda University(formerly at IIIT)	Video Forensics, design and Analysis of Algorithms	01(Thesis) 05 (Research Publication)
		Prof. J.P Gupta Lingaya University (formerly at IIIT)	Anomaly Detection In Computer Network Traffic	05 (Research Publication)
		Prof. J.P Gupta Lingaya University (formerly at IIIT)	Audio Forensics	01(Thesis) 03 (Research Publication)
41	Saurabh Kumar Raina	Prof. R S Rao, Ambedkar Institute of Advanced Communication Technologies and Research, GGSIP University, Delhi.	Multi-Objective Routing Protocol For Vehicular Adhoc Networks	Nil
		SS Bedi, MJP Rohilkhand University, Bareilly.	Group key Management in Secure Group Commun.	Nil
42	Dharamveer Rajpoot	Ashish Sureka, IIIT, Delhi.	Mining Software Repositories	Nil
43	Divakar Yadav	Abhay Bansal, Amity University, Noida	Image processing	03 (Research Publication)
44	R C Jain	Dr Omar Farooq, AMU, Aligarh	Digital Image Processing	NIL
45	Vikram	Prof. J. P. Gupta, Lingaya's	Communicatio	NIL

	Karwal	University, Faridabad	n Engineering	
46	H. O. Gupta	Dr. Kaushik Saha, Samsung R&D, Noida	VLSI System	NIL
47	Manish Kumar	P. R. Sharma, YMCA Univ. of Sc & Tech, Faridabad	Analog Signal Processing	NIL
48	Anil Rose	Dr. Arun Khosla, Dr. B. R. Ambedkar NIT, Jalandhar	Soft Computing	NIL
49	S.V Singh	Gunjan Gupta, JUIT, Wagnaghat	Analog Signal Processing	03
		R.S. Tomar, Uttarakhand Tech. Univ.		09
57	Shweta Srivastava	Sonali Kumari, AIT, New Delhi	Communication Engineering	NIL
		Arnab Chakraborty, KIT, Ghaziabad		01
		Sheelu Kumari, CIT, Ranchi		03
		Shatabdi Chakraborty, BIT, Mesra		07
		Megha Dadel, BIT, Patna		04
		Wriddhi Bhowmik, BIT, Mesra		07

#### International collaboration (without grants)

S. No.	Faculty/ Scientist from IIIT	Collaborating Faculty	Subject Area	Outcome of the collaboration (Research Publications)
1	Sanjeev K. Sharma Sanjay Gupta Indira P Sarethy	Michael Goodfellow, School of Biology, University of Newcastle, Newcastle- upon-Tyne, NE1 7RU, UK	Microbial Biotechnology	1
2	Sujata Mohanty	Malcolm D Schug, Biology Department, Univ. Of North Carolina, Greensboro, Greensboro, NC27402, USA	Evolutionary Biology	1
		John F. Baines, MaxPlanck Institute for Evolutionary Biology ,		1

		D-24306, Plon, Germany		
		Wolfgang Stephan, Dept. of Evolutionary Biology, Ludwig- Maximilians University, 82152 Germany		1
3	Dr. Bhagwati Prasad	Dr. Apichai Hematulin, Nakhonratchasima Rajabhat University, Nakhoratchasima, Thailand	Fixed Point Theory	01
4	Dr. Lokendra Kumar	Prof. O. Anwar Bég, Department of Biomechanics and Aerospace, Bradford, England	Computational Fluid Dynamics	03
5	Prof. Bhu Dev Sharma	Dr. Norris Sookoo, University of Trinidad	Information Theory	02
6	Dr. Puneet Rana	Dr. M Gorji-B, Dr. M.Sheikholeslami & Dr. D. D. Ganji, Babol Noshirvani University of Technology, Mazandaran, Iran	Nanofluids	01
		Prof. O. Anwar Bég, Department of Biomechanics and Aerospace, Bradford, England	Computational Fluid Dynamics	01
		Dr. S. Soleimani, Florida International University, Miami, Florida	Nanofluids	01
7	Santoshi Sengupta	Prof Gert , Prof. Mens Universidad Pompeu Fabra, Barcelona, Spain.	Organizational Behaviour	NIL
8	Prof. D K Rai	Prof. C W Lan, NTU Taiwan	Non-Linear Crystal Growth and Solar Cells	03
9	Prof. A Pathak	Prof. F M Fernandez	Mathematical	01

