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# Anunaadan Newsletter



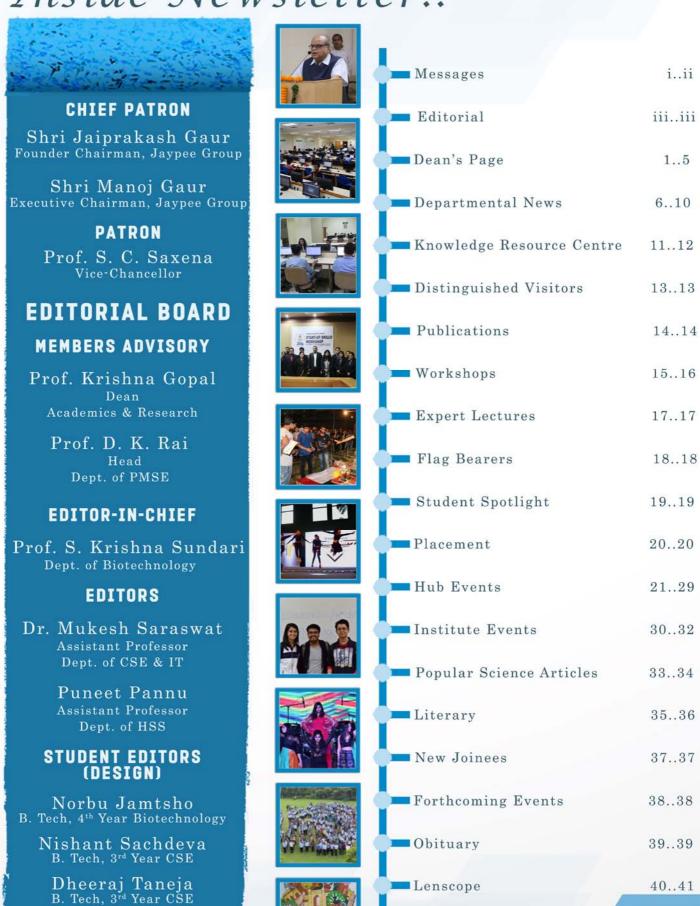
## Jaypee Institute of Information Technology

(Declared Deemed to be University under Section 3, UGC Act)

A NAAC Accredited and NIRF (MHRD) Ranked Deemed University

### Inside Newsletter..

Sarthuak Sharma B. Tech, 3rd Year CSE



### From the Desk of Vice-Chancellor





Jaypee Institute of Information Technology
(Declared Deemed to be University u/s 3 of the UGC Act)

10th April, 2017

Prof. S C Saxena Vice-Chancellor



#### Message

I am pleased to endorse the second volume of the Institute Newsletter, "Anunaad", a compendium of all academic, technical and cultural activities conducted at JIIT. I have pleasure sharing with you an important achievement of our institute. In NIRF (MHRD, GoI) Ranking-2017, Jaypee Institute of Information Technology, NOIDA stands in the Engineering category at: No. 1 private Deemed University in NCR & UP; No.2 amongst all Engineering institutes in Outreach & Inclusivity in India; No.3 amongst all Private deemed Universities in Northern region and No.54 amongst all engineering institutions in the country. The past academic semester has been very eventful where JIIT visualised the potential in the students and faculty alike as evidenced from the events recorded in this newsletter.

I greatly appreciate my students and faculty for their achievements and urge them to realise their academic goals through hard work and sincerity. I wish them all the best in every future academic endeavour.

Prof. S C Saxena )

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### From the Desk of Director





### Jaypee Institute of Information Technology (Declared Deemed to be University u/s 3 of the UGC Act)

10th April, 2017





#### Message

I am glad to see the second issue of "Anunaad", the Newsletter of the Institute. First issue of Anunaad contained news regarding education, research, technology, professional entrepreneurship, extra-curricular, co-curricular, social activities and achievements of JIITinas. Anunaad serves an important role in information collection and dissemination to all. It is recording the events, achievements, initiatives, suggestions, feelings and thoughts of all stake holders of the Institute and Jaypee Education System. Last four months have been truly exciting and enriching. Students and faculty have participated whole heartedly in all activities and events.

JIIT cultivates an approach ensuring that the Institute remains well positioned to uphold its name and for this we continue towards enriching our curricula, labs and R & D activities.

I congratulate the editorial board in bringing out the second issue of Anunaad and appreciate their efforts. Anunaad is strengthening the positive perception about JIIT.

With best wishes

(Prof. Hari Om Gupta)

### Editorial

Volume 2, Issue 1 of "Anunaad", starts on an auspicious note of NIRF ranking where JIIT secured premier position, making every JIITian proud and much encouraged to rise further in the educational arena of India. Ensuring quality education is the primary and the most important objective of JIIT. Every action that facilitates education is incorporated and implemented with utmost thought and efficiency. Every administrative instrument here is modelled to further the pursuit of education. Every faculty here is geared to deliver their duty diligently. Every student who graduates from here is a reflection of dedicated effort of the student amply abled with knowledge and skills imbibed by him over the years at JIIT.

Education is not complete if it doesn't help the individual to stand for oneself and courageously take upon the challenges that one faces at several stages in one's career and life. When we impart education, we empower the individuals to pursue their goals, to realize their dreams, to make right choices in life, to become a skilled professional in building the future of India. An Ideal education should make an individual respect diverse cultures, human values and professional ethics. Going through the pages of "Anunaad", would be like a walk through the happenings at JIIT, a rich mixture of academics, technical events, cultural programs and sports events with a sprinkle of humanitarian and socially sensitive initiatives. It also presents the cultural extravaganza of JIITians along with their literary, artistic talent and a strong musical flair. The awards won by our students, faculty and successful entrepreneurship of JIITians are worthy achievements as can be seen in the pages of "Anunaad".

Present achievements by JIITians, place a challenging and truly invigorating responsibility on all its members to maintain the current pace, strive hard and reach further heights of academic excellence. We believe our efforts to put together the various facets of JIIT as a consolidated issue of "Anunaad" will meet your expectations. With your support and encouragement, we would constantly advance in the scholarship of education.

Prof. S. Krishna Sundari Dept. of Biotechnology Editor-In-Chief

### Dean Academic & Research



cademics & Research is the heart of any educational institution as this sets the growth & development plan for the carrier of a student. Dean-Academics & Research is invested with the responsibility of guiding & developing Aademic & Research activities of the Institute under the overall supervision of Hon'ble Vice-Chancellor & Academic Council of the JIIT.

Dean-Academics & Research brings about coordination amongst different departments to maintain consistency & smooth functioning. Interactive sessions with students, mentoring of students, monitoring performance, progress & attendance of students; helps in identifying student issues and formulate academic rules accordingly in an inclusive manner as also initiating new proposals. Some of the recent initiatives undertaken are:

- •In order to further the prospects of student employability, a system of certified value added audit courses have been incorporated. These audit courses aid in up-gradation of foreign language and presentation skills. To keep abreast with technology demands, students are provided with electives & flexible core subjects right from the second year, so that the students can gradually evolve to a specialised skill set. Students are also given opportunity to earn credits through MOOCs wherein they are exposed to certified courses offered by Universities in India and abroad. These are conducted by eminent faculty members thereby expanding the knowledge horizons of students. A provision has been made to support students weak in academics through intense summer classes.
- The Institute facilitates the students in their pursuit of academic credentials with a unique edge as compared to their peers at other Institutions by offering challenging opportunities such as: credit to summer internship, term paper, summer industrial projects in lieu of dissertation of M.Tech students, degree with minor specialization and degree with honours.

Prof. Krishna Gopal krishna.gopal@jiit.ac.in

### Dean Research & Development



Management in India. The way general public has shown faith in its abilities over the years and the way Industry has been increasingly accepting its students, are strong evidences to that special status. Our recent rankings within top 100 institutions of India by NIRF and other bodies are a third party confirmation of the matter. All this has been possible due to the strong convictions of its founders and the untiring efforts of its administrators and the faculty in the formative period of the Institute. As a result, a good foundation was laid, and subsequent generations have nurtured and enriched that culture.

But, today we are living in a highly competitive environment, and even to maintain ourselves at the position we are in, we have to keep making continuous efforts and we cannot afford to relax. Our strong areas have to become stronger, and the weak areas to be bettered. We must continue to direct our efforts towards enhancing research and publication quality; promoting innovation, thus producing more patents and intellectual property; adopting new and more effective teaching-learning methods so as to enhance capabilities of our students; inspire and encourage our PhD students to produce quality work so that JIIT PhD degree carries a higher value tag in the academic world. It gives me a great pleasure when a PhD examiner from an IIT makes a remark that the work is of same standard as in IITs. It has happened twice since I joined this Institute.

Jointly, we can make the Institute a highly sought after engineering institute, and hope that the best of students and faculty would be knocking at its doors to gain entry.

Prof. Padam Kumar padam.kumar@jiit.ac.in

### Dean Sector-128

"हजारों ख़्वाहिशें ऐसी कि हर ख़्वाहिश पे दम निकले बहुत निकले मेरे अरमाँ, लेकिन फिर भी कम निकले"

मिर्जा गालिब

I have thousands of desires Every desire is dear to me Many of them fulfilled But, many more have been added.



The above stanza depicts the fundamental force responsible for all the developments that have taken place so far or will take place in the future. Desires are central to our existence. Desires get transformed to goals and push us on the path to achieve. Somewhere in between, we realized that what we thought as a goal was only a milestone and since then, many more desires have been added, redefining our goal. The journey is continuous and eternal.

In JIIT, we are continuously moving on the path of quality improvement in all the processes of education and research as it is our ardent desire to transform JIIT into one of the premier institutions internationally.

> When you desire something And what you desire is for good purpose. And you start walking on the path to attain it. Then your resolve will be tested at every step But ultimately, all the forces will converge to help you in your journey.

My personal journey in academics in JIIT especially in JIIT 128 speaks of the same.

Our desire, when the institute started was to establish B.Tech programs on a firm footing. In comes a new desire and we start M.Tech programs; Another new desire and we plan, try and ultimately get an externally sponsored project. Inspirational trigger for these desires have come from Hon'ble Vice Chancellor.

