

## Department Of Computer Science & IT

The Department of Computer Science & Engineering and Information Technology is a lively and invigorating academic centre for higher education, research, and innovation in key areas of computing. The vision of the department is to be a centre of excellence that provides high quality education to develop future leaders in all aspects of computing including education and entrepreneurship, contributes practically relevant and cutting edge research, and catalyzes IT entrepreneurship.

The driving mission for the department is to:

- conduct high quality education and research in scientific, technological, engineering, mathematical, entrepreneurial, human, educational, and interdisciplinary aspects of computing
- graduate world-class computing professionals at the bachelor's, master's, and doctoral levels with imagination and competence to identify and solve significant problems in industry and society through leadership and innovation
- engage in academic leadership activities such as development of academic and computational resources and organization of faculty development programs, conferences, workshops, etc
- collaborate with industry, government, and community to stimulate entrepreneurship and sustainable development through innovative IT solutions.

The department attracts talented students and faculty from all over India. The main endeavour of the department is develop students' technical competence as well as creative and critical thinking ability. The department provides the students with a platform to develop insight to face real life challenges and to come out with innovative technical solutions. The students are trained in theoretical, systemic, as well as applied aspects of contemporary computing. They are frequently evaluated with multiple assignments, hands on exercises, mini projects, surprise tests, group activities and presentations as they progress through the different programs in the department. The department uses a diversified set of pedagogical approaches that includes interactive lectures, case studies, group discussions, etc.

The team consisting more than eighty dedicated and well qualified faculty members to facilitate high standard of teaching, learning and evaluation process. These faculty members are also involved in research work attaining research publications in reputed international conferences and journals.

Course Curriculum is continuously improvised by taking the inputs from industry experts and also keeping in mind the upcoming trends. Weekly practical assignments are given to students. Through various active learning experiences in

laboratories, students gain more insights into the field of study, develop ability to apply their knowledge to a greater extent, exhibit a greater level of understanding of course material and sharpen their problem solving skills. A lot of emphasis is given to the projects in the curriculum. Students work on various well diversified fields of computer science & engineering and information technology - image processing, artificial intelligence, cloud computing, information security, digital forensics, mobile computing, distributed system, computer network, software engineering, web applications, data mining, etc. Many students also publish papers based on their projects in collaboration with the faculty. Senior students are encouraged to mentor their juniors in lab and project work. All graduates find excellent placements in industry. Many students choose to continue their higher studies at world's top universities. Few students also take up the challenge to set up their own IT start-ups. Many members of our alumni also provide their support by delivering guest lectures, feedback on curriculum, and also mentoring and personal guidance to students.

### **International Collaborations**

The department has active collaboration with

- University of Florida
- Indo-US Collaboration for Engineering Education ( IUCEE)

### **Events Organized**

Department organises various Conferences, Workshops, FDP, Seminars, Expert talks and Student Enrichment Programme

### **Conferences**

#### **International Conference on Contemporary Computing**

The International Conference on Contemporary Computing is jointly organized every year since 2008 by the Jaypee Institute of Information Technology, Noida, India and the University of Florida, Gainesville, USA. It focuses on topics that are of contemporary interest to computer and computational scientists and engineers. IC3 brings together researchers and practitioners from academia, industry and government to deliberate upon the algorithmic, systemic, applied, and educational aspects of contemporary computing. The conference features world-class keynote speakers, exhibits, special sessions, tutorials, and paper presentations.

Previous IC3 proceedings are indexed by DBLP, SCOPUS, and Google Scholar. According to Google Scholar, IC3's h5 index = 10 and h5 median = 15. The publishers

of the previous proceedings are - IEEE Xplore, USA (2013-2014), Springer, Germany (2009-2012), and McMillan, India (2008).

### **Submission Statistics**

| S.No | Year | Total Submissions | Accepted (including poster papers) |
|------|------|-------------------|------------------------------------|
| 1.   | 2008 | 89                | 29(32%)                            |
| 2.   | 2009 | 190               | 60(32%)                            |
| 3.   | 2010 | 267               | 79(30%)                            |
| 4.   | 2011 | 175               | 58(33%)                            |
| 5.   | 2012 | 149               | 49(33%)                            |
| 6.   | 2013 | 486               | 92(19%)                            |
| 7.   | 2014 | 737               | 131(17%)                           |
| 8.   | 2015 | 469               | 102(21%)                           |

### **IC3 Conference Website**

#### **2014 IEEE International Symposium on Signal Processing and Information Technology**

ISSPIT 2014-2014 IEEE International Symposium on Signal Processing and Information Technology, is the fourteenth in a series of international symposia aiming at the coverage of key aspects in the fields of signal processing and information technology. It brings together researchers and practitioners from academia, industry and government in the areas of signal processing and information technology. ISSPIT was organised from December 15-17, 2014 at Jaypee Institute of Information Technology, Noida, India. The proceedings ISSPIT 2014 were published by IEEE Xplore. A total of 215 papers were submitted and only 85 were accepted to be published in the Proceedings of IEEE ISSPIT 2014 be based on paper quality, relevance, and originality. 70 papers were actually presented orally (including 2 invited papers). In addition to presentations on new research results, sessions also included tutorials by eminent speakers like Andreas Pitsillides, University of Cyprus, Sanjay Ranka, Univ. of Florida and Reda Ammar, University of Connecticut.

