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AbstracIT

Vol : 1 | Issue :1 | January 2013 | Dept. of Computer Science

Unbeatable Spirit

Six Overall Championship in Inter Collegiate IT Fest.

Contents

Editorial Board

Vicharmanthan

Shri.S.Gopalakrishnan(Kris)
Co-Founder & Executive Co-Chairman, Infosys, Bangalore.

Understand, imagine and create are the keys to change the world: Kris Gopalakrishnan Under stand, imagine and create- if you are able to do this, you can change the world. That is the opportunity in front of you", said Kris Gopalakrishnan as he was addressing the students of Kristu Jayanti College. The co-founder and executive co-chairman of Infosys who was hopeful about the progressive growth of the IT industry in the next thirty years opined that the fruitful, exciting and transformable growth of the industry would be to such an extent that by the year 2032 computers will be capable of doing anything that a human brain is capable of Kris Gopalakishnan was in the college as part of Vichaarmanthan, the interactive programme to meet various global visionaries that is hosted by the college.

The former student of IIT, Madras also enlightened the students on the various changes that were brought about in our lives as a result of technological intervention like improvised communication strategies, access to education, database, broadband connectivity, e-banking and healthcare. He also introduced the students to the world of 3-D printing and instigated among them a spirit to participate in the development of technology rather than being a mere onlooker.

Principal's Message

A few years ago, there was an attempt to encapsulate and treasure down in the burrows of the earth, all the available accrued knowledge of this globe, for future generations to explore and discover. Future generations may or may not be interested in such a time capsule from the past.

At Kristu Jayanti College, the academic fraternity is an active community of learners who pursue knowledge as an active and dynamic endeavour with infinite and immense possibilities. We invest in the younger generations to instil in them the passion for knowledge and the seeds of research and learning. We strive to build a community of learners and teachers who believe that learning is not possible without teaching and teaching is not at all possible without learning.

The on-going computing and communications revolution has numerous economic and social impacts on modern society and require serious investigation in order to manage its risks and dangers. Decisions have to be taken carefully. Many choices being made now will be costly or difficult to modify in the future. Technology has changed business models, market structure and workplace and mode of working. In the education field advances in information technology will affect the craft of teaching by complementing rather than eliminating traditional classroom instruction.

I congratulate the Department of Computer Science of Kristu Jayanti College in bringing out a newsletter highlighting this revolution that is happening and analysing its impact on society. Wish them the very best in this academic exercise with a lot of practical benefits.

Fr. Sebastian T.A
Principal

Message

Many people consider 21st century as an age of technological determinism. The omnipresent nature of technology and its powerful influence on all realms of human activity reinforce the supremacy of technology over any other change agents existing in the current global scenario. This all embracing influence of technology is clearly expressed by famous American Journalist Thomas Friedman.Accroding to him "Technology created a global platform that allowed more people to plug and play, collaborate and compete, share knowledge and share work, than anything we have ever seen in the history of world".

The convergence of technology, information systems and telecommunication networks facilitated the evolution of a global village. This international convergence process got dramatically accelerated as the price of computing power fell and the world became an ever-more densely interconnected place. The most interesting and challenging part of this technology centred growth model is the continuous invention and obsolescence of technological breakthroughs with terrifying rapidity. In order to cope with the rapid pace of technological innovations and to make use of the opportunities unleashed by the ever expanding horizons of technical progress-people, processes and companies need to be adaptive. As Charles Darwin says "It is not the strongest of the species that survives, nor the most intelligent that survives. It is the one that is the most adaptable to change".

This adaptive advantage can be inculcated only by instilling in people the ability to innovate and the ability to think ahead of time. Sporadic innovations may help a company to survive in business in the short run. But if your aim is to develop and maintain consistent high performance over time, innovation should become a built in attribute of your organizational culture.IBM is a classic example of a company which could successfully integrate innovation into its organizational culture.

Innovation in technology is an outcome of the creative thinking process of intellectually gifted people. In a country like India, there is no dearth of people who are capable of initiating path breaking technological inventions. But unfortunately our education system does not give much support and opportunities to such people with original thinking and ideas. It is the responsibility of educational institutions to provide a nurturing ground for people with the passion to innovate. We have to make sure that the boundaries defined by conventional and conservative curriculum framework does not hamper thought process of young minds who would like to make a difference in the society through their technical prowess.