> "मै अकेला ही चला था जानिबे-मंजिल मगर लोग आते गए और कारवां बनता गया" मजरह सल्तानपुरी

Though I started the journey alone for my goal, many people joined me at different points and it ultimately became a movement.

What started with a handful of faculty members, JIIT 128 has strength of 82 faculty members, who are continuously engaged in teaching and research.

IQAC is an important initiative taken by JIIT . It has ushered us on the path of setting quality milestones in all the processes of the institutional operations namely teaching and learning; research; stakeholder relationship; professional and social activities; students activity and placements. Taking feedback from all, analyzing the feedback from observations and recommendations and ultimately action is the pathway to quality improvement is being undertaken by JIIT.

All components of JIIT family from Hon'able Manoj Gaur Ji, Vice Chancellor to faculty are participating in this quality improvement process and together we shall proceed to transform our collective vision to a reality.

Prof. Krishan Kant k.kant@jiit.ac.in

### Dean Student Affairs



Let again, JIIT has sailed through the storm created by Brexit & Mr. Trump in job market this year. Extra effort put in by the students has ensured more than 100% offers with the highest salary at Rs.27 lac to 18 students. Almost 150 students successfully achieved offers in product development companies with CTC exceeding Rs.6 lac. Placement figures are lower than last year but comparable to the best Engineering Institutes.

Going by the trend, Campus 2018 is going to be very challenging & tougher. The jobs being promised to US Govt, by Indian IT Companies will directly impact the vacancies in Campus 2018. Development in Digitization, artificial intelligence and a likely merger of telcommunication companies will further impact the numbers in the coming years. Fund squeeze in 'start-ups' implies no fresh recruitment in the coming months. It is always a good strategy to carry out real time appreciation of the disruptions in technology and business, that may appear to restrict new jobs but may open gates to a different technological environment.

We at T&P will try and find Industry partners to provide our engineers insights to these disruptions and prepare them for the new challenges in niche technologies. Our advise to aspirants is to get going like in the saying "Tough gets going when the going is tough".

Commodore KK Rohatgi VSM (Retd) kk.rohatgi@jiit.ac.in

### Dean Humanities & Social Sciences



Swami Vivekananda, a nineteenth century Indian monk once said, Education is a manifestation of perfection in man. Education is not the amount of information that we put into your brain and runs a riot there, undigested, all your life. We must have life building, man making, and character making assimilation of ideas. If you have assimilated five ideas and made them your life and character, you have more education than any man who has collected a whole lot of information.

Jaypee Institute of Information Technology established in the year 2001, is a centre of excellence in the field of IT education and training and is comparable to the best in the world for producing professionals who shall be leaders in innovation, entrepreneurship, creativity and management. Social Science and Humanities are the source of change-facilitators that serve to complement the existing and emerging educational programs by imparting professional and behavioral competencies and, thereby, transforming our students to become new-age leaders in their chosen professions. Social Sciences constitutes a whole universe of intellectual domains, spanning a spectrum of knowledge pertinent to communication skills, individual and group behaviour, psychology, sociology, literature, economics, finance, entrepreneurship and Management.

Social Sciences play a unique role in an institute where the ethos of science and technology prevails. It is believed that engineering and science are, by their very nature, humanistic and socially derived enterprises. Hence a complete science and technology education must include humanities and social sciences and other behavioral sciences where the students unite application of scientific principles along with human, moral and social understanding JIIT offers courses in undergraduate programs of Computer Science and Information Technology department, Electronics and Communication department and Biotechnology department in the form of core subjects as well as electives. Students are offered basket-wise Social Sciences electives during their II, III and IV year, giving them a wide range of choice and exposure to various domains of learning and knowledge from various disciplines of sociology, psychology, literature, economics, management, finance and entrepreneurship. These courses aim at making the students aware of the various issues concerning man and society. They are meant to sensitize them to the broader social, cultural, economic, ethical and humane issues involved in social change. Students are also provided with Lab-based Value Added courses like Translation & Translation Studies and Psychological Testing which not only enhance their competitive edge in the job market but also make them more skilled and adept as compared to their peers. These courses prepare the students for the professional world by creating communication competence that enables them to carve a niche for themselves in the organization they are a part of. Additionally, courses on the nuances of financial management offered to the students chisel their behavioral skills required to achieve success and prosperity in today's world.

## Department of Computer Science Engineering (CSE) and Information Technology (IT)

This academic year at the department of CSE&IT has been an eventful year. More than 55 research scholars are pursuing their PhD at the department that now has 92 faculty members of which 33 hold a PhD. In addition, 5 more faculty members have recently submitted their PhD theses at different universities and a few more are likely to do so within the next few months. During July-December 2016, nearly 15 new courses were developed and taught by the department.

The laboratory infrastructure of the department was further expanded with more laboratories, servers, workstations, and computers. Dedicated lab facilities for two research centres namely "Prayag- A Centre of Knowledge Informatics for Sustainable Development" and also the "Centre for Performance Modelling of Computing Systems" have been set up. An Entrepreneurship Development Centre (EDC) has also been established to nurture budding entrepreneurs of JIIT.

The industry acceptance of our B Tech students has already been well established for long. The department is making fresh efforts to increase the industry acceptance of its M Tech programs. More than 30 students of our different M Tech programs pursued their full-time or part-time industrial internships in their 3rd semester at different companies. The industry's feedback about their performance has been excellent.

The faculty and students were actively involved in research besides teaching and learning. This is evident by a good number of publications in referred journals and conferences of repute. Nearly 30 research papers and 2 book chapters were contributed by the faculty.

A large number of student enrichment programs were carried out by various technical hubs. Microcontroller Based Systems and Robotics Hub ( $\mu$ CR) hosted various manual and autonomous robotics events. Besides bootstrap camps on GIT, Linux OS and Drupal, GDG, Programming hub enriched students' knowledge through workshops in programming and web development, web crawling and scraping. Other technical events organized by the hub, namely Weekend Onsite Programming, Encode 16.1, Pro Tech Week 2016, Code Class Noob and Code Class kept students on the edge throughout the semester. In all, more than 5,000 students participated in these events.

Many students who participated in national events like ACM ICPC, technical fests of IIT Mumbai, IIT Roorkee, IIIT Delhi, IIIT Gwalior and PEC, Chandigarh among others, came out with flying colours.

#### Research Centres

Corpus of Resources & Engagements for Deep & Effective Learning (CREDEL) and Corpus for Performance Assessment of Computing Systems (CoPACS) are the two large research projects being carried out in the department. High end labs have been added, dedicated to each project.

#### Research Project:

Dr. Mukesh Saraswat of the department has secured a sponsored project in collaboration with Rajasthan Technical University, Kota titled, "Design & Development of a Cognitive System for Leukocytes Identification in Hematoxylin and Eosin (H & E) Stained Rat Skin Images" funded by the SERB-DST, New Delhi, India





## Department of Electronics & Communication Engineering

The B. Tech program of Department of Electronics & Communication Engineering aims at producing high quality engineers, who can take up challenges in design, development, research, manufacturing, management and academics. Students are given good foundation in Basic Sciences, Mathematics, Basic Engineering and in different areas of Electronics & Communication Engineering. The various Professional Development Courses offered to the students in the form of core and electives from Languages, Humanities, Social Sciences and Management aid in nurturing good professionals in their respective branches of specialization. The salient features of the B. Tech. Degree programs are:

- · In depth knowledge of core courses
- Inculcate analytical approach
- Mix of hardware and software based experiments
- Emphasis on project work and project based learning
- Emphasis on learning through design and simulation
- Open ended laboratory problems in Lab courses
- Sufficient number of courses for Humanities and personality development

The Department offers M. Tech. program in two specializations namely Communication Systems and Micro Electronics Systems & Embedded Technology and covers a number of areas at advanced level like Mobile, Wireless, Optical, Computer Communication System, Digital Signal Processing, Spread Spectrum Communication, Information theory and MIMO and OFDM Systems. MEMS Devices and Technology, VHDL based Digital Design, Analogue and Digital CMOS Design and Embedded Systems Design. Curriculum has been carefully designed to meet the objectives of theoretical rigor and practical applications. In order to complete the required courses, students have to work on seminar and project course in the summer between VIII and IX semester. The Ph. D. degree involves fulfilling specified course credit requirements, residential requirements along with a thesis stating a critical account of the research work carried out in the chosen area. Some areas open 4G Cellular Technologies, research are: Communication Channel Modeling, Free Space Optical Communication Systems, Integrated Antennas, Cognitive Radio, Signal Denoising, Semiconductor Modeling, Digital Filter Design Applications, Digital System Testing, Image Forensics, Data Analysis, VLSI-DSP Architecture, Semiconductor Memories, Embedded System Applications and Renewable Energy and Smart Grids.

International Conference on Signal Processing and Communication (ICSC) is an annual conference organised by the Department with technical co-sponsorship from IEEE. From the day of its inception in the year of 2013, ICSC has always been a platform for researchers all across the globe to highlight recent developments and to identify emerging and future areas of growth in the field of Signal Processing, Communication and VLSI. In the third edition of ICSC-2016, a total of 259 papers were peer reviewed and only 102 were presented. Similar to previous editions, this edition would also be indexed in Scopus as the previous two conferences proceedings were and all the presented papers would be published in IEEE digital library. Many eminent experts like Prof. Banmali Rawat, from University of Nevada, U.S.A., Prof. Rajendra Bahl, CARE, Indian Institute of Technology, Delhi, Prof. Yasumitsu Miyazaki, Aichi University of Technology, Japan, Prof. George Jandieri, Georgia Institute of Technology, Georgia, Prof. Sungtek Kahng, Incheon National University, South Korea, Prof. Ekram Khan, Aligarh Muslim University, Aligarh and Prof. B. K. Kanaujia, Jawahar Lal Nehru University, New Delhi, enlightened the audience with their knowledge and rich keynote lectures in ICSC-2016.

#### **New Labs:**

Two new labs have been set up in the department to promote the project work and research activities of M. Tech and Ph. D. students.



### Department of Biotechnology

The department of biotechnology is continuing its quest of excellence for quality research and teaching by securing extra mural grants, publishing research papers, organizing FDPs, conferences, workshops, invited talks, etc.

