1 Summary

This year, for the first time, IIIT-Delhi will have students in each of the four years of the BTech program, and each of the two years of the MTech program. With this year’s admissions, our total student strength has now reached 308 UG students, 53 MTech students, and 21 PhD students.

To our existing programs (BTech(IT), PhD(CS), and MTech in CS with specialization in Information Security), we added another MTech program – specialization in Data Engineering. It is a unique program – first of its kind in the country.

Our faculty strength has increased to 19. We continue to recruit in a highly selective manner, keeping the quality very high – all of our faculty members have PhDs from fine Institutions across the world, most of them having obtained their PhD in the US. Two more candidates, who are currently in the US, have accepted our offer and plan to join in Oct / Nov 2011.

Institute’s faculty members continue to pursue top quality research. They have published a total of 31 papers, most of them in International journals and conference proceedings. 15 proposals of faculty members have been approved for funding by various agencies for a total R&D project funding commitment of Rs.13,728,424/-.

Our faculty has received one best poster award; one PhD Student was selected for the IBM PhD Fellowship, which globally awarded around 70 such fellowships with about 7 in India. One PhD student got the coveted Microsoft PhD Fellowship – only six are given across India. Three PhD students were selected for TCS PhD Fellowship, out of a total of about 20 Fellowships given.

IIIT-Delhi organized the first Indo-US teaching-learning workshop at college level in its premises. The workshop was funded by Indo-US S&T foundation and was attended by about 8 delegates from US and about 30 delegates from India. A few other workshops and symposia were organized by the Institute.

While no placements have taken place as the first batch is yet to graduate, many 3rd year students and MTech students got high quality internships in India and abroad. A total of 40 got internships, of which 22 were in private companies in India, 12 were abroad, and 6 in government and other sectors.

IIIT-Delhi organized full selection committee meetings in the US in April 2011. This is perhaps the first time in recent past that an academic Institution from India is holding selection committee meeting in US, where the largest number of Indians graduates with PhDs in Computer Science every year. Out of the offers made, one candidate has accepted the offer.

The construction of permanent campus is reaching the final stages. After some delays, the current schedule is that the academic buildings will be operational in January 2012,
while faculty residences, some of the hostels, and some other buildings will be ready by June 2012.

Overall, the Institute continues to do well with good quality faculty and students, and strong UG and PG programs. However, much more remains to be done to reach closer to our vision of becoming a globally respected institution.

2 Research and Development

2.1 Research Publications

**Refereed Journals**


**Refereed Conferences**


23. Chhabra S, Aggarwal A, Benevenuto F, and Kumaraguru P. Phi.sh/SoCiaL: The Phishing Landscape through Short URLs. Accepted at 8th Annual Collaboration, Electronic messaging, Anti-Abuse and Spam Conference (CEAS 2011)


2.2 Sponsored / Consultancy Projects

Sponsored Research Projects

1. **Statistical Evaluation of Simultaneous Latent Fingerprint Impressions** by department of Science and Technology, Govt. of India **PI:** Dr. Mayank Vatsa. **Funding:** `550,000/- **Duration:** Three years

2. **Evolutionary Approach to Adaptive Fusion: A Tool for Improving Multimodal Biometric Performance** by United States department of Defense, USA. **PI/Collaborators:** Dr. A Noore and Dr. A. Ross. **Co-PI:** Dr. Mayank Vatsa and Dr. Richa Singh **Funding:** $467,800/- **Duration:** One and a half year

3. **Harnessing Parallelism in Biometrics using GPUs** by NVIDIA **PI:** Dr. Mayank Vatsa and Dr. Richa Singh **Co-PI:** Dr. S. Bharadwaj **Funding:** `500,000/- **Duration:** One year

4. **Recognizing Surgically Altered Face Recognition** by department of Science and Technology **PI:** Dr. Richa Singh **Funding:** To be intimated **Duration:** Three years

5. **Development and Evaluation of Mobile Learning Techniques for Indian Masses** by department of Science and Technology, **PI:** Dr. Pushpendra Singh. **Funding:** To be intimated **Duration:** Three years.

6. **Intelligent Information Access on Low-end mobile phones** by the Microsoft Research **PI:** Dr. Vinayak Naik and Dr. Amarjeet Singh. **Funding:** `1,000,000/- **Duration:** One year

7. **Exploratory Research in Mobile Health** by the Nokia Research, Bangalore **PI:** Dr. Vinayak Naik **Funding:** `745,308 **Duration:** One year

8. **Google Faculty Award – Photographer anonymity** by Google Inc **PI:** Dr. Shishir Nagaraj **Funding:** $34,000/- **Duration:** Two years

9. **IBM Faculty Award – Traffic analysis on the cloud** by IBM Hawthorne **PI:** Dr. Shishir Nagaraja **Funding:** $10,000 **Duration:** Three years.

10. **Integrated Botnet Detection Programme** sponsored from Department of Science & Technology **PI:** Prof. N Balakrishnan **Co-PI** Dr. Shishir Nagaraja **Funding:** `5,500,000/- **Duration:** Two years

11. **An inter-disciplinary approach towards building ontology for online extremism** by Department of Science and Technology under Indo-Ireland Cooperative Science
Programme PI: Dr. Ponnurangam Kumaraguru Funding: `836,000/- Duration: Two years.

12. Hemant Bharat Ram Fellowship: to conduct research in the area of security and privacy, PI: Dr. Ponnurangam Kumaraguru Funding: `1,400,000/- Duration: Four years.

