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NEWS-LETTER FROM INFORMATION TECHNOLOGY,
VCE Campus, HYDERABAD-500031

30th July, 2011

NOSTALGIA

EXPERIENCE & EXPOSURE

ABOUT NOSTALGIA

Nostalgia is now the official online News-Letter of Information Technology stream, Vasavi College of Engineering (VCE).It will have updates, news-feed, etc. of alumni from the same branch. It would help current students to bank from their experiences. The letter will have articles related to ongoing events happening in other institutes as well. Our online letter will even feature achievements made by students presently studying at VCE. It will cover technical and non-technical field in all aspects of its reach. The launch of Nostalgia has been with the help of Dr.N.Vasantha, Head of Department, Information Technology. A creative team has worked with the students of the same branch to show this online News-Letter the light of day .*Experience and Exposure* is the caption chosen which was felt to be ideal. The first edition is having articles on few gadgets and applications. Since Nostalgia is about alumni group of our branch. Our sequential editions are going to have the same. News-Feed on current ongoing events at VCE is part of this edition. Our group is ready for any suggestions and new creative material because this is *Information Technology- Changes are for good.*

HOD's message,

I congratulate the interest taken by the students of IT in bringing this Newsletter 'Nostalgia'. I sincerely wish that all the students and staff of IT department should contribute for the articles that appear in this monthly edition.
Dr.N.Vasantha
Professor & Head, Dept. of IT

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ABOUT THE DEPARTMENT

I F O R M A T I O N

T E C H N O L O G Y

The Department of Information Technology was established in the academic year 2000-2001. The department offers a 4-year B.E. Degree programme to the students admitted through Engineering, Agricultural Sciences and Medical Common Entrance Test (EAMCET), conducted by the Government of Andhra Pradesh.

HOW DIFFERENT I.T IS :

The programme curriculum

- ensures convergence of all emerging technologies like VLSI Design Embedded & Real Time System, Digital Signal processing, Image Processing, Telecom &
- includes a 'Mini Project by the student every semester right from II Year onwards
- emphasizes, usage of application oriented software packages MATLAB, PSPICE, EDA TOOLS, CASE TOOLS & Hardware Trainer Kits, viz., CPLD & FPGA ,8085, 8086 Microprocessors and 8051 Micro controller
- Helps the student meet the highly competitive standards of the industry.
- Guarantees the student to secure placements in industries involved in 'niche' areas of Electronics, Communication, Networking and Software Engineering.

SHORT RANGE GOALS:

- To inculcate the habit of student/staff seminars on various I.T. related topics.
- To provide lab facility on time shared basis, each department to have a project lab. Exclusive for projects/training / research.
- To promote sound theoretical knowledge & practical training which improves the career prospects of the students.

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LONG RANGE GOALS:

- To establish a centre for encouraging students and faculty to undertake research programmes & projects of multi-disciplinary nature (Telecom, Wireless Applications, Networking, DSP, Embedded Systems & VLSI Design).
- To introduce Post Graduate programmes.

INFRASTRUCTURE:

An optical fibre cable has been laid to meet the increasing demand for high bandwidth networking. The network has an internet domain system consisting of a web server, a mail-server, a proxy server and two domain servers. The college web site (*www.vce.ac.in*) is hosted on a server located in the computer centre.

LABORATORIES:

The I.T programme stresses the need for constant upgradation of knowledge and need to gear up with the rapidly changing technological scenario. The laboratories are equipped with The laboratories are equipped with specialized software packages viz. MATLAB(DSP and Neural Network Tools), PSPICE EDA TOOLS (Mentor Graphics Tools- Model Sim, Leonardo Spectrum and Xilinx foundation series software along with CPLD,VERTEX & SPARTAN-II Trainer Kits.) and CASE Tools in addition to the general software packages like C, C++, Oracle, VC++ and JAVA. The students are exposed to hands-on-experience in all the above mentioned packages through each semester 'Mini Project'., unique to IT Programme.

FACULTY:

The I.T. staff are specialized in the areas of Electronics, Communications, Instrumentation & Computer Applications to meet the multidisciplinary nature of this programme.

STUDENTS:

The first batch of students are entering their III Year. The top rank details of the students admitted in the last two years are 301 and 1307.