Dr. Kamal Rawal (PI) and Dr. Sanjay Gupta (Co- Investigator) secured an approval for a research grant from DBT, GOI, to analyse next generation cancer Several faculty members of the department published their research work in a total of 18 journals of International repute. Several students M.Tech&Ph.D) of JIIT are involved with the faculty research group during these studies and are now co-authors in the publications thus generated. Apart from that, several faculty members delivered expert lectures to share their research work FDPs/Workshops organized in JIIT and outside.

Prof. Sanjay Gupta was selected as Member of National Technical Expert Committee for strengthening of scientific activities of Molecular Diagnostic Laboratory, National Institute of Biologicals (NIB), NOIDA.

The quality of training at department was exemplified as one of our students Ms. Yashika presented a poster at European Molecular Biology Laboratory (EMBL), Germanywhile securing Govt Fellowship, whereas another student (MsKopal) cleared NET with scholarship. Alumni interactions were initiated promoting opportunities for expert interaction with students. ShreyKohli, a department department alumnus and presently a doctoral student at Otto Von Guericke University, Germany delivered a lecture titled "Exploring Career Prospects in Academia and Research - India and Abroad". Mr. Atul Pandey and Mr Gaurav Kumar, who are also first generation entrepreneurs and CEO of 'Gralit India Biotech Pvt Ltd., delivered lectures and interacted on nuances of research and entrepreneurship, respectively.

This period also saw hectic activity in the department for organization of its first major International conference on Plant and Microbial Biotechnology (February 2017) and start of several other such activities.

## Department Of Physics and Materials Science & Engineering

he Department of PMSE has a rich tradition of excellent teaching and scholarly research. The rigorous and broad based undergraduate and postgraduate courses and dedicated faculty with wide-ranging research interests has made it one of the most scientifically versatile and modern departments in the institute.

In the last six months, PhD students graduated from the department joined different institutes like IIT BHU, IIT Kanpur, etc. Dr Pradeep got Institutional post-doctoral research associateship to work at IIT BHU. Dr Vijayeta Pal received Institutional post-doctoral research associateship to work at IIT Kanpur. Two research scholars of the department namely Ms. Meenakshi Rana and Mr. Kishore Thapliyal have received NASI-Springer award and NASI-SWARN JAYANTI Puraskar in Physical Sciences by National Academy of Sciences respectively. Mr. Kishore Thapliyal and Dr. Nasir Alam were elected as 'category A' speakers, in Theoretical Physics Seminar Circuit (TPSC) for the year 2016-17.

A new faculty, Dr Himashu Pandey, also joined the department in September, 2016. Dr Himanshu has completed his PhD from Department of Physics, IIT Kanpur. His research interest lies in the area of Heusler alloy thin films and their exploration for versatile applications, and optimization of magnetic recording media and oxide heterostructures. He has worked at National Institute for Materials Science (NIMS), Tsukuba, Japan as a post-doctoral research associate.



### Department of Humanities & Social Sciences

he department started new courses from July, 2016 which include Lab-based Value Added courses like: An introduction to Translation & Translation Studies, Psychological Testing as well as Foreign Language courses (French or German) for III year students keeping in mind the industry needs. The faculty of HSS published 22 research papers in various indexed journals of International repute. The department conducted workshops, development programs and organized talks and invited lectures for adding to the knowledge base and skills enhancement. The department was torchbearer in organizing Students' Seminar on Contemporary Literature (November 11-12, 2016) for the first time at JIIT exclusively for under graduate and post graduate students. This seminar provided a platform to explore student's research potential, channelize their thoughts into a proper form of through paper writing and presentation. The seminar received 105 registered students (JIIT and other institutes). Prof Alka Sharma was the convener; Dr Monali Bhattacharya and Dr Kanupriya Mishra Bakhru were its co-coordinators.

The event was much appreciated by eminent Professors and plenary speakers Prof. Ravinder Gargesh and Prof. Harish Narang from DU and JNU. The program also experimented with a new form of table-talk involving 2 young writers with 2-3 published books e along with a famous Blog Writer for an interactive session. Social activities undertaken by the department have been the interface between the youth and the society at large creating awareness about environmental issues, life saving skills or rural reconstruction amongst students, making them more humane through initiatives like organizing Blood Donation camps or donating clothes and other items to the poor. The department faculty are also involved in various outreach programs and collaborate with the NGOs for issues like gender sensitization, environmental causes culminated in the form of workshops and tree plantation drives. department also caters to various extracurricular and co-curricular student activities. The faculty is actively involved in organizing literary events like debates, guizzes, MUNs along with cultural explorations of theatrical activities and creative arts like sketching.



### Department of Mathematics

he Department of Mathematics added another feather in its cap by successfully organizing its maiden International Conference on "Recent Advances in Mathematical Sciences and its **Applications** (RAMSA-2016)" from December 8-10, Renowned international and national speakers who delivered key note lectures include Prof. M. Znojil, **Physics** Institute. Czech Prof. F. M. Fernández, National University of La Plata, Argentina; Prof. J. Prakash, Botswana University, Botswana; Prof. A.K. Nandakumaran, IISc Bangalore, India; Prof. G. Rangarajan, IISc Bangalore, India; Prof. B. S. Panda, IIT Delhi, India; Prof. G. P. Kapoor, IIT Kanpur, India; Dr. Dhananjoy Dey, SAG, DRDO, New Delhi, India; Dr. V. K. Sharma, ISSA, DRDO, New Delhi,





India; Prof. Karmeshu, JNU, New Delhi, India and Prof. M. C. Joshi, Kumaon University, India. A good number of research papers were presented by various delegates from diverse parts of the nation. Another highlight of the conference was, publication of selected papers as SCOPUS indexed proceedings by American Institute of Physics (AIP) Publishing, USA. Various tracks of RAMSA-2016 such as Information and Coding Theory, Computational Science, Wave Propagation CFD, MHD, Analysis, Optimization, Fuzzy Sets, Wavelets, Fractals & Chaos and others have direct application to diverse areas of engineering and sciences. One research scholar Chitra Modi completed her Ph. D. in month of December, 2016.

### Jaypee Business School

Under the guidance of Prof. S. C. Saxena, (JIIT) and Prof. Deepak Khazanchi, (University of Nebraska, Omaha), JBS has tied up with IAITQM (International Academy of Information Technology and Quantitative Management) for jointly organising an international conference. ITQM-17 was launched by Dr. Yong Shi and Dr. Vandana Ahuja during the International Conference on Information Technology and Quantitative Management (ITQM-16), Korea.



## Learning Resource Center



The Learning Resource Centre (LRC) at JIIT Noida is an excellent repository of Knowledge. It can accommodate about 700 users at a time. It has more than 80 computer nodes with high speed Internet & Intranet connectivity. It is fully integrated with the latest barcode technology and the International standard library management software 'Liberty'. Users can access bibliographic details of the LRC resources through On-line Public Access Catalogue (OPAC) from anywhere and at any time of the day. LRC consists latest collection of 55,000 textbooks, top of the line reference books, national and international peer reviewed journals, magazines and another 3,50,000 electronic resources on subject areas covered by academic curricula of the Institute and also from areas of universal knowledge. LRC also subscribes to 4,800 on-line full text science and technology journals and other national and international journals in printed form. It is also an active member of the Developing Library Network (DELNET) and provides inter-library loan services to its users. Open access system has been adopted at all service points where users may browse and select material of their choice. LRC has implemented an anti-theft electromagnetic system at its main gate. It has undertaken two major projects for development of institutional repository for maintaining intellectual output of the institute i.e. LRC DRS and dynamic LRC website. LRC keeps itself updated on latest Global practices by organizing book exhibitions and conference/workshops on a regular basis.



## IT Infra

Technology is a critical part of the day-to-day operations of the university. JIIT is one of the few Indian universities, which can boast of its state-of-the-art computing resources and network across the campus. JIIT has a Central IT Infrastructure Center for IT support. It provides network that keep everyone in the University connected to each other and the outside world. It monitors all network behavior and facilitates distribution of a secure network to the entire campus.

Faculty, Staff and students can access a large number of online journals and digital resources through the digital library maintained by the university. Each student, faculty & staff member is given a unique username and password, which gives them access to the centralized file & data-sharing system, enabling them to archive and access the information from anywhere inside the campus. JIIT has a dedicated and secured data centre. The IT Infrastructure is equipped with cutting edge technologies like high performance Xeon & Nehlam Quad-Core servers, Cisco 4510-R Backbone L3 switch, Cisco 5508 WLC Controller, Cisco L2/L3 switches, routers, Ibm Storage storewize V3700, Cyberoam 1000i \* 500i Unified Threat Management systems, Web Mail security, Gateway Anti Spam & Anti Virus, Web & Application Filter, Gateway IPS & Qos, various engineering and technical computing softwares like SAP, Mathematica, Matlab, LabView, ADS, CS5, RatianalRose, SigmaPlot, Synopsys, Virtuoso, Xilinx, JBoss and others which help the students and the faculty carry out their research projects. For printing needs there are heavy duty Network Laser Printers, Line matrix printers, and multi function printers. Central Antivirus server provides security for the entire network. The network and other infrastructure are prominently upgraded with time, to meet the needs of all the users on the campus.

Campus Lynx epr solution, integrates most of the complex processes right from the stage of inviting admission applications till the passing out of the students to maintaining their history. For students, Enterprise Resource Planning-Campus Connect (ERP) provides the facility to register for courses, add-drop courses and view grades & personal information. For faculty, it provides the facility to view the courses they are offering, view list of students enrolled in the courses and enter grades, marks and attendance.

All the hostels, faculty blocks, administrative block, library, classrooms and residences, are connected through redundant fiber backbone network. All the blocks are connected through layer 2 & 3 switches to provide 1Gbps connectivity at the user end. Every hostel

room has a dedicated Wi-Fi / LAN connection to provide round the clock access to resources on the net. We have Internet access through a 1Gbps Internet 1:1 Lease Circuit (OFC) from NKN with a backup connection of 20 Mbps running in failover mode. Internet connection is provided through both Lan and Wi-Fi in all blocks inclusive of residences, academics, library and hostels.

