Dept. of Computer Science

Interface

Vol : 2 | Issue :1 | February 2014

INSIDE PAGES

- MESSAGES
- FACULTY ARTICLES
- STUDENTS SPEAK
- DEPARTMENTAL ACTIVITIES
- STUDENT ACHIEVEMENTS

Champions All The Way

"India needs overall development not only in technology but even in the spheres of food, water, education and medicine".
Dr. K. Kasturirangan.

Galaxia Science Exhibition

Vicharmanthan

Dr. K. Kasturirangan

Member of the Planning Commission ,Government of India.
Chancellor of Jawaharlal Nehru University.

"India needs overall development not only in technology but even in the spheres of food, water, education and medicine".

Dr. K. Kasturirangan.

"India has all the potential and unlimited opportunities to make a global impact" said Dr. K. Kasturirangan while addressing the gathering on the Vichaarmanthan at Kristu Jayanti College on 9th February. Vichaarmanthan is a platform for the students of Kristu Jayanti College to interact with the global and Indian visionaries and churn their thoughts to bring the best idea into reality. Padma Vibushan Dr. K. Kasturirangan, member Planning Commission, Government of India, Chancellor Jawaharlal Nehru University was the chief guest of the 15th edition of Vichaarmanthan

Dr. K. Kasturirangan enlightened the crowd with his view about what changed our country after independence and how India can develop a new holistic perspective. Our country has remarkable growth of 8% in

GDP index. "It shows we have grown a lot. We have grown in investment and there is more scope in our country" said Dr. Kasturirangan. Indian needs overall development not only in technology but even in the spheres of food, water, education and medicine. He discussed the possibility of India in emerging as the world's third largest economic power by 2025.Dr. K. Kasturirangan inspired the youth of country to pursue research in scientific field and come out the conventional educational system. He emphasized that overall development in our country can be achieved only by the promotion of science and technology in the field of education, health, energy, water and so on. The science and technology research create lot of opportunities for the young generation to study about this field and bring development by overcoming the challenges.

"Science kindles your imagination. Specialisation helps in nation development and better living conditions. Each career is multidimensional and is not confined into itself" observed Dr. K. Kasturirangan.

Dr. K. Kasturirangan has shared his experience in research and work in ISRO with the students and stimulated their interest in research area. He explained the limitation of conventional education and the unlimited scopes of borderline studies. The emerging borderline studies provide the convergence of two or more conventional area that is more challenging and exciting. "This is the most interesting era to get into the career of your choice. With the transmission of culture, lifelong learning, the opportunities our country gives and the excitement it provides, sky is the limit" said Dr. K. Kasturirangan.

From the Principal

It is a matter of joy and pride to note that a newsletter,Interface,is being published by the Department of Computer Science of Kristu Jayanti College. It provides an opportunity for the faculty members and students to go to the

next step of translating their knowledge, which they acquired, digested or created, into creative literary forms.
The editorial team would vouch for it that only when it comes to the stage of publishing you get to realize the laborious steps behind in dressing up a newsletter or for that matter, anything worthy of publishing. In the

language of literary criticism there is a method called touchstone method by which the ability of a work to withstand time and space is measured. In other words, for a literary work to stay in currency, it should give pleasure or enjoyment to the readers. By pleasure, one may think about the entertainment or joy one derives reading a short story or fiction. What about a scientific thesis or a philosophical tract? For those in the field they provide the intellectual pleasure and enjoyment.
May I congratulate all those who worked behind 'Interface' to see that it reached its present form,enjoyable,artistic and substantial in terms of the contents of this newsletter.may your tribe increase and Jayantian publication reach further heights!

Rev. Fr. Sebastian T. A.
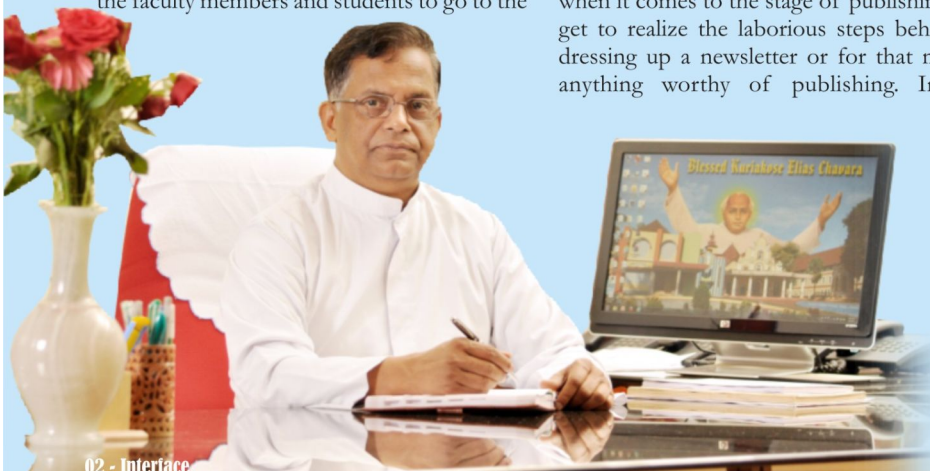
Dean's Message

The world is witnessing an inevitable and un stoppable technological revolution. Technology makes the world a better place to live, with more comfort, convenience and efficiency. When the users are busy with acquiring, assimilating and adapting to new technologies, companies are struggling to initiate and sustain the process of relentless innovation for the creative destruction of obsolete technologies to ensure their survival and growth in the market.

