NEWSLETTER - JULY 2013

Dronacharya College of Engineering

ISSUE

Electronics & Computer Engineering

In This Issue....

From Editor's Desk :

Engineering is not just a degree but a way of thinking for betterment in the quality life of social strata. It is one of the few professions where creativity meets originality and innovation gets popularity. Engineers have been responsible for the tremendous innovations and discoveries in making their nation developed. As it involves concepts and reasoning, it can be a great choice for anyone who wants to leave a mark. A successful technocrat is the one who is creative and innovative, who has problem solving aptitude and skills at his command, and who is able to participate in multi-cultural and multi-national environment.

Dronacharya College of Engineering, Gurgaon has been contributing persistently in the field of technical education by comprehending the need for upliftment of rural youth in highly competitive, technologically-elevated society, in particular, and understanding the thirst for knowledge of students and quenching it in general.

At **DCE,** class rooms are being equipped with latest technologies to modernize the teaching- learning process with a focus to sharpen the problem solving skills of the students. We also intend to impact basic knowledge of cutting -edge technologies which are beyond the coverage of prescribed syllabus of the University. The perseverance and dedication of the entire staff is so high that it is effervescent to evolve problem-solving strategies for the betterment of the students. The Training and the Placement Cell is dynamic and immaculate in discharging its duties. MNCs and Indian Corporate giants visit the college, and the caliber of the students leaves them spellbound. Consequently, the placement graph has raised manifold.

Overall development of the personality of each and every student is stressed upon and taken care of. Sports, cultural and other extracurricular activities nurture and hone the intrinsic talent of the students. Our students are the proud achievers of not only the academic positions but the topmost ones in sports also at the University and Inter -University level.

I, on behalf of the Management, Principal and Dronacharya fraternity extend a very warm welcome to the Engineering aspirants at **Dronacharya College of Engineering, Gurgaon** - the center of excellence where planning - commitment - ability to lead are a way of life for technocrats.

Editor, (Dr. Sunil K. Mishra)

From HOD's Desk :

"Obstacles are those frightful things Obstacles are those frightful things you see when you take your eyes off the goal." -Henry Ford

The **Department of Electronics & Computer Engineering (ECS)** is a fine amalgamation of its two predecessors "Electronics" and "Computers".

The department is striving hard to match the expectations of its students. Recently we have conducted workshops on subjects like **"PCB Fabrication"** and **"Android"**. The outcome of which was loud and clear by our students grabbing **First** and **Third** prizes at **IIT BHU's** Technical Fest **Technex'13.**

The department has started its set of preparations for better placement opportunities by arousing interest in its students for aptitude tests. In synchronization to the above said statement, the department conducted **NCAT** (National Creativity Aptitude Test) 2013 organized by **IFEHE** (International Forum for Excellence in Higher Education) and it's an honor for **Dronacharyans** that one of our students has been selected for free workshop at **IIT Delhi** after emerging as winner at all India level.

The department believes in the decree of **Lord Chesterfield:**

"If we do not plant knowledge when young, it will give us no shade when we are old!"

Head of Department, (Prof. Swati Jha)

Technical Projects :

Aptly quoted by **Elbert Hubbard**

"It does not take much strength to do things, but it requires a great deal of strength to decide what to do."

Testifying the saying above we try to align the minds of our students towards project making since they join the department. A few of the innovative projects chosen by students include -

S. No.	Project	Guide	Roll No.	Students
1.	Gurgaon Travelogue	Prof. Swati Jha	14624	Sukhwinder Kaur
			14601	Alka Chauhan
			14614	Lakshit Gupta
			14606	Anuj Yadav

Objective

The objective of this project is to enable users to travel faster, more conveniently and with minimum possible expenditure within the city of Gurgaon. Transportation in the city is mainly dominated my public and private auto-rickshaws. Private autorickshaws are very expensive and at the same time try to get most from every customer. So our website aims at providing details of how to reach from Metro Station/ Bus Stand to selected Places helping travelers to get to their destination with ease.

S. No.	Project	Guide	Roll No.	Students
2.	Greetings - An android application	Mr. Rajesh Kumar	14605	Anshul Patro
			14631	Vineet Kataria

Objective

This project describes the design and construction of a small application GREETINGS. This application is designed on ECLIPSE SOFTWARE. The app named Greetings can be used either by extracting the apk file into your android phone or on your computer with the help of an emulator. On opening this application a list of festivals arrives as options in the list view format. When you select an option a new page opens in front of you with an image which greets you on the occasion of that particular festival or event and an option of sending wishes. On choosing, the option of Send Wishes a new page having a pre-defined greeting of that page will be loaded and the user can send wishes through SMS.