The data centre is powered by redundant UPS backup to ensure maximum uptime. We have 7 x 40/60 KVA (Configured in N+1 in redundant mode) and 10 KVA (Dedicated for Servers) UPS powering the critical IT infrastructure. At JIIT, we are committed to strictly following e-waste recycle & disposal norms. The University works with Govt. authorized companies who ensure all disposals of e-waste are ethically handled, recycled & disposed off in an appropriate manner.

### Highlights

- State-of-the-art computing resources and network across the campus.
- · WiFi-enabled campus.
- High-resolution LCD projection system with audio and video systems in each classroom.
- Independent department computer laboratories providing access to a variety of engineering and technical computing software.
- Centralized file, print, Antivirus and resource-sharing system for sharing data internally.
- Campus Lynx ERP to facilitate Faculty, Student and Staff.
- 1.20 Gbps Internet 1:1 Lease Circuit (OFC).
- UPS redundant backup to ensure maximum uptime.
- Follow e-waste recycle & dispose norms.
- Active IT helpdesk for technical support to students and faculty.

## Distinguished Visitors



Prof. Dheeraj Sanghi Dean, IIIT Delhi, India Delivered talk on: How to improve research in our institutions 18<sup>th</sup> July, 2016

Dr. Naveen Kumar Associate Professor, Delhi University, India Delivered talk on: Research methodological aspects 21<sup>st</sup> July, 2016



Prof. Timothy A. Gonsalves Director, IIT Mandi, India Delivered talk on: Cloud computing for India 11<sup>th</sup> Aug 2016

Prof. P. J. Narayanan Director IIIT Hyderabad, India Delivered talk on: Non-invasive 3D capture: some thoughts 11<sup>th</sup> Aug 2016





Prof. T. V. Prabhakar IIT Kanpur, India Delivered talk on: Software architectural aspects of contemporary platforms 11<sup>th</sup> Aug 2016

Prof. Manish Parashar IEEE Fellow and Professor, Rutgers University, USA Delivered talk on: Big data challenges in simulation-based science 12<sup>th</sup> Aug 2016



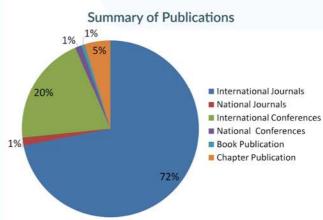


Prof. Sanjay Ranka IEEE Fellow and Professor, University of Florida, Gainesville, USA Delivered talk on: High performance computing and data science for large scale spatiotemporal applications 13<sup>th</sup> Aug 2016

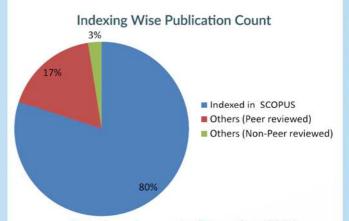
### Publications

- Annals of Physics
- Applied Mathematical Modelling
- Applied Physics A
- Applied Surface Science
- Biosensors and Bioelectronics
- Carbohydrate & Polymers
- Ceramics International
- Computational Biology and Chemistry
- European Physical Journal Plus
- IEEE Transactions on Electron Devices
- International Journal of Electric Power and Energy Systems
- International Journal of Thermal Sciences Journal of the Taiwan Institute of Chemical Engineers
- Journal of Applied Microbiology
- Journal of Alloys and Compounds
- Journal of Modern Optics
- Journal of Molecular Liquid
- Laser and Particle Beams
- Life Sciences
- Microelectronics Journal
- Molecular Ecology Resources
- Optical and Quantum Electronics
- Optical Materials
- Optik
- Personality and Individual Differences
- Physical Review A
- PLoS ONE
- Powder Technology
- Procedia Computer Science
- Progress In Electromagnetics Research
- Radioelectronics and Communication Systems
- RSC Advances
- Solid State Electronics
- The European Physical Journal Plus
- Wireless Networks
- Wireless Personal Communication
- World Journal of Microbiology & Biotechnology

### Important Jounals



Data from January to December, 2016



Data from January to December, 2016

#### Summary of Publications for Calendar Year 2016 (January to December, 2016)

Sr. No.	Type of Publication	Total
1	International Journals	243
2	National Journals	5
3	International Conferences	68
4	National Conferences	4
5	Books	2
6	Book Chapters	16
	Total	338

## Workshops

#### **Entrepreneurship Skills Workshop**

August 22-23, 2016

The workshop was an attempt by Jaypee Business School (JBS), Noida to train the participants in all major areas relating to starting and successfully running new businesses. The workshop had the following 7 major components:

- → Launching New Ventures
- → Business Plan for New Ventures
- → Make in India
- → Legal Process for New Ventures
- → Funding of New Ventures
- → Management of New Ventures
- → New Generation Entrepreneurship

The trainers for the workshop included experts from the industry and faculty members of Jaypee Business School. Mr. Vivek Agarwal, founder and CEO of Liqvid conducted the module on funding of new ventures. Prof. Jaijit Bhattacharya, Govt. Transformation expert, partner at KPMG and President, Centre for Digital Economy Policy Research, conducted a highly interactive session on Make in India. Mr. Gaurav Bansal, Mr. Mayank Goel and Ms. Mehak Chhabra of Registrationwala.com gave inputs and handled all queries related to launching of new ventures and business plans. Prof. Ashok Wahi of JBS, made the participants aware of new generation entrepreneurship. Prof. G. K. Agarwal and Prof. Sujata Kapoor, JBS faculty gave inputs on legal process for new ventures and management of new ventures respectively. Hon'ble Vice Chancellor, Prof. S. C. Saxena inaugurated the workshop. Dr. S. Suresh, Head of Entrepreneurship Cell, JBS coordinated workshop.





#### COMSOL MULTIPHYSICS AND APPLICATIONS August 31, 2016

The workshop was conducted jointly by COMSOL INDIA and the department of PMSE, JIIT, Noida. The objective of the workshop was to explore applications of COMSOL MULTI-PHYSICS software (by COMSOL India) and Graduate/postgraduate student participants from JIIT and other Institutions like AKTU, Manav Rachna International University, ONGC, SITM, SNU etc. Overall, numbers of participants were 33. In this workshop, the functioning of the COMSOL SOFTWARES was managed by Mr. Hemant Kumar, and technical talk on "Modelling and Simulation using COMSOL MULTIPHYS-ICS" was delivered by Dr. Samarth Agrawal from COMSOL India. Dr. Agrawal has presented large number of modelling and simulation data and applications using COMSOL MULTIPHYS-ICS such as thermal sensors, pressure sensor, chemical sensors etc.

## Workshops

National Workshop on Big Data Analytics and Visualization, September 5-7, 2016

The workshop was held at CSE department of Sec-128 campus, with a goal of enhancing the understanding of tools and techniques in this area. The workshop was well attended by participants from JIIT as well as other institutions. It was instrumental in providing an opportunity to the participants to learn from experts, coming from academia and industry. Key speakers were Dr. T. V. Vijay Kumar, JNU, Dr. Anil Kumar, Munjal University, Dr. Prabina Kumar Meher from Indian Agricultural Statistics Research Institute, Mr. Rishi Beri from Qlik Software and Mr. Sumit Sharma from WNS Global Services Pvt. Ltd and few in house experts.





#### Start-Up Skills Workshop

December 10, 2016

The workshop was held at Jaypee Business School, Noida and was attended by more than 25 participants, who learnt skills related to Launching of New Ventures, Legal Processess and Managing Start-Ups. Eminent trainers from the industry, who imparted skills to the participants, were Mr. Gaurav Bansal and Ms. Mehak Chabbra of Registrationwala.com, Mr. Ajay Goel, Director, Brite LED Pvt. Ltd., and Mr. Sidharth Mishra of Extra Marks. The workshop was inaugurated by Prof. Krishna Gopal, Dean Academics, JIIT, Noida. JBS Faculty members Dr. Hima Gupta and Dr. S. Suresh coordinated this event. This was the second in the series of workshops Entrepreneurship organized at JBS.



## Industry/Academia Dialogue

Mr. Arvind Jha Founder of Pariksha Labs "Disrupting the newspaper " 19<sup>th</sup> July, 2016

Mr. Subhas Verma
MD and VP (Engg)
Agnity India
"Disruptive communications"
20th July, 2016

Mr. Mukul Jain Founder & CEO, MTree "Engineering and product development aspects" 20th July, 2016 Mr. Anoop G. Prabhu
Co-founder Vehant
Technologies
"System engineering and
product development: Myths
and strategies"
21st July, 2016

Mr. Devesh Bhatnagar
Entrepreneur
"Engineering software
products for reliability &
robustness"
23rd July, 2016

Prof. Sunil (B.T.) Maharaj
Dean, Engineering, University
of Pretoria, South Africa
"Dynamic spectrum
management in cognitive
radio"
21st December, 2016

### Laurels Won

Prof. Shweta Srivastava was awarded the IETE- Smt. Ranjana Pal Memorial Award in recognition for her significant contribution as an educator and researcher in the field of RF and Microwave. The award was presented during IETE's 59<sup>th</sup> Annual Technical Convention on 24<sup>th</sup> September 2016 by Sri. A. S. Kiran Kumar, Chairman, ISRO.



Prof. Sanjay Gupta was selected as Member of Technical Expert Committee for strengthening of scientific activities of Molecular Diagnostic Laboratory, National Institute of Biologicals (NIB), Noida and attended first meeting on 22<sup>nd</sup> August 2016.

JBS Research Scholar, Radhika Sharma, presented a paper on Research Methodologies in Online Marketing, at the annual conference-Reaching Consumers of Emerging Markets, at IIM, Lucknow, Noida Campus. She has been awarded the Dr. Saji K. B. Nair Best Doctoral Student Paper Award (3<sup>rd</sup> Prize).

## JIITians on Path of Glory

Ms. Kopal Singhal qualified JRF-NET in 2016.

Mr. Kishore Thapliyal has received NASI-SWARN JAYANTI Puraskar in Physical Sciences by National Academy of Sciences.

Ms. Meenakshi Rana has received NASI-Springer award in Physical Sciences by National Academy of Sciences.

Ms. Yashika Rustagi: Received International Travel Grant fellowship under SERB-DST, CTEP-DBT, CICS-INSA, Govt. of India to present her research work at International Conference entitled "The complex Life of mRNA" at European Molecular Biology Laboratory (EMBL), Heidelberg, Germany, October 5-8, 2016.

