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## Partnering Innovation

- Database course at IISc
- Storage course at College of Engineering Pune
- Curriculum activities at MSRIT Bangalore
- IBM invited to Staff Development Program
- Wide variety of webinars in 1H 2012
- Adjunct Faculty at College of Engineering, Pune
- Faculty Enablement Program on SOA
- BITEs -IBM Collaboration Workshop at Mangalore

## Workshop & Events at Campus

- Enterprise Computing & Cloud Computing Workshops at IIT Kharagpur
- Cloud Computing workshop at IIT Kanpur, PEC Chandigarh, VIT & Gnanamani Engg College
- Big Data workshop at College of Engineering, Guindy
- Big Data Seminar at NIE Mysore
- Storage Workshop at IIT Bhubaneshwar
- Jazzhub Workshops at IIT Delhi, IIT Kanpur & BITS Pilani
- Workshop on Intellectual Property Rights (IPR)
- Workshop on Cloud and HPC at various campuses in Uttarakhand
- Seminars at University of Hyderabad
- 3 DAYS HPC infrastructure workshop at IIT Madras
- AIX/POWER Workshop at CIT
- EC Seminar at Bengal Engineering & Science University
- Cloud computing seminar at SASTRA
- BI Awareness Workshop at Techno Group of Colleges
- IBM University Relations associated with various Technical Festivals across India
- IBM invited to deliver invited talks for a QIP program at IIT Roorkee
- UR & WIT plans a series of webinar to benefit female students

## UR & WIT plans a series of webinar to benefit female students

## I-CARE 2012 Announcement

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**Note:** The page numbers indicate the placement of the respective topics or events within the newsletter.
VIT honors IBM Mainframe System z Team
Vellore Institute of Technology, Vellore (VIT) honors the IBM Mainframe System z team for its Excellent Academic Education in enabling the Educators on System z. It was a part of celebration of University day at VIT. Companies like TCS, CSC and Honeywell were also invited to the function.

College of Engineering, Pune (CoEP) SUR produces another Asset
As we take the IIT Bombay, IIT Delhi and CoEP led Cloud Collaboratory forward, there is yet another accolade for the CoEP part. Their work has not only been selected as a poster at ICA Con 2012 (which the student is presenting in US, funded by CoEP), but also has won second prize at IIT Roorkee, amongst 150 teams from all over India. The title of the project is "Design of a secure co-resident virtualized environment in multicore systems".

WIVCC-2012 at IIT Bombay
IBM India University Relations was a co-organizer of the workshop on issues related to Virtualization and Cloud computing (WIVCC-2012) at IIT Bombay (2011 Cloud Collaboratory SUR work). The Workshop had many presenters from various academic institutions and spanned many aspects of cloud- from provisioning to decision support to cloud security. Akshat Verma from IBM Research - India was the keynote for the workshop. This workshop was the outcome of the 2011 Share University Research Grant (SUR), that was collectively given to IIT Bombay, IIT Delhi and College of Engineering Pune.

Remote Mentoring project delivered International Conference Papers
Remote Mentoring project with IIT Guwahati students lead by Girish Sundaram, Technical Solution Architect, Software Labs published two technical research papers at NETs2012 International Conference on Internet Studies(http://www.internet-studies.org) to be held at Bangkok, Thailand from August 17-19, 2012
Title of the papers are:
- Just In Time Indexing (Databases)
- Application Behaviour Enforcement Based On Network Characteristics (Operating System)

Bridging India’s Industry-Academic Gap
Database Course at IISc
Prasad Deshpande from IBM Research completed teaching the "Topics in Database Systems" course at Indian Institute of Science, Bangalore. This is an advanced level database course, in which the students read and present influential research papers on various topics related to Data management. The students will all continue doing research in database systems for their ME thesis by joining the Database Systems Lab at SERC.