Practical Summer Training :

Summer **Training/Internship** program on *"Embedded Systems"* is being organised by the **Department of Electronics and Computer Engineering** in association with **CMC (Computer Maintenance Corporation)** Academy, a TATA Enterprise from **24th June** to **17th July 2013**. Duing this training program, Mr Prateek Prakash, a faculty member of CMC Academy, will impart the Theoretical and Practical aspects of following topics:

- Operating System Concepts
- C & C++ on Windows & Linux
- 8/32 Processors
- Networking Concepts
- Device Drivers
- Software Skills
- Projects

The whole batch is divided into 5 groups and each group is provided with a unique project. Following major **projects** will be completed by the students.

- *Metro Prototype.*
- *RFID based Attendance cum Security system*
- *DTMF based Control Area.*
- *DTMF based Controlled Wireless Robot.*
- *RFID based Library Management System.*

Seminar on "Embedded Systems & Electronics Manufacturing Process ":

Adept Technology Solutions, Noida organised a seminar on *"Embedded Systems and Electronics Manufacturing Process"* on **29th June 2013**. Seminar was intended for budding engineers looking for careers in System Design & Electronics Manufacturing. Adept Technology offers two types of services: Design Services and Training Services. *"Adeptech",* the training wing of Adept Technology, had organised the above said seminar. *Mr. Ashok Kumar Joshi* addressed the participants by giving an introduction on Robotics. He laid stress on everything one needs to know about getting going as a Robotics System Design Engineer. A few important areas presented by him are:-

- Various Domains (Low Power RF, LED lighting, Hybrid Automation, Motor Control, Communication, Power Electronics).
- Classification of Robots and their various tasks.
- Different Sensors Used in Robot (touch sensor, proximity sensor, temperature sensor).
- Working of Actuators, Motors and Controllers.

▪ Knowledge base (Dynamic System Modelling, Feedback Control, Sensors & Signal Conditioning, Hardware Computer Interfacing).

Mr. Peeyush Manglam handled the other part of presentation in which he discussed the various applications/usages of Robotics. At the end of the seminar, **Mr. Vijay Dhiman**, talked about the various career opportunities in robotics. Participants were introduced to the various entry level positions in industries for skilled professionals. He also mentioned about the skills that an interviewer searches in a fresher for a job in robotics field. He added that India is gradually emerging as a global hub of electronic design and manufacturing units. By quoting a recent survey report by Ernst & Young he said-

"The demand for electronics products is expected to reach $125 billion by 2014 from current $45 billion. Hence lot of opportunities for skilled engineers!"

From **Electronics and Computer Engineering Department**, following students attended the seminar:

Anshul Patro (Roll No. 14605), **Vineet Kataria** (Roll No. 14631), **Mamta Gothwal** (Roll No. 14615), **Alka Chauhan** (Roll No. 14601), **Sukhwinder Kaur** (Roll No. 14624), **Anuj Yadav** (Roll No. 14606), **Sweta Singh** (Roll No. 14626), **Aman Sharma** (Roll No. 14603), **Neha Kumari** (Roll No. 14615) and **Siddhant Mehta** (Roll No. 14622). **Shalini Sharma** and **Yashika Arora** from **CSE Department** of **DCE, Gurgaon** also accompanied them.

Participation in Seminar/Workshop :

▪ The Dean Academics **Prof. (Dr.) Onkar Singh** and HOD (ECE) **Prof. (Dr.) H. S. Dua** attended a one day workshop on **"AICTE-CII Survey of Industry and Academia Collaboration in Technical Institutions-2013"** at CII regional office at Chandigarh on **28.06.13.**

▪ **Prof. (Mrs.) Meeta Verma, Head, Department of Civil Engineering** presented two papers entitled **"Mechanistic design of haul road pavements for open cast mines"** and "**Study of layered elastic systems in mechanistic design of flexible pavements"** in a two-day International Conference "Sustainable Innovative Techniques in Civil & Environmental Engineering" (SITCEE-2013) held at **Jawaharlal Nehru University, New Delhi** on **5th** and **6th June 2013.**

▪ **Mrs. Sakshi Pahuja** Faculty of E&CE Deptt attended a five-day workshop on **"Image Processing, Computer Vision and Pattern Recognition"** at **NIT Delhi** from **18.06.13** to **22.06.13**.

Faculty Achievements :

▪ **Prof. Swati Jha** and **Mr. Rajesh Kumar** completed the IUCEE (Indo US Collaboration for Engineering Education) Virtual Academy Mini Course on **"Research Methodology"** under the guidance of **Prof. Prasant Mohapatra** of UC Davis University, USA from **25th January** to **31st March 2013**.