		Universidad Nacional de La Plata, Argentina	Physics	
	Prof. A Pathak	Prof. A Miranowicz, Dr. M Paprzycka, Adam Mickiewicz University, Poland	Quantum Optics and Quantum Information	02 (with AM) 01 (with MP)
		Prof. J Perina, Prof. J Perina Jr. Dr. J Krepelka Prof. V Peřinová, Dr. A Lukš Dr. M Hamar, Dr. V Michálek Palacky Univ, Czech Republic	-do-	01 (with JP) 01 (with JPJr) 01 (with JK) 01 (with VP) 01 (with AL) 01 (with MH) 01 (with VM)
		Prof. F Nori, Prof. A Miranowicz, CEMS, RIKEN, Japan/ Univ. of Michigan, USA	-do	02
		Prof. C H R Ooi Univ. of Malaya, Malaysia	-do	02
		Prof. M Garcia Universität Kassel, Germany	Quantum Optics	01
		Dr. P Pintr, Institute of Plasma Physics, Czech Republic	Astrophysics	02
		Prof. G W Dueck, University of New Brunswick, Canada	Reversible Computing	02
10		Dr. N Goswami	Prof. V Agarwal Av. Universidad Mexico	Nano-materials
11	Dr. P K Chauhan	Prof. Saleh T Mahmood, UAE Univ Al AIN-UAE	Plasma Physics	-
12	Shelly Sachdeva	Subhash Bhalla, University of Aizu, Japan	Databases	01(Book Chapter) 01(Research Publication)
14	Bharat Gupta	Stephen Winter, University of	Data replication in	Nil

		Westminster, UK	Desktop-based DCI	
15	Divakar Yadav	Juan Bautista Llorens Morillo Jorge Morato University of Carlos- III, Madrid Spain	Information Retrieval (Knowledge Reuse Research Group, Deptt of Computer Science & Engineering	05 (Research Papers)

**Table 3.6.1 List of NGOs with whom, the students have worked as part of extension activities**

- Vikas Bharti, Ranchi
- Swashtik Srijan Foundation, Delhi
- Hitesh Gramodyog Sewa Sansthan, Farukhabad
- Jan Sewa Samiti, Delhi
- Little Flock Gospel Ministries, New Delhi
- Purvanchal Manav Kalyan Sansthan, Maharajgunj, UP
- Save the Life, Chennai
- SumVikas, New Delhi
- pragati the n power, New Delhi
- Red cross, Kanpur
- Hubraji Jan Kalyan Samiti, Basti, UP
- Indian National Trust for Art and Cultural Hetitage (INTACH), New Delhi
- Koshish Special School, New Delhi
- SVCT, New Delhi
- Nature Foundation (Noida)
- Jeevan Kiran Rehab Society, New Delhi
- Minda Balgram, Delhi
- Ayushmaan Community Care Centre, Rewa
- Nature Foundation, Noida
- FXB India Surakhsha, noida
- Godhuli Senior Citizen Home, New Delhi
- Theatre for Education in Mass Society, Pithoragarh
- Sri Sachidanand Charitable Trust, New Delhi
- Rotary Club, Unnao
- OM Foundation, Noida
- Special Olympic Bharat, Delhi
- Shiksha Samiti Avam Shikshan
- Rotary club,
- Rasta, Delhi
- Ganga Social Welfare Association, Delhi
- Smile for All, Delhi
- Child Rights and You (CRY), New Delhi
- Human Development and Research Society, New Delhi
- Kamkhaya Lok Sewa Sansthan
- Loins Club, Gurdaspur District
- Vividha Sanstha, kanpur
- The Braj Foundation, New Delhi
- SOS BAWANA, New Delhi
- Professional Assistant for Developmen action (PRADAN), Raipur
- Day Darya Sankalp Charitable Society
- Bhumi-Youth Volunteer, Chennai
- St. John Ambulance, Delhi
- Centre for Enviornment and Education (CEE), Orrisa
- Leaders for tomorrow, Delhi
- Astha Mahila Jagarti Avum Baal Vikaas Samiti, Nainital
- Art of Living, delhi
- Pardada Pardadi Educational Society, Bulandshahr
- Rotary Club of Delhi Vivek, Delhi
- Jan Shakti Seva Sasnstan, Udaipur (Rajsthan)
- It's Your Earth, Noida
- Save the Life, Delhi
- Innovains Technologies, Noida
- Hubraji Jan Kalyan Samiti, Basti
- It's Yor Earth Welfare