### **ISSPIT Conference Website**

#### **Workshops/Seminars/FDPs**

| Details  |
|--|
| CyberSrishti– An IT symposium on 4 June, 2015<br>Outstanding Participants: <b>Kshitij Aggarwal</b> , Assoc. Architect, Calance Corp.,<br><b>Vipul Khare</b> , Cofounder, RadicalLogix – a cloud based school ERP, and <b>Ankit</b> |

|   |
|---|
| <b>Agarwal and Akshit Agarwal</b> , Cofounders, Wibe.<br>Workshop on Arduino Based Embedded System from 21-22 Nov, 2014<br>Workshop on Social Media Attacks on 12 Sep, 2014<br>Outstanding Participants: <b>Deep Arora</b> , Director, i3indya Cyber Solutions<br>FDP on Embedded System “Theoretical & Practical Aspects” from 28 <sup>th</sup> July – 2 <sup>nd</sup> August 2014<br>Outstanding Participants: <b>Dhananjay Gadre</b> (NSIT, Delhi)<br>FDP on Wireless Sensor Networks from 21 <sup>st</sup> – 26 <sup>th</sup> July 2014<br>Two Week ISTE-IITB Workshop on Computer Networking from 30 June – 5 July 2014<br>Funding Agencies: <b>JIIT and MHRD</b> , Govt of India<br>Outstanding Participants: <b>Kameswari Chebrolu</b> , Dept. of CSE, IIT Bombay<br>ISTE Workshop on Computer Programming by IIT Bombay from 16-21 Jun, 2014<br>Funding Agencies: <b>JIIT and MHRD</b> , Govt of India<br>Outstanding Participants: <b>Sridhar Iyer and Deepak Phatak</b><br>CyberSrishti– An IT symposium from 26 - 27 April 2014<br>Outstanding Participants: <b>Angad Singh</b> (Inmobi and JIIT alumnus), <b>Jacob Singh</b> (Acquia), <b>Ankit Maheshwari</b> (InnovAccer), <b>Shubhamoy Chakrabarty</b> (Dynofy), <b>Tavish</b> (BaseApp Systems and JIIT alumnus), <b>Kanav Hasija</b> (InnovAccer), <b>Pragun Bhutani</b> (Pixpa and JIIT alumnus), <b>Saurav Tomar</b> (Wecure), <b>Piyush Kumar</b> (MakeMyTrip), <b>Shobha Tyagi</b> (GNOME), <b>Rudraksh</b> (MathHarbor), <b>Gurteswar Singh</b> (Plivo Inc), <b>Konark Modi</b> (MakeMyTrip), <b>Pravin Kumar Mishra</b> (Runtime Systems), <b>Saleem Ansari</b> (Impetus Technologies Inc), <b>Nikhil Wason</b> (Co-founder- Cardback, JIIT Alumnus), <b>Juhi</b> (Cofounder - Mathharbor), <b>Vineesh</b> (Founder – Qureeus), <b>Yogi Raj</b> (Cofounder – 24 Idea Street, JIIT Alumnus)<br>Workshops for Industry professionals on MS Excel from 7-12 April, 2014 and 19-26 May, 2014<br>Basic Internet and Cyber Security on 3 May, 2014<br>Outstanding Participants: <b>Deep Arora</b> , Director, i3indya Cyber Solutions<br>Main Signal and Systems workshop from 2 -12 Jan 2014<br>Funding Agencies: <b>JIIT and MHRD</b> , Govt of India<br>Outstanding Participants: <b>Vikram M.Gadre</b> , Department of Electrical Engineering, IIT Bombay, <b>Somnath Sengupta</b> , Department of Electronics and Electrical Communication Engineering, IIT, Kharagpur<br>ISTE Workshop on Research methodology in Education technology(RMET-2013) from 02-09 Feb 2013<br>Funding Agencies: <b>ISTE</b><br>Outstanding Participants: <b>Sridhar Iyer, Sahana Murthy and Deepak Phatak</b><br>Faculty Development Program on Super Attitude for Success on 13 <sup>th</sup> Feb, 2013<br>Funding Agencies: <b>JIIT</b><br>Outstanding Participants: <b>Kajal Rastogi and Bharat Bhargava</b> , Training Consultants<br>ISTE Workshop on Aakash for Education from 10-11 Nov 2012<br>Funding Agencies: <b>JIIT and MHRD</b> , Govt of India<br>Outstanding Participants: <b>Uday N. Gaitonde, Kannan Moudgalya</b><br>OSS Camp from 27-28 Nov 2010<br>Outstanding Participants: <b>Ankur Anand and Ankur Saxena</b> |
|---|