### Student Spotlight

### **Akshay Pathak**

Student Akshay Pathak has published an article 'टेक्नोलॉजी बदल देगी हमारे रोज़गार का स्वरुप" in "Under30" column of nation-wide printed reputed Hindi newspaper Dainik Bhaskar. This column has been specially created for Young writers under 30 years of age with ideas and solutions for events happening in the world. This column usually has articles written by Scholars, Research students and professionals from all over the world, including people from universities like Princeton, Yale, Oxford, IITs, IIMs and other top global business schools.

http://epaper.bhaskar.com/gwalior/135/28112016/mpcg/-3/



### Vidur S. Bhatnagar An alumni of Jaypee's Engineering and Management

Vidur Bhatnagar, versatile alumni from Jaypee Institute of Information Technology, Founder and CEO at Keriton, has been in the news for winning accolades and awards for innovation in the "digital health" category for healthcare-related IT projects. His start-up makes a pair of matched apps that track breast milk in neonatal intensive care units, ensuring the right milk is delivered to the right baby, and providing coaching and feedback to moms that will help them to improve lactation.

The company got its start at PennApps, Engineering's biannual weekend-long hackathon. Bhatnagar and team members Grishma Jena and Sneha Rajana got the idea from Penn Medicine nurses, who were on site to advice on health-related projects. There, the team learned about the systems that NICU's use, to make sure that a mother's breast milk goes to her own baby, an arduous organizational task, given that mothers are encouraged to produce up to 16 bottles a day and nurses typically log each by hand. The stakes are also high: providing a baby with the wrong breast

THE TIMES OF INDIA

Roorkee man gets 27cr for breast milk mgmt start-up

Swincadam Virtue libraries and the found of premarines balance. The found of premarines bala

milk s an infection risk. "When I heard that most hospitals didn't even have automated labeling, handwriting everything, it just blew my mind," Bhatnagar says. "I couldn't believe nurses had to do all of this manually."

Pivoting away from the hardware elements developed at the hackathon, he continued to work with nurses and lactation consultants to zero in on different kinds of information that nurses and mothers needed the most in this area. This insight allowed Keriton to address some of the social and psychological factors that pose a challenge in lactation management. For example, the app also allows nurses to send pictures and videos of the babies to their mothers. "When moms are separated from their babies in the NICU, they're missing some of the stimuli that help them express more milk," Bhatnagar says. "We're trying to fill that gap digitally."

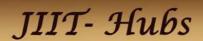
### Student Placement

Placement Status at a Glance for B.Tech students, across branches for the batch graduated 2013-17

Branch	Total Participating Students	Total No. of Offers	% of Total Offers	Absolute Offers	% of Absolute Offers
CSE	421	437	104%	330	78%
ECE	272	276	101%	184	68%
IT	43	48	112%	39	91%
ВТ	30	22	73%	18	60%
Total	766	783	102%	571	75%

### Major Recruiters





Welcome to the JIIT, Here you grow from plants to trees,
Where "It's our earth" supports the environment,
And "JYC" completes the requirement.

When it comes to extra-curriculums JIIT offers "impressions"

"Thespian" empowers drama and expressions,

And "Jhankar" makes you move to refreshen.

"Radiance" keeps you updated with fashion,

Holds "Ebullience" to keep freshers in passion.

"Crescendo" and "MMV" are the societies,

That provide stage to sing, to release all the anxieties

"Expressions" gives the canvas to paint, With this you have no constraint.

"JPEG" is the photography hub,

With talented photographers that do not snub.

But that's not all that JIIT propounds How can you forget the grounds?

Basketball, football, cricket or badminton

With sports they've also discussed about Hillary Clinton.

"Parola" the literary hub conducts JMUN and

Joust In a manner that no one is choused.

"Graphicas" does the designing part "GDG" developers are really smart.

"IEEE", "Knuth", "CICE" have programming geeks

Who have the power to code for weeks

"Ribose" takes care of all the biotechnological needs

And "Page Turner" has the crowd that reads.

All of this is done to incorporate reasoning, psychomotor and emotional learning

So that in future, JIITans can have a better earning.

Tanya Malkani B.Tech, 1st Year Biotechnology







### Jaypee Model United Nations

nsight begets ingenuity at the outset of ideal dialogue. Jaypee Model United Nations' ardent belief in this concept prompted the need for an astute counsel to lay the path at the conference which was held from January 21-22, 2017 at Jaypee Institute of Information Technology, Noida.

JMUN 2017 saw tremendous participation, an unprecedented level of debate & deliberation and an unparalleled learning experience for delegates from reputed schools and colleges across India. The event witnessed the participation of more than 500 enthusiastic delegates. This year's theme was "BELIEVE", which was released during the launch on November 15, 2016. The launch was a successful endeavor with Kunal Arora, the founder of Education Tree as the chief guest



JMUN 2017 saw the simulation of five challenging committees which gave the participants a chance to question the norms, relive the history, ponder upon the grim realities and engage in earnest debate. The five committees simulated in the seventh edition of Jaypee Model United Nations were:

- United Nations General Assembly DISEC : The agenda sought solutions on "Confidence building measures in the field of special arms trade in context with arms trade in Africa"
- United Nations Human Rights Council: The unique agenda of "Contemporary forms of Slavery in the 21st Century" was deliberated.
- Council of Europe: The agenda of "Refugee Policies, Immigration Procedures and Legislation" gave the delegates a chance to ponder upon one of the grim realities of today's world.
- Lok Sabha: A lot of questions were raised and discussed on the agenda "Discussions on the provisions of adopting the Uniform Civil Code and its effects".
- Commission on the status of women: Topics such as impact of armed conflicts on women, the role of women as peacemakers and peace builders in their community were debated through the agenda "Reforms in cedaw".

### Creativity & Innovation Cell in Electronics

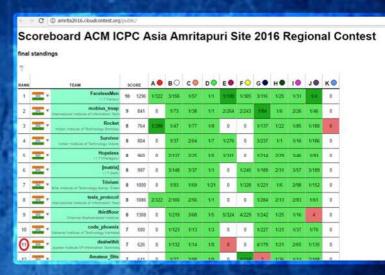
Creativity & Innovation Cell in Electronics (CICE) is a Technical club in JIIT that aims to teach and help people in understanding the seemingly incomprehensible electronic gadgets in the world today, and also assists people in developing their own devices. It is a hub where students take innovation to a new level and actually try to implement all the ideas practically in various formats. In this competitive world, where everyday a new technology comes into existence, it is extremely hard to keep abreast with all the technical know-how, but with basic concepts kept intact, one can aim for the top through Innovation, Imagination and Application. Various lectures, workshops as well as competitions throughout the year both in analogue as well as digital electronics keep the calendar busy and the participants, learning.

The whole idea behind this hub is to promote and implement innovative ideas through various lectures and workshops. What we have done in the past semester include: Orientation Session: No. of Participants (260), September 2, 2016; Workshop on MATLAB: No. of Participants (74), September 19-26, 2016; Manual VERILOG-HDL: No. of Participants (58), November16-22, 2016 and Electronics Project Exhibition: No. of Participants (82), December 03, 2016.



## Knuth Programming hub

 ${\sf B}_{\sf eing}$  the technical programming hub of JIIT Sec 62, Noida, KNUTH Programming Hub organised various workshops. online competitions onsite programming and programming competitions between July and December 2016. After the formation of a new coordination team of third year students, two different types of workshops, Cod Class Noob and Code Class Pro were conducted on a weekly basis for both the inexperienced and experienced students in the month of September and October respectively.





Besides workshops, the hub also conducted individual programming competition, Encode 16.1 (Online Round and Onsite Round). More than 550 individuals participated in the online round and the selected individuals were called for the onsite round. The hub also organized an onsite round of team based programming competition Execute 16.2 during the Tech Week 2016 in the third week of November. Around 200 teams (more than 450 students) participated in Execute 16.2.

Besides Execute 16.2, several other events like the Hackathon, various workshops, student and alumni talks were conducted during the Tech Week 2016. The hub encourages and supports students to participate in various online and onsite programming contests hosted by different programming platforms and prestigious institutions. In December 2016,a team of Sameer Gulati, Dhruv Srivastava, and Tanmay Dutta secured eleventh position at ACM ICPC Asia Amritapuri Site 2016 Regional Contest and qualified for India Finals.



### Radiance hub

### Mr and Ms Ebullience 2016 (August 2016), JIIT, Noida

This year Radiance hub put up two enthralling performances- "Bharat" which depicted the evolution and advancement of India after independence and how it has been breaking all clutches and moving forward ever since. The second was "Nirbhaya" which was a depiction of the strong fighter Nibhaya's story after her gang rape in Delhi. We were able to reach out to people's hearts and touch chords which was very overwhelming.









## Page Turner Society

PAGE TURNER SOCIETY, the book hub of JIIT, Noida aims to bring together avid readers, to critically appraise the book they have read while incorporating interesting ideas, providing spin off conclusion to the novels and suggesting others to read a particular novel. All of this was done at the Book Exchange which was held on September 22, 2016 where the book lovers from the institute actively participated and exchanged both fictional and non-fictional novels.

## Jhankar hub

hankar, the Dance hub organizes the intra-college and inter college dance activities. It is one of the most loved and sought after hubs in the institute. The students of this hub participate in inter college events like street dance, ball room dance and experiment with various versatile forms of dance. Their electrifying street dance performances have the crowd demanding for more as it is a great entertainment for the audience. Jhankar also has a reputation of being one of the toughest societies to get into as every student's talent is taken seriously and the best are chosen after everyone has been given a fair chance.

The hub further comprises of 3 teams:

Music Made Visible - The western dance team;

Khappis - The Bhangra team and

Nrityaang - The Indian dance team.

Jhankaar hub organized the 'Dance Night', on November 10, 2016 where every member of the college was present to see the dance teams showcase their talent. Every year during the annual fest- 'Impressions', the hub organizes three big events with maximum participation from other colleges around Delhi - NCR. The events, 'Dance of Fame' the group dance competition; 'Step Up' the solo dance competition and 'Footloose' the on-the-spot dance competition are the regular favorites.