- Sansthan, Bhopal
- All India Social Justice Organisation, Delhi
- Lord Shiva Educational Society, Mughalsarai
- SPIC MACAY), Delhi
- Udayan Care, Lajpat Nagar, New Delhi
- Aagaz, charitable trust, Ludhiana
- Abhivyaktio Foundation, New Delhi
- Adhaar, Delhi
- Prathithi, Delhi
- Akshay Pratishthan, New Delhi
- Amar Jyoti School, Gwalior
- Asha for education, ballia
- Asha nikanetan welfare association, bhopal
- Bhartiya Parivardhan Sanstha, New Delhi
- Blood Bank Organization , New Delhi
- Center for urban and rural development, delhi
- Centre for Agriculture and Rural Development, Lucknow
- Confederation Of NGO'S Of Rural India, Lucknow
- Crime Reformer Association, Gurgaon
- Cry, Delhi
- Datamation Foundation, Swasthya Vihar, Delhi.
- DCVS, Delhi
- DCWO, Jind
- Deepalya, New Delhi
- Development alternatives, jhansi
- DISHA, Bareilly
- Eco Friends, Kanpur
- Association, Saharanpur
- Siddhartha Vashishtha Charitable Trust, New Delhi
- We Believe Foundation, Lucknow
- Navyuva Sansthan, Kanpur
- People For Animals (PFA), New Delhi
- Nirmana
- Nirvan Rehabilitation centre, Lucknow
- Pardada Pardadi Education Society ,UP
- Path, India(New delhi)
- Pradaan, Bhubaneswar
- Pragati Path, Jhansi
- Pratham-Lucknow
- Agriculture and Rural Committee Development, Orccha
- Prayas, New Delhi
- Purvanchal Gramin Sewa Samiti, Gorakhpur
- Raahein, New Delhi
- Rachnatmak Sewa Sangathan (Delhi)
- Rani Memorial Society, Lucknow
- Rotary International, New Delhi
- Rotary Women Heritage, Bareilly, U.P.
- Rural India Development Foundation, VNS.
- S.O.S Children Village, Jammu
- Saath Charitable Trust
- Sahaiyta- a helping hand, Ludhiana.
- Saikripa, Noida
- Salam Balak Trust , New Delhi
- Samarpit Seva Sansthan, Dehradun.

- EXNORA Inovators CLUB Lucknow
- Friends club rey, kangre, hp
- Ganatavaya Sansthan, Delhi
- Ganga Raksha Manch, Kanpur
- Global Sustach International , New Delhi
- Ganga Seva Nidhi, Varanasi
- Gram Didi,Bhagalpur
- Guzar Desh Charitable Trust , Jammu
- Happy family health care Foundation, Roorkee (Uttarakhand)
- INTACH, Lodhi Road, New Delhi
- Jan Kala Sahitya Manch Sansthan , Jaipur
- Jan shikshan sanstha, Allahabad
- Jaypee sewa sansthan, Rewa
- Joining Hands, Delhi
- Joining Hands, Agra
- Upbhokta Sanrakshan Samitti, Bokaro
- Joining Hands, Noida
- Joining Hands, Varanasi
- Koshish, Delhi
- Lions Club, Ajmer
- Maa Har Sidhi ,bhopal,M.P
- Medical Pollution Control Committee, Kanpur
- MGP Sarvodya Kendra, Ahmedabad
- Missionary of charity ,Agra
- Navjyoti, Delhi
- Samarth Residential center,Agra
- Sambhagi Shiksha Kendra, Ghaziabad
- Savera Rehabilitation Institute for Children, New Delhi
- Seth Nihua Ram Charitable Trust, Dholpur
- Shahabhagi Sikshan Kandra Ghaziabad
- Shiksha Sopan (IIT, Kanpur)
- Shrishti, Delhi
- Social outreach foundation,sec-37,Noida.
- Society for services to voluntary agency,Chandigarh
- Society for child development
- The Community Trilokpuri, New Delhi
- The Eminent, Darya ganj
- United way of Mumbai,Mumbai
- Joining Hands, Ghaziabad
- Upbhokta Sanrashan, Bokaro
- Urban Health Resource Centre, Meerut
- Vision of India
- VOICE,DU,Delhi
- Young Indians, CII
- V-One Society, Baroda
- VRTWS, Thalassemia Care Center, Varanasi
- VOICE,National Consumer Helpline
- Youth United, Chandigarh
- Nature Foundation (India), Noida