13. International Development Research Centre, Canada and Privacy International, UK. Privacy in India PI: Dr. Ponnurangam Kumaraguru Funding: `1,800,000/- Duration: 2 years

14. Palladion, Intelligence and Security Informatics. PI: Dr. Ponnurangam Kumaraguru Funding: `1,300,000/- Duration: 2 years.

Consultancy Assignments

1. Mobile Innovation Laboratory at IIIT-Delhi by the Nokia Research, Finland PI: Dr. Vinayak Naik Funding: `651,670. Duration: One year

Other Support / Grants

1. Richa Singh - DST Travel Award for International Conference on Pattern Recognition, Turkey by Dept of Science and Technology.

2. Saket Srivastava - Awarded the international travel grant by Department of Science and Technology (DST), India to attend and present my paper at ISCAS 2011 conference in Rio de Janeiro, Brazil.

3. Ponnurangam Kumaraguru - IBM awarded fellowship to two M Tech students of IIIT-Delhi

4. Kuldeep Yadav – UNESCO awarded travel award for ICT4D 2010

5. Kuldeep Yadav – Awarded APSYS 2010 travel award for ACM Asia Pacific Workshop on Systems (at SIGCOMM)

2.3 Patents

2.4 Technologies Developed / Deployed

1. **Photographer anonymity technology:** Shishir Nagaraja: Developed to protect whistleblowers, journalists, dissidents, and law-enforcement personnel (Project sponsored by Google faculty grant)

2. **Network security tool:** Shishir Nagaraja: developed for DRDO for resisting botnet attacks on enterprise networks and small-business; it incorporates a new statistical algorithm based on non-linear dimensionality reduction.

3. **Privacy-preserving traffic analysis on the cloud:** Shishir Nagaraja: developed for IBM project – traffic analysis to detect attacks and intrusions is often time consuming. This technology helps multiple ISPs to collaborate on detecting attacks in a privacy preserving way whilst also leveraging the cloud technology to keep costs down and address privacy requirements of the ISPs themselves. (linked to IBM project below and P3CA paper above)

4. **CVDMagic Application:** Pushpendra Singh, Amarjeet Singh, and Vinayak Naik: Developed a CVDMagic application for early detection of Cardio-Vascular Disease based on previously proposed studies using non-laboratory based tests. The application was developed within the Sana Framework (developed by Sana group at MIT - [http://www.sanamobile.org](http://www.sanamobile.org)) and deployed in rural areas of Punjab with Electronic Health Point (EHP) who are setting up rural clinics in that state. The healthcare worker from EHP collected data for about 190 people using the application and we are in the process of analyzing the collected data and working on a paper for ICTD 2012

5. **Disha Journey Planner:** Pushpendra Singh, Amarjeet Singh, and Vinayak Naik: Developed as an internship project and later on modified to include extensive database from the industrial partner – DIMTS, this application provides the user with route information for going between any two places in Delhi using public transport. The application is currently hosted and maintained by our industrial partner – Delhi Integrated Multi-modal Transportation Systems (DIMTS)

6. **Right Fare:** Pushpendra Singh, Amarjeet Singh, and Vinayak Naik: Developed as an internship project, the application takes two locations in Delhi as input over SMS and calculates the approximate auto fare between the two given locations. The application also returns the list of landmarks that will come on the way. The service is supposed to help people knowing the shortest possible route between any two locations and avoid being overcharged. Our industrial collaborator, a startup called Ideophone. (The name by Ideophone is changed to Autofare [http://www.ideophone.in/products/sms/](http://www.ideophone.in/products/sms/)) has now further extended the service with some additional features including support for multiple cities by.

7. **IVR system:** Amarjeet Singh: Implementation of for Institute’s admission process. As logs suggests, it has been used by hundreds of applicants.
8. *Biometric Quality Assessment Tool*: Mayank Vatsa and Richa Singh: developed the tool for Army Research Laboratory, Department of Defense, USA

9. *Context Switching Tool for Multimodal Biometric Fusion*: Mayank Vatsa and Richa Singh: developed the tool for Army Research Laboratory, Department of Defense, USA

3 Education

3.1 Student Intake and Total Student Strength

- B-Tech intake in different categories: Delhi (102) Outside Delhi (18)
- Average class XII percentage: 86.31%
- Average AIEEE rank: 15650
- MTech intake in different programs: Information Security - 35, Data Engineering - 18
- PhD intake: 07

**Total Students**
- Total Undergraduate students: 324
- Total MTech students: 53
- Total PhD students: 21

3.2 Students Graduated

Nil

3.3 Courses Taught

<table>
<thead>
<tr>
<th>B.Tech. 2010 batch</th>
<th>Semester-I (Monsoon)</th>
<th>Semester-II (Winter)</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Communication Skills</td>
<td>Advanced Calculus &amp; Linear Algebra</td>
</tr>
<tr>
<td>2</td>
<td>Digital Circuits</td>
<td>Computer Organization</td>
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<tr>
<td>3</td>
<td>Discrete Mathematics</td>
<td>Data Structures &amp; Algorithm</td>
</tr>
<tr>
<td>4</td>
<td>Intro to Programming</td>
<td>Humanity and Social Science (T&amp;S/POK)</td>
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<tr>
<td>5</td>
<td>System Management</td>
<td>Theory of Computation</td>
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<table>
<thead>
<tr>
<th>B.Tech. 2009 batch</th>
<th>Semester-III (Monsoon)</th>
<th>Semester-IV (Winter)</th>
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<tr>
<td>1</td>
<td>Advanced Calculus and Linear Algebra</td>
<td>Algorithm Design &amp; Analysis</td>
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<td>2</td>
<td>Advanced Programming</td>
<td>Computer Networks</td>
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</table>
### B.Tech. 2008 batch