The blurring distinction between personal and professional technology allows people to connect, communicate and collaborate like never before. Cloud computing promotes innovations at the application and platform levels. Security will also play an important role as companies evolve frameworks and processes to guard their information assets that reside in the cloud.

The ideas behind the evolution of technologies are the products of the creative imagination of enlightened individuals. Each and every successful invention underscores the infinite power of human mind to transcend the limitations enforced by customs and traditions. An innovative and futuristic approach based on commitment, creativity and collaborative efforts makes human beings the ultimate trouble shooters.

Being the students of technology, our responsibility is not just limited to becoming the early adopters of latest technologies, but to develop new technologies and redefine the existing ones to make life easy and better. While technological innovation continues at an exponential rate, human brain development remains steady in comparison. The more complex technology we produce, naturally, the more we need to simplify user experiences. The trend of 'simplexity' has evolved out of the increasing complexity of technology, which further creates the need to simplify the interfaces that can be used to improve the user experience. Sustaining the pace of technological development, developing new and better technologies and simplifying existing technologies require a culture of continuous creativity and innovation.

Realizing the importance of innovation in sustaining and enhancing technological competencies, the department of computer science aims at providing a conducive environment and challenging opportunities to the students to come up with new ideas and insights. This news letter provides an interactive platform for them to present their views, concepts and information related to various fields of ICT. Through this initiative we intend to inculcate the culture of innovative thinking among the students. The journey of a thousand miles begins with a single step. So I wish the creative contributions in this newsletter be that single step towards your journey of inventing the future. Wish you all a successful future ahead.

Rev. Fr. Augustine George

Message

"The science of today is the technology of tomorrow."- Edward Teller.

Technology influences all realms of human activity and to live in a 21st century global society, it is imperative for the students to learn how technology bonds with the demands of society. A world shaped by technology provides people with the knowledge and tools to comprehend, to access, to tackle many of the challenges and to evaluate present-day information. Innovation gives technologists a chance to reflect on how technology might be personalized to support good educational catharsis. The speed of technological innovation is becoming brisk and each wave of innovation presents educators with opportunities and challenges. It is equally important that students are provided with learning experiences that integrate tools, knowledge, and processes of technology.

"An investment in tech-knowledge pays the best interest."- Dr. Benjamin Franklin. The Computer Dcience department aims to enhance the facilities, to expand accessibility, so that we can connect with students and transform their lives for the better.

The mantra of the Computer Science department -the technological hub of innovation, is in tune with Steve Job's rhetoric -"Let's go invent tomorrow rather than worrying about what happened yesterday". Concerted efforts by all the stakeholders will help the student community to catapult into greater realms of innovation .Here's wishing that the amalgam of ideas and opportunities unleashed by the ever increasing horizons of technical progress are used to augment the society at large.

The department of Computer science (UG), since its inception in 1999, has celebrated the indefatigable quest for expanding landscapes of learning and has been instrumental in churning new ideas, incorporating diversity and individuality. The department strives to ignite young minds with a passion for assimilating the nuances of technology and leveraging every individual to reach out and make a difference Acknowledged as one of the best departments of the college, it promotes a nurturing space for experimentation, exploiting new technology, creating benchmarks and employing out-of-the-box thinking to generate and bring about significant changes in the society.

A gentle twirl of the Grecian urn will help us to observe vignettes of the department:-

- The Orientation Programme at the inception makes the students aware of the academic aspects of the course, the rules and regulations of the college and ensures parental participation in moulding young tech wizards.

- Life skill education assists learners to unleash the innate talents of students and to help them become competent global citizens,

- To sensitize and to seek panacea for the ills prevailing in the society-the department organises social outreach programmes to the underprivileged govt. school children in K.Narayanpura.

- The championships won at various events showcases the creative energies of the tech- savvy blossoms of the department.

- The co-curricular activity of the department which is monitored by the Computer academy, organizes intra collegiate fest (Synchronize), intercollegiate (Xactitude) and science exhibition-Galaxia to showcase the innovative scientific ideas of budding scientists.

- The department provides an apt forum for the dissemination of information and students are acclimatized to the nuances of leadership and oratorical skills. To hone the technical prowess of the students it organizes regular interactions with professionals from the industry and initiates value added and certificate courses to bridge the gap and enhance their expertise.

