Introduction
The Computer Science and Engineering department at IIT Bombay is the largest Computer Science and Engineering department in the country with a vibrant teaching and research program. The department consists of 36 faculty members and one adjunct faculty, 80 Ph.D. students, 200 M.Tech. students, 168 undergraduates and 25 office staff members. One new faculty member, Prof. Ganesh Ramakrishnan, joined the department this year.

The year saw more than 25 researchers visiting the department to give talks and interact with faculty, students and research groups. Faculty members of the department were involved with hosting two international conferences and a workshop at IIT Bombay. Thirteen students of the department were recipients of different fellowships for their academic programs. Two new research groups took shape over the last year, GRC (GCC Research Centre) and SynerG (Systems and Network Research Group). Various research activities of the department were recognised nationally and internationally at conferences and workshops and through awards and press coverage.

Academic Programmes

<table>
<thead>
<tr>
<th>Degrees Awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.Tech.  : 34</td>
</tr>
<tr>
<td>M.Tech.  : 51</td>
</tr>
<tr>
<td>Ph.D.    : 5</td>
</tr>
<tr>
<td>Dual Degree : 18</td>
</tr>
</tbody>
</table>

Fellowship Details
1. Infosys fellowship for Ph.D. students: 6
   Bell Labs fellowship for Ph.D. students: 1
2. Vijay Vashee fellowship for M.Tech & DD students
   M.Tech. :2  Dual Degree:3  Total: 5
3. Microsoft Research India Fellowship for PhD students: 1
## R&D Activities