<table>
<thead>
<tr>
<th>Semester-V (Monsoon)</th>
<th>Semester-VI (Winter)</th>
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<tr>
<td>1 Advanced Algorithm</td>
<td>1 Advanced Calculus and Linear Algebra</td>
</tr>
<tr>
<td>2 Advanced Calculus and Linear Algebra</td>
<td>2 Applied Cryptography</td>
</tr>
<tr>
<td>3 Biotechnology</td>
<td>3 Digital and Cyber Forensics</td>
</tr>
<tr>
<td>4 Distributed Systems and Security</td>
<td>4 Embedded Systems</td>
</tr>
<tr>
<td>5 Finance-I (Foundations of Finance)</td>
<td>5 Finance-II (Valuation and Portfolio Management)</td>
</tr>
<tr>
<td>6 Foundations of Computer Security</td>
<td>6 Humanity and Social Science (T&amp;S/POK/RM/Psychology)</td>
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<tr>
<td>7 Image Analysis</td>
<td>7 Information Retrieval</td>
</tr>
<tr>
<td>8 Information Integration and Data Analytics</td>
<td>8 Machine Learning</td>
</tr>
<tr>
<td>9 Mobile Computing</td>
<td>9 Pattern Recognition</td>
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<tr>
<td>10 Software Engineering</td>
<td>10 Privacy Enhancing Technologies</td>
</tr>
<tr>
<td></td>
<td>11 Technical Communications</td>
</tr>
</tbody>
</table>

### MTech 2010 batch

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</thead>
<tbody>
<tr>
<td>1 Advanced Algorithm</td>
<td>Applied Cryptography</td>
</tr>
<tr>
<td>2 Distributed Systems &amp; Security</td>
<td>Digital and Cyber Forensics</td>
</tr>
<tr>
<td>3 Ethical Hacking</td>
<td>HSS-Research Methods</td>
</tr>
<tr>
<td>4 Foundations of Security</td>
<td>Information Retrieval</td>
</tr>
<tr>
<td>5 Mobile Computing</td>
<td>Machine Learning</td>
</tr>
<tr>
<td>6 Topics in Computer Security</td>
<td>Privacy Enhancing Technologies</td>
</tr>
<tr>
<td></td>
<td>Technical Communications</td>
</tr>
</tbody>
</table>

## 4 Outreach and Professional Service

### 4.1 Participation of Faculty in National & International Conferences

*Singh P.*; The 11th International Middleware Conference in Bangalore India from November 29 – December 3, 2010

*Jalote P.*, *Sureka A.*; The 17th Asia Pacific Software Engineering Conference, APSEC 2010, Sydney, Australia, November 30 - December 3, 2010

Vatsa M, Singh R.; IEEE 20th International Conference on Pattern Recognition (ICPR) held in Istanbul, Turkey from 23-26, August 2010.

Sanadhya S.; The 12th International Conference on Cryptology in India (Indocrypt 2010) at the Institute of Mathematical Sciences in Chennai from 11th –14th Dec 2010

Sureka A, Kumaraguru P; the 6th Asia Information Retrieval Society Conference (AIRS), at National Taiwan University, Taipei, Taiwan from 1st – 3rd December, 2010

Sureka A.; The 8th International Conference on Natural Language Processing (ICON 2010) held at IIT Kharagpur, India, during 8 - 11 December, 2010

Gupta G; DFRWS 2010 Annual Conference at University Place Hotel near Portland State University, Portland, Oregon from 2nd – 4th August 2010.


Srivastava S.; The IEEE International Symposium on Circuits and Systems (ISCAS) in Rio de Janeiro, Brazil from 15th – 18th May 2011


Jalote P, Sureka A; the 4th India Software Engineering Conference (ISEC) at Thiruvananthapuram from February 23 - 26, 2011

Kiehn A; Automated, Concurrency and Timed Systems (ACTS) III at the Institute of Mathematical Sciences in Chennai from January 27 – 29, 2011

4.2 Other Visits by Faculty


2. Singh A.; Invited by Microsoft Research India to attend the Microsoft Faculty Summit in Seattle, July 18-20, 2011
3. *Naik N.*; Invited by Coventry University UK to visit them for 10 days to further collaboration in the area of Sensor Networks and Mobile Computing

4. *Naik V.*; Invited by Microsoft Research India to attend the Microsoft Faculty Summit in Seattle, July 18-20, 2011


6. *Kumaraguru P.*; Visited UFMG, Brazil for research discussions from June 16, 2011 - July 4, 2011

7. *Bedathur S.*; Visiting Max-Planck Institute for Informatics, Saarbruecken, Germany for Continued collaboration and advising of PhD students from May 6 - June 29, 2011

8. *Gupta G.*; Visited Georgia Tech Information Security Center, Georgia Institute of Technology, Atlanta, on research project and explored areas of mutual research interest from July 2010 to December 2010


11. *Nagaraja S.*; Distinguished lecture at the University of Calgary, Canada

12. *Nagaraja S.*; Invited lectures at University of Dresden, Germany; at EPFL, Switzerland; ETH Zurich


14. *Sanadhya S.*; Invited lecture in the Workshop on Security at NIIT University, Dec, 2010

### 4.3 Conference / Short Courses / Workshops Organized

1. **Research Showcase 2011 - 11-12 March 2011**

   IIIT-Delhi has organized its first Research Showcase – RS’11. The two day event showcased prominent research projects at the Institute – many of which were featured in leading conferences or are live working systems. Through RS’11, IIIT-Delhi gave to the outside world a snapshot of the work that has been going on in full frenzy by its students and researchers throughout the year. A total of 34 projects
were put on display - 13 in the Research Project category, and 21 in the Course Project category.