|  |
|--|
| Workshop on conducting Design Science Research in Information Technology 19 Oct 2010<br>Outstanding Participants: <b>Vijay K. Vaishnavi</b> , Georgia State University |
| Workshop on Advances in Wireless Sensor Networks from 02-03 Sep2010<br>Outstanding Participants: <b>Sajal K. Das</b> , Dept. of CSE, University of Texas               |
| IUCEE Workshop on Distributed OS from 28 Jun- 2 July 2010<br>Outstanding Participants: <b>Prashant Shenoy</b> , Univ. of Massachusetts Amherst, USA                    |

### Student Enrichment Programs:

| S. No.                  | Special Lectures/ Workshops/ Seminars   | External Expert(s)                          | No of Participants | Date         |
|-------------------------|---|---|--------------------|--------------|
| <b>Special Lectures</b> |   |   |                    |              |
| 1.                      | Entrepreneurship Master Class   | Mr. Kamal Seth, Human Circle                | 50                 | 19 Mar, 2015 |
| 2.                      | Privacy and security in Online Social Media                                     | Prof. Ponnurangam Kumaraguru, IIT Delhi     | 200                | 16 Mar, 2015 |
| 3.                      | Importance of Competitive Programming   | Anup Kalbalia, Technical Lead at Directi    | 250                | 18 Feb, 2015 |
| 4.                      | Recent developments in wireless and mobile communication and its research scope | Dr. Javed Khan, Kent State University, USA  | ~ 100              | 2 Feb, 2015  |
| 5.                      | Entrepreneurship organized by E-Cell IIT Bombay & NIESBUD                       | Prof.H.P Singh, NIESBUD                     | ~ 350              | 19 Jan, 2015 |
| 6.                      | Entrepreneurship talk   | Mr. Sunil Mahajan, Mr. Naresh Chand, Kleeto | ~ 50               | 28 Nov, 2014 |
| 7.                      | Entrepreneurship talk   | Mr. Sunil Mahajan, Mr. Naresh Chand, Kleeto | ~ 200              | 3 Dec, 2014  |

|     |  |   |                                    |              |
|-----|--|---|------------------------------------|--------------|
| 8.  | Next Generation ERP for Android  | Mr. Mohit Sharma from Homeshop18                | 12                                 | 11 Nov, 2014 |
| 9.  | Socially Intelligent Robots: Towards human-robot co-existence-Lecture                | Dr. Amit Kumar Pandey ( Aldebaran Robotics)     | 180                                | 07 Nov, 2014 |
| 10. | Weekend Venture  | Mr. Zuheb Jamil                                 | ~ 180                              | 7 Nov, 2014  |
| 11. | Random Numbers and Computational Intelligence  | Dr. J. C. Bansal, SAU New Delhi                 | 40                                 | 17 Oct, 2014 |
| 12. | J-Unite 14   | Mr. Martin Innoticals Pvt.Ltd.                  | 40                                 | 12 Oct, 2014 |
| 13. | Rise of Open Source Data Science Tools   | Hari Prasanna and Pranav Prakash of Slide Share | ~ 150 and 25 external participants | 27 Apr, 2014 |
| 14. | Avoiding single point of failures in a multi-services architecture                   | Mr. Gurteshwar Singh (Plivo Inc)                | ~ 150 and 25 external participants | 27 Apr, 2014 |
| 15. | An intro to Open Source Telephony  | Mr. Gurteshwar Singh (Plivo Inc)                | ~ 150 and 25 external participants | 27 Apr, 2014 |
| 16. | Perfect recipe for data wrangling: IPython Notebook+ Pandas + Visualizations !       | Mr. Konark Modi, MakeMyTrip                     | ~ 150 and 25 external participants | 27 Apr, 2014 |
| 17. | Numberscape - The landscape of opensource languages and tools for computational math | Mr. Rudraksh, MathHarbor                        | ~ 150 and 25 external participants | 27 Apr, 2014 |
| 18. | Machine Learning with Apache Mahout and Scala  | Mr. Saleem Ansari, Impetus Technologies         | ~ 150 and 25 external participants | 27 Apr, 2014 |
| 19. | Startups Don't Happen Overnight:   | Nikhil Wason Cardback                           | ~ 150 and 25 external participants | 27 Apr, 2014 |
| 20. | Happy Go Programming   | Pravin Kumar Mishra Runtime Systems             | ~ 150 and 25 external participants | 27 Apr, 2014 |
| 21. | Number Nirvana: Our experiences building a niche product for math nerds.             | Rudraksh and Juhi Mathharbor                    | ~ 150 and 25 external participants | 27 Apr, 2014 |