The department has tried its best to interweave the fabric of the college with innovative technological advancements and provide a platform to catapult the dreams of the budding students into action. Definitely every horizon upon being reached reveals another beckoning in the distance and we have miles to go before we rest.

Rev. Fr. Lijo .P. Thomas
Head, Dept. of Computer Science

Weka: A Data mining Tool

Ms. Siji T Mathew

Weka is a collection of machine learning algorithms for data mining tasks. Data mining involves the transformation of large amounts of data into meaningful patterns or rules or predictions. Weka is an open source machine learning software developed by Machine Learning Group at the University of Waikato. Weka is widely using in the areas like KDD & Data Mining, Machine Learning , Artificial Intelligence, Statistics etc.

The algorithms can either be applied directly to a dataset or called directly from some Java code. Weka contains tools and packages for data Preprocessing, Classification, Regression, Clustering, Associations, Attribute selection, Ensemble learning, Text classification, Multi-instance learning, Knowledge Flow, Outlier handler, Time series, Visualization. Using Weka many new machine learning schemes can be developed. Weka allows the users to customize the packages. There is option to install new packages and plugins.

Weka is being used to make predictions in real time and real-world applications. The ultimate goal of data mining is to create a model. The model helps to improve the way you read and interpret your existing data and provide a better interpretation for your future data. It can be used in training models from large datasets as well as for the predictions from large datasets. Weka offers different ways of working environment like command-line interface, Knowledge Flow and Java-based scripting language .it is best to employ a command-line interface (CLI) to interact with Weka. Weka's Knowledge Flow is a graphical user interface where the user can draw and configure their models. Also it is possible to write code directly in Java or a Java-based scripting language. Using these methods, it is possible to deal with larger datasets and even datasets that are too big to fit into main memory.

Weka can be used to help you to understand the business better and also be exploited to improve future performance through predictive analytics.

Recommender Systems

Ms. Aruna Devi K

Recommender systems have become an important research area from the mid-1990s. There has been much work done both in the industry and academia on developing new approaches to recommender systems over the last decade. The interest in this area still remains high because it constitutes a problem-rich research area and because of the abundance of practical applications that help users to deal with information overloads and provide personalized recommendations, content, and services to them. Examples of such applications include recommending books, CDs, and other products at Amazon.com, movies by MovieLens, and news at VERSIFI Technologies (formerly AdaptiveInfo.com). Moreover, some of the vendors have incorporated recommendation capabilities into their commerce servers. The roots of the Recommender systems are

▪ Cognitive science ▪ Approximation theory ▪ Information retrieval ▪ Fore casting theories ▪ Links to management science ▪ Consumer choice modeling in marketing

Recommender Systems are used for recommending items to users based on examples of their preferences. E.g. Suggesting Books, movies, CD's, web pages and newsgroup messages etc. These systems increase sales or hits at on-line stores. Recommenders are instances of personali zation software. The Personalization concerns about adapting to the Individual needs, Interests, and Preferences of each user. It includes Recommending, Filtering and Predicting. From a business perspective, it is viewed as part of Customer Relationship Management (CRM).

Type of Tools

The Recommender systems are usually classified into the following categories, based on how recommendations are made:

1. Content-based recommendations: The user will be recommended items similar to the ones the user preferred in the past.

2. Collaborative recommendations: The user will be recommended items that people with similar tastes and preferences liked in the past;

3. Hybrid approaches: These methods combine collaborative and content-based methods.

In addition to recommender systems that predict the absolute values of ratings that individual user would give to the yet unseen items (as discussed above), there has been work done on preference-based filtering, i.e., predicting the relative preferences of users.

Example Recommender System: LIBRA - Learning Intelligent Book Recommending Agent

It is a Content-based recommender for suggesting books using the information about titles extracted from Amazon. It uses the information extraction from the web to organize text into fields like Author, Title, Editorial Reviews, Customer Comments, Subject terms, Related authors, and Related titles etc.

The extracted informations or the web features are stored into the LIBRA database. The user's rating and the web features are compared using machine learning techniques. The comparison result is fed to the predictor. The predictor recommends the web pages to the user with respect to their profile. Similar to this system many researches are going on to develop effective systems that reduce the user efforts in finding the suitable products.

Near Field Communication (NFC) and Trusted Service Manager (TSM)

R. Aswin Herbert Sathish

Near Field Communication (NFC) is a wireless technology that allows data transfer between any two NFC enabled devices. This approach is based on the security of data when transferred between two NFC devices or from a NFC enabled mobile phone to an NFC device. This technology is derived from Radio Frequency Identification (RFID) which automatically identifies physical objects through radio interface.

Near Field Communication operates on the ISM (industrial, scientific and medical) radio band of 13.56 MHz with data rates up to 424 kbps. Mobile handsets, smart cards and electronic identification chips are some of the device types proposed to be equipped with NFC and to be used with security sensitive applications, such as electronic ticketing, payments, identification, and access control.

The radio frequency signal may be picked up several meters away.