The event was attended by researchers from IBM TJ Watson Research Center, IBM India Research Labs, TCS Innovation Labs, DRDO, NIC, IIT Delhi, ABB Corporate Research. Student and faculty from college/universities from NCR like DU, IP, DCE, NSIT etc.

2. **Indo US Workshop on Effective Teaching and Learning at University / College Level – 10 – 12 Feb 2011**

The 3 day Indo-US workshop was held here at IIIT-Delhi with the primary objective of creating awareness in improving teaching and learning methods in university/college level. This workshop disseminated some of the best teaching practices that help students indulge in innovative learning, gathered from around the world. This event was jointly organized with University of Buffalo and sponsored by the Indo-US Science and Technology Forum.


IIIT-D and IIT-D ACM Student Chapters are together organizing Azure Cloud Computing workshop which is supported by Microsoft.

4. **Design Science Research in Workshop - 17 Nov 2010**

Workshop on design science research organized by IIIT-Delhi and USIEF

5. **Deep Dive into Cloud Computing - 7 Sept 2010**

Workshop on cloud computing organized by IIIT-D ACM Student chapter in collaboration with Microsoft


Workshop on mobile technology for healthcare organized by IIIT-Delhi MUC group with a specific focus on Sana

4.4 **Distinguished Visitors and Invited Seminars**

<table>
<thead>
<tr>
<th>Speaker(s)</th>
<th>Date</th>
<th>Talk Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Krishna Shenai&lt;br&gt;University of Illinois</td>
<td>June 27, 2011&lt;br&gt;Large-Scale Sensor Networks and Robotic Surgery</td>
<td></td>
</tr>
<tr>
<td>Dr. Om Deshmukh&lt;br&gt;IBM India Research Lab</td>
<td>Apr 14, 2011&lt;br&gt;Sensei: Spoken Language Assessment for Call Center Agents</td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Date</td>
<td>Title</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>---------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Prof. Mani Srivastava</td>
<td>Mar 9, 2011</td>
<td>From Measurements to Sustainable Choices: Embedded Sensing for Efficient Resource Management in Buildings</td>
</tr>
<tr>
<td>Dr. Rahul Garg, IBM T. J. Watson Research Center</td>
<td>Mar 10, 2011</td>
<td>Brain as a Dynamical System: Novel Approaches to Understanding Brain Function</td>
</tr>
<tr>
<td>Prof. Hanan Samet</td>
<td>Mar 28, 2011</td>
<td>Sorting in Space</td>
</tr>
<tr>
<td>Dr. John Hopcroft</td>
<td>Feb 19, 2011</td>
<td>Computer Science Theory to Support Research in the Information Age</td>
</tr>
<tr>
<td>Mr. Rajesh Sharma</td>
<td>Jan 10, 2011</td>
<td>Design and Development of Animated Movies</td>
</tr>
<tr>
<td>Prof. Sandeep Sen</td>
<td>Jan 20, 2011</td>
<td>A generalized model for update competitive Algorithms</td>
</tr>
<tr>
<td>Prof. Venu Govindaraju,</td>
<td>Dec 21, 2010</td>
<td>Biometrics Security</td>
</tr>
<tr>
<td>University of Buffalo</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prof. Deborah Estrin, UCLA</td>
<td>Dec. 13, 2010</td>
<td>Participatory mHealth</td>
</tr>
<tr>
<td>Pramod Chandra Bhatt, Vidha Software Solutions</td>
<td>Nov. 4, 2010</td>
<td>Systemic Thinking for Design</td>
</tr>
<tr>
<td>Dr. Aaditeshwar Seth, IIT Delhi</td>
<td>Oct. 28, 2010</td>
<td>Social Media Tools for the Bottom of the Pyramid</td>
</tr>
<tr>
<td>Prof. Andreas Zeller, Saarland University</td>
<td>Oct. 21, 2010</td>
<td>Learning from 6,000 projects: Mining Models in the Large</td>
</tr>
<tr>
<td>Dr. Thomas Zimmermann, Microsoft Research</td>
<td>Oct 19, 2010</td>
<td>Empirical Software Engineering and Measurement at Microsoft</td>
</tr>
<tr>
<td>Dr. Mausam, Univ of Washington</td>
<td>Sept 23, 2010</td>
<td>Compiling a Massive, Multilingual Dictionary via Probabilistic Inference</td>
</tr>
<tr>
<td>Dr. Subodh Kumar, IIT Delhi</td>
<td>Sept. 9, 2010</td>
<td>Cache Friendly Compressed Representation of Geometry</td>
</tr>
<tr>
<td>Dr. Veena Bansal</td>
<td>Aug 26, 2010</td>
<td>Experiments with Extended Technology Acceptance Model (ETAM)</td>
</tr>
<tr>
<td>Prof. Vijay K Vaishnavi</td>
<td>Aug 19, 2010</td>
<td>Design Science Research in Information Technology</td>
</tr>
<tr>
<td>Prof. Somenath Biswas, IIT Kanpur</td>
<td>Aug 4, 2010</td>
<td>Necessary and Sufficient Conditions for Success of the Metropolis Algorithm for Optimization</td>
</tr>
</tbody>
</table>

4.5 Internships to other students in IIIT-Delhi

The students from the following Institutions did Internships at IIIT-Delhi:

1. IP University                  - 04
2. National Institute of Technology - 03
3. Netaji Subhas Institute of Technology - 06
4. LNM Institute of Information Technology - 02
5. Krishna Institute of Technology & Engineering - 02
6. Indian Institute of Technology, Kharagpur - 01
7. Jaypee Institute of Information Technology - 01
8. Delhi College of Engineering - 01
9. Indian Institute of Technology, Guwahati - 02
10. National Institute of Technology, Agartala - 01
11. PEC University of Technology - 01

4.6 Professional Service

1. Mayank Vatsa, Richa Singh. Local Arrangements Chair at International Conference on Biometrics, New Delhi, 2012


3. Amarjeet Singh; Invited by Microsoft India to serve as academic judge for Imagine Cup Finals

4. Amarjeet Singh; Invited by Microsoft India to attend the Microsoft Faculty Connect in Gurgaon

5. Pushpendra Singh; Invited by Microsoft India to serve as academic judge for Imagine cup finals

6. Pushpendra Singh. Invited by Microsoft India to attend the Microsoft Faculty Connect in Gurgaon June, 2011


9. Pushpendra Singh. Program Committee Member of 3rd International Conference on Mobile Communication Technology for Development (M4D2012).

10. Pushpendra Singh. Program Committee Member of 4th International Conference on Contemporary Computing, 2011

11. Vinayak Naik. Program Committee Member, the 4th International Conference on Contemporary Computing (IC3), JIIT University, Noida, August 8-10, 2011
12. Vinayak Naik. Program Committee Member, Nethealth workshop to be held with COMSNET’10 in Bangalore

13. Vinayak Naik. Program Committee Member, Sensing Technology at the National Exhibition Centre in Birmingham, UK


15. Gaurav Gupta. Program Committee Member, DFRWS 2011


17. Ponnurangam Kumaraguru. Publicity Co-Chair, Thirteenth International conference on Mobile Data Management, 2012


19. Ponnurangam Kumaraguru. Program committee member for 2nd Workshop on Ubiquitous Crowd Sourcing 2011


22. Ponnurangam Kumaraguru - Program Committee Member of IEEE Symposium on Computational Intelligence in Cyber Security (CICS), 2011

23. Shishir Nagaraja - Program Committee Member of PETS 2011, ICISS 2011,


25. Amarjeet Singh - Co-organized the 1st workshop on Sensor Enabled Situational Awareness (SESA), in conjunction with 12th International Conference on Distributed Computing and Networking (ICDCN), January 2, 2011
5  Awards and Recognitions


2. Himanshu Bhatt received the IBM PhD Fellowship – worldwide about 50 such fellowships were given, out of which about 5 were from India.

3. Kuldeep Yadav received the Microsoft Research India PhD Fellowship – six students from across India are selected each year for this fellowship.

4. Ms. Paridhi Jain, Mr. Anush Sankaran and Ms. Anudha Aggarwal got the TCS PhD fellowships (out of about 20 that TCS gave out)

5. Denzil Correa, Ms. Aditi Gupta, Ms. Paridhi Jain were awarded NIXI Travel Fellowship 2010.

6  Placement and Internships

Placements
Nil

Internships

<table>
<thead>
<tr>
<th>Name of the Student</th>
<th>University</th>
<th>Project Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yash Seth</td>
<td>TTIC-Chicago</td>
<td></td>
</tr>
<tr>
<td>Tanmay Verma</td>
<td>TTIC-Chicago</td>
<td>Max flow / Min Cut Optimization in Vision Problems</td>
</tr>
<tr>
<td>Charvi Puri</td>
<td>TTIC-Chicago</td>
<td>Interactive co segmentation on iOS and constructing 3D from 2D</td>
</tr>
<tr>
<td>Amar Prakash</td>
<td>TTIC-Chicago</td>
<td></td>
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<tr>
<td>Ankit Sarkar</td>
<td>West Virginia University</td>
<td>Swarm Intelligence</td>
</tr>
<tr>
<td>Gaurav Goswami</td>
<td>West Virginia University</td>
<td>Using Cognitive Methods to Improve Face Recognition</td>
</tr>
<tr>
<td>Hemank Lamba</td>
<td>University of Newcastle</td>
<td>Neuroscience - Computation with dynamic neural activity patterns</td>
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<tr>
<td>Kanika Narang</td>
<td>South California University</td>
<td>Strength of Weak Ties in a Social Network</td>
</tr>
<tr>
<td>Arjun</td>
<td>EPFL-Switzerland</td>
<td>Software for Portfolio Management for i-Bank</td>
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7  Financials

7.1 Audited Report and Accounts Statement

7.2 Summary of Accounts

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<th>INCOME</th>
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<td>Year</td>
<td>2009 – 2010</td>
<td>2010-2011</td>
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<tr>
<td>Government Grant</td>
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<td>Fees</td>
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<td><strong>Total</strong></td>
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<table>
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<th>EXPENSES</th>
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<tr>
<td>Year</td>
<td>2009 – 2010</td>
<td></td>
</tr>
<tr>
<td>Salaries</td>
<td>14,566,554</td>
<td>2,91,25,831</td>
</tr>
<tr>
<td>Scholarships</td>
<td>225,000</td>
<td>7,00,000</td>
</tr>
<tr>
<td>Capital</td>
<td>24,967,741</td>
<td>14,19,29,161</td>
</tr>
<tr>
<td>Services</td>
<td>6,793,905</td>
<td>1,12,80,418</td>
</tr>
<tr>
<td>Consumables</td>
<td>789,084</td>
<td>16,14,210</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>5,357,349</td>
<td>27,90,750</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>52,699,633</strong></td>
<td><strong>18,74,40,370</strong></td>
</tr>
</tbody>
</table>