|     |  |  |  |                  |
|-----|--|--|--|------------------|
| 22. | Making Your First 1000 Dollars                       | Yogi Raj<br>24 Idea Street                                     | ~ 150 and<br>25 external<br>participants | 27 Apr,<br>2014  |
| 23. | Building scalable web applications on cloud platform | Mr. Ankit Maheshwari<br>InnovAccer                             | ~ 150 and<br>25 external<br>participants | 26 Apr,<br>2014  |
| 24. | Open Source behind MakeMyTrip Infrastructure         | Mr. Piyush Kumar<br>MakeMyTrip                                 | ~ 150 and<br>25 external<br>participants | 26 Apr,<br>2014  |
| 25. | Getting started with AngularJS                       | Mr. Pragun Bhutani<br>Pixpa                                    | ~ 150 and<br>25 external<br>participants | 26 Apr,<br>2014  |
| 26. | GNOME  | Mr. Shobha Tyagi<br>GNOME                                      | ~ 150 and<br>25 external<br>participants | 26 Apr,<br>2014  |
| 27. | The Dynofy Story                                     | Mr. Shubhamoy Chakrabarty,<br>Dynofy                           | ~ 150 and<br>25 external<br>participants | 26 Apr,<br>2014  |
| 28. | Hardware hacking                                     | Mr. Tavish .BaseApp<br>Systems                                 | ~ 150 and<br>25 external<br>participants | 26 Apr ,<br>2014 |
| 29. | Introduction to Web Scraping in Python               | Mr. Saurav Tomar,<br>Wecure                                    | ~ 150 and<br>25 external<br>participants | 26 Apr,<br>2014  |
| 30. | "SAP : View As Career Option"                        | Mr. Aman Gupta, SAP<br>Practice                                | ~ 50                                     | 23 Apr,<br>2014  |
| 31. | "SAP : View As Career Option"                        | Mr. Mahesh Krishnan,HCL  | ~ 50                                     | 23 Apr,<br>2014  |
| 32. | "SAP : View As Career Option"                        | Mr. Maneesh Birthwar, SAP<br>Practice<br>SVAM<br>International | ~ 50                                     | 23 Apr,<br>2014  |
| 33. | Engineering Science Research Methods                 | Prof. Vijay Vaishnavi<br>Georgia State<br>University           | ~ 80                                     | 16 Apr,<br>2014  |
| 34. | Career Guidance                                      | Prof Sartaj Sahni,<br>University of<br>Florida, USA            | ~ 100                                    | 16 Apr,<br>2014  |
| 35. | SAP Hana   | Mr. Sanjeev,<br>Accenture                                      | 35                                       | 8 Jan,<br>2014   |
| 36. | Creative Coding                                      | Mr. Nikhil Joshi - Partner<br>of Digital<br>Jalebi             | ~ 70                                     | 16 Aug,<br>2013  |

|                  |  |  |       |                                  |
|------------------|--|--|-------|----------------------------------|
| 37.              | Big data: A Perspective  | Mr. Ashish Gupta, Identity Management and Security Group, Oracle India | ~ 120 | 1 Aug. 2013                      |
| <b>Workshops</b> |  |  |       |                                  |
| 38.              | Real Steal - Workshop  |  | 300   | 28-29 Oct, 2014                  |
| 39.              | Wireless Communication Workshop using XBEE   |  | 80    | 10-12 Sep, 2014                  |
| 40.              | Workshop on Social Media Attacks   |  | 150   | 12 Sep, 2014                     |
| 41.              | ISTE Workshop on Computer Programming  |  | 11    | 16-21 Jun, 2014                  |
| 42.              | Basic Internet and Cyber Security  |  | ~ 150 | 3 May, 2014                      |
| 43.              | Workshop on Hands on practice on Arduino Board   |  | ~ 250 | 25-29 Mar, 2014                  |
| 44.              | JIIT –GDG Android Workshop by MultiSoft Systems  |  | ~ 150 | 27-28 Apr, 2013                  |
| 45.              | Nokia Student development program  |  | 15    | 6 - 20 Apr, 2013                 |
| 46.              | Accenture's Workshop on Cloud computing on Cloud computing with Azure features, services and leveraging Azure for Asynchronous computing |  | ~ 40  | 8 -9 Mar, 2013                   |
| 47.              | ISTE- Aakash Android Applicationn Programming  |  | ~ 50  | 2-3 Mar, 2013                    |
| 48.              | Autonomous Robotics  |  | ~ 200 | 9 -12 Feb, 2013                  |
| 49.              | JIIT –GDG Workshop on Java   |  | ~ 50  | 22-29 Jan 2013                   |
| 50.              | C programming Language workshop  |  | ~130  | 7 -9 Nov 2012 & 19 - 22 Nov 2012 |
| 51.              | Accenture's Workshop on Enterprise Resource Planning   |  | ~ 40  | 30 Oct – 6 Nov, 2012             |
| 52.              | JIIT –GDG Being Search Ninja   |  | ~ 110 | 5 Nov 2012                       |
| 53.              | JIIT –GDG Stepping Right On  |  | ~ 130 | 4 - 5                            |