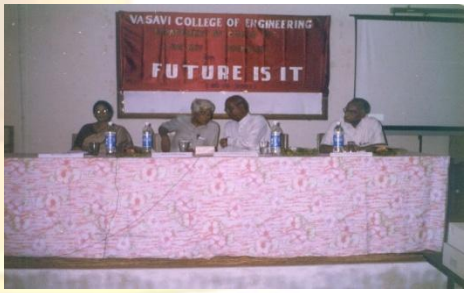
Co-curricular and extra curricular activities:

The students actively participate in the activities of ITSA (IT Student's Association).The activities include technical Quizzes, Guest lectures and Seminars.

Ms. D. Deepa (H.T.No: 06-01-3011), II Yr. student has participated in National Cricket Tournment (Women's) during the year 2001).

WORKSHOP (2001):

Brain storming sessions in the form of a one-day workshop on "Future is I.T." was organized by the CSE & I.T staff, on 20th October, 2001, for the curriculum revision. The I.T. staff of other colleges participated in the workshop. The applications of software simulation packages MATLAB & PSPICE were demonstrated.



INDUSTRY- INSTITUTE INTERACTION:

- The college has signed MOUs with prominent I.T related organizations: PortalPlayer India (P) Ltd., Vantel Technologies Ltd., Orillion India Software Pvt. Ltd., and Qualcore Logic Ltd.

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PLACEMENT DETAILS:

SNo	Name	IT
1	Microsoft India (R & D) Private Limited	1
2	Infosys Technologies Limited	24
3	Wipro Technologies	32
4	Cognizant Technology Solutions	37
5	Captital IQ	2
6	MindTree Limited	3
7	Capgemini Consulting, Technology and Outsourcing services	3
8	iGATE Global Solutions	1
9	HSBC Software Development (India) Private Limited	1
10	Sonata Software Limited	1
11	Computer Sciences Corporation	3
12	CyberTech Systems & Software Ltd.	1
13	Franklin Templeton	2
14	United Online Services Limited	1
15	ORACLE India Private Limited	3
16	Amazon Development Centre (I) Private Limited	1
	Total	114

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IIT SHAASTRA 2010 REPORT

By *S.Shashank (4/4 I.T.)*

Shaastra 2010 organized by **IIT Madras** was an eye opener of sorts. It is one of the biggest technical festivals organized in the country and as such attracts thousands of students from all over the nation who attend the festival to display their intellect, acumen and most importantly their technical skills. The festival has the caliber to rank students on the national level based on the skills displayed. As expected of the IITs, Shaastra 2010 has some of the biggest companies and firms sponsoring it, Google, GE, VMware, and Bosch to name a few.

Shaastra was a 5 day long tech fest which started on the 29th of October 2010, Zero day and ended on the 3rd of November 2010. Zero day saw students gearing up for the opening ceremony which was to take place later in the evening that day. The K.V ground which was to house the sponsors and food stalls for the students and guests was also being prepared. Students who had come to attend the festival took this opportunity to explore the campus which was a task in itself.

The theme for Shaastra 2010 is **'Imagineering Impact'**. With all these spectacular events brought under the common theme of **'Imagineering'**, Shaastra 2010 promised to be a technical extravaganza.

Events: Shaastra hosted a myriad of events which included Industry Defined Problems, Robotics, Da Vinci Machine, Junkyard Wars, Hackfest, Paper presentation and the Shaastra quizzes - Shaastra Main Quiz, How Things Work and the Shaastra Online quiz. Shaastra Unwind is expected to be a major hit through the events like Cube Open, affiliated with the World Cubing Association, Puzzle championship, Science fiction writing and new events like Mensa IQ.

Anveshana, **Bio Mimicry**, **Contraptions**, **Fire n Ice**, **Top Gun** were some of the unique events that were held. These among other events required participants to send the details of their project much earlier for short listing and the names of the selected participants were displayed a month prior to the festival. This ensured that the students had enough time to prepare for the festival and also fine tune their projects.

Anveshana strived to make simple, dynamic, feasible science models which were both cost effective and mass producible, to help children understand scientific concepts better. The winner's models were to be implemented by the NGO Agastya for its model-making programme for children.

Contraptions turned things on its head in that where most other events aimed to simplify a complex problem, Contraptions required the participants to enthrall the judges and the audience with

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the ability to convolute the most simplest of actions with an infinite array of steps. The participants had to make the process as complex as possible and perform the task in the maximum no. of steps.

Babel was a computer science based event that required students to select the most suitable programming language to solve a specific problem. The program could be written in any low level (assembly) language or any 5th generation programming language as the problem demanded.

Top Gun was one of the most anticipated events in Shaastra. The participants of this event had to construct an RC aircraft and perform aerobatics and a task.