There is a huge gap between the knowledge acquired by the students through formal education system and the industry expectations about the competency of the students. Bridging this gap through continuous 'skilling' requires 'going an extra mile'. Many such 'extra mile' initiatives are already undertaken by our college by organizing guest lectures, national and international conferences based on themes of current relevance, industry visits etc.Thorugh these initiates we get a chance to understand the perspectives and ideas of others. But along with that we also need a platform to discuss our own ideas and to tap in house talent.

I hope this newsletter initiative will provide an opportunity for fruitful interactions, knowledge sharing and networking among the students and faculty of the Computer Science Department."Catch them Young and Watch them Grow" is an apt saying in the field of technology wherein many breakthrough technologies are invented by very young people. The department of Computer Science, Kristu Jayanti College, also believes in the same philosophy and look forward for powerful ideas and insights from our young, dynamic and intelligent student community. We would like to provide as many opportunities to the future innovators which would help you to excel in your career and to unleash your passion to innovate and succeed. The success of this Newsletter initiative depends on your intellectual contributions and active participation in the deliberations. I would also take this opportunity to congratulate all the faculty and students who have worked tirelessly for the successful publication of this Newsletter.

Fr. Augustine George
Head of the Department

UG Programme at a glance

Prof. Jeo Joy A, Coordinator, Dept of Computer Science

Kristu Jayanti College Bangalore had a humble beginning in the year 1999 with just nine students joining for the B Sc. (Computer Science, Mathematics, Statistics) course. The pioneer department of the college (Undergraduate Computer Science department) has evolved through years and has student strength of 500 at present. The department focuses on the holistic development of its students in order to equip them the requisites for employability and moral values. The disciplinary and systematic planned approach of each and every activity grooms the students to be great IT professionals and entrepreneurs of the future. The co-curricular activity of the department is monitored by the auspicious club of the department namely "Computer Academy". The department organizes intra collegiate fest (Synchronize), inter collegiate fest (Xactitude) and science exhibition (Galaxia) each academic year which acts as the kernel where the students can acquire leadership qualities, team work, creativity and hospitality. In order to sensitize with the society the department regularly organizes social outreach programmes (Knowledge sharing Forum) to the underprivileged government school children in the nearby villages. The department used to have regular talks by professionals from the industry on weekly basis. The numerous value added courses, certificate courses, workshops and bridge programmes offered by the department helps the students to bridge the gaps and enhance their skill set.

The students are also given opportunity to have industrial visits in each academic year to get a feel of the industry environment. Besides the students are welcome to be part of one of the six technical communities which acts as knowledge sharing platform. The enormous number of inter collegiate championships won by the students of our department speaks volumes about the creativity and skill set of the students. This academic year we have won continuously five overall championships in the inter collegiate fests held in the various colleges of Bangalore city. This year we are coming up with the newsletter "AbstracIT" which I believe will create a hard impact among the readers.

Rule Based Expert System

Ms. Sheresha.Ch, Faculty, Department of Computer Science

Expert system technology has captured the interest of professionals in a number of fields in recent years. Systems have been developed in such diverse areas as science, engineering, business, and medi-cine. Almost every professional and computer society currently has a special interest group for expert systems technology. This widespread interest can be attributed to the ability of the expert system to aid various organizations in solving practical, real-world problems. Currently, over two-thirds of the Fortune 1000 companies have expert system projects under development. Organizations are looking toward these systems to aid them in increasing the quality, efficiency, and competitive leverage of their operations.

Expert System Definition

One of the earliest popular definitions of artificial Intelligence is "making computers think like people". Expert systems are an offspring of the more general area of study known as artificial intelligence (AI). AI is the study of developing computer programs which exhibit human-like intelligence. Expert system is a very successful application of AI technology. Expert systems have been combined with databases for human-like pattern recognition and automated decision systems to yield knowledge discovery through data mining and thus produce an intelligent database.

Problem and Knowledge Domain Relationship

Expert systems like human experts are generally designed to be experts in one problem domain. Example: You would not normally expect a chess expert to have knowledge about medicine. Expertise in one problem domain does not automatically carry over to another. The expert's knowledge about solving specific problem is called the knowledge Domain of the expert.

