India University Relations

Newsletter
April - September, 2011
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IBM University Relations received the Best Ecosystem Contribution Award

Zinnov Consulting honored the University Relations (UR) team for the best Ecosystem Contribution. The award recognizes MNC R&D centers that have contributed significantly towards the development of the University R&D Ecosystem through depth of research and breadth of reach across Tier 1, 2 and 3 universities. The award also acknowledges IBM UR team’s efforts in identifying core areas of interest to IBM and making a streamlined approach to deal with universities in specific areas.

This category of awards was adjudged by Zinnov based on its knowledge of the industry. The criteria used for assessment included extent of reach, depth of research and collaboration & tangible collaboration outcomes. IBM’s continued efforts to reach out to universities across different tiers in the ecosystem, its curriculum enablement initiatives, various strategic research engagements from low involvement grants and sponsored labs (IISc and IITs grants) to high involvement research (e.g., Artificial Intelligence with IIT Kharagpur) are few of the reasons why we are acknowledging you in this category.

IBM India University Relations (IBM India UR) is very focused on creation of innovation minded, industry ready talent pool in Indian academia. The endeavor of IBM India UR is beyond just the “picking the top talent from campus” and strives to “creating and nurturing the talent”. IBM India UR continues to reach out to universities across different tiers in the ecosystem by multitude of innovative scalable programs such as webinar series on not only technology but also on Intellectual Property, Soft Skills and importance of diversity. In 2011 IBM India UR facilitated cutting edge research webinars being presented by such top notch technologists as IBM Fellows and Distinguished Engineers from IBM US and IBM Europe. A program that has become widely popular, “Global Remote Mentoring”, is about IBMers from India and abroad as well, mentoring Indian students, on high quality projects aimed at publications. IBM India UR also continues with its curriculum definition initiatives, Faculty Enablement, and providing Adjunct Faculty to Indian academia. There are various strategic research engagements from low involvement grants and sponsored labs to high involvement research, working with IITs, NITs and many universities in the country. IBM India UR truly believes that for the ecosystem to excel, the collaborative effort of the academia, government and the industry is a must, and is constantly making efforts to contributing its fair share.
IBM India University Relations made significant progress in promoting research with Indian Academia through Shared University Research (SUR) Grants. This year, so far, we have been able to secure 3 SUR Grants for 5 institutes in India. This is very important since we have typically had 2-3 institutes every year for SUR, it also shows the increasing research capabilities in India. The following three SURs have been awarded:

1. IIT Bombay, IIT Delhi & College of Engineering Pune for "Cloud Collaboratory for Education and research". The aspects covered will be storage cloud, application cloud, cloud Decision support systems, and security aspects. Tivoli team is already engaged.

2. Yashwantrao Chavan Maharashtra Open University (YCMOU): is one of the 10-12 open universities of India and uses satellite technology for education dissemination. This SUR will compare and contrast technology and Adoption of SameTime A/V vis-a-vis satellite technology. This will also be used for ICT & cloud enabled education and will empower underprivileged sections of the society addressing gender and regional diversity. IRL supports it for mobile OCR technology. Multiple NGOs are involved. We see this as an appropriate SUR for the IBM’s Centennial Year!

3. PSG Tech Coimbatore will use the SUR for the POC of HPC technology for research on Healthcare Center of Excellence. PSG Tech, PSG Medical College, PSG Hospital, NGO and PHCs are working together in this area.

Faculty Award to Prof. Matt Jones results into bigger collaboration
Faculty Award collaboration with Prof. Matt Jones, Swansea University has resulted into a bigger collaboration. EPSRC & DST have recently announced grant of £2M to continue the research in Spoken Web in year 2011-2013. IBM Research – India is a key partner in this strategic project and the grant will fund several researchers visiting and working with the lab.

IBM System z lab at VIT, Vellore
IBM System z lab was formally inaugurated at VIT (Vellore Institute of Technology), one of the premier Education institutes within India on Aug 16th, in the presence of VIT chancellor Dr. G. Viswanathan. IBM team was represented by Nirmal Kumar, Program Manager, STG ISV Technical Programs; Sreehari, z Technical Sales Specialist and myself. This event marked a significant milestone for IBM in establishing partnership with a top tier academic institute like VIT to help nurture & grow System z ecosystem, as part of academic initiative.

z Academic Initiative was kicked off at VIT during 1Q ’11 to help the university explore enterprise system solutions, enable & train z tutors (z/OS trained professors) and build a long term partnership with professor and student community. To cater to this objective, India z ISV team had conducted several training sessions at VIT campus during weekends over last 2 Quarters, to educate their professors & students on z/OS Concepts.