### Sponsored Research Projects

<table>
<thead>
<tr>
<th>Sponsored Research Projects</th>
<th>: 94</th>
</tr>
</thead>
<tbody>
<tr>
<td>New</td>
<td>: 14</td>
</tr>
<tr>
<td>Ongoing</td>
<td>: 68</td>
</tr>
<tr>
<td>Completed</td>
<td>: 12</td>
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<tr>
<td>Faculty Involved</td>
<td>: 28</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Agency Name</th>
<th>Status (New/Ongoing/Complete)</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Development of North East Wordnet”</td>
<td>Ministry of IT</td>
<td>New</td>
</tr>
<tr>
<td>“Evolution and development of Sanskrit WordNet”</td>
<td>Ministry of Human Resource Development</td>
<td>New</td>
</tr>
<tr>
<td>“Development of tool for formal verification of VHDL based data and control dominated designs used in safety critical systems”</td>
<td>Board Of Research In Nuclear Sciences</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“Tetherless Human Interface for Simulators (THISS)”</td>
<td>Defence Research &amp; Development Organisation</td>
<td>ongoing</td>
</tr>
<tr>
<td>“Euro-India ICT Co-Operation.”</td>
<td>European Commission</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“Research and Deployment of Next Generation metro Networks ? Roadmap for Carrier Ethernet and 100 Gigabit Ethernet”</td>
<td>Agilent Technologies, Usa</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“Semantic Linkage Between The Web, Intranet And Wikipedia: Discovery And Exploitation In Search And Aggregation.”</td>
<td>HP Labs.</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“Research Collaboration on Mobile and Wireless Systems, with Microsoft Research India (MSRI)”</td>
<td>Microsoft Research Lab India pvt. Ltd.</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“Real Time Multiple Sensors To Track Multiple Targets Projected on a Screen.”</td>
<td>Defence Research &amp; Development Organisation</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“Information Aggregation from tables on the Web”</td>
<td>Yahoo Inc</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“2008 IBM FACULTY AWARD.”</td>
<td>International Business Machines Corporation.</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“Analyzing programs manipulating recursive data structures.”</td>
<td>Microsoft Research Lab India pvt. Ltd.</td>
<td>Ongoing</td>
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<tr>
<td>“Development &amp; Evolution of Sanskrit Word-Net”</td>
<td>Central Institute of Indian Languages</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Project Title</td>
<td>Agency Name</td>
<td>Status (New/Ongoing/Complete)</td>
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<tr>
<td>------------------------------------------------------------------------------</td>
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<tr>
<td>“Rural Connectivity and applications, Wireless Communications and Networking”</td>
<td>Tata Teleservices Ltd., Mumbai</td>
<td>Ongoing</td>
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<tr>
<td>“Design and development of a real time operating system (RTOS) for safety critical application”</td>
<td>BARC</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“Extending Framework for WFS-based Interoperability of GIS Sources.”</td>
<td>Department of Science &amp; Technology</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“Re-Designing the farmer-extension-agricultural research/education continuum in India with ICT-mediated knowledge management”</td>
<td>Indian council of Agricultural Research</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“IBM FACULTY AWARD / Building a self-aware and self-tuning distributed system using queuing theoretic and control theoretic approaches”</td>
<td>IBM Corporation</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“IBM FACULTY AWARD / Burg based instruction selection in GCC”</td>
<td>IBM</td>
<td>Ongoing</td>
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<tr>
<td>“IBM FACULTY AWARD, Prof. P Bhattacharya/ Integrating Indian Language processing resources and tools and semantic search capabilities with the UIMA,...”</td>
<td>IBM Corporation, New York.</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“IBM Faculty Award/ Supratik Chakraborty/ Approximate search and coverage based verification techniques for flattened circuits with locally specified...”</td>
<td>IBM Corporation., USA</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“Microsoft Award/Soumen Chakraborti/ Scalable annotation, search &amp; aggregation of semistructured graph and text data models.”</td>
<td>Microsoft Corporation</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“MEDIA LAB ASIA/GALLA - LOW COST RETAIL MANAGEMENT SYSTEM.”</td>
<td>Media Lab Asia</td>
<td>Ongoing</td>
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<tr>
<td>“aAQUA Mini-Context sensitive information to farmers.”</td>
<td>Nokia India Pvt. Ltd</td>
<td>Ongoing</td>
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<tr>
<td>“Microsoft India Distinguished Research Award / Linguistic Data Management of Indian Language Resources.”</td>
<td>Microsoft Research India, Bangalore</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“Large Scale Application Development and Knowledge Dissemination in Natural Language Processing and Text Mining (HP Labs, Bangalore)”</td>
<td>HP Labs, Bangalore</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“Setting up a TePP web portal at IIT Bombay”</td>
<td>Technology Info. Forecasting &amp; Assesment Council</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“INTELLIGENT POWER GRID INITIATIVES IN INDIA.”</td>
<td>IBM</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“Formal verification of Akash onboard process.”</td>
<td>Defence Research &amp; Development Organisations</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“Research Support for INAE Young Engineer Awardees”</td>
<td>Indian National Academy of Engineering</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“CROSS LINGUAL INFORMATION ACCESS (CLIA) SYSTEM”</td>
<td>Ministry of Communications &amp; Information Technology Consortium Leader: IIT Bombay</td>
<td>Ongoing</td>