|                             |  |                                      |                     |
|-----------------------------|--|--------------------------------------|---------------------|
|                             | HTML5 by CETPA                                 |                                      | Oct, 2012           |
| 54.                         | Manual Robotic                                 | ~ 300                                | 28–29<br>Sep, 2012  |
| 55.                         | Introduction to microcontroller based system   | ~ 300                                | 28- 29<br>Aug 2012  |
| 56.                         | JIIT –GDG Lets Meet Google                     | ~ 230                                | 17 Aug,<br>2012     |
| <b>Seminars</b>             |  |                                      |                     |
| 57.                         | Manual Robotic                                 | ~ 300                                | 8-14 Oct,<br>2014   |
| 58.                         | Manual Robotic                                 | ~ 300                                | 12 -14<br>Sep, 2012 |
| <b>Webinars</b>             |  |                                      |                     |
| 59.                         | Webinar on 2015 Security Predictions           | Websense                             | 27 Nov,<br>2014     |
| 60.                         | Webinar on 2015 Security Predictions           | Dr.Sumantra Dutta Roy<br>(IIT,Delhi) | 5 Nov,<br>2014      |
| <b>Programming Contests</b> |  |                                      |                     |
| 60.                         | Programming Contest:<br>Execute 15.2 (Online)  | 600                                  | 9 May,<br>2015      |
| 61.                         | Programming Contest: Knuth Cup 3.0             | 200                                  | 15 Mar,<br>2015     |
| 62.                         | Programming Contest:<br>Execute 15.1           | 350                                  | 31 Jan,<br>2015     |
| 63.                         | Hackathon, “ExeBit 14.1 :<br>Exhibit Your Ides | 150                                  | 22 Nov,<br>2014     |
| 64.                         | Programming Contest:<br>Execute 14.4           | 400                                  | 2 Nov,<br>2014      |
| 65.                         | Programming Contest:<br>Execute 14.3           | 250                                  | 26 Apr,<br>2014     |
| 66.                         | Programming Contest: Knuth Cup 3.0             | 250                                  | 8 Mar,<br>2014      |
| 67.                         | Programming Contest:<br>Execute 14.2           | 140                                  | 2 Mar,<br>2014      |
| 68.                         | Programming Contest:<br>Hostel Combat          | 180                                  | 1 Mar,<br>2014      |
| 69.                         | Programming Contest:<br>Execute 14.1           | 210                                  | 18 Jan,<br>2014     |
| 70.                         | Programming Contest:<br>Execute 13.2           | 160                                  | 5 Oct,<br>2013      |
| 71.                         | Programming Contest: Knuth Cup 2.0             | 110                                  | 2 Mar,<br>2013      |
| 72.                         | Programming Contest:<br>Execute 13.1           | 180                                  | 19 Jan,<br>2013     |
| 73.                         | Programming Contest:<br>Execute 12.3           | 160                                  | 24 Nov,<br>2012     |
| 74.                         | Programming Contest:<br>Execute 12.2           | 130                                  | 21 Mar,<br>2012     |

|     |                                      |     |                 |
|-----|--------------------------------------|-----|-----------------|
| 75. | Programming Contest:<br>Execute 12.1 | 140 | 18 Feb,<br>2012 |
|-----|--------------------------------------|-----|-----------------|