Trusted Service Managers (TSM) provides technical and commercial interface between Mobile Network Operators, financial institutions, and other Service Providers to download, provision, and maintain applications in the end-user handset.

The secrets (keys, codes, user-related data, pins) necessary to perform secure transactions are kept in a Secure Element in the customer handset. This Secure Element may have different forms. It can be included in the SIM card of the handset or in a removable micro SD card, or can be embedded in the handset. Secure Elements in the form of SIM cards give Mobile Network Operators a better control on the NFC application, whereas

Secure Element in the form of micro SD cards give control to their issuer, generally a bank. Also, embedded Secure Elements bring power to the handset manufacturers. The TSM operator is in charge of downloading application, and all security related data into the Secure Element. For this reason Trusted Service Managers is the heart of a NFC ecosystem.

Trusted Service Management platforms also play a role in making all services accessible to end-users. For this reason, TSM operators, as service aggregators, are in a central position to manage the customer relationship, and build a business case by bringing this added value to service providers.

Keywords: NFC, NFC and RFID,NFC ecosystem,ISM, TSM, Security element.

What the 'Internet of things' really means ?

Ms. Mokshalakshmi M.

Get past the confusion caused by all those technologies claiming to be in the Internet of things

However, the Internet of things doesn't necessarily involve the Internet, and sometimes things aren't actually on it, either. In some cases, the Internet of things is simply a buzz phrase that companies use to sell whatever they've long had -- just as the cloud, green, Internet. At its core, the Internet of things means just an environment that gathers information from multiple devices (computers, vehicles, smartphones, traffic lights, and almost anything with a sensor) and applications (anything from a social media app like Twitter to an e-commerce platform, from a manufacturing system to a traffic control system).Basically, you need data and a means to access it -- that's where the "Internet" label comes from, though of course you don't need the Internet itself, or even an always-on network connection. The Internet may be the backbone of an Internet of things, but it's not the only bone in that body. Then you need something that works with that information to analyze it, act on it, or otherwise process it. That something is typically software, whether automated, semi-automated, or human-controlled.

The intrigue of the Internet of things

Where the Internet of things gets interesting is when you combine information from devices and other systems in novel ways, tapping into the huge processing capabilities available today to do the kinds of expansive analysis usually associated with the concept of big data meaning analysis of data not necessarily designed to be analyzed together.Otherwise, you're talking about sensor networks and machine-to-machine (M2M) networks common in factories, hospitals, warehouses, and even streets (think the streetlights and "next bus" electronic signs) or network-connected product systems (like an Apple TV- based entertainment system, the Bluetooth stereo in your car

To achieve the notion of the Internet of things, you need most of the following pieces in place:

- Network connectivity, which is typically wireless
- Sensors and/or user input that capture or generate data
- Computational capabilities, at the device and/or back end

They could have a store-and-forward

connectivity approach such as plugging a device into a USB port on a computer. Store-and-forward is essential in any case, because connectivity is not ubiquitous, so you need a way to send data captured when offline. That's a hallmark of the Internet, which was initially designed to allow communications even after a nuclear war through store-and-forward and auto-rerouting.

Putting the things in the Internet of things

A thing in an Internet of things could be simply status information, such as where you are or where the temperature is at a certain location or the engine temperature -- that may be collected through a general-purpose device such as a computer or smartphone. In other words, the thing itself need not be in an Internet of things, though data about it must. And you need a purpose for having all these connected devices. There are thousands of possible purposes -- perhaps millions. That is why the Internet of things is not a thing but a concept that can be applied to all sorts of things. In most cases, those purposes are expressed through applications or services -- whether local, cloud-based, data center-based, or a combination of any or all of those.

SLt Murali Mohan R,
Indian Navy

Kristu Jayanti, my first home as I always call it, paved me the path for a beautiful life which I thought is almost impossible. It kindles the passion and hunger for knowledge at par with holistic development of the individual. It enabled us to identify our hidden potentials and talents, which we never knew we possessed. Management and faculty members are just amazing that they don't just focus on the academic excellence but they are also focused on imparting innovations. KJC widens our vision and enables us to explore new horizons with several extra-curricular and co-curricular activities in addition to academics. 'Leadership' and 'Teamwork' are the two powerful keys used by the management to unlock the extra-ordinary personality in every individual and it has become a tradition which undergoes a huge transition every year. The management has been completely successful in making great personalities out of the individuals and it will remain successful throughout the years to come. It was the management that encouraged and pushed me forward to take up responsibilities by which I realized my hidden skills and succeeded in my life.

Cell Phones and Academia – A student's perspective

Alan Mathew Polson
(VI BCA A)

Arguably, one of the greatest abilities of the human race is the capacity to communicate. This facility has enabled us to work together, share ideas and dominate the earth. Even within our own species, the countries that invested heavily in the development of communication and media saw their reach and dominance extending all over the earth – much faster than any army.