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<tr>
<td>Project Title</td>
<td>Agency Name</td>
<td>Status(New/ongoing/Completed)</td>
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<tr>
<td>“Development of Indian Language to Indian Language Machine Translation System (IL-IL MT) : Consortium Leader : IIIT Hyderabad.”</td>
<td>Ministry of Communications &amp; Information Technology</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“English to Indian Languages Machine Translation (E-IL-MT) - Consortium Leader - CDAC , PUNE.” Book on “Data Flow Analysis : Theory and Practice”</td>
<td>Ministry of Communications &amp; Information Technology</td>
<td>Ongoing</td>
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<tr>
<td>“Entity and Relation Types in Web Search: Annotation, Indexing and Scoring Techniques Award Number: 15196”</td>
<td>Microsoft Corporation</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“Integrating Entities, Types and Relations into Search: Annotation, Indexing and Scoring Techniques.”</td>
<td>International Business Machines Corporation</td>
<td>Ongoing</td>
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<tr>
<td>“IBM Faculty Award for Research Work in the area of Autonomic Computing”</td>
<td>International Business Machines Corporation, USA</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“Crop disease forecasting services and expert crop advisory to farmers over information kiosk networks.”</td>
<td>PAN ASIA ICT (Asian Media for Information &amp; Communication Center, Singapore)</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“IBM Faculty Award of Prof. S. Sudarshan”</td>
<td>IBM Corporate Technology, NY</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“Architectural Information Extraction From Object Oriented Sources in R/O. SHRI. SHAKEB SAGHER, B.TECH. Student”</td>
<td>IBM INDIA PVT. LTD., PUNE</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“Metamodelling &amp; Architecture”</td>
<td>IBM India Pvt. Ltd., Pune</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“Formal Verification of Software Systems “</td>
<td>Microsoft India (R&amp;D) Pvt.Ltd., Hyderabad</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“Formal Verification of Large State Transition Systems”</td>
<td>General Motors India Pvt. Ltd., Bangalore</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“E-Outreach”</td>
<td>Technology Info. Forecasting &amp; Assesment Council</td>
<td>Ongoing</td>
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<tr>
<td>“TCS-IIT BOMBAY Laboratory for Intelligent Systems.”</td>
<td>Tata Research Development &amp; Design Centre, Pune</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“Analysis and Design of Wireless, Mobile and Multiservice Communication Networks.”</td>
<td>MHRD</td>
<td>Ongoing</td>
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<td>“Special Manpower Development Programme for VLSI Design and related Software (SMDP-II)”</td>
<td>Department of Electronics</td>
<td>Ongoing</td>
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<tr>
<td>“Building Check-Dams for Drinking Water: A Teaching and Research Initiative.”</td>
<td>DONATION</td>
<td>Ongoing</td>
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<td>“Improving GCC Ports of ABACUS and ANUPAMA”</td>
<td>DRDO</td>
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<tr>
<td>“Financial Assistance For Research Project Entitled &quot;Ontology Based Framework For Integration Of Geographic Information”.</td>
<td>DST</td>
<td>Ongoing</td>
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<tr>
<td>Project Title</td>
<td>Agency Name</td>
<td>Status (New/Ongoing/Completed)</td>
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<tr>
<td>“Association For Computing Machinery -International Collegiate Programming Contest -IBM Canada Ltd”</td>
<td>IBM Canada Ltd</td>
<td>Ongoing</td>
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<tr>
<td>“Time category in Computer Science and Engineering Sept., 03DT004”</td>
<td>Donation</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“Partial redundancy elimination”</td>
<td>Indo-US Collaboration</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“A Service-Oriented Architecture for Anonymous Remote Computing (ARC) on Internet”</td>
<td>Indo-US Collaboration</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“Centre for formal Design and Verification of software “</td>
<td>BRNS</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“Network security lab (m/s.nevis networks india pvt. Ltd., pune)”</td>
<td>Sponsored by Private Organisations</td>
<td>Ongoing</td>
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<tr>
<td>“Developmental informatics”</td>
<td>Sponsored by Private Organisations</td>
<td>Ongoing</td>
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<tr>
<td>“Multimodal Participatory Content Repository for the Education of Rural Children”</td>
<td>Sponsored by Private Organisations</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“Ibm faculty awards-ibm global services india pvt.ltd”</td>
<td>Sponsored by Private Organisations</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“Financial Assistance for research project entitled “Enabling Web-based workflow over object oriented GIS Models for NRDMS”.”</td>
<td>Department of Science &amp; Technology</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“Open source software”</td>
<td>IBM global services india pvt.ltd., b'lore</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“Ekalavya project”</td>
<td>Sponsored by Private Organisations</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“A Methodology and Tool to Determine Application Topology and Component Resource Needs of Distributed Enterprise Applications-Intel Corporation”</td>
<td>Intel Corporation</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“Exchange of Ideas on Data Mining and Data Cleaning Projects-Microsoft Resaerch”</td>
<td>Microsoft Research</td>
<td>Ongoing</td>
</tr>
<tr>
<td>“Methodology and Milldeware for Application Integration (M/s.Larsen &amp; Toubro Infotech Ltd.)”</td>
<td>Sponsored by Private Organisations</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>