### **Table 3.7.1 Linkages with International Institutions**

#### **1. The Finnish Universities of Applied Sciences, Finland**

Diaconia University of Applied Sciences  
HAMK University of Applied Sciences  
HUMAK University of Applied Sciences  
Kajaani University of Applied Sciences  
Central Ostrobothnia University of Applied Sciences  
HAAG-HELIA University of Applied Sciences  
Helsinki Metropolia University of Applied Sciences  
Jyväskylä University of Applied Sciences  
Kemi-Tornio University of Applied Sciences  
Kymenlaakson Ammattikorkeakoulu University of Applied Sciences  
Laurea University of Applied Sciences  
North-Karelia University of Applied Sciences  
PIRAMK University of Applied Sciences  
Rovaniemi University of Applied Sciences  
Seinäjoki University of Applied Sciences  
TAMK University of Applied Sciences  
VAMK University of Applied Sciences  
Lahti University of Applied Sciences  
Mikkeli University of Applied Sciences  
Oulu University of Applied Sciences  
Satakunta University of Applied Sciences  
Savonia University of Applied Sciences  
South-Karelia University of Applied Sciences  
Turku University of Applied Sciences  
Yrkeshogskolan NOVA University of Applied Sciences

#### **Salient Features of the collaboration**

MoU aims at facilitating mutual academic exchange, research and educational cooperation. Involves:

- Exchange of faculty members (teachers and staff) and researchers
- Exchange of students- Students to be nominated by the sending Institution. Exchange students will not pay any tuition fees or other charges related to studies. Students will bear lodging and boarding expenses and all other living expenses. Host Institution shall bear no financial responsibility for visiting exchange students. Limited programmes in Information Technology, Electronics, Civil Engineering, Media Engineering and Environmental Engineering. (Further details, as per the programme announced from time to time by respective Universities.)
- Joint research projects
- Exchange of information and publications

- Development of joint educational activities, joint and double degrees and courses
- Other activities mutually agreed by the two parties

## **2. The Alliance of 4 Universities (A-4U) of Spain**

Univeritat Autònoma De Barcelona(UAB)  
 Universidad Autònoma De Madrid(UAM)  
 Universidad Carlos III de Madrid(UC3M)  
 Universitat Pompeu Fabra(UPF)

### **Salient Features of the collaboration**

Acknowledges the importance of fostering inter-university relations, enhance relations in matters related to academic education, science and research, culture and human capital development, sharing of information and knowledge, and any other aspects which aim toward the internationalization of higher education, in accordance with the legislation of the respective countries.

Area of activity for development of the specific programmes of common interest include:

- Student Exchange- Each University to establish the procedures to select its own students who wish to participate in the programme. The exchange student shall be exempt from paying registration fees at the host University. (Further details, as per the programme announced from time to time by respective Universities.)
- Faculty Exchange
- Joint research projects
- Online student research
- Graduate and post graduate research co-supervision
- Dual degrees
- Sharing of knowledge, regular dialogue, and reciprocal visit programmes; sharing of information of best practices in higher education
- Identifying funding, internships, or any other kind of cooperation opportunities
- Joint cultural programmes, conferences, workshops and seminar development; training programmes
- Any other collaboration possibility

## **3. University of California, Berkeley**

### **Salient Features of the collaboration**

UCB and JIIT recognize the value of educational, cultural and scientific

exchanges between Universities and thus encourage:

- Exchange of Faculties and Researchers- Travel and accommodation will be the responsibility of the sending institution.
- Exchange of graduate students- In each academic year, upto four qualified students. Selection of students shall be made jointly by both institutions. (Further details, as per the programme announced from time to time by respective Universities.)
- Exchange academic materials of mutual interest including scholarly publications, curricula information and pertinent research reports
- Invite representatives of each other's academic community to participate in conferences and colloquia  
Further UCBE and Jaypee Education System also acknowledge cooperation in mutual fields of academic interest for purpose of developing specific education and training opportunities and programmes.
- UCBE to provide academic & organizational development assistance as well as education & training activities in a number of fields and subjects including:-
  - ❖ Design of curricula for proposed undergraduate and postgraduate studies.
  - ❖ Development of appropriate faculty profiles.
  - ❖ Internship opportunities with United States companies.
  - ❖ Establishment of periodic quality assurance practices and procedures.
  - ❖ Exchange of students
  - ❖ Exchange of faculties and instructors
- Additionally UCBE in collaboration with Jaypee may offer short professional training courses.