Rule Based Systems

If-then rules are one of the most common forms of knowledge representation used in expert systems. Systems employing such rules as the major representation paradigm are called rule based systems. One of the most popular compu-tational uses of rule based systems was the work by Newell and Simon on the General Problem Solver [Newell and Simon, 1972]. The theory should explain all aspects of human performance. There are a number of theories which use rules as their basis and try to explain human behavior. The most common are SOAR [Rosenbloom et al, 1991] and ACT [Anderson, 1983].A typical rule based system consists of three components. They are: The working memory, the rule base, and the inference engine

The rule base and the working memory are the data structures which the system uses and the inference engine is the basic program which is used. The advantage of this framework is that there is a clear separation between the data (the knowledge about the domain) and the control (how the knowledge is to be used).

Drawbacks of Rule Based Systems

Lack of Methodology, Interaction among Rules, Opacity, Lack of Structure, and Inefficiency.

Mobile Application Manager (MAM)

Prof. Prathap G., Faculty, Department of Computer Science

A mobile application manager is a tool used by network administrators to remotely install, update, remove, audit, and monitor software programs installed on smart phones and tablets. The term is also used to describe the person whose job involves managing mobile apps. Unlike mobile device managers (MDMs), which focus on device activation, enrollment and provisioning, mobile application managers focus on software delivery, licensing, configuration, maintenance, usage tracking and policy enforcement.

Administrators have long used system management tools – especially patch managers – to perform similar tasks on enterprise servers, desktops, and laptops. However, mobile applications introduce a new set of challenges which may vary based on device type, OS and ownership.

Some mobile devices – notably those running iOS and sometimes Android – do not support IT-directed server push software installation. Instead, mobile users must "pull" public applications and updates from authorized distributors such as the Apple AppStore and Google Play. A corporate mobile application management team may present employees with catalogs of recommended public apps or prompt users to install required public apps, while letting users decide if and when to permit software installation or update.

Many mobile application managers can compare mobile device type, ownership, user and group to IT defined policies, determining which mobile applications should be provisioned when a new device is activated . Required private applications may be pushed over-the-air to the device; required public applications may trigger notificationsto complete installation within a prescribed time period or before the device is considered fully-active and compliant.

Along with software distribution, mobile application managers may assist with configuring application settings or supplying application profiles and credentials required for operation and access to enterprise application services. For example, a mobile application manager that deploys a third-party mobile VPN or messaging client may also install certificates, logins, or passwords required for enterprise authentication.

Some mobile application managers can proactively apply and enforce application policies – often referred to as application black lists and white lists. For example, a mobile application manager may generate an administrator alert, a user notification, or quarantine a mobile device when a user installs a risky black-listed public application from the Apple App Store or Google Play.

Mobile application managers also play a critical role in application de-installation and device deactivation. For example, a mobile application manager may be able to temporarily disable an application by removing its provisioning profile. It may permanently disable an enterprise application by removing a previously-installed application program – but this action may not be desired or even allowed for user-installed application programs, especially on employee-owned devices. In some situations, the IT department may prefer to fall back on mobile device management commands such as remote wipe to remove all applications, authorization credentials and data from a lost or stolen device.

These are just some of the tasks that a mobile application manager may help IT carry out on smart phones and tablets used for business. Note that MAM always focuses on software enablement/ disable-ment. However, this may involve setting certain device parameters, and the precise details usually depend on the mobile device type and OS. As a result, many enterprise mobility management products implement both MAM and MDM functionality, giving IT administrators a well-stocked toolbox to meet a broad set of remote administration and monitoring needs

Software Defined Networking

Ms. M. Dhanamalar, Faculty - Department of Computer Science

Software-defined networking (SDN) is an approach to networking in which control is decoupled from hardware and given to a software application called a controller.

When a packet arrives at a switch in a conventional network, rules built into the switch's proprietary firmware tell the switch where to forward the packet. The switch sends every packet going to the same destination along the same path -- and treats all the packets the exact same way. In the enterprise, smart switches designed with application-specific integrated circuits (ASICs) are sophisticated enough to recognize different types of packets and treat them differently, but such switches can be quite expensive.

In a software-defined network, a network administrator can shape traffic from a centralized control console without having to touch individual switches. This is especially helpful in a cloud computing multi-tenant architecture because it allows the administrator to manage traffic loads in a flexible and more efficient manner. Essentially, this allows the administrator to use less expensive, commodity switches and have more control over network traffic flow than ever before.

SDN is sometimes referred to as the "Cisco killer" because it allows network engineers to support a switching fabric across multi-vendor hardware and application-specific integrated circuits. Currently, the most popular specification for creating a software-defined network is an open standard called OpenFlow. OpenFlow lets network administrators remotely control routing tables.