**Consultancy Projects**

The department undertook 21 jobs generating Rs.1,19,96,704.

The total number of faculty involved was 15.
Extension Activities
Conferences and Workshops organized by the department,

Workshop by Yahoo on Hadoop on August 9-10, 2008
A two day workshop by Yahoo on Hadoop was held on August 9-10, 2008 at the F.C.Kohli Auditorium, Rekhi Building, IIT Bombay.

This workshop was addressed on issues designers and programmers need to consider in developing applications in Hadoop. Hadoop is a framework for running applications on large clusters built of commodity hardware. It is primarily a MapReduce implementation, running on a distributed file system. The objective of the workshop is to help participants, build an understanding of important concepts, and provide opportunities to practice with them.

Day 1: Hadoop basics (running on single node, running on multiple nodes, writing simple MapReduce programs, running, debugging, Hadoop apps).

Day 2: Complete Hadoop Application demo, several advanced topics in Hadoop

IBM Technology Day, organized by IBM and IIT Bombay, on September 27, 2008.
In collaboration with IIT-B, IBM organized an IBM Technology Day on September 27, 2008. The objective of this event is to bring researchers and practitioners from academic institutions and industry together, and discuss recent research problems and industry pain points in the following areas:

- Information Management and Retrieval
- Programming Languages and Software Engineering
- Distributed Systems and Autonomic Computing
- Microelectronics and VLSI design

The event opens up a window of opportunity for the student and faculty community of IIT-B and the technical experts at IBM to identify or enhance areas of collaboration. It will have several activities such as talks from IIT-B/IBM/Industry, poster sessions, video games (Nintendo Wii), and quizzes. All students from IIT-B are cordially invited to attend this event.

COMAD 2008, International Conference on Management of Data
For over a decade and a half, the COMAD Intl. Conf. on Management of Data, modeled along the lines of ACM SIGMOD, has been the premier international database conference hosted in India. The first COMAD was held in 1989, and it has been held on a nearly annual basis since then (except for a few breaks such as in the years when VLDB and ICDE were held in India). COMAD has always had a significant international participation, with about 30% of the papers being from outside India, including Europe, USA and East/South-East Asia.

The 14th COMAD was held from December 17-19, 2008, at IIT Bombay, Powai, Mumbai, India. Similar to previous years, COMAD 2008’s scope included not only traditional database areas but also add emphasis on Web, Information Retrieval and Data Mining.

Convener: Prof. N.L. Sarda and Prof. S. Sudarshan

Summer workshop on Ontology, NLP, IE and IR
IIT Bombay conducted a Summer Workshop on Ontology, NLP, Personalization and IE/IR sponsored by HP Labs, Bangalore on 16-18th July, 2008. The workshop faculty consisted of renowned experts in their
respective fields.

The participants were students and faculty of academic institutions from all corners of the country and also researchers from top search engine and NLP industries like Yahoo, Rediff, IBM and MSR. 130 participants were selected from approximately 400 applicants from all over India with the following distribution: Sevent students, twenty three facult members and thirty seven industry professionals attended the event. The workshop addressed topics in the areas of natural language parsing, informat extraction and information retrieval.

Convener: Prof.Pushpak Bhattacharyya

ANTS 2008, IEEE International Symposium on Advanced Networks and Telecommunication Systems

Broadband networks are witnessing a convergence in both technologies and delivered services. Next-generation services require unified and scalable technologies spread across the network protocol layers facilitating a converged service model across all partitions of the network. Advanced integrated systems and network platforms have benefits in terms of deployment cost as well as the ability to provision new services. Motivated by the tremendous success of the first ANTS (2007) event which highlighted advances in systems and networking, the theme of IEEE ANTS 2008 is on communication systems and networking technologies for Realizing converged ubiquitous broadband connectivity. To achieve this goal, the symposium will feature a technical program of previously unpublished papers, tutorials, talks and panels on relevant topics bringing together experts from academia, industry, government and the user community who are involved in the research, design, development, deployment, regulation and application of communication and networking technologies. The symposium will cover technologies that facilitate broadband connectivity - both wire-line and wireless - and cover advances in the service, networking, transport and user equipment domains.

The symposium was held in the commercial and entertainment capital of India - Bombay - on December 15-17, 2008.

Convener : Prof.Ashwin Gumaste

CAN Workshop

CANBUS is an increasingly popular bus protocol which is fast emerging out of the factory automation domain and appearing in the automobile domain, embedded in variety of machines and now also in the aerospace industry. CANOpen provides standardized software development methods and profiles. Systematic standards help the user to integrate different manufacturers devices in project and help keep costs down through standard profiles for a variety of application domains. The workshop was held on Sat. 14th Feb. 2009.

Continuing Education Programme

The following courses were offered under CEP,

Introduction to DBMS
Advanced Programming in C ++
Establishing and operating A Business Incubator
Visitors to the Department

Dr. Kaladhar Voruganti (Technical Director, NetApp ATG at Sunnyvale, California). He delivered a lecture on “Top Five Disruptive Trends in the Storage Industry.”

Dr. Saketha Nath (Post Doctoral Fellow, Technion Institute Israel). He delivered a lecture on “Robust Classification for Large Datasets: A Chance-Constraint Approach.”

Prof. Ramkrishna Akella (University of California, Silicon Valley Center). He delivered a lecture on “Active Relevance Feedback Algorithms for Information Retrieval.”

Dr. Yves Deswarte (Research Director of CNRS, France). He delivered a lecture on “Privacy-Enhancing Technologies for the Internet.”