The Shaastra Symposium: The symposium explored the impact on society through the discussions that were held on technology intervention and policy recommendations to improve technology in rural India. The symposium included talks by eminent speakers and workshops.

AGSTVC: The **Al Gore Sustainability Venture Competition** was also held as a part of Shaastra 2010. This competition aimed to support innovative solutions provided by students to major world issues like climate change, sustainability, energy security and the environment. Other events on the of creating impact included the **Toy repair Bash**- a massive repair campaign for techies where faulty toys were brought from warehouses around the city and the repaired ones were distributed to

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underprivileged kids with the help of their NGO partners, **Going Vernacular** - an attempt to create knowledge base in various vernaculars and **Learn from Toys** - a challenge to create toys with least cost while at the same time explaining a science phenomenon, to be distributed among schools in Chennai.

Workshops: The workshops at Shaastra 2010 were centered on **bio-mimicry**, **forensic science** and **astronomy**. These workshops featured eminent personalities giving demonstrations and some small competitions to give the participants hands on experience.

The workshops that were conducted were not free of cost. The **Astronomy** workshop, for example charged a hefty Rs.10, 000/- for a workshop that would teach participants how to construct a telescopeFollowing the workshop the participants were asked to fill a questionnaire which contained questions of the type of "whodunit" i.e. on the basis of the clues provided, the participants needed to find who the murderer was. On the basis of this certain teams were selected for the next round.

The second round was an investigation of a virtual crime scene. The teams again needed to identify the murderer on the basis of the clues which were life-like, and thus required a close examination and a real time approach to solve the case.

Lectures and VCs: Video conferences and lectures that were held in Shaastra were a very good feature and Shaastra 2010 boasted lectures and VCs by some of the most eminent personalities of the world. Arup Chakraborthy, Professor, Biochemical Engineering (MIT Lyn Evans Project Leader), Large Hadron Collider, CERN's Siddhartha Srinivasa (Senior Research Scientist).

The opening ceremony of Shaastra 2010:

Video Conference:

Other: Shaastra nights was a showcase of technical extravaganza, hosting an RC show - a stunt show by radio controlled cars and the Air Show - the largest for the model planes in the country. Shaastra car building was also a unique event in

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which participants were required to construct a working car in a span of 4 days i.e. during the festival.

Military Displays

Drawbacks: Although the festival was conducted on a grand scale, the festival in itself was not properly organized. There were very few banners and advertisements inside the campus to show that a festival was being held. Though many interesting events were conducted, their timings clashed and this prevented the students from participating in most of the events. The events were also conducted at far flung places around the campus and this turned out to be a problem to the students who had no means of transportation other than the IIT buses. There were very few volunteers to help the students around the campus. The campus was also dull and did not reflect the festive mood in the college.

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ALUMNI SECTION

Ms.K.Naga Sowjanya (06-04-3039)

Best Outgoing Students' Award

Instituted by M/s Cognizant Technology Solutions

Mr. Rahul Kishore Singh

FMS, Delhi

IIM, Kolkata

(During Recruitment at Campus he was placed in Infosys, Wipro & Deloitte)

Mr.Sidhansu Gupta(passed out in the yr. 2005) –

The Mathworks, Framingham, Massachusetts

Mr.Krishna Bhargava(passed out in the yr. 2006) -

4D Security Solutions (from Aug. 2010-Edison, New Jersey

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AWARDS RECEIVED

Faculty

AWARD

- Dr. N. Vasantha, Prof. & Head, received the prestigious IETE – Prof. K. Sreenivasan Memorial Award (2010) during the 53rd Annual Technical Convention of the IETE held on 25th Sept. 2010 at New Delhi.

Award Lecture

- Dr. N. Vasantha, Prof. & HOD has given IETE-Prof. K. Sreenivasan Memorial Award Lecture on "Electronic Revolution Vaccum Tubes 2 VLSI Design" on 23rd October, 2010 at 6.30 PM at Mekastar Auditorium, IETE, OU Campus, Hyd. (She had received the prestigious IETE – Prof. K. Sreenivasan Memorial Award (2010) during the 53rd Annual Technical Convention of the IETE held on 25th Sept. 2010 at New Delhi.[mentioned in the last month])

Students

Roll of Honour

Ms. G.V.S.S. Anupama (006-07-5006) student of IT 2009-10 batch stood first in our department and awarded "**Roll of Honour**" for the year 2010.

Do You Know?

Oxygen Rail: The train service connecting Lhasa, Tibet to China's Rail System operates at such a high altitude that oxygen is provided passengers and those over age 60 need medical clearance before they are allowed on board.