Communication enhances our capabilities by enabling us to be in two places at once. For a long time the technological race pitted the progress of faster transportation against that of faster communication. Today, that race appears to be all but won by Communication and Information Technology. Many companies allow their employees to work from home, and even more outsource their digital workload to people on the other side of the planet.

It is to this vast, interconnected web that the next generation must either learn to adapt, or perish. Any institution that seeks to train students needs to embrace information technology and give hands-on training in the use of media, the internet and hand-held devices, for these have pervaded every area of the modern world. At the same time, we must also maintain the decorum and traditions of academia. The classroom is a sacred space, and it is abhorrent to think of the dissemination of knowledge being interrupted by a cell-phone ringing.

On the other hand, most dissemination of knowledge today comes from books and videos, many of which are available for free on the internet. Nowadays, students come to college for the purpose of networking and learning outside of the classroom. It is from one-to-one interactions that we learn the most. Thus, while the eastern model of 'teacher speaks and students listen' is still practiced, it is slowly being replaced by the western model of 'students express and teacher advises'.

In this context, student communication – via cell phones or the Internet – would be better served by allowing students to use cell phones within campus, but strictly outside of the classroom. This would encourage communication and the dissemination of knowledge. Of course, this ability may be used by a large number to propagate entertainment and useless drivel, but if history has taught us anything, it is that in spite of all the so called 'misuse' of information technology, the freedom to use it always results in a net gain.

Workshop on Software Security Testing

The department organized a workshop for IV Semester BCA and B.Sc. Students on software security testing by Mr. Santhosh Tuppad, Co-founder, Director and Software Tester, Moolya.

The workshop was on software security testing/penetration testing. The aim of the session was to give an idea about hacking and security testing. The resource person elaborated on the topics of the skill of hacking, types of hackers, the methods of hacking like social engineering attack and didos attack and the responsibilities of ethical hackers. The session included PowerPoint presentations about many application security vulnerabilities. The session was very informative and interactive and the queries put up by students were cleared perfectly.

IT Opportunities in Banking

The session on IT Opportunities in Banking was organized for the third year BCA and B.Sc students on 21st September, 2013. The session started off with an introduction to the various banking operations and what are the different services provided by the banks. The speaker explained about how banks functions and how they can be established following strict Government rules. The policy of financial intrusion was also discussed. The importance of technology in banking and especially the field of security was emphasized. The speaker highlighted the various opportunities available in banking sector for IT professionals.

Power Habits

The department organized a guest lecture on Power Habits for VI Semester BCA and B.Sc. Students by Mr. Melki Sedek Jayakumar, Project manager, iGATE Technologies on 2nd February, 2013. The resource person shared his ideas about what is a habit, habits and goal orientation, habits and discipline. Do what you like and excel in that was the core message of the talk.

Cyber Security and Ethical Hacking

The session on computer security and ethical hacking was organized for the entire BCA and B.Sc students by Mr.Ankit Fadia world renowned ethical hacker on 19th July, 2013.The session started off with the discussion on what common mistakes people do being unaware of an untrusted software or operating system. He then shared a few case studies he worked on such as, hacking case of personal systems, breaking into the networking system of NASA Organization etc. The second segment was on how a Trojan Virus can infect a system and shared his expertise on the aspect of how a criminal mind works, and unless you think like a criminal you don't know how a criminal can work or control your system was the observation made by the speaker.Mr. Ankit also shared his knowledge on Mail Spoofing, SMS Spoofing, spying on Phones, hacking passwords and how to control other systems remotely. The session covered how Trojans are useful as well as dangerous to the system and the solutions for it and also suggested Antivirus software. How an IP Address of a user is taken and misused, encryption and decryption, rebooting others system without their knowledge etc.The session was interesting and interactive with lot of practical demonstrations.

Cloud Computing

The session on cloud computing was organized for the second and third year BCA and B.Sc students. The session started off with the discussion on why people are moving towards cloud computing. The speaker then discussed about the market need of cloud technology and its advantages and disadvantages. The main aim of cloud computing was discussed and that is to make centralized data and to share it with the environment. The main characteristics of cloud computing like massive scale, homogeneity, virtualization, resilient computing, low cost software, geographic distribution, service orientation and advanced security technology were discussed. The three cloud service models were also detailed out. The session was organized on 3rd August, 2013.

Big Data Analytics and Emerging Web Technologies

The session on big data analytics and emerging web technologies was organized for the second and third year BCA and B.Sc students on 24th August, 2013.The session started off with an introduction to the new branch of big data and its definition. The definition outlined the three V's volume,velocity and variety of big data. The second segment explained the various challenges faced by big data analytics and the concept of big data provides competitive advantage. Mr.David Viikrant detailed about the various technologies and tools used in big data analytics .Mr.David also briefed about the emerging web technologies like back in responsive web design, multi device design and faster development. The session was very interesting and interactive by having some games in between and the presentation style of the speaker was highly appreciated by the audience.