▪ **Mr. Vinay Nassa,** Professor in the Department of Electronics & Communication Engineering has been awarded degree of **Doctor of Philosophy (Ph.D)** with an interdisciplinary topic **"Project Management Efficiency Using Soft Computing and Risk Analysis Techniques"** in **June 2013.**

▪ **Mr. Rajesh Kumar** from ECS Department attended the ISTE workshop on **DBMS** from **21st** to **31st May 2013** conducted by IIT Bombay under National Mission on Education through ICT (NMEICT).

▪ **Mr. Rajesh Arora**, Associate Professor, Mechanical Engineering Department attended a five-day short term course on **"Applications of Artificial Intelligence Techniques in Engineering Systems (AAITES-2013)"** held at MNNIT, Allahabad from **June 10th** to **14th, 2013.**

A Two Week Workshop on Analog Eectronics :

A two - week ISTE workshop on **Analog Electronics** has been organized at **Dronacharya College of Engineering, Gurgaon** from **June 4th-14th, 2013** under the project National Mission on Education Through ICT sponsored by Ministry Human Resource Development, Govt. of India, New Delhi. This workshop was a part of the initiative taken by **IIT Bombay and IIT Kharagpur** to work with Engineering Colleges in the country to enhance the teaching skills of faculty in core Engineering and Science subjects using the **A-VIEW technology** through internet. Two hundred twenty one remote Centres across the Nation participated in this workshop. This experts and distinguished faculty members of **IIT Kharagpur Prof. Anindya Sundar Dhar, Prof. Pradip Mandal, Prof. Indrajit Chakrabarti and Prof. Achintya Halder** covered various technical topics like Semiconductor Devices (BJT and MOSFET), Single stage amplifiers, Multi stage amplifiers, Cascaded amplifier stages, Current mirror, Differential amplifiers, Feedback, Stability & Oscillators and Power amplifiers etc.

A total of 33 Faculty members from Dronacharya College of Engineering, Gurgaon and other colleges of NCR & Haryana attended the workshop and got the opportunity to interact with the experts from Engineering and Technology.

Overall, the workshop has been very useful and it enhanced the knowledge and teaching skills of the faculty member.

Workshop on Analog Electronics in progress

The Participants doing experimental work in the lab

Distribution of certificates by Hon'ble Principal Prof. (Dr.) B. M. K. Prasad

A group of participants with the Principal and other dignitaries

A Three-Day Faculty Development Program :

Applied Sciences & Humanities Department organized ***a three-day Faculty Development Program*** from ***25th June*** to ***27th June 2013*** at the college campus. The objective of this program was to provide a forum for exchanging the academic views, ideas and approaches to enhance skills of faculty members.

The unique intellectual fusion-Faculty Development Program - created an opportunity and lead to a richer experience among the participants. The distinguished faculty members ***Prof. (Dr.) R. C. Sharma, Prof. (Dr.) K. K. Jha, Dr. Vimla Yadav, Mrs. Sangeeta Singla, Dr. Jyoti Anand, Mr. Ravi Dutt, Mr. Surender, Mrs. Pooja Jain, Mr. P.C. Mittal and Mrs. Rita Yadav*** enlightened the participants during the Faculty Development Program.Overall, this program was oriented towards building continuous professional development of faculty members and enabled them to reach out to their students intellectually.

Hon'ble Principal Prof. (Dr.) B. M. K. Prasad delivering inaugural address

View of participants during Faculty Development Programme

Academic Discussion with Dr. Jyoti Anand during FDP

Prof (Dr.) K. K. Jha enlightening the faculty members Programme

Vote of thanks being delivered by the HOD APS&H Prof. (Dr.) Sri Krishan Yadav

University Result :

Toppers of ECS Department in **Third Semester** University examinations are:

Roll No.	Name
14627	Tamanna Kundra
14603	Aman Sharma
14633	Ankit Malik

Students' Achievements :

- **Ravi Ahuja's** (Roll No 14620) paper on **"Time Travel and The Cosmos"** was published in International Journal of Innovative Research & Development (IJIRD), Vol. 2, Issue 3, pp. 650, **March, 2013**.

- **Aman Sharma's** (Roll No. 14603) paper on **"A FULLY AUTOMATED FIRE FIGHTING ROBOT"** was published in Undergraduate Academic Research Journal (UARJ) ISSN: 2278-1129, Volume 2 Issue 1, Page No. 7-12, **March 2013.**

- **Anuj Yadav** (Roll No. 14606) and **Siddharth Uniyal** (Roll No. 14623) made a moving **Mousey: The Junk Bot** to participate in **DronTech'13** project competition on **16th march 2013**.