This has resulted in:
- Creation of IBM Mainframe Center of Excellence at VIT campus, having connectivity to centralized z System at Dallas, US
- "Introduction to z/OS Mainframe computing" course embedded as an elective in their Master's degree curriculum
- Elective z/OS course being offered for TIFAC students, under Dept of Science & Technology
- Accredited z Tutors, to deliver course curriculum sessions to student community
IBMers teaching at campuses

Dr. Murali Kota taught a graduate course on Nano Electronics at IIT Bombay in April 2011. The focus of this course was on quantum effects in Nano Devices. Course was attended by students from Electrical Engineering, Physics and materials sciences. Students from IIT Indore have also taken this course.

Dr. NV Krishna, IBM Research - India has also been offered an Adjunct Faculty position at IIT Bombay. Dr. Krishna will be visiting IIT Bombay occasionally to co-guide M-Tech students with Prof. Uday Khedkar.

Dr. Satish Chandra, Senior Manager at IBM Research - India is teaching a graduate-level course on "Topics in Verification" with Prof. A. Kanade at the Indian Institute of Science, Bangalore.

Vellore Institute of Technology (VIT), Vellore adopts IBM HPC Curriculums

Ganesan Narayanasamy, Senior Manager, HPC organized the Faculty Enablement workshop on Multi Core Architecture and Parallel Programming at Vellore Institute of Technology. The typical Faculty enablement program was expanded into a workshop where many practical sessions were conducted for faculty enrichment. Almost all the faculty from IT and computer science department attended the training programs. The new courses introduced will enable the students to expand their knowledge in the area of High Performance Computing. The faculty development programs were kicked off by Prof Dr. Aswani Kumar (Associate Professor & Division Leader, VIT) and Prof Balaraman (High Performance Computing).

Dr. Manish Modani, Ms. Prathiba Kumar and Mr. Richard Raj delivered the faculty training programs for 4 days. The new courses introduced will enable the B.Tech & M.Tech students to expand their knowledge in the area of High Performance Computing.

The faculty program was well received with great enthusiasm and energy by the Professors, Lecturers and Senior Key Members of the Institute.

Faculty Enablement program at MITS

Faculty enablement for Enterprise Computing was organized at Modi Institute of Technology, Rajasthan with an objective to facilitate the faculty members on delivering lectures for Enterprise Computing electives. It was a two day during March - April, 2011 & was attended by three faculty members.

Topics covered were Mainframe log in procedures, exposure to & sharing of elective curriculum / course ware, ISPF/TSO, Cobol program compile / JCL, VSAM, CICS etc.

This event was led by Amala S Krishnaveni and supported by Ranjit K Sinha, Inayathulla Khan and Monika Katoch at IBM.

Mainframe Community in DeveloperWorks

Enterprise Computing group in India are working to Enable students and faculty to learn Mainframe. A Mainframe Community is launched at DeveloperWorks for this purpose. This group is open to all experienced mainframers who would like to support Mainframe Education in India by promoting it in local academic institutes / mentoring a student jointly with a faculty / contributing to the group vide articles and demo videos.

While students and faculty can access the articles and demo videos - it is recommended that they join the group so that they can contribute vide comments / queries and suggestions.

This group is not intended to be a mainframe interview question bank - it will focus on promoting core mainframe technology in India Academic Institutes. For more information, visit the group at http://ibm.co/fB8nSU
Facility Enablement Workshop on Parallel Architectures and Parallel Programming

High Performance Computing team led by Ganesan Narayanasamy delivered faculty enablement session on Parallel Architectures and Parallel Programming. The workshop was also conducted as ACM Professional chapter event. The workshop was attended by 80 participants. The participants of the workshop include 57 PG students, Research scholars and 23 faculty members from various Engineering colleges and Universities. Some of the participating Institutes include Coimbatore Institute of Technology, Thiagarajar College of Engineering - Madurai, Anna University - Madurai, Amritha Institute of Technology, Karunya Institute of Technology, Sri Ramakrishna Engineering College, Dr GRD College, VLB College of Engineering, Nehru Institute of Engineering and Technology, Ilahia college of Engineering, Karpagam University, Sri Sakthi College of Engineering, St Joseph's College of Engineering and Technology – Trichy and PSG College of Technology.