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WE THE STUDENTS

GCEP: Working towards climate change

by: Preeti Bohra

The GCEP at Stanford University seeks new solutions to one of the greatest challenges of this century: supplying energy to meet the changing needs of a growing world population in a way that protects the environment.

The mission is to conduct fundamental research to technologies that will permit the development of global energy systems with significantly lower green house gas emissions.

Backed by companies like ExxonMobil, General Electric , Schlumberger and Toyota. GCEP is a collaboration of the world's energy experts from research institutions and private industry.

The project's sponsors are expected to a total of $225 million over a decade. As GCEP explores energy technologies that are efficient, environmentally benign, and cost-effective when deployed on a large scale.

Objectives:

At GCEP they believe that no single technology is likely to meet the energy challenges of the future on its own. It is essential to explore a range of technologies across a spectrum of globally significant energy resources and uses.

Goals:

* To identify promising research opportunities for low-emissions, high efficiency energy technologies.
* Identify barriers to large-scale application of these new technologies.
* Conduct fundamental research into technologies that will help to overcome these barriers and provide the basis for large-scale applications.

Events:

* GCEP holds a number of events to help raise the level of discussion about the energy technologies needed for a future with reduced greenhouse gas emissions.

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GCEP Research Symposium 2010
Creating a Sustainable Energy system for the 21st Century and Beyond:

* GCEP principal investigators and student researchers will highlight their efforts and the latest technological innovations in solar energy, biofuels, advanced energy conversion and storage, the electric grid, and advanced carbon-based energy systems.
* The 2009-2010 portfolios marked the seventh year of GCEP activities with new, completed and ongoing programs spanning 10 topic areas.
* Interest in the exploratory research program continues to grow as GCEP has seen a significant increase in the number of submitted proposals. As a result, the program has become more competitive. The purpose of this program is to allow exploration of new ideas by supporting preliminary research or analysis. GCEP has now funded research across the following ten topic areas of its portfolio:

1. Hydrogen production, storage and use
2. Solar energy
3. Biomass energy
4. Carbon sequestration
5. Carbon capture and separation
6. Advanced combustion
7. Advanced coal
8. Advanced materials and catalysts
9. Advanced transportation
10 .Integrated Assessment of Technology options

GCEP primary efforts fall into two complimentary categories:-

1. **Research:**

In research area, they develop science and technology that could lead to a global energy system with significantly reduced greenhouse gas emission.

GCEP organizes a range of research areas and also have numerous research activities taking place at Stanford and at collaborating institutions around the world.

1. **Analysis:**

In analysis area, they assess the potential of processers and technologies to deliver useful energy. Set of exports helps to analyze and guide the direction of GCEP.

Another area where OlivePad VT100 has an upper edge over iPad is the option to plug in to mini USB port. In terms of internet connectivity, both the tablets support Wi-Fi and Bluetooth. The Apple iPad supports 3G HSDPA, while OlivePad VT100 supports 3.5G HSUPA.

Apple claims that iPad has 10 hours of battery life, while OlivePad VT100's battery performance is not known as of now. OlivePad VT100 has 600MHz Qualcomm M7227 chipset, while iPad has 1GHz Apple A4 processor. Both the tablets support GSM and EDGE along with 3G, but OlivePad VT100 also supports WCDMA. In terms of storage, OlivePad VT100 has 512 MB of internal memory which can be extended up to 32GB, while iPad is available in the capacity of 16GB, 32GB, or 64GB.

With this small device you won't need a netbook or laptop. Also, a netbook won't let you make phone calls, which this device does. It's great for people who travel light and have accessibility to the Internet. The official price tag hasn't been revealed but it's said to be priced between Rs. 22,000 and Rs. 25,000. The obvious question is — what does Apple have to say about it? Well, we think that the OlivePad has taken things to a higher level.

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MOBILE PHONE TECHNOLOGY

By: *Prakruti Agarwal*

The Development

Mobile phone is a small, portable communication device that enables people to make phone calls whenever where they are. It receives and gives out signals via the service providers transmitting towers and even via satellite. The convenience of mobile phone is allowing people to communicate with one another without the limitation of regions and time.

Mobile phone is a device providing two-way communication. Signal transmission is the very basic concept for mobile phone. It uses the radio wave theories which are similar to the ordinary radios. The frequencies of mobile phones of course are stronger and higher than ordinary radios to enable clearer conversation among users. The transmission of the mobile phones allow these radio wave (signals) to interact(to receive and send) from the device to the transmission centers (towers), then to another user (no matter land line or another mobile phone). The signals of mobile phone are split into small cells

(This is also why mobile phones are also known as Cell Phones earlier) geographically. These cells allow radio transmission enabling authorized signals to receive and send out among the mobile phones.