### Parola hub

fter The Joust 2015, a successful venture last year, the battle of wits, words and wisdom came back in the 2016 edition, with some incredulous surprises. This time, it saw a participation of over 150 students from Delhi - NCR and around 30 participants were selected from JIIT after two rounds of auditions.

Parola - The Literary Hub of JIIT provided the students of various colleges with this exhilarating escape and allowed them to discover the realm of the literary world through The Joust 2016 on October 8-9.

Details of the events of this super exciting rendezvous were as follows:

CLIMAX : Climax was a two round debate on the topic 'Desire for America'. It was based on the views the nominees have had during their campaign.

JUDAS: Judas was a turncoat event where the participant had to debate 'for' and 'against' the topic. Each participant was assigned a topic on the spot, for which he had a preparation time of a couple of minutes. It was a solo contest, unlike other debating forms.

CYNOSURE: was a bilingual poetry slam event that allowed students to unfurl the sensitivity and find meaning in little serendipities of life. The students were allowed to perform at the event.

HISTORIC INDIAN COMMITTEE: This was an educational simulation in which participants implemented their knowledge of Indian history and diplomacy. An event which involved researching, public speaking, debating and writing skills. The agenda of the committee was the '1942 Quit India Movement'.

QUOTIDIAN: To emphasize the importance and power of writing and observation, the students were presented an opportunity to pen down the event through the Quotidian.

The two day literary fest ended on a high note with the winners receiving awards and being honored with mementos for their achievement. The Student Director of the Hub, Noopur Nagpal, ended the closing ceremony on the note, "a candle is enough to light up the entire room."

## JYC Week

Wovember brings with it the JYC Week- a plethora of cultural and technical events within the institute from November 7th-10th & 15th-16th, 2016. During the week, the music society of the institute organizes various performances and music battles. Through the week, the geeks, coders and robotic enthusiasts seem to be the busiest and also the most stressed/sleep deprived. Late night coding marathons are characteristic of CodeFlux, organised by the programming hub of JIIT. Also, how could the Robotics wing stay behind? They, too, have their own events and competitions running the entire week. To sum it up, the JYC week has something for everyone such as dance, music, technical events etc.



### Ebullience

osted by the JIIT Youth Club (JYC), Ebullience is an annual program organized for the newly enrolled students of JIIT, giving them a chance to showcase their talent. Ebullience has 6 major events encompassed under its umbrella. Performance by the Music Society gives an entertaining start to Ebullience. Following that was the performance by the Dramatics Society, known for the exuberant and lively disposition. After that, the wildely famous society of JIIT, VamUnique known for their popularity among all colleges across Delhi/NCR, performs for the students. The Bhangra Society was next in line giving a rather exuberant performance each time they come on stage. They never fail to impress. Finally, the most anticipated and inarguably the most popular round of Ebullience that is the Ramp Walk, where the gentlemen and ladies display their exceptional talent on the ramp. It consisted of 2 rounds viz. Ethnic and Western showcased at the beginning and at the end respectively.



# Microcontroller Based Systems and Robotics hub (µCR)

Cicrocontroller Based Systems and Robotics Hub ( $\mu$ CR), as the name suggests is the Robotics Hub of JIIT. It is a team of skilled students from all years who prove their worth, not just by talking, but by winning all sorts of Robotics competitions held in many colleges throughout the country, including IITs, DCE, NSIT, IIITs and other reputed institutes. Apart from winning, they have been hosting all sorts of Robotics events since the formation of the hub. Every year the hub organizes an annual Robotics event during the annual fest, which is amongst the most well-known Robotics event in the National Capital Region. They base themselves on the simple concept of learning by teaching: all senior students who specialize in their respective areas take classes for first and second year students on a regular basis, who in turn will teach their juniors as the academic calendar changes. They are well versed in Manual as well as Autonomous Robotics, and put a step forward to improve the technical knowledge in these and to keep innovating.

Event Name	Event Period	Number of Participants	
Introductory Orientation	August 5, 2016	300-350	
PCB Workshop	August 22-27, 2016	180-200	
Manual Workshop	September 19-29, 2016	300-350	
Manual Event (Dragonovoltz)	October 6-7, 2016	280-300	
COA Project Workshop	October 13-15, 2016	100-150	







Website: www.ucrjiit.com Facebook Page: www.facebook.com/uCR.jiit/

## "Expressions" - The Painting Hub



"National spirit is necessary for national existence and is integral to every conscientious individual." Keeping this thought in mind, "EXPRESSIONS - The painting hub of JIIT" conducted an event based on the topic: "Spirit of Nationalism". The event was named as "Pallet Punch". This event was conducted on October 8, 2016. The event consisted of two stages:

Round 1: Live art gallery (where the paintings that were submitted were put up at the LRC atrium on October 7, 2016)

Round 2: Bold brush (on the spot...painting competition based on clues given by the coordinators)





There were 35 paintings submitted for first round from which 12 paintings were selected by a panel of judges: Mr.AjitTomar (Admin Manager, JIIT), Prof. Krishna S. Sundari, Mr.Mahendra Gurve and Dr. Smriti Gaur. The first round allowed the selected participants to move towards the second round (Boldbrush) in which they were given two colors and name of an object. They had to paint any composition along with the object within a time limit of two hours.

Ishan Joshi a first year student won the first prize while AtithiSrivastava of first year and Arushi Singh of second year shared the second prize. Overall the event was a success with a very good response from students.

























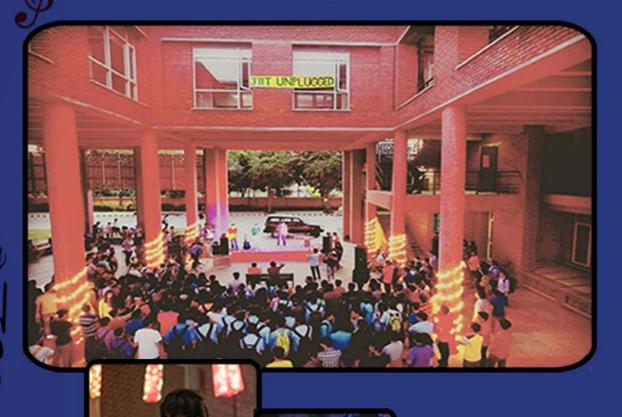




### "Crescendo"- The Music hub

Unplugged', was organized by Crescendo, the music hub of JIIT with full exuberance. A musical evening was hosted by the Institute's music hub, Crescendo on October 14, 2016. It was a performance based, non-competitive event where students sang some lovely melodies in groups. The songs included old classics and new numbers (Hindi & English). Students from all years came together to be a part of this extravaganza which showcased more than 20 performances and had over 300 people as audience. The theme of the event was Neon Glow and the stage set up provided the budding artists, a platform to show their musical talent. Songs ranging from Lag Ja Gale, a classic from the golden era to Mast kalandar were sung with great passion.

Some students created a blend of rap with Tabla beats while others hummed beautiful harmonies. The dim lights, mesmerizing music and neon glow created an effect of stars streaming down the arena. The event lasted three hours and ended with a promise to be back the following year with more mesmerizing melodies and amazing performances. The hard work and efforts of the event coordinators and the volunteers bore fruitful results as the musical evening was much appreciated and admired by all.



## Sports Meet..

"Fun Sports Meet – 2016" was the third edition of the now very popular annual event and was held from November 16-26, 2016 with the exception of a few days due to logistic reasons.

While cricket, volleyball, basket ball and football continued to dominate the popularity graph, this meet saw the entry of "Frisbee" sport for the first time, and undoubtedly it won the hearts of the masses. Not only was it contested keenly, it was witnessed by large number of spectators and was organized meticulously.

Credit must be given to all participants, runners up and winners alike, for contesting in the sports meet with the right quality of sportsmen spirit. Those individuals or teams that did not make it to the finals were also seen cheering the contestants of the finals. Spectators made their own mark in making the meet a grand success by turning up in large numbers and cheering their teams.

The next edition of "Fun Sports Meet" is likely to be held in the last quarter of 2017. Till the next update, let's play well, play safe and keep fit.













## Programming Events Conducted in CSE/IT Department

1. Web Development Workshop: A four day workshop for Web Development has been conducted in between 26<sup>th</sup> August, 2016 and 1<sup>st</sup> September, 2016. Students were given training for HTML, CSS, Java Script, MySql, and PHP. Around 400 students participated in 10 hr. long workshop spread in 4 days.

2. Weekend Onsite Programming Workshop: A 4 hr. long programming workshop (onsite) for beginners has been conducted on 17<sup>th</sup> September, 2016. Students were given onsite training and motivated to use online programming portals e.g. CodeChef, HackerRank, etc. Around 250 students participated in the workshop.

3. Web Crawling and Scraping Session: A two day session (around 5 hr.) on Web Crawling & Scraping has been conducted on 28<sup>th</sup> & 29<sup>th</sup> September, 2016. Students were given training to crawl various websites to fetch desired information/data. Around 100 participants participated in both days of the training session.

4.Encode 16.1: It is a competition where students participate in the programming contest at individual level. Online Round of Encode 16.1 was conducted on midnight of 29<sup>th</sup> September, 2016. More than 550 individuals participated in the online round. A selected lot of 80 students participated in the onsite round conducted on 1<sup>st</sup> October, 2016.

5. Welcome to Linux: A one day workshop (around 3 hr.) on Linux systems has been conducted on 30<sup>th</sup> September, 2016. Around 100 students participated in the workshop.

6.Code Class Noob and Code Class Pro were the two weekly programming workshops (class room mode) designed for inexperienced and experienced students respectively, conducted in the months of September and October, 2016. In total, participations in all the workshops had been summed up to more than 1000 participations.

7.Introduction to GIT: A one day workshop has been organised on 13<sup>th</sup> October, 2016 where students were given training to work on GIT Hub. Around 120 students participated in the one day workshop on GIT Hub.

8. Drupal Camp 2016: A two day camp on Drupal Technologies has been organised on 12<sup>th</sup> and 13<sup>th</sup> November, 2016. The camp had been attended by around 350 participants (internal (JIIT) and external).

9.TechWeek 2016: A three day tech week has been organised from 18<sup>th</sup> to 20<sup>th</sup> November, 2016. Various technical events e.g. Onsite Programming Competition (Execute 16.2), Hackathon, Technical quiz, and Guest Lectures had been conducted in the TechWeek 2016.