SDN CONTROLLER

An SDN controller is an application in software-defined networking (SDN) that manages flow control to enable intelligent networking. SDN controllers are based on protocols, such as OpenFlow, that allow servers to tell switches where to send packets.

The controller is the core of an SDN network. It lies between network devices at one end and applications at the other end. Any communications between applications and devices have to go through the controller. The controller also uses protocols such as OpenFlow to configure network devices and choose the optimal network path for application traffic.

In effect, the SDN controller serves as a sort of operating system (OS) for the network. By taking the control plane off the network hardware and running it as software instead, the controller facilitates automated network management and makes it easier to integrate and administer business applications.

Vendors of SDN controllers include Big Switch Networks, HP, IBM, VMWare and Juniper. Here's a brief look at the Big Switch product, Big Network Controller:

Like Big Switch's other SDN products, the controller is based on OpenFlow, which enables software to run on numerous types of hardware, rather than being tied down to proprietary equipment from one supplier.

The Big Network Controller abstracts the network from the hardware. According to the company, its controller makes it possible to control the entire network from a single console. The Big Network Controller is based on the open source Floodlight controller code, which is available under an Apache 2.0 license. The company also offers as a free and open source SDN controller based on Floodlight.

DNA Computing

Ms.Mary Jacob

The twentieth century will be remembered for three major achievements – The evolution of computers, decoding of the human genome and evolution from Newtonian physics to quantum physics. A computer is never considered to be "alive".

What is going to be the future of computing systems? Can we look beyond silicon to embrace other mediums for computing? Computers inspired by bio-logical or physical systems are possible alternatives. Microprocessors made of silicon will eventually reach their limits of speed and miniaturization. Chip makers need a new material to produce faster computing speeds. Millions of natural supercomputers exist inside living organisms, including your body.DNA (Deoxyribo Nucleic Acid) molecules, the material our genes are made of and have the potential to perform calculations many times faster than the world's most powerful human-built computers. Technological advances however could use these building blocks of our genome in creating computer processors and data storage, and catapult processing speeds to incomprehensible levels not possible by today's standards.

A DNA-based computer has solved a logic problem that no person could complete by hand, setting a new milestone for this infant technology that could someday surpass the electronic digital computer in certain areas. DNA might one day be integrated into a computer chip to create a so-called Biochip that will push computers even faster. DNA molecules have already been harnessed to perform complex mathematical problems.DNA computing is an alternative to the way computers work today. While this technology is not readily available, or being mass produced, the theory behind it is quite old and the development is ongoing and catching more speed. Companies like IBM are attempting to use DNA to produce the next generation of processors.

A DNA computer, as the name implies, uses DNA strands to store information and taps the recombinative properties of DNA to perform operations. A small test tube of DNA strands suspended in a solution could yield millions to billions of simultaneous interactions at speeds - in theory- faster than today's fastest supercomputers.

DNA computer uses the recom binative property of dna to perform operations. The main benefit of using DNA com puters to solve complex proble ms is that different possible solutions are created all at once. This is known as parallel processing. Humans and most electronic computers attempt to solve the problem one process at a time (linear processing).

DNA itself provides the added benefits of being a cheap, energy-efficient resource.

In a different perspective, more than 10 trillion DNA molecules can fit into an area no larger than 1 cubic centimeter. With this, a DNA computer could hold 10 terabytes of data and perform 10 trillion calculations at a time. In a traditional computer, data are represented by and stored as strings of zeros and ones. With a DNA computer, a sequence of its four basic nucleotides — adenine, cytosine, guanine, and thymine — is used to represent and store data on a strand of DNA. Calculations in a traditional computer are performed by moving data into a processing unit where binary operations are performed. In DNA computing primitive bio-operations like Synthesizing, Mixing, Melting, Annealing, Amplifying etc. are used to perform various operations. DNA computing can be viewed as a manifestation of an emerging new area of science made possible by our rapidly developing ability to control the molecular world. DNA computing is in it's infancy and it's implications are only beginning to be explored.

Alumni Speak

Mr. Sanijan Mathew
Senior Consultant,
Msg global Solutions

For me Kristu Jayanti College, exemplifies what passion and focus can achieve. It represents an infectious aura that molded us into individuals who persevere and strive for excellence. The journey was amiable due to the wonderful management and faculty who made it a point that we get our basics clear and to look beyond the usual realms. This perspective played a pivotal role in my odyssey.

Individuals are provided the best in class infrastructure and exposure; that enables them to keep the focus on the learning. The skills of the group are leveraged so as promote a holistic development. It provides the apt environment for individuals to be groomed into well-equipped professionals with the orientation to face challenges.