### Expert Talks:

1. Prof. Jeff Yeung, Director of Master of Science Program in Information Technology, (CUHK Business School, Chinese University of Hong Kong) delivered a keynote on "Information Technology in Supply Chain Management", April 2015.
2. Martin Henson, Professor, University of Essex, UK "From Specification Languages to Wide-Spectrum Logics", IC3, Aug 2014.
3. Tirumale K Ramesh, Professor, Amrita University, India, delivered a keynote on "Security and Trust- New Challenges to Computing Today in Cyberspace", IC3, Aug 2014.
4. Albert Y. Zomaya, Professor, University of Sydney, Australia , delivered a keynote on "Adaptable Resource Allocation in Cloud Computing Systems", IC3, Aug 2014.
5. H. J. Siegel, Professor, Colorado State University, USA , "Energy-Aware Resource Management for Computing Systems", IC3, Aug 2014.
6. Azzedine Boukerche, Professor, University of Ottawa, delivered a keynote on "Cognitive Cars and Smart Roads- Applications, Challenges and Solutions", IC3, Aug 2014.
7. Krithi Ramamritham, Professor, IIT Bombay, delivered a keynote on "Parametric reshaping of human figures in images and videos using 3D morphable models", IC3, Aug 2014.
8. Prem Kalra, Professor, IIT Delhi, delivered a keynote on "Parametric reshaping of human figures in images and videos using 3D morphable models", IC3, Aug 2014.
9. Andreas Pitsillides, University of Cyprus, Cyprus, delivered a Keynote on "Nature inspired techniques in addressing communication problems", IEEE ISSPIT, Dec 2014.
10. S.S. Iyengar, Florida International University, USA, delivered a Keynote on "Computational Theory of Distributed Sensor Networks", IEEE ISSPIT, Dec 2014.
11. Reda A. Ammar, University of Connecticut, USA delivered a Keynote on "Hierarchical Performance Modeling and Analysis of Computer Systems", IEEE ISSPIT, Dec 2014.
12. Sartaj Sahni, University of Florida, USA delivered a talk on "Network Topology Optimization for Data Aggregation with Splitting", IEEE ISSPIT, Dec 2014.
13. S. Rajasekaran, University of Connecticut, USA delivered a talk on "Frequent Itemsets Mining on Weighted Uncertain Data", IEEE ISSPIT, Dec 2014.
14. Christos Douligeris, University of Piraeus, Greece delivered a talk on "A Secure Clustering Scheme for Geographically Routed Wireless Ad Hoc Networks ", IEEE ISSPIT, Dec 2014.
15. Rachid Harba, University of Orleans, France, delivered a talk on "Whittle maximum likelihood estimator for isotropic fractional Brownian images", IEEE ISSPIT, Dec 2014.
16. Anibal Ferreira, University of Porto, Portugal, delivered a talk on "On the possibility of speaker discrimination using a Glottal Pulse phase-related feature", IEEE ISSPIT, Dec 2014.

17. Vinay Kumar Mittal, IIIT, Chittor, India, delivered a talk on “Preliminary Analysis of Causes of Infant Cry”, IEEE ISSPIT, Dec 2014.
18. Sanjeev Kubakaddi, ITIE Knowledge Solutions, India delivered a talk on “Automatic Segmentation of Optic Disc using Modified Multi-level Thresholding”, IEEE ISSPIT, Dec 2014.
19. Pascal Bouvry, University of Luxembourg, Luxembourg delivered a talk on “ParaMASK: a Multi-Agent System for the Efficient and Dynamic Adaptation of HPC Workloads”, IEEE ISSPIT, Dec 2014.
20. Christos Xenakis, University of Piraeus, Greece delivered a talk on “Bypassing XSS Auditor: Taking Advantage of Badly Written PHP Code”, IEEE ISSPIT, Dec 2014.
21. Prof. Yves Robert from LIP, ENS Lyon, France, delivered a keynote on “An overview of fault-tolerant techniques for high performance computing”, IC3, Aug 2013.
22. Prof. Laxmi Narayan Bhuyan, Distinguished Professor and Chair, Department of Computer Science and Engineering, University of California, delivered a keynote on “Network I/O Acceleration: Removing a Major Bottleneck in the Next Generation Servers”, IC3, Aug 2013.
23. Prof. R. Govindarajan, IISc Bangalore, visited IIIT during IC3 and delivered a keynote on Title: The Role of Accelerators in HPC Systems: Challenges and Opportunities, IC3, Aug 2013.
24. Prof. Srikanth Sundararajan IIT Bhubaneswar, delivered a keynote on “simple design principals as means to achieve a stable, and scalable online transaction system, leveraging open source components and standard techniques”, IC3, Aug 2013.
25. Prof. Rajat Moona, C-DAC, Pune, delivered a keynote on “Electronic Currency: Are we ready yet?” IC3, Aug 2013.
26. Prof. H. T. Kung, William H. Gates Professor of Computer Science and Electrical Engineering at Harvard University, delivered a keynote on “Big Data and Compressive Sensing”, IC3, Aug 2012.
27. Nageswara S. V. Rao, Corporate Fellow in Computer Science and Mathematics Division at Oak Ridge National Laboratory, USA, delivered a keynote on “Analytical and Experimental Methods for High-Performance Network Testing”, IC3, Aug 2012.
28. Chandrajit Bajaj, Professor of Computer Sciences at the University of Texas at Austin, delivered a keynote on “Computational Modeling and Visualization in the Biological Sciences”, IC3, Aug 2012.
29. Alok Choudhary, John G. Searle Professor of Electrical Engineering and Computer Science, Northwestern University, USA, delivered a keynote on “Discovering Knowledge from Massive Social Networks and Science Data– Realization of the Fourth Par”, IC3, Aug 2012.
30. Ishwar Parulkar, CTO of Provider Access Business Unit of Cisco Systems, Bangalore, India, delivered a keynote on “Emerging trends in Networking”, IC3, Aug 2012.
31. Ramesh Hariharan, Chief Technology Officer, Strand Life Sciences, Bangalore, India, delivered a keynote on "Data-driven biology and computation", IC3, Aug 2012.
32. Sunil D. Sherlekar, Principal Engineer and Director of Parallel Computing Research at Intel Labs in Bangalore, India, delivered a keynote on “Parallel Computing Goes Mainstream”, IC3, Aug 2012.