Storage course in College of Engineering Pune
CoEP collaborates with IBM India Storage Labs to conduct a course on Storage & Virtualization. College has published the course for final year B-Tech students as part of Elective Course in 7th semester. We are expecting to have around 25 students attend this course. The course will cover following topics:
- Basic concepts for Systems and Storage
- Storage Hardware and SCSI Protocol
- SAN, NAS, Fibre Channel and iSCSI
- Storage Virtualization Concepts
- Applications and Use Cases for Storage Virtualization
- High Availability, Clustering and Performance Considerations

Curriculum activities at MSRIT Bangalore
IBM collaborated with MSRIT to formulate a subject for UG and PG courses on Information On Demand along with a Lab. The subject is integral part of MSRIT syllabus now for both PG and UG courses. IBM has also helped MSRIT set up the Nano Electronics subject. The subject is part of MSRIT syllabus now. MSRIT is setting up a lab for Nano Electronics and seeking continued help from IBM.

IBM invited for Staff Development Program
IBM invited for Staff Development Program for lectures across Bhopal and nearby places. Many eminent faculty from universities like IIT, as well as companies like Microsoft, HP had presented. IBM experts delivered talk on Cloud Computing on June 28 followed by Q&A and demos on June 29th. Sessions were very much appreciated by the participating faculties.
Webinars organized in 1H, 2012

This season of webinars had wide variety of technology coverage and very interesting topics. These lectures were scheduled during Feb – May 2012 and were heavily subscribed; we received nearly 4000 registration for about 50 talks. More than 70 campuses registered and participated in these webinars. Some of the topics we covered in this season were:

Cloud Computing
- IaaS & Cloud Service Management
- Platform as a Service
- Cloud Security

Information on Demand
- Big Data Analytics - A New wave of opportunity
- Real Time Analytics
- Text Analytics

Enterprise Computing
- Enterprise Computing Awareness
- zOS Basics
- zProgramming Basics-Intro
- zProgramming Basics-JCL
- zProgramming Basics-COBOL
- zProgramming Basics-DB2
- zProgramming Basics-CICS
- How you can use Mainframe Academic Initiative to add value to your Career

High Performance Computing
- Introduction to High Performance Computing (HPC) and IBM Parallel Environment
- Developer suite and performance analysis framework for HPC programming
- Performance monitors, tools and techniques for performance engineering on Intel & Power Platforms
- High Performance Cloud Computing

Think Friday University Talks
- Data intensive computing
- Designing Distributed file systems
- Data Reduction Techniques For Primary Storage
- Cloud Storage
- Adding Advanced Storage Functionality via Low Storage Class Memories
- Future Storage Needs and Architecture
- Security and Deduplication in the Cloud
- Design considerations for Enterprise Storage
- Evolution of Enterprise Storage Media

Services Oriented Architecture
- SOA Overview
- SOA Design Patterns
- SOA Intersections with in an Enterprise
- SOA & Web 2.0
- SOA Security & Governance

Software Architecture
- Improving software code quality through manual and automated methods
- Leveraging Ulsketches, Use cases and story boarding using Rational Requirements Composer
- How world-ready is your app?

Apart from regular lecture series, we also had a couple of invited lectures which were much appreciated by the audience:
- Time Series Data Mining - Techniques & Challenges by Prof. Durga Toshniwal, IIT Roorkee.
- Probability: How to Do Cool Things With It by Dr. Ravi Kothari, Distinguished Engineer, IBM Research.
Adjunct Faculty at College of Engineering, Pune

Service Oriented Architecture was introduced by IBM as an elective course for final year B-Tech students of Computer and I.T. engineering at College of Engineering Pune about five years ago. This year, we have helped the college to review & revise the syllabus and also conducted the entire course for the current batch of students. This initiative has been led by Hasan Poonawala from Tivoli group and Kiran Gavali, STG group at Software Labs. A revised syllabus was introduced by SOA Hub Leader - Sivagnanam Kumaravel with new additions including ‘Business Process Management (BPM)’. Lectures are held every Saturday for the entire semester from January to May. New content in the form of presentations has been created. Manisha Sharma provided additional content material on BPM. Amit Dubey, Swanand Barve, Rahul Pisal, Kiran Gavali and Hasan Poonawala have helped deliver the lectures at the campus. Lab practicals are also organized and assessed by Kiran and Hasan. This has helped to enable the faculty of COEP and other colleges with the revised syllabus to carry forward the course in the coming years. A faculty enablement program was also organized to support this.