The growth of this institution, in such a short time illustrates the widening acceptance of Kristu Jayanti College as a Center of Excellence. As an Alumnus, I indeed agree.

Workshops Organized

System Hardware and Microsoft Networking Concept

A two day workshop on System Hardware and Microsoft Networking Concept was organized for I Semester BCA and B.Sc. students by Mr. R. JANARTHANAN, Microsoft IT Certification Professional on 31st August and 1st September 2012.The resource person covered topics like how to assemble a PC, to install the operating system, types of mother board, types of memory,processors,capacity of these componenets.All the hardware components were physically demonstrated and the working was explained to the students. The workshop enlightened the students about the hardware components of a computer.

Robotic Design

A three day workshop was organized for I and II semester BCA and B.Sc. Students on robotic designing by technical experts from TECHaCOMP on 16th to 18th of August 2012 . Mr. Sudhir Nambiar & Mr. Randeep (Robotics Researchers) and Mr. Saju (Managing Partner) Tech a Comp, Bangalore conducted the workshop. 49 students of our department benefitted from the workshop. The first session of the first day was about the basic concepts of electronics and robotics like resistors, transistors, conductors etc. There was a presentation on robotics. The afternoon session dealt about the concepts of microcontrollers and AVR programming using ATMEGA 8 microcontroller. The students worked out practically how binary readings are read using LED interface. The second day was a full day practical session. The students developed their first robot (the path finder).The students were really thrilled after developing a path finder. The third day session dealt about accelerometer and servo motor. The accelerometer was used to do graphical outputs and is used to measure the depth of inclination. The resource person explained in detail about the torque movements of servo motors and USB interfaces like Bluetooth, wifi etc.

Joy of Java

Mr.Clarence Tauro, Senior technical content developer, SPRIXIG SOURCE (a division of vmware) conducted a workshop for V Semester BCA and B. Sc. on JOY OF Java .The workshop was held on 11th of August.. The orator captured the audience with his highly energetic and enthusiastic way of teaching the basics of Java. He detailed about the concepts of OOPS,the data types in Java, classes and objects, string - a very special class in Java, character arrays and its manipulation, OMG(Object Manipulation Group) specification, POJOS (planning old Java objects) and exception handling and ended the discussion with working out a problem.

Industrial Visit

Infosys Campus, Mysore

The department organized an industrial visit to Infosys campus, Mysore on 18th August2012 for V Semester BCA and B.Sc. students. The Infosys personnel organized a session called 'SPARK' where they explained how processes are developed in Infosys. They talked about the Infosys working culture. The session concluded with an interactive session where the queries of the students were cleared. Later they went for a campus tour. Three faculty members Mr. Pratap G, Mr. G. Ramanathan from the computer science department and Mr. Sen. B.Mathews of the placement team accompanied the students. The industrial visit was highly informative and entertaining.

CDAC Visit

As part of the industrial visit, first Semester BCA students visited CDAC [Centre for Development of Advanced Computing], Byappanahalli, Bangalore on 3rd July 2012 .The session started with a PowerPoint presentation which got two parts. The first part was about CDAC and super computers which detailed about how CDAC came into existence and the services rendered by CDAC to the nation, the history of super computers, what led to the development of indigenous super computers in India, the super computers that India had developed till date and its configuration details .The second part of the presentation was about information security. This presentation consisted of internet its advantages and disadvantages and what all security measures should be taken while using internet, major online risks, hacking of computers and viruses and how to secure the information system from these risks.After the presentation the students got a chance to physically see the super computers in CDAC. Mr. Sounderrajan the coordinator of the industrial visit from CDAC explained about the physical configuration, the power requirements, the cooling system supporting the supercomputers and the data backup process of the super computers in CDAC.

Social Outreach program

Computer Literacy Program

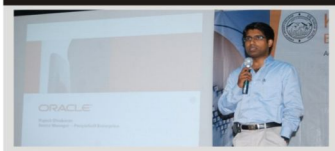
To share ones gift with less fortunate ones is a great virtue. As part of the social outreach program,the Department of Computer Science organized a computer literacy program for the students of Government primary school, Narayanpura and Government primary school, Kothanur on 20th and 23rd July 2012. Seven students from the department organized a session.The session was aimed at familiarizing the students with the basic concepts of computer science comprising of parts of a computer ,application of computers and the advantages of computer systems at the school. The school children attended the session with great enthusiasm.