33. M. Balakrishnan, Professor in the Department of Computer Science & Engineering, I.I.T. Delhi, India, delivered a keynote on " Power Consumption in Multi-core Processors ", IC3, Aug 2012.
34. Jitendra Malik, Arthur J. Chick Professor of EECS, University of California at Berkeley, USA, delivered a keynote on "Image and Video Understanding", IC3, Aug 2011.
35. Paul Mc Kevitt, Chair in Intelligent MultiMedia , University of Ulster, Northern Ireland, delivered a keynote on title: "Intelligent MultiMedia at the Imagineering Quarter" , IC3, Aug 2011.
36. M P Ranjan, Design Thinker, National Institute of Design, India delivered a keynote on "Design for Good Governance: Information & Communication as a Platform for Change", IC3, Aug 2011.
37. Sanguthevar Rajasekaran, UTC Chair Professor of CSE and Director of BECAT, USA, delivered a keynote on "Computational Techniques for Motif Search", IC3, Aug 2011.
38. Arun K Pujari, VC, Sambalpur University, India visited IIIT during IC3 and delivered a keynote on title: "Recent Trends in Consensus Clustering", IC3, Aug 2011.
39. Jose D. P. Rolim, Professor, University of Geneva, Switzerland delivered a keynote on "Energy Balance Mechanisms and Lifetime Optimization of Wireless Networks", IC3, Aug 2011.
40. Guna Seetharaman, Principal Engineer , Information Directorate, Air Force Research Laboratory, Rome, delivered a keynote on "Intelligent Autonomous Systems: A Layered Architecture in the age of Multicore Processing", IC3, Aug 2011.
41. Dr. Amit Singhal Google, Fellow Google, Inc., delivered a keynote on "Web Search: Challenges and Directions", IC3, Aug 2010.
42. Arvind, Johnson Professor of Computer Science and Engineering, Computer Science and Artificial Intelligence laboratory, Massachusetts Institute of Technology, delivered a keynote on Mobile Phones and Multicores: Programming Nightmare or Architectural Renaissance , IC3, Aug 2010.
43. Manish Gupta, Director of IBM Research - India , Chief Technologist for IBM India/South Asia, delivered a keynote on "Challenges and Opportunities for Innovations in IT based Services" , IC3, Aug 2010.
44. Dr. Gautam Shroff Vice President & Head, TCS Innovation Labs - Delhi , Tata Consultancy Services, delivered a keynote on "Cloud based Development and Services" , IC3, Aug 2010.
45. S.N Maheswari, Professor of Computer Science at IIT, Delhi, delivered a keynote on "Markov Random Fields, Computer Vision, and Network Flows: A Synthesis", IC3, Aug 2010.
46. Sanjay Ranka, Professor at University of Florida, delivered a keynote on "In-silico methods for Metabolic Engineering", IC3, Aug 2010.
47. Vijay K. Vaishnavi, Board of Advisors Professor of Computer Information Systems & Professor of Computer Science Georgia State University, delivered a keynote on "Design Theory Development in Information Technology", Aug 2010.

**R & D:**

**Research Groups:** The major areas of research where faculty has publications are as follows:

- Multimedia Technology and Applications
- Knowledge Based Systems, Artificial Intelligence, Information Retrieval, Machine Learning
- Distributed Systems, Computer Networks, Wireless Networks
- Web, Mobile Technologies and Information Systems
- Cyber Security
- Computing Education and Learning Technologies
- Computer Architecture & Embedded Systems
- Software Engineering

#### **Centres of Research**

- Centre for Performance Modelling of Computing Systems
- Prayag- A Centre of Knowledge Informatics for Sustainable Development

#### **Faculty Publications:**

Department faculty members published their research work in reputed International Journals/Conferences, which are indexed in Scopus/DBLP/Web of Science/ Ei Compendex.

|    |  |      |
|----|--|------|
| 1. | Total Publications : Peer reviewed           | 145  |
|    | International Journals                       | 140  |
|    | National Journals                            | 05   |
| 2. | Monographs                                   | 00   |
| 3. | Chapters in Books                            | 04   |
| 4. | Edited books                                 | 07   |
| 5. | Books with ISBN with details of publications | 03   |
| 6. | Number listed in International Databases     |      |
| 7. | <b>Citation Index (Google)</b>               |      |
|    | Range  | 1-39 |
|    | Average                                      | 5.52 |
| 8. | <b>Citation Index (Scopus)</b>               |      |
|    | Range  | 1-27 |

|     |                               |            |
|-----|-------------------------------|------------|
|     | Average                       | 3.02       |
| 9.  | SNIP                          | 1.75       |
| 10. | SJR                           | 0.76       |
| 11. | <b>Impact Factor (Scopus)</b> |            |
|     | Range                         | 0.0 – 1.97 |
|     | Average                       | 0.42       |
|     | Total                         | 14.77      |
| 12. | <b>H-index (Scopus)</b>       |            |
|     | Average                       | 29.37      |
|     | Total                         | 1028       |