The workshop was organized for 4 days (11-14 August 2011). The details of the sessions are as follows:

**Day One**
**Fundamentals of Processor Architecture**
SPEAKER: Ms. Prathiba Kumar, IBM, STG
- Fundamentals of Superscalar Processor Design
- Memory Organization
- Cache Memory, Coherency, Cache Pre-fetch, Levels of Cache
- Introduction to Multi-core Architecture
- Multicore Vs Multithreading
- Hyper-threading and SMT

**Day Two**
Power and PowerPC Architecture
SPEAKER: Ms. Prathiba Kumar, IBM, STG
- Introduction to PowerPC architecture
- PowerPC ISA
- Advanced Power Architecture Concepts
- Power 5 Multicore architecture
Case Study of MicroPower 5, Power 6, PowerPC

**Day Three**
Parallel Programming with MPI
SPEAKER: Dr. Nagarajan Kathiresan, IBM, STG
- Introduction to HPC
- Parallel Computing Architecture
- OpenMP Programming model
- OpenMP Directive Format
- OpenMP programming Constructs
- OpenMP Runtime Library Routines
- OpenMP Environment Variables
- Lab session on Open MP

**Day Four**
Parallel Programming with OpenMP
SPEAKER: Dr. Nagarajan Kathiresan, IBM, STG
- Introduction to MPI
- MPI Program Structure
- Point-to-Point Communication
- Advanced concepts in MPI
- Lab session on MPI

SPEAKER: Ganesan Narayanasamy, IBM, STG
- What IBM has done for last 100 years
- IBM current HPC position and technologies.
BITEs -IBM Collaboration Workshop at Dr Ambedkar Institute of Technology on Aug 20th 2011: BITEs (Board of Information Technology Education Standards) at Bangalore, Ambedkar Institute of Technology and IBM worked together to host a collaborative workshop at AIT, Bangalore on August 20th 2011. This is one of IBM's academia initiative where in IBM reaches out to the universities to help bridge the gap in what is being currently taught to the students as engineering syllabus and where the software industry stands now with respect to software technologies.

This workshop was aimed at building a synergy between the faculty of the various colleges affiliated with BITEs and IBM to enable curricula updates in various new technology areas. The workshop started with a small inaugural ceremony with Dr Prahlad Rao, the executive Director of BITEs talking about the importance and goal of this workshop and why it is important for the industry and colleges to bridge the gap in technologies. Principal of AIT Dr Martin Jebbaraj, Rajeev Palanki and Murali Veeravalli of IBM also added few words on how IBM and faculty together can help bring about this change.

The topics that were covered in the workshop were

- Java, SOA, Application Server and Message Oriented Middleware.
- Speakers from ISL,IBM who covered the above topics were:
  - Java : Rajeev Palanki
  - SOA: Sanjay Kesavan
  - Application Server: Manu George
  - Message Oriented Middleware: Umamahesh Ponnuswamy

During the java presentation Rajeev spoke about building blocks of java, IBM Java virtual machine, just in time compiler and new trends in java. Manu Gerge covered application server concepts, architecture, configurations and high availability on application server. Sanjay Kesavan touched upon SOA concepts, flexible IT through SOA, SOA reference architecture, ESB concepts and service registry. Umamahesh covered computing styles, middleware technologies, message oriented middleware under message oriented middleware. The conference was well attended by about 45-50 faculty members of various colleges from Bangalore and also few other colleges from places like Hubli.

Faculty had several questions and discussions with the speakers after the sessions to get better understanding of the various technology topics. Few round table discussions and interactive sessions were also held by Manjula Kallur and speakers of IBM with the college faculty members to better understand what was currently covered in the curricula, what challenges they are facing and how IBM can help them in the future to overcome some of the challenges. This workshop has helped IBM recognize some of the areas where in IBM can collaborate with the faculty to bring in changes/updates and also help establish continuous communication channels between the faculties & IBM and guide them in future.

Remote Mentoring Project results into an International Journal

A Remote Mentoring Project work in the area of Power Management for Cloud computing has resulted in a publication in "International Journal for Cloud Application and Computing". This journal is published by IGI publisher who were publishing journals since 1988. This broadly talks about how the Power management states in POWER processors can be utilized for effective Power Management by creating a Power Aware Meta scheduler. This scheduler understands the arrival pattern of the workloads and the future requirements and applies power management modes to effectively save power in cloud environment.
Global Sustainability Summer School at Universiti Brunei Darussalam (UBD): IBM and Universiti Brunei Darussalam (UBD) jointly organized the Global Sustainability Summer School from July 14th to July 29th. A first of its kind in Asia, this event brought together 40 delegates from 15 different countries located in 4 different continents (Asia, Australia, Europe and North America). UBD hosted this program at their campus in Bandar Seri Begawan, Brunei, as a part of their twenty-fifth anniversary celebrations.