Guest Lectures

The Wonderful World of Machine Learning

A guest lecture on machine learning was organized on 4th February, 2012 by Mr. Samik Datta, Member Technical Staff,Bell Labs,Alcatel Lucent. The resource person talked about machine learning, how does a computer program learn, machine learning models, machine learning applications, who uses machine learning and machine learning at home. The session also included video demonstrations of machine learning.

Oracle



Mr. Rajesh Diwakaran, Senior Manager, People Soft Enterprise conducted a guest lecture on Oracle for first and second year BCA and B.Sc. students on 7th July, 2012.The lecture covered the features of Oracle, RDBMS and the application areas. The resource person threw light into the power of the world's most popular RDBMS.

Software Testing Tools and Opportunities

A guest lecture on software testing tools and opportunities by Ms. Parimala Hariprasad, Test Manager, Moolya Software Testing Services was organized for III Semester BCA and B.Sc. Students on 1st September 2012.The resource person shared her ideas about different aspects of software testing like what is software testing, importance of software testing, how to test a general software product, myths regarding software testing, finding jobs in the testing field, testing related websites and books and different tools of testing.

Cloud Computing

Mr. Abdul Ahad, Manager, Services Delivery, Hewlett-Packard conducted a guest lecture on Cloud Computing for first year BCA and B.Sc. students on 28th July, 2012.The resource person explained in detail about the need for cloud computing, the advantages, and the cloud architecture model.

Touch The Cloud – Latest Technologies in Cloud Computing

A guest lecture was organized on cloud computing for V Semester BCA and B.Sc. Students by Mr.Mohammed Sadiq, trainer on Microsoft and Oracle database technologies 1st September 2012. The resource person shared his ideas on cloud computing, advantages of cloud computing, how resources can be shared using cloud computing and different delivery models like SaaS,PaaS,IaaS.The session gave more ideas to the student about the possibilities of cloud computing.

Guidance and Counseling for IT Certification

The department organized guest lecture for BCA and B.Sc. students by Mr.R.Janarthanan IT certification professional on Guidance and counseling for IT certification on 14th July, 2012

The resource person stressed about the advantages of having an IT certification in major domains. He talked in detail about the major IT certifications, how an IT certification can be pursued, and how to make a good resume highlighting the different certifications

Ethical Hacking

A guest lecture was conducted on ethical hacking for second and third year BCA and B.Sc. students by Mr. Daniel Richard, Business Operation - IT, Techno fist, Bangalore on IT-CDP (Career Development Program), Corporate Networking SE/NE/AE, Ethical Hacking (Brown, Red & Black) .The resource person gave a brief introduction to corporate training, ethical hacking, cryptography, email tracking, vulnerability research, DNS Interrogation tools, viruses, SQL Injection, evading IDS, firewalls and honeypots and hacking Web-servers. The lecture was organised on 28th July, 2012.

Software Development Life Cycle (SDLC)

Mr. VimalPrabhakar, Systems Analyst, Accenture conducted a guest lecture on Software Development Life Cycle for final year BCA and B.Sc. students on 7th July, 2012.The resource person explained in detail about the different steps in SDLC. Each step was detailed and students got an idea about how exactly a software project is developed.

Synchronize 2012

With a view to nurture talent and creativity, the Computer Academy, the prestigious club of the Computer Science Depart ment, organized an intra-collegiate fest 'Synchronize' for its students. Synchronize 2012 was organized for the first and second year students by the third year BCA and B.Sc. students under the able guidance of Faculty Coordinators Mr. G. Ramanathan and Ms. Ayshwarya Baburam and leadership of Student Coordinators Mr. Ajith Thomas (V BCA A)and Ms. Sadiya Firdous (V B.Sc).

The students of 1st and 2nd year BCA and B.Sc. were divided into 4 groups, Mac, Symbian, Android, Linux led by staff coordinators Mr. Amjad Hassan Khan, Mr. Rajesh H, Mr. Pratap G, Ms. Dhanamalar respectively. The fest got twelve dynamic events Coding and Debugging, Web Designing, Gaming, Fuzzy Logic, Math Event,Data Mining,Treasure Hunt,Digital Collage,Video Editing and Photography,Turn Coat,IT Manager, Lecture Contest, Product Launch and IT Quiz.Each of the above events was planned and conducted by staff and student coordinators. The following committees were constituted to oversee the effective conduct of the fest were Control Room,Prize, Certificates and Mementoes,Finance,On-stage arrangements, Off-stage arrangements,Invitation and Escorts. The off stage events were held from 6th to 13th August and the on-stage events were held on 14th August 2012.