Facility Enablement Program on SOA

A three day SOA faculty enablement program was conducted at COEP during March 15-17, 2012. The program was flagged off by the Director of COEP - Dr. Anil Sahasrabudhe, IBM India UR Country Manager - Dr. Bhooshan Kelkar and IBM Chief Architect for AIS - Srinivas Kulkarni. IBM Speakers included senior IT Architects - Srinivas Kulkarni, Swanand Barve, Yogesh Kulkarni, Aafaque Khan, Mubeen Khatteeb, Srikrishnan Srinivasan, Nakul Bhuwalka and Rahul Pisal. The event was organized by Hasan Poonawala and Mahesh Paradkar. Twenty faculty members from COEP and nearby colleges like VJTI (Mumbai), Sinhagad Institute (Lonavala), Cummins, PICT, VIIT, VIT, MCS, SCIT, Symbiosis Pune attended the program. The agenda was based on the revised SOA syllabus used for course delivery at COEP. IBM Certificates were distributed to all the participating faculty. Content prepared by the speakers was distributed to the faculty after the event concluded.

BITEs - IBM Collaboration Workshop at Mangalore

BITEs (Board of Information Technology Education Standards) of Bangalore, Canara College and SIT engineering colleges of Mangalore and IBM worked together to host a collaborative workshop at SIT, Mangalore on January 27 and at Canara College on January 28, 2012. This workshop was aimed at building a synergy between the faculty of the various colleges affiliated with BITEs and IBM to enable faculty and identify curricula update opportunities in the Application Infrastructure (Java & J2EE) technology areas. The topics that were covered in the workshop were

Java, JavaEE technologies like JSPs, servlets, Application Server, Webservices Concepts and Cloud computing technology.

The conference was well attended by about 70 faculty members of various colleges from Managalore and Bangalore. Speakers from IBM Software Labs covered following topics:

- Java
- JavaEE- Jsp, servlets and JDBC
- Application Server Concepts
- Webservices concepts and Implementation
- Cloud Computing

Faculty had several questions and discussions with the speakers after the sessions to get better understanding of the various technology topics. Post the sessions, round table discussions were also held by IBM with the faculty members to better understand what was currently covered in their curricula and how IBM could help them embrace and deliver the latest curricula that meets the industry needs.
Enterprise Computing & Cloud Computing Workshops at IIT Kharagpur
IBM participated in Kshitij 2012, Techno-Management fest at IIT Kharagpur and organized Enterprise (Mainframe) Computing and Cloud Computing workshops. We see tremendous response for the two workshops during the festival. There were more than 600 students registered for Cloud Computing and 350 registered for Enterprise Computing. Both the workshops have seen packed houses.

The EC workshop provided an introduction to Enterprise Computing and formed the foundation to enable the participants to prepare for z05 Certification. The workshop conducted Joydeep Banerjee and Paroma Sen included theory and hands on exercises. Students are also encouraged to take further certification.

The Cloud Computing workshop conducted by Debasis R Choudhuri and Joydipoto Banerjee introduced students to various aspects of architecture and view point of cloud computing. The sessions included emerging trends in cloud computing, new and evolving job roles in the cloud space, cloud infrastructure and services offerings, open source stack for cloud, apart from some introductory concepts on the subject followed by a business study.

Cloud Computing workshop at IIT Kanpur
IBM participated at Techkriti, the annual technical festival at IIT Kanpur and organized a day long cloud computing workshop. Dr. Gopal Pingali and Sreekanth Iyer delivered the workshop. It was an interactive workshop which covered the following topics:

- Cloud Computing: An Introduction and Overview
- Cloud Reference Architecture
- Service Management for the Cloud
- Deep Dive on SAAS & Building multi-tenancy applications with IBM middleware
- Application development and deployment in the Amazon Cloud with IBM WebSphere Application Server and Rational Application Developer

The session were highly appreciated by over 150 students who attended the workshop.

Cloud Computing workshop at PEC Chandigarh
PEC Chandigarh invited IBM to conduct a workshop on Cloud Computing at VYOM’12, Annual Technical Festival of the campus. Deepsingh Chhabda from IBM presented the workshop on Mar 23, 2012. It was half day workshop that primarily covered Introduction to Cloud, Demo on creating cloud deployments with IBM Cloudburst and Technical discussion on various cloud deployment models & Security and finally concluded with an interactive session with students answering queries and myths about Cloud. The workshop was received very well with 150+ students participating in it.