#### **4. University of Florida, Gainesville, USA**

##### **Salient Features of the collaboration**

To enhance the academic interchange between the two institutions, the parties desire to promote exchange between the faculty and students as well as the exchange of academic and research information.

- Specific projects in an area of educational interest will be selected as a result of coordination between University of Florida and Jaypee.
- University of Florida has launched a 8th Semester programme for students of Jaypee Group of Universities- Under this 8th semester students will be selected to spend one semester at University of Florida to earn a Senior Certificate in Computer Science and Engineering. Successful completion of this Certificate requires students to complete a minimum of 12 credits of approved courses at University of Florida with a grade of C or better on each course.
- University of Florida is offering engineering professionals located in

India, the opportunity to earn a Master of Science Degree through Electronic Delivery of Graduate Engineer programme ( “EDGE Programme” ) at IIIT in subject areas- Civil and Coastal Engineering, Computer & Information Science Engineering, Electrical & Computer Engineering, Environmental Engineering Sciences, Materials Science & Engineering and Mechanical & Aerospace Engineering.

## **5. University of Nebraska, Omaha, USA**

### **Salient Features of the collaboration**

The objective is to promote contact and collaboration between faculty, staff and students, carry out joint research programmes and exchange experiences in education research. Activities include:

- Exchange of Information & Experience-Joint meetings and Joints workshops
- Faculty Exchange
- Student Exchange – Students to be officially nominated by representatives of the respective University. Specific details of courses to be taken during exchanges or projects to be undertaken shall be approved by respective faculty. Both Universities to consider student tuitions on a case-to-case basis. The host institute will arrange accommodation. Travel costs and living costs are the responsibility of the exchange student. (Further details, as per the programme announced from time to time by respective Universities.)
- Joint cooperative research projects
- Coordinated Graduate Degree programmes
- Continuing and Distance education

## **6. University of Westminster, London, England, United Kingdom**

### **Salient Features of the collaboration**

The primary objective is to explore collaborative development in selected areas based on common interest

- Development of joint delivery post graduate programmes which allow the students to study part of their degree in India and part in London. Project dissertations to be jointly supervised. Develop programmes in Business Intelligence IT, Broadband & High Speed Communication Networks, DSP for Multimedia Communication.
- Creation of jointly supported staff development programme. This could include entry to University of Westminster postgraduate programmes and split mode Ph.D. for both staff and students
- Consultancy work to assist the development of new Postgraduate courses.

## **7. University of Abertay Dundee (UAD), Scotland, United Kingdom**

### **Salient Features of the collaboration**

The MOU aims at:

Academic Partnership in areas of MSc Smart Systems, MSc Internet Computing and MSc Information Technology.

- Develop and operate fees sharing model for combined study collaborative projects at PG level where the in-country partner in India develops a new post graduate certificate level award that Abertay can recognize as granting entry with advanced standing to post graduate diploma level at Abertay, with potential to progress to Masters level.
- Identify articulation roots for JIIT students to pursue research at UAD.
- Allow for JIIT faculty development in teaching and research at UAD.
- Identify and develop further links between UAD and JIIT that may be of mutual benefit to both partners

## **8. Cheng Shiu University, Taiwan**

### **Salient Features of the collaboration:**

The MOU aims at:

- Student exchange programme- Eligibility for participation in the programme shall be based on mutual consultation and governed by policies and procedures at each institution. In addition both universities shall adopt a bilateral articulation policy for the academic achievement of students, including credits, transfer, and academic degrees (Further details, as per the programme announced from time to time by respective Universities.)
- Faculty exchange programme
- Joint researches and activities such as mutual visits, research projects, collaborative workshops, distance teaching activities with the purpose of promoting education quality and academic achievements.

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INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31.03.2015.