- A. Execute 16.2: Around 200 teams (more than 450 students) participated in the ACM ICPC style programming competition (Execute 16.2) on 19<sup>th</sup> November, 2016.
- B. Hackathon: Around 35 teams (involving 100 students) participated in the Hackathon and successfully made projects on the topic "Rural Development".





## Festive Sprit at JIIT, Noida

### Krishna's birth-Prophecy to end evil

The celebration of Krishna's birth popularly known as Shri Krishna Janmashtami falls on the eighth day of the Krishna Paksha in the month of Bhadrapada and was celebrated on 25th August, 2016.

JIIT family celebrated Janmashtami with passion and religious fervour at our campus temple. Large number of students thronged the temple and took darshan of the deity. Temple priest performed abhishek wherein the deity was bathed with auspicious materials including 'Gowksheer'and 'honey'. This was performed with great pomp and students sang devotional songs. Janmashtami aarti was performed after the completion of puja and tastey Prasad added flavour to the festival celebration.

#### Viswakarma Pooja

Viśwakarma is personification of creation and is the abstract form of the creator God according to the Rigveda. He is the presiding deity of all engineers, artisans and architects. He is believed to be the "Principal Architect of the Universe", and the root concept of Upanishadic figures of Brahman and Purusha. Vishwakarma is also credited with creating the missiles used in the mythological era, including the Vajrayudha, the sacred weapon of Lord Indra, from the bones of sage Dadhichi. He is regarded as the supreme worker, the very essence of excellence and quality in craftsmanship.

Since Vishwakarma is the divine engineer of the world, as a mark of reverence, he is not only worshiped by the engineering and architectural community but also by all professionals. It is customary for craftsmen to worship their tools in his name. Vishwakarma Puja is celebrated in all parts of India and more so in Uttar Pradesh, Bihar, Assam, Odisha, West Bengal, Rajasthan, Uttarakhand and Manipur.

Vishwakarma Day was celebrated at Jaypee Institute of information Technology, Noida on 17<sup>th</sup> September, 2016 as a tribute to Lord Vishwakarma, who is known to be a divine engineer. The Occasion was attended by Hon'ble Vice Chancellor Prof. S. C. Saxena, Col. (Retd.) P.C. Malhotra & Services Incharge Shri S. Moondra and all maintenance staff. During the pooja, all machinery equipments were worshipped and a havan was performed followed by bhog and distribution of 'prasad'.





### Deepawali-Triumph of good over evil

Deepawali falls on the darkest, new moon night in the month of Kartika of the Hindu Luni-solar calendar. The festival is associated with Lakshmi, the Goddess of wealth and prosperity and also with victorious return of Lord Shri Ram and Sita after their exile. JIIT family celebrated the festival on 30<sup>th</sup> October, 2016 with enthusiasm and zeal. College campus was decorated with earthen lamps. The night began with Lakshmi pujan by the priest at our campus temple followed by light fireworks in the college ground. JIIT strives to keep culture alive and the festive celebration brought along togetherness among the JIITians and cemented the bond they already share.

Article Authored by: Kriti Khanna B.Tech, 3<sup>rd</sup> Year Biotechnology Content-Contribution: Mr. Ajit Tomar Administrative Manager, JIIT, Noida

#### Commentary- Lean to Obese Molecular networks are responsible for Obesity



Dr. Kamal Rawal Department of Biotechnology, JIIT Noida, Email: kamal.rawal@gmail.com

Obesity affects millions across the world. It is estimated to kill lacs of people every year due to its complications such as hypertension, type 2 diabetes and heart diseases. Obese and lean individuals are alike in many things from their genome to proteome, but they can diverge in one important characteristic: their network pertaining to weight. A new study uncovers a molecular mechanism for obesity that might explain why some people become obese.

Obesity runs in family and heredity influences whether we become obese. Apart from genes, variation in weight is attributed to changes in the intestinal microbiome—the collection of bacteria living in the gut and epigenetic changes, or alterations in gene activity. Obesity is also influenced by presence of diseases such as hypothyroidism and PCOD. In addition, individual life style such as exercise and food habits tremendously influences obesity prevalence in society.

The data pertaining to obesity is increasing at phenomenal rate with more than 10000 research paper are being published every year. At present it is estimated that over 1.25 lacs research papers comprising clinical, genetic and metanalysis reports are present in publication resource named as pubmed. Numerous studies have reported that our closest ancestor monkeys, apes and orang-utan had become obese and suffered from diseases such as type 2 diabetes and osteoarthritis when exposed to urbanised and restricted environment.

With multitude of causative factors, it is impossible to pin point exact reason for causation of obesity. So when we noticed huge amount of complex & conflicting information related to obesity, we decided to tackle the monster of obesity head on. "Every day new studies are being published adding different dimension to obesity research" says Dr. Kamal Rawal. In the past decade, our understanding of networks has undergone revolution due to emergence of new tools and systems pertaining to network sciences. Networks pervade our lives as exemplified by worldwide webs, internet, small world networks, electricity grids, social networks, topology of food webs, citation networks as well as metabolic networks. To understand the role of networks in complex diseases, there were several attempts to construct disease networks.

To understand the disease mechanism, it is not only imperative to build precise gene list but also develop precise wiring diagram to connect various genes, proteins and other cellular components. We are able to achieve both objectives in this piece of research. Till date, medical practitioners used to consider diseases as independent entities in human being. With this study, we could clearly see that most of

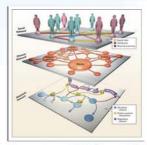


Figure- (Courtesy- http://www.nejm.org/doi/full/10.1056/NEJMe078114#t=article)

the disease genes are part of normal human system and it appears faulty wiring of functional modules of obesity network are most probable candidates for causation of diseases. In addition, link of obesity as a risk factor of diabetes could be explained on the basis of this network since substantial proportions of disease genes as well as their network are shared amongst two diseases. The study was published in Plos One Journal on Feb 17th 2016.

The task was challenging due to mammoth amount of data spread in millions of records. We started off to discover handful of disease genes with the limited resources in terms of funding, man power and even computational power. "We formulated a new approach comprising of hybrid system for mining texts in perl and R" says StutiAgarwal (Alumni of JIIT- currently working as Bioinformatician at University of Chicago, USA) and Dr. Jaisri (Alumni of JIIT PhD program). Dr. Rawal shares his clinical insights "People tend to regain lost weight after losing through exercise and diet and they consider to obesity very tough to handle". The drugs are very few for treatment and surgical option is considered as too risky. One of the FDA approved drug known as orlistat has poor acceptability amongst patients because of undesirable side effects. For the first time, we could explain the side effects of drug such as orlistat due to non specific binding to protein targets present in the network. He adds "People suffer from loose motions when taking medicines for obesity treatment and we can now tell the reason for that". "Our system can also predict the side effects of even newly discovered drugs and this will be boon for pharmaceutical industry as well". Another drug known as sibutramine was withdrawn from the market when many people died due to its side effects. Our platform is able to predict and prevent such incidences since we could precisely map the side effects, sibutramine and protein targets.

He suggests new strategy to tackle obesity epidemic: The idea is to not only pursue research at molecular level, but also create an environment around us which is non-obesogenic (refer as "Jungle Like") with less availability of junk food, less of physical comfort i.e. cars, lifts, remotes etc. Having more parks, yoga centres and gyms in each locality would also help us till the time scientists come up with effective drugs to modulate networks.



### Li-Fi (Light Fidelity) A Replacement of Wi-Fi

Shruti Kalra
Department of Electronics and Communication, JIIT, NOIDA
Email: shruti.kalra@jiit.ac.in

Li-fi essentially known as "light fidelity" is the technological innovation of twenty first century. The philosophy behind this innovation is that the information can be transmitted through LED (Light Emitting Diode) light whose intensity changes significantly more than the human eye. As the transmission of the information happens through the light, the amount of information transferred is comparatively small. In today's time, it is called as the improved variant of Wi-Fi (wireless fidelity). The profitable thing is that the wireless communication reduces the total expenses colossally. HARALD HASS, who is the father of Li-fi from college of Edinburgh, UK says that the heart of this innovation lies in the intensity and the capability of the light transmitting diodes. The real reason which leads the present day man through this development is the confinement of Wi-Fi to relatively small distance. As there are more gadgets coming up step by step and the signals are being obstructed because of substantial activity, there arises a requirement for an error free transmission technology. The answer for this issue was the Li-fi innovation. It has been designed in a manner that it overcomes the limitations that happens amid the use of wi-fi. The Li-fi works even when submerged in water bringing about an incredible advantage to the military operations.

The physicist imagines that this innovation would have an amazing effect between the presumption and the proof for this situation. The demonstration occurred utilizing two Casio PDAs. The information was made to transfer between the telephones utilizing light. Despite the fact that the separation was ostensible, it is certain that there would be a quick increment out there for transmission with time. AS there is a restricted measure of Radio based wireless

spectrum, various organizations shaped a consortium called Li-fi consortium with a specific end goal to advance fast optical wireless systems. The individuals from this consortium trust that a rate of 10 Gbps can be accomplished easily. If this can be achieved, then a high clarity picture would take around 30 seconds to download.

#### Advantages of Li-fi:-

- 1. Congestion: Li-Fi uses the frequencies of light waves instead of radio waves used by Wi-fi, and is up to ten thousand times more abundant than radio frequencies.
- 2. Safety: Li-Fi uses light instead of radio waves, which is basically safe and does not create Electromagnetic Interference (EMI).
- 3. Security: Radi'o waves can cross walls but light cannot. No intruder outside the building can hack the system.
- 4. Speed: HARALD HASS demonstrated that a single LED with full color can transmit upto 9Gbps.

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#### The women with no name...

In the known cities, she was an atypical face.
She loved deeper than the unfathomable depths.
She was no commoner, and knew too much,
too much, to forgive but never foretell.
A mystery, capsizing the ones, who devoured in, her aura!

Many tread upon the path to find her, They called her, the woman with no face! No one had seen her, but her stories intrigued some. She lived through centuries as whispers, and they believed, she could take unseen shapes Indeed she was, the woman with no face!

Who was she? I asked myself.
Was she a woman? Was she a man?
Was she the mother or her child?
Was she the dove or was she the fly?
Was she the raindrops, seaming from the sky?
Was she the inventor, inventing herself?