Synchronize 2012 was inaugurated by Ms. Nandini Sabanayagam, General Manager, UST Global.Ms. Sabanayagam spoke about the rapidly changing technologies of our times and the world of opportunities that awaits a Computer Science graduate. The inaugural session was followed by the on-stage events: Turn Coat, Lecture Contest, IT Quiz, Product Launch and IT Manager. The Star of Synchronize was Shradddha Ramdas Bandekar of I B.Sc. CSMS. Team Mac bagged the overall champion's trophy of Synchronize 2012.

Student's Achievement

Championships

Our students won five overall championships and many laurels in various intercollegiate fests.

The Department of Computer Science team has won the overall championship in

INTERFACE V16.0 – A byte of the future by Department of Computer Science, Christ University,Bangalore.

TECHNOSPARX the Inter Collegiate Fest organized by Bishop Cotton College on 10th August 2012.

ECLECIA 2012 - Redefining Technology. the Inter Collegiate Fest by Dept. of Computer Science, Maharani Lakshmi Ammani College, Malleshwaram, Bangalore.

SINTRON 2012 - Creativity Beyond Technology the Inter Collegiate Fest organized by Dept. of Computer Science, Sindhi College, Bangalore.

COMPUTANTRA 2012 - Rise of Tech Gurus by Dept. of Computer Applications, Presidency College, Hebbal, Bangalore.

Ms. Shraddha Ramdas Bandekar. of I B.Sc. CSMS won the second prize in the lecture contest organized by Dept. of Mathematics, MES College of Arts, Science and Commerce, Malleswaram Bangalore as part of the Mathematics year.

Our students won various laurels in

CIRCUIT 2012 – an inter collegiate electronics fest of Department of Electronics, Christ University, Bangalore. Inference 2012

INFERENCE 2012- an inter collegiate electronics fest of Statistics Association, Christ University, Bangalore

YUVANOVA 2012 - the Inter Collegiate Fest organized by Surana College, Bangalore

CONFLUENCE 2012 - the Inter Collegiate Fest organized by C B Bhandari Jain College, Bangalore

Xactitude promotion

A promotion was organised for the fest on 15th February,2012 in the college quadrangle. The aim of promotion was to showcase the theme and objective of the fest to the entire college. The promotion consisted of an automatic retracting roof, a robot pulling and revealing the xactitude banner and a spy car with a camera capturing the entire audience and projected live. The promotion was very highly appreciated by the entire audience.

Xactitude National level IT fest

The IT fest organized by the department of computer science, Xactitude was held on 16th February 2012. Students from 27 colleges from various parts of the India participated in the fest. The creative and innovative talents of the students were tested by eleven dynamic events like IT Manager, IT Quiz, Coding and Debug ging,Web Designing,Lecture Contest,Digital Collage, Math Event,Statistics Event,Electronics Event,Treasure Hunt and Exhibit Contest.

The fest was Inaugurated by Mr.Anil P Dev Managing Partner, Antal international Network. In his inaugural address the chief guest emphasised the need for technical thinking beyond the bounds and to develop the entrepreneurial attitude in young minds.

Dr. M. K. Banga, Head talent transformation, Wipro Technologies was the chief guest for the valedictory function. The chief guest give an address on what the industry expect of a graduate and a short description about the various activities in software development.

The winners were awarded with trophies and certificates .CMR Institute of Management Studies won the overall championship.

Galaxia -2012

To experiment and innovate with curriculum learning,Galaxia the science projects exhibition was organized. Students exhibited projects related to Computer science, Electronics, Maths, Statistics and General projects. Galaxia 2012 had 44 projects from different streams. The star attractions of the exhibition were a path finder, automatic retracting roof, spy car and computer security related projects. The visitors to the stall included students from other departments, Xactitude participants and students from nearby schools. The best project in each stream was awarded a cash prize.

Technical Community

Technical communities is a platform where students come together in their area of interest to share their ideas, knowledge and to explore new horizons in their respective area. Students enrolled in the various technical communities to explore wider horizons of knowledge in the specific areas like Coding, Web designing, IT Manager, IT Quiz, Cultural, Mathematicss, Statistics ,Electronics and Event management. Regular meetings of the technical communities were organized and students explored their area of interest

Value Added Courses

Apart from the curriculum learning, Value added courses were offered by the department. The aim of these courses is to equip the students with the necessary skills required in the industry. The department offered the following value added courses.