The school provided a unique opportunity for participants and speakers across the globe to engage each other in addressing the challenges of economic development, energy crisis, climate change and policies. The program featured several eminent speakers from leading research organizations including IBM Research India, Duke University, Santa Fe Institute, Dartmouth College, University of California, Berkeley and National Renewable Energy Laboratory.

This intense 12-day program explored sustainability from the technology perspective with an emphasis addressing the sustainability issues of Brunei. The program included simulation games, hands-on demonstrations, interactive sessions, a field trip to Kuala Belalong (a pristine rainforest region) and group projects in addition to traditional lecture-style presentations. This program also created a networking opportunity for the delegates to establish future collaborations.

Joint work with IIIT Hyderabad Students led to the Best Paper Award
Phani Gadde, Rahul Goutam, Rakshit Shah and Hemanth Bayyarapu, students of IIIT Hyderabad working under L Venkata Subramaniam, Senior Researcher and Manager - Information Quality and Discovery on Noisy Text Analytics have been recognized with the Best Student Paper Award at the 5th Workshop on Analytics for Noisy Unstructured Text Data held jointly with the Workshop on Multilingual OCR and collocated with the 11th International Conference on Document Analysis and Recognition.

P. Gadde, R. Goutam, R. Shah, H. Bayyarapu and L. V. Subramaniam
Experiments with Artificially Generated Noise for Cleansing Noisy Text
Joint Workshop on Multilingual OCR and Analytics for Noisy Unstructured Text Data, Sep 17, 2011, Beijing, China.

Think Explore Evolve Contest
T2E(Think Explore Evolve) is a collaborative program from IBM University Relations and Computer Society of India, strategized by Sateesh S. Kannegala and lead by Dattatreya S. Veillal, Shailaja Mallya, Pramod B. Nagaraja, Srikanth R. Vedanthi, Priyanka Jade, Arun Papania from IBM and supported by Raj K. Sharma from IBM India University Relations. In this program, workshops were conducted in various colleges around Karnataka on technologies that are very widely used in the IT industry today. The students were introduced to the following technologies:

- Integrated Development Environment through eclipse by Ayushman Jain, Lakshmi Priya Shanmugam
- Database Management Systems through DB2 by Abhigyan Agrawal, Naveen K. Vemula, Muralidhar V. V K, Sujan S. Ghosh
- Web 2.0 through Websphere sMash or Project Zero by Arun Lobo, Raghavendra K. Neelekani, Thirunavukkarasu Shanmugam Annamalai

The workshops were conducted in 5 different colleges across 3 cities, reaching out to around 500 students from 22 different colleges.

A contest with problem statements woven around the technologies showcased in the workshops was conducted. There were 4 problem statements which were constructed on the lines of Smarter Planet theme. The content of the contest was crafted by Kiran Subbaraman, Albee Jhoney, Vansh K. Kodi and Ankur Sharma. There were 33 teams registered for the contest of 2-3 students per team.

The short-listed teams for the contest were
- RVCE (Bangalore) - Ravikumar.B.V, Rashid.S.Nadaf, Shankreppa.Sajjan
- CMRIT(Bangalore) - Narendra Bondade, Sandesh Shetty, Vinay Ramakrishnan
- ISIM(Mysore) - Manoj G, Punyashree PB

The short-listed teams presented their solutions to a panel of judges - Shashikanth R. Thambrahalli, Palasamudram N. Praveena, Rajagopalan P. Krishna and delegates from CSI - Mr. G. Balasubba Raman, Mr. Vishwas Bondade, Mr. T.N. Seetaramu, Prof. Shantaram Nayak and Mr. T. Sabapathy. The solutions from teams were evaluated and awarded as below:

1st Place : CMRIT (Bangalore)
2nd Place : RVCE (Bangalore)
3rd Place : ISIM (Mysore)
HPC Workshops at BITS Pilani and TCE Madurai
Ganesan Narayanaswamy, Senior Manager, High Performance Computing had worked with Professor Navneet Goyal, BITS Pilani, Computer Science department and organized an HPC technical session. Rajan Ravindran from High Performance Computing team delivered this technical session for the Computer Science department faculties and students at their campus on 7th April 2011. This session covered the following topics:

- High Performance Computing - Overview
- Programming Models for HPC
- Power7 and its breakthrough technology for HPC
- Various architectures from IBM that deliver the HPC solutions (iDataplex, RoadRunner, BlueGene).
- Latest focus areas of University Relation program

Also this session addressed the demand for exascale computing, technology trends and the challenges involved in various components of the HPC. A similar High Performance Computing session was conducted by Rajan Ravindran at Thiagarajar Engineering College, Madurai for the faculties of Computer Science department on 20th April 2011.