One day I heard a mellifluous hymn,
The hymn, so soft and divine,
Calling out to me, it took me to places unseen.
The cold winds of the Himalayas didn't freeze me,
Or the pyre of mortality couldn't burn me,
I opened my eyes to witness the light,
the light so powerful and divine,
which couldn't en-blind me!

I lay in a trance, ever since that day.
I cried in joy- "La Belle Dame Sans Merci!"
She had unleashed me from my desires,
which seemed too plenty.
For this love, is no more unrequited
and the worldliness swept away from my shores!

For now that I found her, I found myself!

I was just the traveler, and she my eternal abode,
waiting for me, to come back home!
As I bathed in the rivers of nirvana,
she smiled and in her eyes I saw the longing, the fear of woe betide.
For she was my creator, the woman with no name!

By: Aastha Singh B.Tech, 3<sup>rd</sup> Year ECE

## Short Story



#### Compassion Heals.....

We living beings hunger for love and the story given below analyses and tries to recount the pain of an animal, here a monkey, physically hurt, and nurtured through a compassionate attitude shown by the 'care-taker', speaks volumes about the concern for animals that the organization exhibits as its culture.

It was a calm morning, things seemed to be in order and the sun was shining bright. I can't recollect clearly but I think it was an electric shock that hit my body. I remember my body falling onto the ground and I was unconscious for minutes. Coming into consciousness, from the corner of my eye, I saw someone approaching me hesitantly, showing a helping gesture. It seemed that this kind person had understood the pain I was going through and extended his hands to help me out of my pain.

Narrator- "It was a chilling winter morning in the month of January. The scene unraveling here has Vikas (office helper of General Administration) stepping forward to help the monkey."

After becoming comfortable with me, he started looking for something warm to wrap me in. He tried by feeding me my favorite food – banana, though I refused as I didn't feel like eating anything. He had people around him giving him advice on what to do however he stuck to his own thoughts and followed his heart. A little later, sitting more confidently near me, and consoling me with his warm touch, I felt his kindness soothe my wounded body and soul. He brought something that looked like 'dirty water' but was warm and surprisingly tasty. He started feeding me. I didn't refuse this as I was able to swallow it easily. I started feeling better. With passing time, I was even able to move my legs.

Nurtured and healed with the warm care, I saw a white van arriving. I saw new faces coming closer, one seemed busy doing some paper work, yet another tried feeling my belly. The touch was both comforting and motherly. I knew I was going to leave the place, going into safer hands. I was both happy and sad at the same time. I was going to leave the place where I had been living since long. They took me inside the van and as it moved on its journey, I saw the caring faces fade away and all I wanted to do was thank them for the love that came my way.

I learned that day that every human being is not harmful and selfish. The amount of love I got and the care shown was overwhelming and made me emotional.

Narrator- "The monkey was handed over to PETA, the animal welfare organization branch, Noida for further care and treatment. The institute authorities ensured that the monkey is in safe hands. The action shown by Vikas and the Institute proves that you don't need a relation to help someone. A simple, compassionate and caring soul is all one needs to be.

Concept by: Mr. Ajit Tomar, Administrative Manager, JIIT, Noida Authored By: Ms. Oshin Singh, B.Tech (Biotech), III year

## New Entrants to JIIT Family

Period: June-December, 2016

- Associate Professor, Humanities & Social Sciences
  - Dr. Monali Bhattacharya
- Assistant Professors, Computer Science & Engineering and Information Technology
  - Mr. Mintu Singh
  - · Ms. Payal Khurana Batra
  - Mr. Potukuchi Raghu Vamsi
  - Ms. Sherry Garg
  - Mr. Yamuna Prasad
- Assistant Professors, Electronics & Communication Engineering
  - Mr. Gohel Ankit Kumar
  - Mr. Sandeep Kumar
- Assistant Professors, Mathematics
  - Mr. Himanshu Agarwal
  - Mr. Pravesh Kumar
- Assistant Professor, Physics and Materials Science & Engineering
  - Mr. Himanshu Pandey
- Associate Lecturer, Biotechnology
  - Ms. Ekta Bhatt
- Assistant Coordinator, Registrar
  - Mr. Manpreet Singh Nagi
- Junior Coordinator, Registrar
  - Ms. Ruchi Jain
- Lab Assistants, Computer Science & Engineering and Information Technology
  - Mr. Ashish Kumar
  - Mr. Neeraj Kumar Singh
  - Ms. Pinki
- Finance Officer, Finance & Accounts
  - Mr. Vivek Kumar Varshnev
- Officer Purchase, Administration
  - Mr. Vishal Mehta
- Officer Store, Stores
  - Mr. Devendra Kumar Singh

## Mark Your Calendar

#### 2<sup>nd</sup> - 4<sup>th</sup> February, 2017

International Conference on Advances in Plant and Microbial Biotechnology

#### 25th March, 2017

National Workshop on "Nuclear Physics and its Applications"

#### 17<sup>th</sup> - 18<sup>th</sup> July, 2017

National Workshop on "EMBEDDED SYSTEM"

#### 1st - 2nd September, 2017

National Workshop on "Communication Systems and Signal Processing"

#### 8<sup>th</sup> - 10<sup>th</sup> December, 2017

International Conference on Information Technology and Quantitative Management

#### 9th March, 2017

National Workshop on "PHOTOPTICS"

#### 5<sup>th</sup> - 10<sup>th</sup> June, 2017

Faculty Development Program on Information System Frontiers

#### July, 2017

Faculty Development Program on "Advances in Speech, Image & other Signal Processing"

#### November, 2017

National Workshop on Big Data in Biology: From Sequence to Networks

#### 3<sup>rd</sup> February, 2018

International Conference on Diseases and Omics Technologies

## Obituary

# Many we love have passed away too soon...without reason...



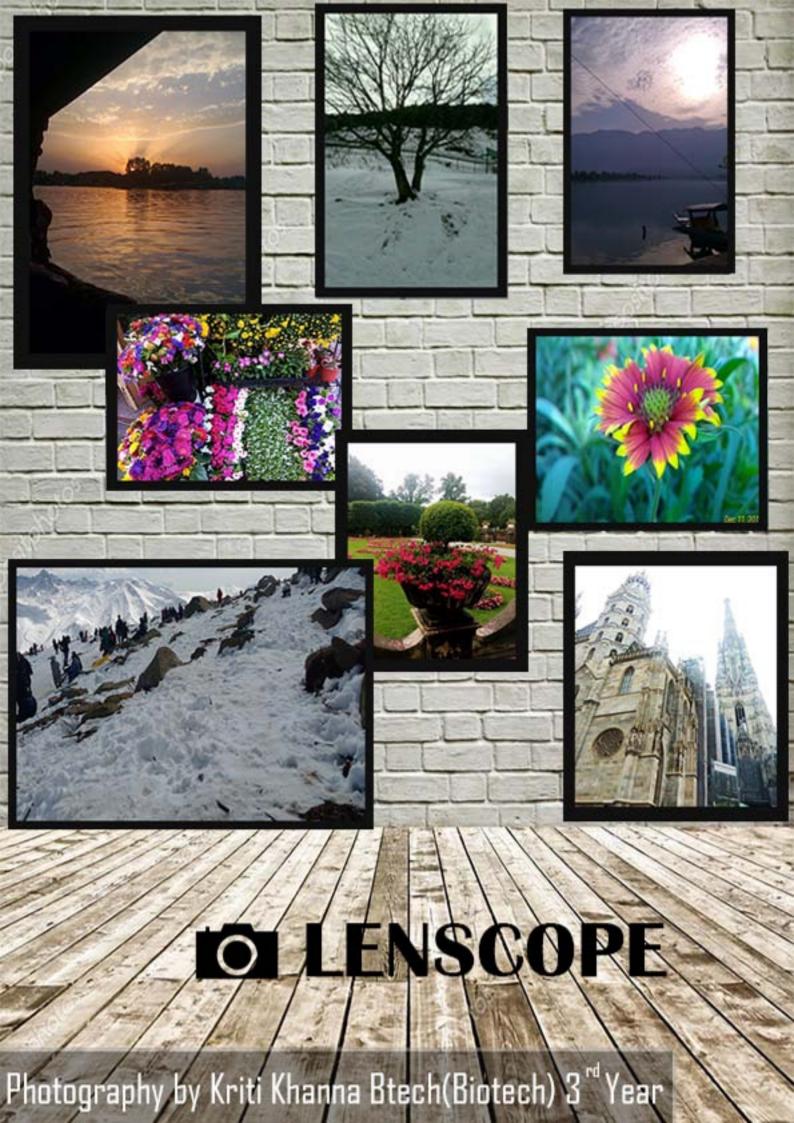
20<sup>th</sup> February, 1998 to 04<sup>th</sup> December, 2016

It is difficult to put to words the loss of a very young and versatile student Ayush Verma (B.Tech, 1st year IT), on the threshold of a beautiful life, cut short due to tragic circumstances. An amiable and much loved youngster who has left a great void in the hearts of each and every person that he interacted with in the six months of his stay in the institute. With insurmountable grief at the loss of our beloved student, we offer our heartfelt condolences to the grieving family, friends and colleagues that he leaves behind. We pray that his soul rests in peace.

The unfortunate and untimely death of *Abhinav Gupta* (*B.Tech*, 4<sup>th</sup> year ECE), a sincere fourth year student and dutiful son, has left all of us completely shattered. His death comes as a great shock as it makes one realize the temporariness of life. He was not only blessed with a very pleasing personality, he was also a talented all-rounder. He was full of warmth and love and exhibited an enthusiasm which was very contagious. The entire JIIT fraternity stands by his family and friends in their hour of grief. We pray that his soul rests in peace, and all bereaved around him be given the strength and courage to bear this huge loss.



30<sup>th</sup> June, 1995 to 11<sup>th</sup> January, 2017





" A photograph is a secret about a secret. The more it tells you the less you know." **to** Lenscope

-Diane Arbus

Photography By -Abhishek Vijay Btech(Biotech) 3<sup>rd</sup> Year



### Jaypee Institute of Information Technology Sector - 62, Noida







Spirit of Nationalism We Salute India