AMOUNT (Rs.) 31.03.2014	EXPENDITURE	SCH	AMOUNT (Rs.) 31.03.2015	AMOUNT (Rs.) 31.03.2014	INCOME	SCH	AMOUNT (Rs.) 31.03.2015
13.35.73.813	INSTITUTE EXPENSES	"I"	15.21.11.054	57.86.57.934	COLLECTION FROM STUDENTS	"L"	68.26.98.652
36.21.80.753	SALARY & ALLOWANCES	"J"	39.57.34.207	3.05.40.814	INTEREST RECEIVED		3.65.82.171
7.17.32.341	STUDENTS' HOSTEL EXPENSES	"K"	8.86.79.322	46.86.357	OTHER MISC. INCOME		70.92.327
8.82.27.804	INTEREST & FINANCE CHARGES		9.61.63.883	61.38.85.105			72.63.73.150
3.69.15.170	DEPRECIATION		3.10.07.959	7.87.44.776	DEFICIT CARRIED OVER TO BALANCE SHEET		3.73.23.275
69,26,29,881	TOTAL		76,36,96,425	69,26,29,881	TOTAL		76,36,96,425

FOR DASS GUPTA & ASSOCIATES  
CHARTERED ACCOUNTANTS  
REG.No:000112N

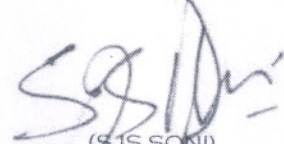
(ASHOK KUMAR JAIN)  
PARTNER

MEMBERSHIP NO: 090563  
PLACE : NEW DELHI  
DATE :10/09/2015

FOR JAYPEE INSTITUTE OF INFORMATION TECHNOLOGY  
(DECLARED AS DEEMED TO BE UNIVERSITY UNDER SECTION 3 OF THE UGC ACT, 1956)

  
(PROF. S.C. SAXENA)  
VICE - CHANCELLOR

  
(RAJU SANGAL)  
REGISTRAR

  
(SJS SONI)  
CHIEF FINANCE OFFICER





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INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31.03.2014

AMOUNT (Rs.) 31.03.2013	EXPENDITURE	SCH	AMOUNT (Rs.) 31.03.2014	AMOUNT (Rs.) 31.03.2013	INCOME	SCH	AMOUNT (Rs.) 31.03.2014
11.64.40.982	INSTITUTE EXPENSES	"I"	13.35.73.813	52.40.16.359	COLLECTION FROM STUDENTS	"L"	57.86.57.934
32.50.40.015	SALARY & ALLOWANCES	"J"	36.21.80.753	2.14.86.720	INTEREST RECEIVED		3.05.40.814
6.14.56.191	STUDENTS' HOSTEL EXPENSES	"K"	7.17.32.341	23.95.895	OTHER MISC. INCOME		46.86.357
8.85.24.979	INTEREST & FINANCE CHARGES		8.82.27.804	54.78.98.974			61.38.85.105
4.29.19.015	DEPRECIATION		3.69.15.170	8,64,82,208	DEFICIT CARRIED OVER TO BALANCE SHEET		7,87,44,776
63,43,81,182	TOTAL		69,26,29,881	63,43,81,182	TOTAL		69,26,29,881

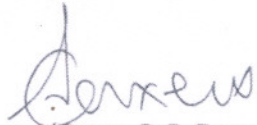
FOR DASS GUPTA & ASSOCIATES  
CHARTERED ACCOUNTANTS  
REG.No:000112N

(ASHOK KUMAR JAIN)  
PARTNER

MEMBERSHIP No: 090563  
PLACE: NEW DELHI  
DATE: 10/09/2014

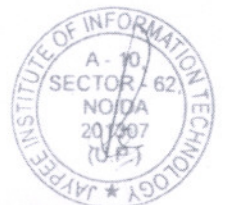


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(PROF. S.C. SAXENA)  
VICE-CHANCELLOR

  
(MIHIR KUMAR JHA)  
OFF. REGISTRAR

  
(SJS SONDI)  
CHIEF FINANCE OFFICER



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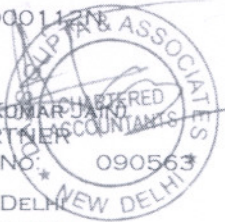
INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31.03.2013