Hadoop

The session on Hadoop was organized for the second and third year BCA and B.Sc students. The resource person was Mr.Shamshad Ansari,President ,CEO of Accure Pvt.Ltd.The session started off with an introduction to Hadoop and why Hadoop is important.The history of Hadoop ,the advantages and applications of Hadoop were explained in detail by the speaker.The user explained in detail the future aspects of Hadoop and what will be the role played by Hadoop in different areas like health care,aviation industry etc.

The speaker elaborated on how Hadoop can crunch enormous amount of data and how hadoop can analyse large amount of data quickly and highlighted the fact that major industries /institutions are now installing Hadoop systems.The speaker highlighted that there is a huge demand for professionals in Hadoop. The session organized on 31st January was very interesting and interactive.

Importance of Communication Skills

The session on importance of communication skills was organized for the third year BCA and B.Sc students. The lecture stressed on the importance of communication skills in various walks of life. The importance of fluency in English to express ones ideas and how to grab the opportunities that comes on your way was elaborated. By playing a game the importance of optimistic attitude, the power of speech to overcome threats and how to overcome the barriers of communication was demonstrated to the students. The session was organized on 18th January,2014.

SYNCHRONIZE 2013

Computer Academy, the prestigious club of Computer Science department, organized "SYNCHRONIZE 2K13" an intra-collegiate IT fest in order to provide a platform for the students to showcase their potentials, develop leadership qualities and team work. The fest was organized for the first and second year students of the Computer Science department by the third year students where they get an opportunity to organize, participate and showcase their intelligence and creativity in myriad facets of information technology. The fest was well organized under the able guidance of faculty coordinators Mr.Rajesh H and Ms. Mary Jacob and the leadership of student coordinators Mr. Indresh G (V BCA B) and Ms.Anusha K P(V BSc-CSME).The first and second year students were equally divided into four groups and the groups were named after the popular search engines as,Blekko,Bing,Yippy,Lycos

There was a total participation where all the students participated in at least one event.

There were 15 dynamic events conducted as part of the fest: Web Designing, Morphing,

Coding and Debugging, Video Editing and Photography, Treasure Hunt, Gaming, Stat Event, Math Event, Fuzzy Logic, Lecture Contest, IT Quiz, IT Manager, IT Marketing, Tech Crack, Product Launch.

The preliminary rounds for all the events and finals of off events were held from 20th August 2013 to 29th August 2013 during the lunch break and from 3.30 PM to 5.30 PM in various venues. The finals of IT Quiz, Lecture Contest, IT Manager, IT Marketing, Tech Crack, Product Launch were held on 30th August 2013.All the above events were well planned, organized and executed by the respective staff and student coordinators. The following committees were also formed to ensure the effective conduct of the fest: Control Room, Prize, Certificates and

Mementoes, Finance, on stage arrangements, off stage arrangements and Escorts.

The fest was inaugurated by Mr. Saksham Khandelwal, Senior Executive, Innovation, WIPRO. He spoke on the emerging technologies in IT Industry for the aspiring minds and the current demanded technologies in the job market.

The inaugural session was followed by the on-stage events. IT Marketing,Tech Crack, Product Launch and IT Manager. Lecture Contest and IT Quiz.

The star of Synchronize 2K13 was won by Mr.Jobith M Basheer , student of III BCA B. The group Yippy under the guidance of the faculty coordinator Mr.Aswin Herbert Sathish bagged the overall championship in Synchronize 2K13.

Social Outreach Program

As part of the social outreach program, the students of second year BCA and B.Sc. visited Ashalaya sheltering mentally less abled children, Little Sisters of the Poor sheltering old age people and Deena Nilaya, institutions, a shelter for HIV infected children The social

spend some time with the inmates of those homes. The social outreach program had always helped the students to count the blessings of their life and to be empathetic towards the less fortunate of the society.

outreach program helps the student to have a broad outlook towards society by having an interaction with the differently abled and under privileged of the society. The students visited three institutions taking care of the differently abled and under privileged and

ISRO Satellite Centre, Bangalore

On the 7th of October, 2013, 54 students of the Department, accompanied by three faculty members visited the Indian Space Research Organization's Satellite Centre, known as ISAC at Vimanapura, Bangalore. ISAC at Bangalore is engaged in developing satellite technology and implementation of satellite systems for scientific, technological and application missions. The Students visited the following divisions of ISAC, Bangalore.Satellite & Launch vehicles Exhibition,Clean Room,Thermo Vacuum Lab,Solar Array Deployment Lab,Shock & Vibration Lab,UHV & Cryo Lab and Large Space Simulation Lab.ISAC's achievements include design and development of more than 50 satellites so far of various types like scientific, communication and remote sensing. Our students had the opportunity to visit the ISAT exhibition, which consisted of Models of various Launch vehicles and Satellites that