Prof. Ramesh Jain (University of California, Irvine). He delivered a lecture on “EventWeb: The next disruptive evolutionary stage in WWW.”

Dr. Julian M. Bass (Debre Birhan University in Ethiopia). He delivered a lecture on “Developing ICT Skills in Ethiopia.”

Prof. Kesav Nori (Executive Director, Tata Consultancy Services). He delivered a lecture on “Should Computing be Limited by the Computer?”

Richa Singh (West Virginia University). She delivered a lecture on “Recognizing Altered Faces Due to Aging and Disguises.”

Mayank Vatsa (West Virginia University). He delivered a lecture on “Level-3 Friction Ridge Pattern Analysis.”

Dr. Shonali Krishnaswamy (Monash University, Australia). She delivered a lecture on “Mobile Data Mining - From Theory to Applications.”
Dr. Parag Chaudhuri (MIRALab, University of Geneva). He delivered a lecture on “Character Animation – A View-Dependent Approach.”

Dr. N. C. Narendra (IBM India Research Lab, Bangalore). He delivered a lecture on “SOA Reference Architecture and Modeling Methodologies.”

Dr. N. C. Narendra (IBM India Research Lab, Bangalore). He delivered a lecture on “Context Aware Web Services.”

Dr. Srivatsan Laxman (Microsoft Research Labs, Bangalore). He delivered a lecture on “Generative Models for Frequent Pattern Mining.”

Prof. Kamal Lodaya (The Institute of Mathematical Sciences, Chennai). He delivered a lecture on “Temporal Logics for Verification: What is the complexity?”


Prof. S. Muthu Muthukrishnan (Google). He delivered a lecture on “Internet Ad Algorithms: Insights and Directions.”

Dr. Andrei Broder (Yahoo! Research). He delivered a lecture on “Query Understanding using Web Relevance Feedback.”

Prof. Dhruv Mubayi, (Department of Mathematics, Statistics and Computer Science, Univ. of Illinois at Chicago). He delivered a lecture on “Coloring H-free Hypergraphs.”

Dr. Arun Swami (Google). He delivered a lecture on “Google’s mission is to organize the world’s information and make it universally accessible and useful.”

Prof. David Kotz (Dartmouth College in Hanover NH). He delivered a lecture on “Security through measurement for wireless LANs.”

S. Keshav (University of Waterloo). He delivered a lecture on “Design Principles for Robust Opportunistic Communication.”

Prof. Andrea Asperti (University of Bologna, Italy). He delivered a lecture on “Optimal Reduction of Lambda Expressions.”

Ms. Nutan Limaye, Research Fellow (Institute of Mathematical Sciences, Chennai). She delivered a lecture on “Bi-Connected Planar Graph Isomorphism in Log-Space.”

Ms. Nutan Limaye, Research Fellow (Institute of Mathematical Sciences, Chennai). She delivered a lecture on “Interplay Between Language Classes and Complexity Classes.”

Prof. Andrew J. Ko (University of Washington). He delivered a lecture on “Debugging Reinvented:
**Asking and Answering Why and Why Not Questions about Program Behavior.**

**Ramesh Raskar** (Media Lab, MIT). He gave a talk on "**Imaging Research at MIT Media Lab.**"

**Dr. Ashish Darbari** (University of Southampton, UK). He delivered a lecture on **"Symbolic Simulation Based Transient Fault Injection."**

**Prof. Rahul Mangharam** (University of Pennsylvania). He delivered a lecture on **"Networked Cyber Physical Systems and Highlights of Ongoing Work at the Embedded Real-Time Systems Lab at Upenn."

**Dr. Ganesh Ramalingam** (Microsoft Research India). He delivered a lecture on **"Logical Concurrency Control from Sequential Proofs."**

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### Invited Lectures

#### National

**Sharat Chandran**


“Visibility Map for Global Illumination in Point Clouds” Fr.Agnel Institute, Mumbai.

**Bhattacharyya, Pushpak**


Presented **The Cross Lingual Information Access Consortium Project of India** at the First Workshop of the Forum for Information Retrieval Evaluation (FIRE), Kolkata, Dec 12-14, 2008.


**Umesh Bellur**

Keynote speaker at the Redhat Service Oriented Architectures summit, Mumbai, India, Dec 2008.