AMOUNT (Rs.) 31.03.2012	EXPENDITURE	SCH	AMOUNT (Rs.) 31.03.2013	AMOUNT (Rs.) 31.03.2012	INCOME	SCH	AMOUNT (Rs.) 31.03.2013
13,98,75,089	INSTITUTE EXPENSES	"I"	11,64,40,982	43,37,67,304	COLLECTION FROM STUDENTS	"L"	52,40,16,359
29,90,45,284	SALARY & ALLOWANCES	"J"	32,50,40,015	1,68,52,308	INTEREST RECEIVED		2,14,86,720
5,73,74,195	STUDENTS' HOSTEL EXPENSES	"K"	6,14,56,191	28,63,542	OTHER MISC. INCOME		23,95,895
7,86,04,596	INTEREST & FINANCE CHARGES		8,85,24,979	1,10,222	GRANTS-IN-AID		
4,62,84,897	DEPRECIATION		4,29,19,015	45,35,93,376			54,78,98,974
				16,75,90,685	DEFICIT CARRIED OVER TO BALANCE SHEET		8,64,82,208
62,11,84,061	TOTAL		63,43,81,182	62,11,84,061	TOTAL		63,43,81,182

SIGNIFICANT ACCOUNTING POLICIES AND NOTES ON ACCOUNTS AS PER SCHEDULE 'M' FORM PART OF BALANCE SHEET.  
AS PER OUR REPORT OF EVEN DATE ATTACHED

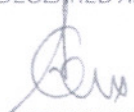
FOR DASS GUPTA & ASSOCIATES  
CHARTERED ACCOUNTANTS  
REG.No:000111

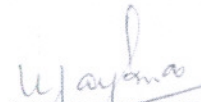
(ASHOK KUMAR JAIN)  
PARTNER  
MEMBERSHIP NO. 090563  
PLACE : NEW DELHI  
DATE : 10/09/2013

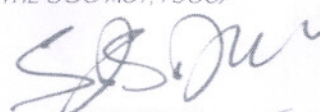


FOR JAYPEE INSTITUTE OF INFORMATION TECHNOLOGY

(DECLARED AS DEEMED TO BE UNIVERSITY UNDER SECTION 3 OF THE UGC ACT, 1956)

  
(PROF. S.C. SAXENA)  
VICE-CHANCELLOR

  
(COL. VIJAY KUMAR (RETD.))  
REGISTRAR

  
(SJS SONI)  
CHIEF FINANCE OFFICER





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INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31.03.2012

AMOUNT (Rs.) 31.03.2011	EXPENDITURE	SCH	AMOUNT (Rs.) 31.03.2012	AMOUNT (Rs.) 31.03.2011	INCOME	SCH	AMOUNT (Rs.) 31.03.2012
13,14,61,349	INSTITUTE EXPENSES	"I"	14,68,75,089	38,07,06,606	COLLECTION FROM STUDENTS	"L"	43,37,67,304
25,82,41,173	SALARY & ALLOWANCES	"J"	29,90,45,284	1,08,89,804	INTEREST RECEIVED		1,68,52,308
4,12,96,328	STUDENTS' HOSTEL EXPENSES	"K"	5,03,74,195	21,96,146	OTHER MISC. INCOME		28,63,542
66,74,939	INTEREST & FINANCE CHARGES		7,86,04,596	1,73,245	GRANTS-IN-AID		1,10,222
5,08,92,202	DEPRECIATION		4,62,84,897	39,39,65,801			45,35,93,376
				9,46,00,190	DEFICIT CARRIED OVER TO BALANCE SHEET		16,75,90,685
48,85,65,991			62,11,84,061	48,85,65,991			62,11,84,061

SIGNIFICANT ACCOUNTING POLICIES AND NOTES ON ACCOUNTS AS PER SCHEDULE 'M' FORM PART OF BALANCE SHEET.

AS PER OUR REPORT OF EVEN DATE ATTACHED

FOR DASS GUPTA & ASSOCIATES  
CHARTERED ACCOUNTANTS  
REG. NO: 00011

(SANDEEP DASHYIA)  
PARTNER  
MEMBERSHIP NO: 505371

PLACE: NEW DELHI  
DATE: 12/09/2012

FOR JAYPEE INSTITUTE OF INFORMATION TECHNOLOGY

(DECLARED AS DEEMED TO BE UNIVERSITY UNDER SECTION 3 OF THE UGC ACT, 1956)

(PROF. S.C. SAXENA)  
VICE-CHANCELLOR

(COL. VIJAY KUMAR (RETD.))  
REGISTRAR

(SJS SONI)  
CHIEF FINANCE OFFICER



## **Declaration**

I certify that the data included in this Self Study Report (SSR) are true to the best of my knowledge.

This SSR is prepared by the institution after internal discussions, and no part thereof has been outsourced.

I am aware that the Peer team will validate the information provided in this SSR during the peer team visit.

S. C. Saxena  
Vice Chancellor

Noida

17 September, 2015