The technology influencing on mobile phone started back in the mid twentieth century. The very first mobile telephony service was in Sweden. It was a form of radio telephony tested by the Swedish police for used in police cruisers. This form of radio telephone is a two-way radio which is still widely used in taxis and police cruisers. In 1946, Americans AT&T and Southwestern Bell brought out the first commercial mobile telephone service in 1946. This service is used on communication devices which are permanently installed on vehicles. It uses a weaker signal (compared to what mobile phones receive now), but a similar theory of receiving and giving out signals. Though, the bandwidth is very low.

The modern mobile phones are developed, researched and experimented in the 1970s. AT&T Bell Lab and Motorola from United States are the pioneers in that time. Mobile phone was patented individually by Motorola in 1975. Though, the first commercial mobile phone system (also known as network system or system operator) was launched in Japan in 1979. The second mobile phone system was established in 1981 later in United States. In the late 1980s, along with the commercialized mobile phone system, the mobile phone industry started to develop rapidly and attracting more users to use mobile phones.

In 1990s, along with the popularity on a new network system GSM (Global System for Mobile Communication), more and more people started to subscribe for mobile phones. In 2003, there are about 1.52 billion mobile phone users around the world,

making it a big and important industry in the technology field (Cellular Online, 2004).

Upcoming Technologies in cell phones

Today, we have top-notch cellular phones available to us. They offer great features, are easy-to-use and fulfill most people's needs. In the future, it is expected the new mobile phones will come with even better features. This article discusses some of those, predicted by Gartner.

New Mobile Phone Technologies

It's hard to believe, but there has been a long history of cellular technologies but it seems to most of us that mobile technology is only a few years old. Long before most of us will even begin to think of future mobile technologies, analysts have already started predicting the upcoming technologies. Gartner, a reputed analyst firm has produced a report recently, highlighting some future mobile technologies they expect to be seen in the next few decades. These technologies include:

WLAN & Mobile Phone Connections

Many laptop and netbook manufacturers have employed Wireless technologies in their devices, namely Wi-Fi, Bluetooth etc,

While mobile phones come with these technologies the limitations in them have made their use somewhat hindered. The limitations are not many but these effect the usability of the technology, for instance Wi-Fi and Bluetooth in a Mobile phone do not have the capability for achieving high speeds and their use also has potential security risks. These problems are going to be dealt with this year in order to provide more secure and faster wireless communications through Bluetooth and Wi-Fi.

Bluetooth 3.0

Specifications for Bluetooth 3.0 are expected soon and it is expected that mobile phone manufacturers will start deploying the technology in their mobile phones, without wasting a moment. Bluetooth 3.0 is expected to utilize fiber-optics, giving transferring rates of up to 480 Mbps from a near distance and 100Mbps from up to 10 meters.

With an additional benefit of low-power usage, it is anticipated that a large variety of mobile phones and even electronics such as health monitoring, sensors, etc will also be using the technology.

Mobile Phone Displays

The end user is only concerned about his easy interaction with the device. No matter how solid, reliable and advanced technology is used in a Mobile phone, its user most probably would only care about how the things are shown in the display. Although, the modern mobile phones come with high-quality displays, the upcoming display technologies will bring many improvements. Moreover, emerging technologies such as Pico projectors, active pixel displays, and passive displays will have a great impact on the use of mobile phones.

Location Awareness

Mobile social networking is increasingly becoming popular. If you have used mobile social networking, you might have wanted to know the location of the person you've been talking to or you may want to find the location of a person who you want to phone.

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TEAM WORK

Yes, first edition is launched. It does feel nice to see Information Technology making headlines for all good reasons this year. Touch wood.

TEAM MEMBERS

- Ali Intakhab (Team Head, Chief Editor)
- P.N.V.Jyothsna (Editor)
- Suryae Shashank (Technical Head)
- Sneha Kanukolanu (Editor)
- Neha Kanjani
- Prakruti Agarwal
- Preeti Bohra
- Telukunta Nishanth
- V.Rahul
- Darshit Agarwal (Technical Member)
- Harshit Agarwal (Technical Member)

SEND YOUR ENTRIES AT

The articles can be mailed by students and faculties for second edition at:
it.technospell@yahoo.com

Also catch us on *facebook* on the link mentioned below:
http://www.facebook.com/group.php?gid=123474171037593