had been developed by ISRO over the years. They were also educated on the Basic technologies involved in satellite launches. They were able to ask relevant questions on ISRO's then latest project – the Mars Orbiter which, till the previous week had been in the Centre. The students were able to view the clean rooms where the various components of a satellite are integrated, and were given insight into the need for a dust free environment while dealing with cameras in space. Due to their enthusiasm, their guide favoured the students by taking them past the tour's customary end, and showed them the actual labs where various experiments were being performed. The students were taken briefly to the thermo vacuum lab and the solar array deployment testing facility, where moving parts are tested for functionality in zero G. Thereafter, they were taken to the shock and vibration lab, and got to see an

experiment being done which tested a component's ability to withstand random vibrations as well as vibrations up to 20,000 Hz.After this, the students were taken to the ultra-high vacuum and thermal lab, and got the opportunity to see the various machines that simulated space conditions, such as ultra-high vacuum and drastic differences in temperature, which are faced by satellites when one side faces the unfiltered rays of the Sun and the other side is exposed to deep space.

CDAC Bangalore

In connection with the industrial visit programme the first semester BCA and B.Sc students visited the CDAC center at Byappanahalli, Bangalore on 12th August 2013. The session started with a multimedia presentation on the various technological advancements made by CDAC, the super computer PARAM - PADMA being the highlight. C-DAC's expertise in developing, porting and demonstrating applications in critical scientific and engineering fields such as computational atmospheric sciences, bioinformatics, computational structural mechanics, evolutionary computing, computational chemistry, computational fluid dynamics and seismic data processing were also demonstrated in the presentation. PARAM PADMA is C-DAC's next generation high performance scalable computing cluster,

with a peak computing power of one Teraflop. The hardware and design specifications of PARAM PADMA were explained to the students.

The students were then taken to see the super computer-"PARAM PADMA". Mr. Soundar Rajan, Chief Engineer, CDAC explained various manufacturing techniques, security principles and applications of the Super

Computer "PARAM PADMA. Then the students had an interactive session with the engineer who answered their questions and clarified the doubts.the visit was very fruitful as the students got an opportunity to learn about super computers from the people who pioneered supercomputing in India.

Life Skills Training

Life skill training was conducted for the first year students of the Dept. of Computer Science from 22nd June.2013 to 29th June 2013. The sessions were conducted by the faculty members of the department, who had earlier attended a workshop on 'Training of Trainers on Life Skills' conducted jointly by Rajiv Gandhi National Institute of Youth Development and Centre for Life Skill Education, Kristu Jayanti College.

The BCA students of sections A, B and C were divided into 4 batches of around 40 students each. An introductory session was

conducted on Saturday, 22nd June. Detailed modules on the 10 life skills: self-awareness, empathy, critical thinking, creative thinking, problem solving, decision making, interpersonal relationships, effective communication, dealing with emotions and dealing with stress, were conducted to the students over a period of five days. Fun-filled activities, brainstorming sessions, role-plays, case-studies and discussions, all highlighted the need for young people to acquire life skills to promote overall well-being and competence as they face the challenges of

adulthood. On successful completion certificates were awarded to the participants. The students also presented various activities summarizing their learning experience and the students were of the view that the training had helped them a lot in dealing with the emotions and trifles of their day to day life.

Xactitude Promotion

A promotion was organized for the fest on 31 January, 2013 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 a robot carrying the scissors to cut the inauguration ribbon and pulling and revealing the Xactitude banner .The promotion was very highly appreciated by the entire audience and gave the students an opportunity to showcase their technical talent in front of the entire Jayantians.

Galaxia -2013

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 2013 had 48 projects from different streams. The star attractions of the exhibition were a C# Snooker, Feedback form, Bouncing Ball, Dashing Car, Stegnography, 8 Queen problem music quiz,

Binary Bit Race, QWERTY Music, Laptop Controlled Car, Wheeled robot arm, Meth's easy door lock.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.Galaxia the science project exhibition of the department has turned out to be a major attraction of Xactitude.

Xactitude National Level IT Fest

The IT fest organized by the Department of Computer Science, Xactitude was held on 1st February 2013. Students from 33 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 Debugging,Web Designing,Lecture Contest,Digital Collage,Math Event,Statistics Event,Electronics Event,Treasure Hunt and Exhibit Contest. The fest was Inaugurated by Mr.Philip K Mammen Vice President & Head – Human Resources,Tata Elxsi Ltd.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.

Mr.Peter George, Vice President – Operations, Alphion India Private Limited was the chief guest for the valedictory function. The chief guest give an address on the history of computing and highlighted the

fact that how computing has changed the course of history and how it will influence future life of humanity. The winners were awarded with trophies and certificates .Christ University, Bangalore emerged as the overall champions of Xactitude 2013.