1. Course on Scripting Languages for V B.Sc handled by Ms. Mary Jacob and Ms. Mary Rose John.

2. VAC on PL/SQL for V semester BCA students by Mr.Aswin Herbert Satish and Ms.Anita.C.

3. Introduction to Programming Methodology & Networks for students of I Semester BCA by Mr. Prathap G and Ms. Dhanamalar.

4. VAC on Software Testing for III BCA by Ms. Sheresha Chalasani and Mr.G.Ramanathan.

5. Data Analysis using SPSS for III B.Sc. CSMSby Ms. Suni Ajaykumar and Ms. Liji George .

6. Electronics Workbench-Electronics Simulation Software for III & V B.Sc. CSME by Mr.Amjad Hassan Khan.

Placement Details

The following students got placed in various software companies during the academic year 2011-2012

Sl.No	Student Name	Company Name
1	Rince George Joseph	Infosys
2	Swathi K.S	Infosys
3	Prashant Lodhi	Infosys
4	Robin Abraham	Infosys
5	Akhil P	Infosys
6	Amala Rose Abraham	Infosys
7	Monin Jose	Infosys
8	Kavya S	Infosys
9	Fijin	Infosys
10	Esther Fathima D	Wipro
11	Sandhaya M	Wipro
12	Sowmya D	Wipro
13	Revathy Kesavan	Wipro
14	Murali Mohan R	UST Global
15	Nidhin L	UST Global
16	Rahul P R	UST Global
17	Santhosh Kumar A	UST Global
18	Vima Kurien	UST Global
19	Nina Joy P	Cognizant
20	Poornima L	Cognizant
21	Mariya Divya J	Cognizant
22	Cynthya Raj D	Cognizant
23	poornima R	Cognizant
25	Muhamed Salih	Cognizant
26	Bhavya Shree R	Cognizant

Research Colloquim

To promote research culture among the faculty members and to provide a platform for teachers to share the developments and happening in the researches undertaken and to give insight to the recent developments in their respective domain a faculty research colloquium was organized. The fourth session of the colloquium was held on 25th August,2012.The session had two presentations.

Mr. Aswin Herbert Satish presented a session on Brain-Fingerprinting Test? - "TheTruth is Out There".

The presentation covered the following areas

The four phases of brain finger printing,

The advantages of brain fingerprinting test.

The limitations

The future application and research.

DNA Computing

Ms. Mary Jacob presented a session on DNA Computing

DNA computing can be viewed as a manifestation of an emerging new area of science made possible by our rapidly developing ability to control the molecular world. DNA computing is in its infancy and its implications are only beginning to be explored. The paper began with a brief description of DNA and its structure. An introduction to DNA COMPUTING and its origin has been given. Adleman experiment has been discussed, which gives solution to the "HAMILTONIAN PATH PROBLEM" by the application of DNA COMPUTING. The salient features of DNA Computer - have been mentioned. An insight into the advantages, disadvantages, applications and limitations of DNA Computing has been made. Finally, various stages in its path of development at present and the expectations in the near future were discussed.

Understanding High Definition

The fifth session of the colloquium was held on 12th January,2013.the session had a presentation on Understanding High Definition by Mr.Bino Joseph. The two hour session dealt in detail about what is high definition, what is to be defined better ? High definition audio, High definition video. High definition standards, the interface and how to choose. The speaker could threw light into the new standards in transmission technology.

Papers Presented

Mr. H Rajesh attended a Workshop on Cyber Security and Malware Analysis (Level – 1) by Andhra Hackers – Indian Cyber Warriors, organized by Oxford College of Engineering, Bangalore.

Ms. Uma Vinod Kumar and Ms. Mini Gopalakrishnan participated in a UGC Sponsored Workshop on "Mathematical Modelling Applied to Physical and Natural Sciences."at MES College of Arts, Science and Commerce, Malleswaram and C-MMACS, Bangalore

Mr. Prathap G and Mr. Ramnathan G attended the "Life Skill Development Programme "

at Rajiv Gandhi National Institute of Youth Development, Sri Perumpudur, Chennai

Video Learning Session

The department organized video learning sessions on Binary Search, Queues, Windows Evolution & Cloud Computing for III semester BCA students. The compilation of the videos was done Mr. Aswin Herbert Satish and Mr. H Rajesh .