Feedback received from the campus, “The concepts covered and the discussion that took place during the workshop was not only helpful for the students who were familiar with cloud computing, but it also grew interest in many students who were totally new to the field.” - Thanisha Sehgal, IBM Campus Ambassador at PEC Chandigarh

Cloud computing workshop at Gnanamani Engg College
IBM conducted at 3 Day Cloud Computing workshop at Gnanamani Engg College, Namakkal Dist, Tamil Nadu. Sujith R Pillai conducted the entire workshop at the campus. The workshop was organized for two purposes, (1) Enabling the students on cloud computing and (2) Enabling IBM Training Partner (AdroIT Technologies) on taking cloud sessions. The workshop was attended by 55 students and a trainer from IBM Training Partner.
Big Data workshop at College of Engineering, Guindy

A Big Data workshop was organized at College of Engineering, Guindy as part of Kurukshetra, annual Techno-Management festival. Students from all over India attended the annual event and around 120 participants attended the Big Data workshop. As part of the workshop around 10 sessions were conducted on IBM Big Insights and various components involved. Practical uses of the IBM Big Data toolset was presented to the students along with case studies. Lab sessions on Hadoop, Mapreduce and JAQL were conducted on BigInsights Basic edition (free available for download) to give students a feel for the technology. Around 80 machines in CEG campus were installed with Big insights VM for the students to follow along on their own in the hands on sessions. More details about this workshop can be found here.

Big Data Seminar at NIE Mysore

National Institute of Engineering, IEEE Student Branch's Technical Symposium for technical forums and technical contests, Ankura, was held over 20-21-22nd April 2012 at Mysore. IBM was one of the prime sponsors for Ankura. The symposium was successful with more than 700 participants across the 3 days and all events.

As part of the event IBM UR team organized a seminar on Big Data. Mohan N Dani from InfoSphere Streams team conducted the seminar on "Harnessing Enterprise Information using Big Data" which was very interactive and we had outstanding attendance and interest for the session. The seminar hall was packed with a participation of 150-200 B-Tech and MCA students. Mohan explained the offerings from Information Management and how IBM could play an important role in educating and spreading awareness amongst students. Along with students, all the professors showed immense interest in the seminar on data analytics and have shown readiness on further collaboration with IBM.

Storage Workshop at IIT Bhubaneshwar

IBM University Relations participated at Wisseniare’12, Techno-Management festival of IIT Bhubaneshwar and organized a Storage Workshop. Venkatesh Mulabagilu, Technical Solutions Manager from India Storage Lab visited the event to conduct the workshop. Venkatesh covered IBM history, what makes it an exciting company with 100 year history and discussed about storage technologies, IBM operations in India and career opportunities available. The session was received well by the students.

Jazzhub Workshops

Three JazzHub workshops were organized during the technical fests at IIT Delhi, IIT Kanpur and BITS Pilani. The workshops, which demonstrated Rational Team Concert to students and showed them how to use it for their projects using JazzHub for free, garnered a good amount of interest. Students liked the fact that the software is an extension on Eclipse and is thus easy to adopt and use. Some have already created their projects on JazzHub. This will go a long way in boosting mindshare about the popular Rational product in the universities.

Workshop on Intellectual Property Rights (IPR)

IBM India University Relations and Department of Computer Engineering, College of Engineering, Pune jointly organized one day workshop on Intellectual Property Rights (IPR) on Saturday, March 31, 2012 at CoEP. The workshop was open for all faculty and students at Pune. FICCI has also associated in organizing the workshop. Dr. Bhooshan Kelkar, Country Manager, IBM India University Relations presented at this event.