High Performance Computing Workshop at Nanyang Technology University, Singapore
IBM HPC Team conducted a half day work shop where the SME’s Ignesius Thambryraj, Ganesan Narayanasamy and Rajan Ravindran presented about various IBM deep computing features and also hands-on demo on the following

- Optimizing the HPC applications using IBM HPC softwares and tools
- Presentation on HPC tools
- Presentation on Parallel Operating Environment

The Workshop was attended by Researchers and University students from NTU. As a result of this workshop, NTU computer center director got interested in our HPC curriculum and planning to adopt as part of their Syllabus.

High Performance Computing Workshop at Universiti Brunei Darussalam (UBD), Brunei
IBM HPC Team conducted four days workshop where the subject matter experts, Ganesan Narayanasamy and Anto John presented about various IBM deep computing features and also hands-on demo. The topics are BG Overview, BG HPC Software stack overview, Deep dive on running jobs, console commands, Parallel Programming concepts, Overview of MPI and OpenMPI, Debuggers, HPC Tools advantages, Best Practices for BG/P admin, Running diagnostic tests, Secured FTP features.

Anto John covered intensive hands on training for most of the BG/P features during his presentation. The Workshop was attended by faculties from UBD.

High Performance Computing Roadshow at Coimbatore Institute of Technology
IBM India Senior HPC manager Ganesan Narayanasamy organized HPC Roadshow in Coimbatore Institute of Technology with support from IBM Marketing, University Relations and Dassault Systems between 8th and 9th April, 2011. This is part of the Integrated IBM technical program offering, which is a collaborative approach to leverage and integrate suite of IBM HPC products and services to provide powerful solutions to meet clients' needs for marketing intelligence, go-to-market, and external communications. The objective of the roadshow was to showcase and share the latest market technology trends, usage models, and applications of High Performance Computing (HPC) in leading government, university centers, businesses, and industries. The show highlighted the use of HPC in modern scientific research to produce faster and superior innovations and solutions.

It witnessed strong attendance by 100+ faculties, researchers, professionals, and students from CIT and nearby academic institutions and industries. Along with researchers and experts from IBM and Dassault Systems, there was an active participation from faculty and students from CIT and nearby academic institutions in the form of presentations, posters, and demos. Their diverse backgrounds, ranging from computational biology to computer science, presented the audience with wide perspectives on possible applications of HPC. The show was inaugurated by Dr. S. R. K Prasad, Correspondent, CIT who very energetically put forward his perspectives and current work on transforming and creating a strong research base at CIT. The keynote was delivered by Mr. Ignesius Thambryraj, Program director, IBM India Systems and Technology Lab on the need and the relevance of HPC in today’s scientific research. He put forward various ways in which IBM is innovating and breaking barriers to advance HPC technology further towards the exascale frontier. Talks were also given by Prof. M. Devaraju and his colleagues at CIT who put forward their perspectives on HPC. Mr. Kent Winchell, CTO, IBM Deep Computing joined us over teleconference from Colorado, USA to present his views on data intensive computing. The conference program involved 15+ student research presentations as well as separate poster and demo sessions spanning over the two days. The program also featured various technical presentations and workshops organized by researchers from IBM and Dassault Systemes. The topics included performance tuning and optimization in multicore era, hybrid and parallel programming, large-scale HPC systems for computational sciences, cloud computing, and HPC in CAE applications. The two day program culminated with the final ceremony in which top three were selected from the student paper, posters, and demo sessions and presented with accolades.
Advanced Digital Sciences Center (ADSC) Hosted conference in HPC at Singapore

The Advanced Digital Sciences Center, Institute of High Performance Computing, University of Illinois at Urbana-Champaign, and A*STAR Computational Resource Centre worked together to host an intensive conference on High Performance Computing during July, 2011. The Conference was sponsored by IBM, Fujitsu, and SGI, provided a foundation for scientists and engineers wanting to incorporate high-performance computing into their work.