Technical Community

Technical Community is one among the various activities conducted under the aegis of this club to foster the innate talents and abilities of students in co-curricular areas. Each student is required to be part of one technical community. Two faculty members are assigned to supervise the activities of each community. Student coordinators plan and organize the proceedings.Technical community 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. The communities are Coding and debugging to develop logical thinking and programming ability, Web designing to develop various skills and disciplines in the creation and maintenance of websites, IT Manager to improve aptitude, stress management and interview skills, to develop a professional approach suited to the role of an IT Manager. IT Quiz to update knowledge of current technology in the IT domain,Lecture/Presentation to plan, organize and deliver technical presentations effectively.

Mathematicss to sharpen mathematical and logical thinking ability by solving various problems and puzzles,Statistics to develop inferential techniques using statistical methods , Electronics to apply knowledge of design and construction of electronic circuits to solve practical problems. and Event management to develop organizing and leadership skills.Regular meetings of the technical communities were organized and students explored their area of interest adopting peer to peer learning skills.

Papers Presented and Articles Published.

Mr. H Rajesh presented a paper titled Cyber Security:New Initiatives for the 2013 threat era at the national Seminar on "Emerging Trends and Practices in Management and IT, organized by Sindhi College of Commerce. Bangalore.The paper got selected as the best paper in the seminar

Mr. Aswin Herbert Satish presented a paper titled Wireless Internet Access – 3G vs WiFi, at the national seminar on "Emerging Trends and Practices in Management and IT", organized by Sindhi College of Commerce, Bangalore.

Ms.Aruna Devi.K presented a paper titled Improving Behavioral Competencies at PG Computer Society Association, Dept. of CSC & IT,V.H.N. College, Virudhunagar, Tamilnadu.

B.Ayshwarya & M.Dhanamalar published articles in IJRCM, Haryana about M-Learning Contexts Coupled with Connotation of 4G Connectivity and Indication of Mobile Testing on Cloud Interpretations.

Prof. Suni Ajaykumar published an article on Random Walk Hypothesis of Stock Price Movements in International journal of Statistics and Systems.

Research Coloquim

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 colloquium held on 13th December,2013 had a session by Ms.Aruna Devi K on MATLAB.The speaker gave a briefing about what is MATLAB?,the application of MATLAB and gave a practical demonstration on image processing applications using MATLAB

Photo Gallery

Student's Achievements

Placement Details

The following students got placed in various software companies during the academic year .

Company Name	Student Name
HP	Kishore K
	Praveen C P
	Swetha R
COGNIZANT	Karthick R
	Deepika N V
	Pavan Kumar
	Roopa Shree
WIPRO	Jibin
	Arjun
	Kishore
	Komal
	Jismi
	Navinchettry
	Syed Tahir
	Raju S
	Mary Efsy
	Rosy
	Sunitha
	Swetha
	Rekha
National Instruments	Anurag
IBM	Ankur
	Antony Jerome
	Richard
	Tanvi
Aricent	Arunkumar B
	Ajith Thomas
	Hameera
	Karthika
	Deepa
	Ramesh Kalyankar
	Vishwas
	Meghananair
	Merlin
	Swathi S
	Sruthi
IGATE	Shijo Shaji
	Pavithra
	Swetha S

2013 was an eventful year for the Department of Computer Science winning 9 overall championships and 4 runners up trophies in the various IT fests.

Overall championships in

Interface V1 - Department of Computer Science, Christ University, Bangalore.

Techno Spark 13 - Dept. of Computer Applications, Bishops Cotton's Academy of Professional Management, Yelahanka, Bangalore.

Txplore 2013, Bishop Cotton Women's Christian College, Bangalore.

Gardenia 2013,Garden City College, Bangalore.

National Seminar on "Communication Networks and Computing, Department of Electronics, Karpagam University, Coimbatore.

Algorithm 2013 - M S Ramaiah College of Arts, Science & Commerce, Bangalore.

IT Fiesta 2013- Acharya Institute of Graduate Studies, Bangalore.

Impulse 13 -Oxford College of Engineering, Bangalore

Convergence 2013 - Christ University

Runners up

Softex 2013- The Future Expo. Intercollegiate Project Exhibition and Competition - Christ University, Bangalore, India

Enthios 2013- Jyoti Nivas College (Autonomous),Bangalore

Aakruthi '13 – Acharya Institute of Management Studies, Peenya, Bangalore

TECHNOVATION St. Claret College, BANGALORE

Jayantians won laurels in

Shock 2013 - Dept. of Electronics, St. Joseph's College of Arts and Science, Bangalore.

Charge 2013 - Department of Electronics ,Vijaya College, Basavangudi, Bangalore.

Inference 2013, Christ University, Bangalore .

Kristu Jayanti College

AUTONOMOUS Bangalore

Accredited 'A' Grade by NAAC | An Institution Managed by CMI Fathers

K. Narayanapura, Kothanur P.O., Bangalore-560 077, Karnataka, India.
Tel : 080-28465611, 28465353, 28465770, Fax : 080-28445161
E-mail : info@kristujayanti.com | www.kristujayanti.edu.in