#### International

**D.M.Dhamdhere**

New results in partial redundancy elimination using eliminatability-paths, CS department, University of New South Wales, Australia, September 2008.
Krithi Ramamritham,  
“Tracking Dynamics Using Sensor Networks: Some Recurring Themes”.  
10th International Conference on Distributed Computing and Networking Jan 2009(keynote talk)/ICDCN 2009: 1-7

Significant Awards/Distinctions

Prof. Pushpak Bhattacharyya was selected as an award recepient of the IBM UIMA Innovation Awards for faculty for his proposal "Integrating Indian Language Processing Resources and Tools and Semantic Search Capabilities with the UIMA Platform". The award amount is USD 15,000.


Kameswari Chebrolu and Bhaskaran Raman's paper was selected as one of the 'Top Three Outstanding Papers' at IEEE INFOCOM 2008.

Prof. Deepak B. Phatak was listed as one of the top fifty powerful Indians.

Honorary Work

Diwan A. A.  

Faculty Members and their specialization

1. Varsha Apte  
Software and Distributed Systems Performance Modeling Wireless Network Modeling and Analysis

2. Kavi Arya  
Functional Programming Applications (Domain Specific Languages). Embedded Systems/ Parallel Programming Languages. Distance Learning.

3. D.B.Phatak  

4. Umesh Bellur  

5. Pushpak Bhattacharyya
Natural Language Processing, Machine Learning, Web Knowledge Processing, Neural Nets

6. M.R.Bhujade
Hardware verification, Neural networks

7. S.Biswas
Parallel and Distributed Processing, Neural Nets, Architecture

8. Soumen Chakrabarti
Hypertext databases, Data mining

9. Supratik Chakraborty
Formal techniques for analysis, verification, validation of digital systems, Asynchronous timing analysis.

10.Sharat Chandran
Graphics, Computer Vision, Computational Geometry, Parallel Algorithms, Visualization, Medical Imaging

11. D.M.Dhamdhere
Distributed Algorithms, Programming Languages, Operating Systems, Optimizing Compilers

12. A.A.Diwan
Algorithms, Theoretical Computer Science

13. Ashwin Gumaste
Optical Networking, and Uncertainty Equilibriums in Business and Networking Environments

14. Sridhar Iyer
Mobile Computing, Distributed Systems, Educational Software.

15. R.K.Joshi
Object Oriented Systems, Distributed Systems, Software Architectures

16. Shashikant Kelkar
Software Engineering And Quality Assurance (Testing and Matrices)

17. Uday P.Khedkar
Programming Languages, Compilers, Data Flow Analysis.

18. Purushottam Kulkarni
Sensor and Wireless Networks, Distributed Systems and Data Dissemination. Developing solutions to problems in above areas for non-urban/rural settings.

Information Appliances, Electronic Commerce, Java Security, Parallel Computing, Time Series Forecasting

20. G.Nagaraja
Machine Intelligence, Pattern Recognition,

21. Om P. Damani
Natural Language Processing

22. Krithi Ramamritham
Real time systems, Databases.

23. Bhaskar Raman
Computer networks, Wireless systems, Communication system design for developing regions

24. Ganesh Ramakrishnan
Statistical Learning Theory (Support Vector Machines, Kernel Machines, Radial Basis Functions), Statistical Language Modeling, Reasoning and Inferencing, Information Extraction
25. Abhiram G. Ranade (Head of the Department)
Algorithms and Combinatorial Optimization

26. Krishna Shankaran Narayanan
Formal Methods, Bio-inspired Computing

27. Anirudha Sahoo

28. Amitabha Sanyal
Functional Programming, Compilers, and Programming Languages

29. Sunita Sarawagi
Data mining: integrating mining with relational DBMS, temporal mining, OLAP: integrating mining with OLAP, indexing multidimensional data, precomputation techniques., E-commerce: mining extensions, Extending relational DBMS, Wide-area distributed database systems

30. N.L. Sarda
Databases, Information Systems, Software Engineering

31. G. Sivakumar
Automated Reasoning, Logic Programming, Rewrite Systems, Networks, Distributed Systems

32. Milind Sohoni
Combinatorial Optimization, Mathematical Programming, Algorithms

33. S. Sudarhan
Main memory databases, Query processing and optimization

34. Sundar Vishwanathan
Algorithms, Combinatorics, Complexity Theory.

35. Kameswari Chebrolu
Architecture and protocol design in wired, wireless and sensor networks. Also interested in the development of appropriate technology.

36. Bharat Adsul
Formal methods in Concurrency, Logics and Games.

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