### Achievements:

### Alumni

| S.No | Name, Year of Graduation from IIIT, Achievements and current affiliations  |
|------|--|
| 1.   | <b>Dr. Amit Kr. Pandey</b> , 2005<br>Ph. D from French National Centre for Scientific Research<br>His PhD thesis was recognised as one of the top 3 in the EU in this area.<br>Working at Aldebaran Robotics, France |
| 2.   | <b>Dr. Rishabh Jain</b> , 2005<br>Ph. D in Computational Neuroscience, University of Southern California,<br>working at Laboratory for Neural Computation, USC, Los Angeles, USA                                     |
| 3.   | <b>Prakash Gupta</b> , 2005<br>MS (USC),<br>Google, USA  |
| 4.   | <b>Abhishek Gupta</b> , 2005<br>MS(Cornell University),<br>Google, USA   |
| 5.   | <b>Siddharth Batra</b> , 2007<br>MS(Stanford University),<br>Twitter, USA  |
| 6.   | <b>Nikhil Wason</b> , 2007<br>MS(Columbia University),<br>Co-founder Cardback, New Delhi   |
| 7.   | <b>Priyank Singh</b> , 2007<br>MS(Columbia University),<br>Microsoft, USA  |
| 8.   | <b>Vipul Khare</b> , 2013<br>Founder Radical Logix, Noida  |
| 9.   | <b>Atri Sharma</b> , 2014<br>Assistant Vice President (Data Integration) , Barclays, Bangaluru   |

### Students:

- i. In the last few years, more than 15 students have qualified for prestigious Google Summer of Code(GSoC) program. In this program students are selected for a summer project under Google nominated mentors. Till 2013, Google gave a scholarship of US\$ 5,000/- to each selected student which has now been increased to US\$ 5,500/-. Year wise list of these students is as follows: Ankur Saxena – 2009; Vaidik Kapoor – 2011; Ankur Anand, Ashish Dubey, Atri Sharma, Akash Sanghi, Udit Jaggi – 2012; Hardik Juneja, Pragun Bhutani, Praveen Singh, Akshit Agarwal, Gaurav Sehravat – 2013; Hardik Juneja, Divyam Rastogi, Rohit Dua – 2014; Alok Pandey – 2015.
- ii. For the last many years, many of our students have been doing reasonably well at ACM ICPC (Inter College Programming Contest) as well as several other such contests.
- iii. Many of our students have been consistently performing well at various national levels Robotics competitions.
- iv. Some of recent accomplishments of our students are as follows:
  - Shubham Dhingra, Shubham Rastogi, Rishabh Jain achieved the 2nd rank at MindSweeper event (First Round – Online Programming Contest) held as a part of Cognizance Zonals, IIT Roorkee, 2015
  - Dhananjay Tomar and Abhishek Prasad achieved the 1st position at the Programming Quiz organized at Grape City, Noida in 2014
  - Anshit Agarwal and Hitesh Sethi achieved the 2nd position at the Programming Quiz organized at Grape City, Noida in 2014
  - Shivam Khandelwal and Tanmay Dutta achieved the 3rd position at the Programming Quiz organized at Grape City, Noida in 2014
  - Dhananjay Tomar, Abhishek Prasad, and Hitesh Sethi achieved the 155th position at ACM ICPC Asia Amritapuri Site Regionals in 2014
  - Anshit Agarwal and Ayush Garg achieved 1st position in Autonomous Robotics event at IIT Bombay Zonals in 2013
  - Deepesh Gupta, Vasu Raj Agarwal, Utkarsh Mathur, and Shailjakant Pandey achieved 1st position in Manual “RoboSoccer” event at MNIT in 2013
  - Akshit Agarwal, Ankit Agarwal, and Vibhor Garg achieved the 156th position at ACM ICPC Asia Amritapuri Site Regionals in 2013
  - Abhishek Prasad, Dhananjay Tomar, and Suneet achieved the 50th position at ACM ICPC Asia Kanpur Site Regionals in 2013
  - Poojit Sharma, Anant Agarwal, and Hari Krishna Gupta achieved the 26th position at ACM ICPC Asia Amritapuri Site Regionals in 2012
  - Abhishek Prasad, Abhishek Mittal, and Arpit achieved the 175th position at ACM ICPC Asia Amritapuri Site Regionals in 2012
- v. Our student, Amisha Khera, received following awards:
  - Google India Women in engineering, 2009: she was among the 8 female students chosen from all over India.
  - Eiffel Scholarship Program, 2008: she was among the 5 students chosen from all over India by French Minsitry for Foreign Affairs for innovation in research area.