ADSC is a research facility located in Singapore that focuses on breakthrough innovations in the world of information technology. As a collaboration between the University of Illinois at Urbana-Champaign and A*STAR, ADSC has been key in new developments in the areas of interactive digital media, adaptive cyber infrastructure, and information technology for the power grid.

The conference was attended by scientists, engineers from NTU, the Agency for Science, Technology and Research of Singapore (A*STAR), the Institute of High Performance Computing, the Data Storage Institute, and the National University of Singapore, as well as several employees from local Industries.

IBM India HPC team Ignesius Thambyraj, Ganesan Narayanasamy and Rajan Ravindran presented the following topics in this conference:

- Deep Computing roadmap,
- Features of HPC software stack,
- Compiling the HPC application compiling Bio Applications
- Programming model to improve the application performance on P7
- Optimizing the HPD applications using IBM Math libraries and about HPC tools advantages

Participants learned how to parallelize and optimize their codes using popular high-performance computing paradigms, such as OpenMP, MPI, and OpenMP + MPI. The attendees came away with the knowledge they need in order to visualize and optimize the performance of their codes, the ability to compare different approaches, and the tools necessary to develop a parallel program ideal for their environment.
AIX and HPC Workshop, University of Lagos, Nigeria
First ever “AIX and HPC Enablement Workshop” in West Africa was conducted at University of Lagos, Nigeria on 18-20th April, 2011. The workshop was organized by IBM India STG-SW Lab and Africa University Relations targeting to spread awareness of IBM High Performance Computing (HPC) stack on AIX among faculties and doctorate/masters/bachelors students of Computer Science department. This workshop was the result of the university’s relationship with the IBM Academic Initiative, which provides Power and System z training to university professors and includes the courses into the curriculum for their students.

The three day workshop created large momentum in generating interest in AIX in general and introduced them parallel programming models - necessity and applications. The workshop was delivered by HPC experts from India Lab. The workshop was well received by University Dean, Head of the department of Computer Science and IBM Nigeria Corporate Citizenship & Corporate Affairs team. University has further initiated discussion on HPC technologies as part of the curriculum, remote mentoring and job opportunities at IBM.

DB2 Workshop at SASTRA University
University Relations successfully completed the 2-day DB2 workshop at SASTRA University during the last week of August. This workshop came in as a request from the HOD, Computer Science. Workshop topics included installing DB2, working with DB2 basics, certain advanced DB2 topics and Career Options for DB2. The workshop covered both theoretical and practical exercises. Madhuri V from Software Lab conducted the workshop.

There were around a 100 students who had registered for the workshop (mostly pre-final and final year undergraduates), but it was restricted to 50 due to logistic issues. The students were very interactive and participated actively in the Quiz conducted through the end of the workshop.

Apart from the workshop Madhuri discussed on DB2 Certifications and Introducing DB2 as elective with Prof.Uma, HOD, Department of Computer Science Around 40 students expressed interest in professional certification and Prof.Uma is immensely interested in helping the students undertake the same. She also expressed interest in making a case study on introducing DB2 as elective for approval from board of directors.

Workshop on Business Analytics at MSRIT Bangalore
Srinivas Gowda and Kapish Kumar from Software Labs have conducted a half day workshop on Business Analytics at M.S. Ramaiah institute of Technology (MSRIT) Bangalore on 29th April. This workshop covered a variety of topics on Business Analytics (Cognos) and Data mining(SPSS) sessions and supplemented with a couple of demos on Cognos and covered algorithms on SPSS Modeler.

Awareness on Security compliance, processes and tools
An awareness session on Security compliance, processes and tools program was conducted by Natarajan Chellappan for PSG Tech, session was attended by over 85 students in BE Pre-final and MCA along with 3 staffs in MCA department. In this session, Natarajan focused on security compliance challenges, its importance in delivery environment, system protection, data privacy, processes around security Risk management etc., and also covered career guidance in Compliance competency. Following is the feedback from HOD of Department of Mathematics and Computer Applications:

I would like to place it on records that the program on security compliance, processes and tools at PSG Tech premises received an overwhelming response and the students found it very useful. The program was attended by about 88 students who belong to BE prefinal year and MCA first year along 3 faculties of MCA department. They also mentioned that it really created an awareness about the security compliance and its challenges in the industry both domestic and international. Dr R Nadarajan, Professor and HOD, Department of mathematics and computer applications
**Linux Workshop at SASTRA**
Srivatsa Vaddagiri, STSM from Linux Technology Center, STG has led the LINUX workshop at SASTRA University, Thanjavur. Team comprising Vatsa, Mohan Kumar, Prem Karat, Prasad Krishnan, Maran Pakkirisamy had 2 day long sessions comprising lectures and hands-on session wherein about 50 students were introduced to the open source culture, Linux kernel and various aspects of Linux programming aided with practical sessions. This workshop elaborated about the contribution to the Linux kernel and IBM Linux Technology center activities which created interest among the students.