8  Infrastructure and Facilities

8.1 Library Facilities

<table>
<thead>
<tr>
<th>BOOKS</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Items</td>
<td>2010-2011</td>
<td>Items</td>
</tr>
<tr>
<td>Computer Science</td>
<td>521</td>
<td>General</td>
</tr>
<tr>
<td>Electronics &amp; Communication</td>
<td>95</td>
<td>Political Science</td>
</tr>
<tr>
<td>Philosophy, Psychology</td>
<td>35</td>
<td>Education</td>
</tr>
</tbody>
</table>
Most of the reputed research journals are now available through on-line resources such as Springer and INDEST AICTE Consortium for IEL online journals. Many popular journals, news magazines and Indian journals are received as print copies for easy access.

The library is open from 0900 hrs to 0600 hrs from Monday to Friday. The library remains open from 0900 hrs to 0900 hrs on all days during the examinations.

### 8.2 Computer Laboratory Facilities

<table>
<thead>
<tr>
<th>IT ASSETS</th>
<th>Items</th>
<th>2010-2011</th>
<th>Items</th>
<th>2010-2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Servers</td>
<td>5</td>
<td>Total Bandwidth</td>
<td>1 Gbps</td>
<td></td>
</tr>
<tr>
<td>No. of Laptops</td>
<td>34</td>
<td>No. of Projectors</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>No. of Desktops</td>
<td>73</td>
<td>No. of clients in Labs</td>
<td>128</td>
<td></td>
</tr>
<tr>
<td>No. of Data cards</td>
<td>7</td>
<td>Total Network Traffic</td>
<td>80 Mbps (approx.)</td>
<td></td>
</tr>
<tr>
<td>No. of Printers</td>
<td>36</td>
<td>No. of Scanner</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

### 8.3 Campus Facilities

The IIIT (Indraprastha Institute of Information Technology )-Delhi Act,2007 endowed the establishment and incorporation of a non affiliating and teaching Institute at Delhi to facilitate and promote studies, research, incubation and extension work in Information Technology and its application domains, and also to achieve excellence in these and connected fields.

With the above objectives in view, the Government of NCT of Delhi allocated 25 acres of land in the GB Pant Polytechnic Campus to enable the setting up of its Campus located behind the Phase III Okhla Industrial Estate at a distance if 1 ½ K.M. (approx.) from Okhla railway station, south Delhi

**Transit Campus**

The IIIT-D started its operations in Sept 2008 from the Transit Campus set up at the part second floor and full third floor areas of the Library block of Netaji Subhash Institute of Technology at Dwarka New Delhi under the aegis of the DTTE, GNCTD. The entire areas have been professionally designed by Interior Architects and all
furniture, equipment and educational aids sourced from reputed vendors to provide a quality ambience for meeting R& D driven education system followed by the IIIT-D.

The third floor caters to spaces for 4 nos of 30 individual seater laboratories, faculty seating on single and twin occupancy basis for 16 single and 3 twin sharing cabins for six faculty, faculty lounge, library areas, research laboratory areas for 3 labs electronics, biometrics, meeting rooms, services and administrative areas apart from indoor play areas for pool, TT etc.

The second floor houses the two research laboratories, 4 classroom spaces for classes with two of 60 and one each of 120 and 30 seater respectively.

The classroom, labs, faculty areas and administrative areas are fully air-conditioned and are catered to by lift from ground floor level.

It currently has four batches of BTech students (approx 60 each), and two batches of PhD students. Its MTech programs also started in 2010.

**New Campus under Phase I Construction**

The transit campus is under tremendous pressure and is to be shifted to the new Campus by Dec2011. The new campus for the IIIT-D is coming up as the extension of the GB Pant Polytechnic at Okhla Phase III New Delhi on a plot of 25 acres of the 65 acres plot of the Polytechnic earmarked for the purpose.

The sprawling state of the art campus that is spread out over entire land over the sloppy terrain and buildings developed contoured to the topography of the land to be constructed in three phases.

The Phase I consist of the following:

- Academic lecture hall block
- R&D block,
- Resource Centre cum Library building
- Dining block
- Boys Hostel
- Girls hostel
- Dining block
- Faulty Residential building
- Service blocks
- STP

The entire area is divided into mutually interactive yet separate zones namely the residential areas for faculty, academic areas and the student residential areas connected by connecting pathways with vehicular entry restricted to the peripheries only.
There is a single G +11 storied faculty residential block with 27 apartments and 3 guest rooms in the residential zone.

The academic zone comprise of separate blocks for the resource centre cum library in G + 3 storied block, the G+2 Lecture hall block, and the G + 5 storied Research & Development block which would house the research labs, faculty seating, administrative and academic heads with their supporting staff.

The student residential zone comprises of separate blocks for the the boys hostel G+7 with 350 seats and girls hostel G+4 for 150 seats approx. and a G +3 dining block with cafeteria and mess, student activity areas.

All the above areas excepting for the faculty residences will be served by the district cooling air-conditioning system to be cooled on selective basis during day/night/peak demand settings, housed in the service block. Use of VFD controlled systems, temperature based sensors with BMS controls will run air-conditioning efficiently. Moreover the building envelopes are being made efficient to insulate from heat using dry cladding in external finishes and AAC blocks in place of regular brickwork in masonry.