Workshop on Clound and HPC at various campuses in Uttarakhand

Half day Cloud and High Performance Computing (HPC) workshop were organized at campuses in Uttarakhand during the month of May-June, 2012. Anto A John from HPC group, Rahul Nema from Cloud group and Devkant Aggarwal from University Relation visited IIT Roorkee, G.B. Pant University and Graphic Era Institute of Technology to deliver the workshop. The workshops were attended by Professors from CS/IT/EC Departments with M-Tech and PhD students.
Seminars at University of Hyderabad
IBM conducted two seminars at University of Hyderabad. This was attended by the faculties and students at the campus. Topic covered under these seminars were:

- Advanced Storage Technologies by Srinivas Jandhyala
- IBM P-Series Systems technology by Kiran K Anumalasetty

The response from the students and faculty has been excellent.
Feedback: The talks were informative and it has set me thinking about upgrading our department lab with a more advanced storage appliance than the setup we have now. It helped the students understand the basics of storage technologies and storage virtualization concepts which they were not familiar with. Some students were very excited about seeing a supercomputer for the first time. All in all, the seminars have been very useful to all of us in the dept. who are interested in systems area. Our calendar is almost full this semester and so regrets that we are not able to organize further talks from you this semester.
~Prof. Anupama Potluri, Department of Computer & Information Science.

EC Seminar at Bengal Engineering & Science University
Enterprise Computing hub delivered a seminar at BESU Kolkata to promote Remote Mentoring projects in EC & z05 Certification. This seminar created awareness and interest among the students on Enterprise Computing and they have started registering for the programs with us.

Cloud computing seminar at SASTRA
Cloud computing hub at university relations conducted a seminar at SASTRA University. Somyadeep Paul presented on “Cloud Computing Deployment and its services”. Session was very well appreciated by the students and faculties at SASTRA, we received following feedback from the campus:

Mr. Sowmydeep Paul had given good presentation on "Cloud Computing Deployment and its services" at our prestigious SASTRA-Srinivasa Ramanujan Centre, Kumbakonam. His Session was very good and our students have really felt the importance of Cloud Computing. We were also able to know how the IBM, as a leader, is offering various services connected to cloud computing.
- K. Arulmani, HOD/CSE, SASTRA University

3 DAYS HPC infrastructure workshop at IIT Madras
IBM HPC Team led by Nagarajan Kathiresan delivered 4 days HPC workshop to IIT Madras System Center team between May 2-4, 2012. During the workshop, HPC team shared lots of real time demos and case studies on HPC infrastructure products and their unique features which would help IIT Madras System Center team to guide the research scientists day to day resources requests and operational requirements.

AIX/POWER Workshop at CIT
Kiran Anumalasetty and Frederic Maria Joseph from AIX team delivered 4 days IBM Power/AIX workshop at CIT Coimbatore between May 5th to 8th, 2012. There were 30 faculties and 35 students attended this workshop. The goal of this workshop to give them the initial preparation for IBM Advanced operating system curriculum. CIT team gave very positive input on the workshop.

Cloud Computing Workshop at VIT
Suresh Durairajan, Lead Architect, Cloud CoE represented IBM and participated in the Cloud Computing workshop at VIT. Dr. Ethiraj Baskaran, Deputy Director of Industries and Commerce, Govt of Tamil Nadu gave an introductory session and Suresh presented on “Challenges in Cloud Computing”. More than 200 students from VIT and other campuses participated in this workshop.

BI Awareness Workshop at Techno Group of Colleges
Business Analytics and Optimization Group in IBM have recently finalized the Business Intelligence Curriculum for Techno Group of and IEM, Kolkata. This is done through a faculty enablement program organized in June & July. Prior to the faculty program we conducted two awareness workshops on BI at Techno College where 175 students were present. It created an enthusiasm and attracted a significant number of interested students for this.

BI Awareness Workshop at Techno Group of Colleges
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IBM University Relations associated with various Technical Festivals across India
In the first half of 2012, IBM India University Relations associated with a number of national level technical festivals across India and supported them by sponsoring prizes for student events. Here’s the list of events we partnered with:

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<th>Event</th>
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<td>PHOENIX’12</td>
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<td>EXODIA</td>
<td>IIT Mandi</td>
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<td>Aarohan 2012</td>
<td>NIT Durgapur</td>
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<td>Cognizance</td>
<td>IIT Roorkee</td>
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<td>Technovation</td>
<td>University of Pune</td>
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<td>Wisseniare’12</td>
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<td>Technovanza</td>
<td>VJTI Mumbai</td>
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<td>Kurukshetra</td>
<td>Anna University</td>
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<td>LITERATI 2012</td>
<td>NIT Kurukshetra</td>
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<td>Innovation 2012</td>
<td>Cummins College of Engineering</td>
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<td>Felicity 2012</td>
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<td>Vyom 2012</td>
<td>PEC Chandigarh</td>
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<td>Techkriti 2012</td>
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<td>Vidyut 2012</td>
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<td>TRYST 2011</td>
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<td>BITOTSAV 2012</td>
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<td>TESLA 2012</td>
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<td>Pragyan 2012</td>
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<td>Concept 2012</td>
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<td>CoE Trivandram</td>
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<td>CYBERIA 2012</td>
<td>SJCE</td>
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<td>Adhyayan 2012</td>
<td>IT-BHU</td>
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<td>Fluxus 2012</td>
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<td>Ankura 2012</td>
<td>NIE Mysore</td>
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IBM invited to deliver invited talks for a QIP program at IIT Roorkee
IIT Roorkee organized an AICTE sponsored short term course through QIP program on the topic “Applying Pervasive Computing and Social Networks to Accelerate the Growth of Rural and Urban India” from June 25 to 29. Dr. Amit Nanavati and Nitendra Rajput from IBM Research India were invited to deliver an invited talk for this course. Amit presented on “Social Network Analysis” and on “Speech in Mobile and Pervasive Environments” and Nitendra gave a talk on “Spoken Web”. The sessions were very well appreciated by the audience.

UR & WIT plans a series of webinar to benefit female students
University Relations along with Women In Technology group at IBM plans to have a series of monthly Webinars for the benefit of Girl Students. We started this initiative with the Webinar titled “College to Corporate – 10 Takeaways that You Should Know Before Entering The Corporate World” on 30th May.

Speaker Ranjani Santhanam from the Rational Performance Test Team delivered a very crisp and informative session. It was received very well by the students.
IBM Research – India offers two-day Winter Schools in the following areas:

1. **Big Data & Cloud Computing** (http://university-relations.in/lotus/quickr/I-CARE?view=Reg)
2. **Analytics & Optimization** (http://university-relations.in/lotus/quickr/I-CARE?view=OptReg)

Students who are in early stages of their Ph.D. program, either pursuing or intending to pursue research in these areas, are ideal candidates for this school. We also encourage master’s students of computer science and related areas, with research interests in these areas to apply.

**Limited travel assistance will be provided to outstation students.**

**Abstract Submissions - Research Showcase**

Faculty members, researchers, students (graduate and undergraduate) from technical, management and design streams are encouraged to submit their extended abstracts (limited to two pages for each abstract), with details of the poster title, author name, author status (Faculty/Student enrolled for PhD/MTech/BTech/MBA) as per the submission instructions on the workshop website. Abstracts can be submitted in following tracks.

**Video Submissions – Tech2Share Contest**

Share your thoughts, your technical work with the Researchers & Student community in the form of innovative videos. This video could be any technical work you have done already or are actively working on. A software you made, a hardware, a mobile application or it may be just a great idea. It can also be an elevator pitch on your entrepreneurial vision and technical leadership. Get your chance to showcase it to hundreds of students and researchers by participating in the I-CARE - Tech2Share contest.

**National University Challenge 2012: Sense and Analyze your City**

The first of its kind challenge which gives you an opportunity to highlight city issues. The goal of this challenge is to collect and analyze information from our cities about problems and issues being faced by the citizens. The challenge provides concerned citizens an opportunity to air their grievances and participate in solving the problems being faced in everyday life.

**Important Dates:**

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<tr>
<td>September 1, 2012</td>
<td>Winter School Application/Poster Abstract/Video/Smarter Submission</td>
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<tr>
<td>September 15, 2012</td>
<td>Acceptance Notification</td>
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**Venue**

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<tr>
<td>October 18 – 19, 2012</td>
<td>IBM India Pvt. Ltd. Manyata Embassy, Nagawara Outer Ring Road, Bangalore - 560045</td>
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<tr>
<td>October 20, 2012</td>
<td>IISc Bangalore</td>
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For more details about the programs and participation, visit our web page or contact Event Manager, Raj Sharma at rajks@in.ibm.com.

**Webpage:** [http://university-relations.in/lotus/quickr/I-CARE/](http://university-relations.in/lotus/quickr/I-CARE/)

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India University Relations

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