**Business Analytics Workshop in CIT Coimbatore**
Ganesan Narayansamy, Senior HPC development manager organized a 2 days workshop on Business Analytics where he invited the software group Cognos expert Rajib Bhattacharya to provide Cognos workshop in CIT, Coimbatore on 16th and 17th Sept, 2011. The participants were the faculty members and students from CIT, faculty members from Karunya University, faculty members and research scholars from Bharathiar University, IBM business partner and others. Ganesan presented about Big Data Analytics using HPC cloud and it gave a clear picture on how high Performance Computing systems going to be used in Analytics Arena.

The participants were very happy after attending the session and mentioned that they have done a thorough learning of Cognos in this workshop. They can now install and configure Cognos on their own, create models in FM and create reports. The CIT computer science department staff (HoD and other faculty members) were also very happy with the workshop.

**Special session on Business Intelligence & Analytics**
IBM arranged a session on Business Intelligence & Analytics on 25th Aug 2011 for PICT Pune. About 80 students from 3rd & 4th year of Computer Science and IT department participated in this session. Genesh Kedari form Cognos Team, IBM Software Labs conducted this session.
Campus Ambassador Program

IBM University Relations completed the first successful year of Campus Ambassador program at campus has recognized the excellent contributions made by the 2010-11 batch of ambassadors and facilitated them with certificates and mementoes. We received positive feedback from students about the program and a lot of suggestions to improve further. It motivated us to progress the program in the 2nd year. This year we received very good response from the campuses across India and hundreds of students applied for the position.

We are extremely happy to announce the Campus Ambassadors for 2011-12. We now have 66 Ambassadors at 37 Campuses across India.

Congratulations to the students who got selected under this program, we look forward to work closely with you all.

List of Ambassadors for 2011

1. Fermi Niveditha P, Anna University (College of Engg-Guindy)
2. Sowmithri Ravi, Anna University (College of Engg-Guindy)
3. Shreya Verma, Banasthali Vidyapeeth
4. Vedantam Chetana, Banasthali Vidyapeeth
5. Jitendra Kumar, Bengal Engg & Science University, Kolkata
6. Neeraj Asopa, Bengal Engg & Science University, Kolkata
7. Toshali, BIT-Meshra
8. Hitesh Patel, BITE- Pilani Campus
9. Arun, COE Trivandrum
10. Sameeksha, Cummins College of Engineering, Pune
11. Sunny Shukla, IIIT Allahabad
12. K.RADHA ALEKHYA, IIT Bhubaneswar
13. MANUPATI PRAVEEN KUMAR, IIT Bhubaneswar
14. SWATI VERMA, IIT Delhi
15. Vikas Kumar, IIT Guwahati
16. Ashish Bhandari, IIT Guwahati
17. Shubhendu Aggarwal, IIT Kanpur
18. Parul Agarwal, IIT Kanpur
19. Kundan, IIT Kharagpur
20. Ashish Yadav, IIT Kharagpur
21. VIHAN JAIN, IIT Roorkee
22. ARPIT KUMAR, IIT Roorkee
23. Aseem Anand, IIIT, Hyderabad
24. Saumay Kumar Dublish, IIIT, Hyderabad
25. Bhushan Shah, IIT, Indore
26. Anamika Patel, IIT, Indore
27. Keshav Kumar, IIT, Indore
28. Shiva R, IIT, Madras
29. Shashank Singh, ISI Kolkata
30. Somindu C R, ISI Kolkata
31. Ankit Choudhary, IT-BHU
32. BHAVYA CHADHA, MITS Lakshmangarh
33. SUGANDHA DODA, MITS Lakshmangarh
34. Sonal Gupta, MITS Lakshmangarh
35. Ms. Devika Pisharoty, MIT Pune
36. Mr. Farnoosh Azadi, MIT Pune
37. Pratima Sherkane, MSRIT Bangalore
38. Krithika D, MSRIT Bangalore
39. Akshay P Karanth, NIE Mysore
40. PAVAN. R, NIE Mysore
41. Deep Sinha, NIT Jamshedpur
42. Vivek Kumar, NIT Jamshedpur
43. Himani Kapur, NIT Kurukshetra
44. Ravindra Singh, NIT Kurukshetra
45. Preeti U Murthy, NITK Surathkal
46. JAYAVARAPU SAI KRISHNA TEJA, NIT Warangal
47. Imran, NIT Warangal
48. Nitish Goyal, NSIT Delhi
49. Thanisha, PEC Chandigarh
50. Aashray Arora, PESIT Bangalore
51. Surabhi Mutha , PICT Pune
52. Akash Kothawale , PICT Pune
53. Ms S Shaalini, PSG College of Tech, Coimbatore
54. Mr. Kasi, PSG College of Tech, Coimbatore
55. SUGANYA D, PSG College of Tech, Coimbatore
56. A.R.Venkatesh Palani Prabhu, SASTRA University
57. Gunda Dileep, SASTRA University
58. Sumukh, SJCE Mysore
59. Mohd. Faras, , SJCE Mysore
60. Jay Patel , SVNIT Surat
61. Arvind Jain , SVNIT Surat
62. Pooja Narayanan, VIT Vellore
63. Ankan, VIT Vellore
64. Himanshu Tambi, VNIT Nagpur