Use of natural material and minimum use of high energy consuming materials are basic ingredients of the project aim towards green building certification.

The electrical system would be provided with a partial load backup from 2x500kva DG sets.

The entire waste water generated in the campus would be recycled using 2x65 kld STP and water so generated will be used for horticulture, flushing and air-conditioning works.

The entire areas will be protected by fire alarm and fighting equipments as wet risers/sprinklers and smoke management systems.

The telephony and networking will be on a backbone of OFC cabling with redundancy using loop and star configurations.

The entire rock excavated from the areas will be broken down and utilized in external development works. Utilization of energy saving lighting systems, use of non conventional energy through solar hot water systems with PNG backup and will reduce power consumption considerably.

The works of construction are in full swing and all packages for same are likely to be commissioned for Academic zone and part students hostels and dining areas by Nov-December 2011 for partial occupation and faculty residences by Mar2012 with all works completed by June2012.
## Administration and People

### 9.1 General Council

<table>
<thead>
<tr>
<th>Name</th>
<th>Title/Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sh. Tejendra Khanna</td>
<td>Chairman, Hon’ble Lt Governor of Delhi</td>
</tr>
<tr>
<td>Dr. Thirumalachari Ramasami</td>
<td>Member, Secretary, Department of Science &amp; Technology</td>
</tr>
<tr>
<td>Dr. V. K. Saraswat</td>
<td>Member, Head, DRDO, SA to RM &amp; Secretary Defense R&amp;D and DG R&amp;D</td>
</tr>
<tr>
<td>Dr. Arabinda Mitra</td>
<td>Member, Executive Director, Indo-U.S. Science and Technology</td>
</tr>
<tr>
<td>Mr. Som Mittal</td>
<td>Member, President, NASSCOM</td>
</tr>
<tr>
<td>Dr. B. K. Gairola</td>
<td>Member, Director General, National Informatics Centre, Ministry of Communications</td>
</tr>
</tbody>
</table>

### 9.2 Board of Governors

<table>
<thead>
<tr>
<th>Name</th>
<th>Title/Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr. Kiran Karnik</td>
<td>Chairman</td>
</tr>
<tr>
<td>Mr. Anand Prakash</td>
<td>Member, Principal Secretary, Department of Training and Technical Education</td>
</tr>
<tr>
<td>Prof. B. N. Jain</td>
<td>Member, Vice Chancellor, Birla Institute of Technology and Science</td>
</tr>
<tr>
<td>Mr. D. P. Spolia</td>
<td>Member, Principal Secretary (Finance), Govt. of NCT of Delhi</td>
</tr>
<tr>
<td>Dr. P. Anandan</td>
<td>Member, Chairman and Managing Director, Microsoft</td>
</tr>
<tr>
<td>Prof. Ranjit Roy Chaudhury</td>
<td>Member, Vice Chancellor, Birla Institute of Technology and Science</td>
</tr>
</tbody>
</table>
(President, Delhi Medical Council)

Prof. Rajeev Sangal  
(Director, IIT Hyderabad)