IBM Campus Ambassador Program is a voluntary program designed to have a liaison between IBM & Academia to strengthen the collaboration and evangelize cutting edge technologies. Though the program is voluntary, it gives a chance to the students to learn more about industry relevant technologies, know how technologies are evolving and network with IBM Experts. All of these will surely broaden the horizon of the students.
Knowledge sharing session with Karunya University
IBM HPC Team and Karunya University, Department of Bioinformatics had a knowledge sharing session dated 23rd Sep 2011 at Karunya University. Department of Bioinformatics head Dr. Jannet Vennila presented to IBM HPC team a research proposal related with Bioinformatics, Proteomics, Drug Design, Molecular biology areas. Prof. Arul Mugilan shared one of his homegrown Computational Biology/ Biochemistry application (written in Python) running 35+ days. This code may be quickly benchmarked in IBM BlueGene system. Gromacs, BLAST: Basic Local Alignment Search Tool, HMMER: A new generation of sequence homology search software are the examples of open source software. IBM team will assign mentors to support them for computation research, supporting the application performance improvement.

Keynote address at Summer School on “Next Generation Data Management”
Prasad M Deshpande from IBM Research - India, gave keynote address at the AICTE- MHRD Sponsored Summer School on “Next Generation Data Management”. It was held on June 13th at the Department of Computer Science & Engineering, National Institute of Technology Karnataka - Surathkal. It was attended by around 30 faculty members from various engineering colleges.

Industrial visit by ME students of PSG Tech to STG’s Systems solution Center
19 First year ME students and 3 Associate Professors made a visit to STG’s System solution center, in Bangalore. Natarajan Chellappan, CRM PSG Tech showed and explained them IBM’s STG products and IBM innovations for over 2 hours. Some of the server and storage components are also part of their curriculum and the team found the visit was extremely useful. The feedback sent by Dr Shalini Rammnath and that of students are attached herewith.

IBM delivered keynote address at International Conference in Recent Trends in IT
Ram Viswanathan, IBM Distinguished Engineer, CTO - GD & GBSC India delivered the keynote address at the “International Conference in Recent Trends in IT” at Anna University (MIT Campus) on 5th June 2011. The event (http://www.annauinn.edu/icritit/) was sponsored by IEEE Chennai chapter and was conducted by Dept. of Information Technology, MIT Campus, Anna University. More than 250 engineers and technologists, scientists from R & D Institutions, faculty members of engineering colleges, research scholars and post graduate students attended this conference. Ram spoke about Smarter Planet and Smart Cities. The IBM 100 year video got the participant’s curiosity and interest with IBM. The event was interactive and was well received by the participants.

CIT Student Tech Symposium
HPC senior manager inaugurated the Cyberfest Student Tech Symposium at CIT for 2011 where he presented IBM Deep computing advantages and how and where HPC applications are being used in Universities. It is a National Level Student Technical Symposium organized by MCA and MSC Software Engineering. The valuable inputs gained helps the students to develop their technical, managerial and organizational skills.
University Relations Team

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Curriculum Consultation
Academic Initiative & developerWorks

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