9.3 Senate

Prof. Pankaj Jalote  
Chairman

Mr. Saugat Sen  
Member

Mr. C. Anantaram  
Member

Mr. Mukesh K Mohania  
Member

Prof. K. K. Biswas  
Member

Prof. Dheeraj Sanghi  
Member

Mr. Dinesha  
Member

Mr. Muthusamy Chelliah  
Member

Dr. J Siva Swamy  
Member

Mr. S. Bahl  
Member

Dr. Astrid Kiehn  
Member

Dr. Amarjeet Singh  
Member

Dr. Debajyoti Bera  
Member

Dr. Gaurav Gupta  
Member

Dr. Pushpendra Singh  
Member

Dr. Saket Srivastava  
Member

Dr. Shishir Nagaraja  
Member

Dr. Somitra S Sanadhya  
Member

Dr. Subhasis Banerjee  
Member

Dr. Vinayak S Naik  
Member
## 9.4 Faculty Members

<table>
<thead>
<tr>
<th>Full time Faculty</th>
</tr>
</thead>
</table>
| **Amarjeet Singh (Assistant Professor)**  
PhD (2009), Electrical Engineering, University of California, Los Angeles  
Mobile Sensing, Approximation Algorithms, Environmental Monitoring, Low Cost Technologies  
[amarjeet@iiitd.ac.in](mailto:amarjeet@iiitd.ac.in) +91-11- 2509 9211 |
| **Anirban Mondal (Associate Professor)**  
PhD (2003), Computer Science, National University of Singapore, Singapore  
Database Management, Multi-dimensional Data Indexing, Mobile Data Management, Spatial DBMS and GIS, P2P Data Management, Data-centric Business Intelligence  
anirban@iiitd.ac.in +91-11-2509 9203 |
| **Ashish Sureka (Assistant Professor)**  
PhD (2005), Computer Science, North Carolina State University, USA  
Data Mining, Text Mining, Natural Language Processing  
[ashish@iiitd.ac.in](mailto:ashish@iiitd.ac.in) |
| **Astrid Kiehn (Associate Professor)**  
PhD (1989), Computer Science, Technische Universitat Munchen  
Logic, Process Algebra, Concurrency Theory  
anstrid@iiitd.ac.in |
| **Debajyoti Bera (Assistant Professor)**  
PhD (2009), Computer Science, Boston University, USA  
Quantum Computing, Complexity Theory, Cryptography  
dbera@iiitd.ac.in |
| **Gaurav Gupta (Assistant Professor)**  
PhD (2009), Computer Science, Jadavpur University, Kolkata  
Digital Forensics, Cyber/Information Security  
gaurav1980@gmail.com |
| **Mayank Vatsa (Assistant Professor)**  
PhD (2008), Computer Science, West Virginia University, USA  
Biometrics, Computer Vision, Image Processing, Information Fusion  
[mayank@iiitd.ac.in](mailto:mayank@iiitd.ac.in) |
<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Education</th>
<th>Research Interests</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pankaj Jalote</td>
<td>Professor &amp; Director</td>
<td>PhD (1985), Computer Science</td>
<td>Software Engineering, Fault Tolerance, Distributed Systems</td>
<td><a href="mailto:jalote@iiitd.ac.in">jalote@iiitd.ac.in</a></td>
</tr>
<tr>
<td>Ponnurangam Kumaraguru</td>
<td>Assistant Professor</td>
<td>PhD (2009), Computer Science</td>
<td>Cyber Crime, Cyber/Information Security, Privacy, Human Computer Interaction</td>
<td><a href="mailto:pk@iiitd.ac.in">pk@iiitd.ac.in</a></td>
</tr>
<tr>
<td>Pushpendra Singh</td>
<td>Assistant Professor</td>
<td>PhD (2004), Université de Rennes</td>
<td>Middleware, Mobile Computing</td>
<td><a href="mailto:psingh@iiitd.ac.in">psingh@iiitd.ac.in</a></td>
</tr>
<tr>
<td>Raja Sengupta (joining 2011)</td>
<td>Associate Professor</td>
<td>PhD (2000), Geography</td>
<td>Theory and Practice of Geographic Information Science (Spatial Decision Support</td>
<td><a href="mailto:rsengupta@iiitd.ac.in">rsengupta@iiitd.ac.in</a></td>
</tr>
<tr>
<td>Richa Singh</td>
<td>Assistant Professor</td>
<td>PhD (2008), Computer Science</td>
<td>Biometrics, Machine Learning, Pattern Recognition</td>
<td><a href="mailto:rsingh@iiitd.ac.in">rsingh@iiitd.ac.in</a></td>
</tr>
<tr>
<td>Saket Srivastava</td>
<td>Assistant Professor</td>
<td>PhD (2008), Electrical Engineering</td>
<td>Hybrid Nano/CMOS Architecture, Emerging Technologies, Device Modeling and Simulation</td>
<td><a href="mailto:saket@iiitd.ac.in">saket@iiitd.ac.in</a></td>
</tr>
<tr>
<td>Shishir Nagaraja</td>
<td>Assistant Professor</td>
<td>PhD (2008), Computer Security</td>
<td>Network Security, Traffic Analysis, Anonymity, Complex Networks</td>
<td><a href="mailto:nagaraja@iiitd.ac.in">nagaraja@iiitd.ac.in</a></td>
</tr>
<tr>
<td>Somitra Kr. Sanadhya</td>
<td>Assistant Professor</td>
<td>PhD (2009), Computer Science</td>
<td>Cryptology, Machine learning and Bioinformatics</td>
<td><a href="mailto:somitra@iiitd.ac.in">somitra@iiitd.ac.in</a></td>
</tr>
<tr>
<td>Srikanta Bedathur</td>
<td>Assistant Professor</td>
<td>PhD (2006), SERC, Indian Institute</td>
<td>Web and Text Mining, Web Archiving, Large Scale Graph processing, Databases and</td>
<td><a href="mailto:bedathur@iiitd.ac.in">bedathur@iiitd.ac.in</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td>of Science, Bangalore</td>
<td>Information Management</td>
<td></td>
</tr>
</tbody>
</table>
Subhasis Banerjee (Assistant Professor)
PhD (2007), Computer Science, Indian Institute of Science, Bangalore
Computer Architecture, Performance Modeling of Computer Systems, Low Power Design
subhasis@iiitd.ac.in

Vikram Goyal (Assistant Professor)
PhD (2009), Computer Science and Engineering, IIT Delhi
Databases, Data Privacy and Security
vikram@iiitd.ac.in +91-11-2509 9183

Vinayak Naik (Assistant Professor)
PhD (2006), Computer Science and Engineering, Ohio State University, USA
Mobile Computing, Sensor Networks, Wireless Networks, and Systems
naik@iiitd.ac.in

VISITING FACULTY

Hemant Kumar
Founder - Softek Ltd., VP at HCL Tech.
BTech(1977), IIT Kanpur
Software Development, Compilers, Databases, Inventory Management and Banking Software. hemantk@ieee.org

Ranendra Narayan Biswas
Former Dean, Research and Development, IIT Kanpur and Former Director, CEERI, Pilani, Electronic Circuits, Microprocessor Architecture, Computer Networking
mb@iiitd.ac.in

9.5 Staff Members

Mr. Ashwani Kumar Kansal - Deputy General Manager (Administration)
Mr. D. P. Singh - Deputy General Manager (Finance & Account)
Mr. Sanjay Roy - Project cum Estate Officer
Mr. Vinod Kumar - Executive Assistant to Director
Mr. Arun Kumar - Assistant Manager (Finance & Account)
Mr. Anuradha Sen - Assistant Manager (Admission & Placements)
Mr. Ajay Kumar - Assistant Manager (Store & Purchase)
Mr. Anoop Singh - Assistant Manager (HR & Support Service)
Mr. Shweta Sachan - Assistant Manager (Systems & Networking)
Mr. Vivek Tiwari - Assistant Manager (Academics & Student Affairs)

In addition, there are on an average about 14 people working in the Institute on a temporary basis through manpower agencies.