- **Aman Sharma** (Roll No. 14603) participated in line following Robot competition held from **22nd-23rd March 2013** at **Bhagvan Parshuram Institute of Technology** (BPIT) and secured **Third Prize.**

- **Aman Sharma** (Roll No. 14603) presented a paper on **"A Fully Fire-Fighting Robot"** in the final round of Technovision, organized in Troika'13-The Annual Technical Fest organized by **IEEE-DTU** (Delhi Technical University).

- The winners of the paper presentation contest in **DronTech'13** are:

  A. **First Prize**: **Anshul Patro** (Roll No. 14605), **Vineet Kataria** (Roll No. 14631).

  B. **Second Prize**: **Anuj Yadav** (Roll No. 14606), **Vijay Arora** (Roll No. 14630) and **Siddharth Uniyal** (Roll No. 14623).

  C. **Ravi Ahuja** (Roll No 14620) of IV Sem **Electronics and Computer Engineering Department** and **Sarita Rani** (Roll No.14233) of IV Sem **Electronics and Communication Engineering** Department were the winners of round 1 of **NCAT (National Creativity Aptitude Test) 2013** conducted at **DCE** and they represented the college for the second round of test on **15th Jun 2013. Sarita Rani** has also qualified the second round held at National level. As a reward, she was invited to attend free one week **"Continuing Education Programme (CEP)"** from **01.07.13** at **IIT Delhi**.

Placement :

The Placement Department conducts personality development programs, mock interviews, aptitude tests and group discussion programs on regular basis to prepare the students to face the recruitment process. A Joint Campus Placement Drive was conducted at **Dronacharya College of Engineering, Gurgaon** by **Cummins**, a multinational company in association with CoCubes. Around 200 students from various colleges attended the drive. AMCAT, India's largest employability test, conducted its Re-Assessment online Test for the Pre Final Year students of all branches at **DCE, Gurgaon.**

Companies that conducted campus in the month of June include E- Dynamic, Espire Infolabs, Ecosense Sustainable Pvt. Ltd, HCL Technologies, Rohanika Electronics & Medical Systems, VR Virtual.com Pvt. Ltd, Drishti Soft Solutions (P) Ltd, Software Revolution Technologies, IntelliGrape Software Solutions Pvt. Ltd, PC Solutions Private Limited, TI Infotech, Fernas Construction India Pvt. Ltd, Init Call Technologies, Torrid Networks etc. In the previous month **08** students of CSE,**02** of ME and **03** of ECE got placed in various companies.

Establishment of Civil Engineering Labs :

The Civil Engineering department is establishing **Transportation and Geotechnology laboratories** with all necessary equipments for lab experiments prescribed by the university for V & VI semester including the rare plate load test apparatus of Geotechnology lab and are all set to receive senior most batch of Civil Engineering in V semester. The foundations of all equipments are already erected and equipments are installed on their respective foundations. Other laboratories like Concrete, Structural Analysis and Fluid Mechanics is already functioning.

Soil Mechanics Lab showing apparatus for example: Direct Shear,Consolidation, Unconfined compression and Triaxial Tests

Transportation Laboratory with apparatus like Dorry Abrasion, Los Angeles Abrasion, Deval Attrition, Marshall Stability, Ductility tests etc.
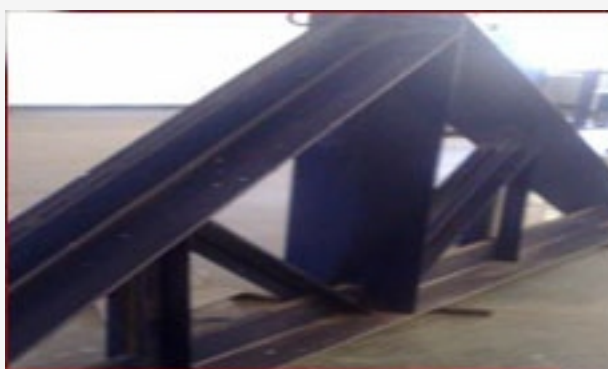

Plate Load Test apparatus of Geo-technology Lab

Memorandun of Understanding with CMC, New Delhi :

The industry, today, is poised to provide employment to fresh engineering graduates in large numbers owing to tremendous growth. However, most students fail to meet the entry criteria of the industry primarily due to lack of industry exposure. It has therefore become imperative for academic institutions to provide industry orientation skills to both students and teaching staff so that the practical application of theoretical concepts is well understood by the students. In order to promote practical exposure among the students, **Dronacharya College of Engineering** and **CMC New Delhi** signed the Memorandum of Understanding (MoU) on **17th June 2013**.

The MoU is planned to provide a platform to CMC, to offer the projects, Industry Institute Interaction for Research & Development (R & D), Training in MNCs and provide necessary guidance. As a result of the above signed MoU, **Department of Electronics and Computer Engineering** organized practical training for its students on **"Embedded Systems"** from **24th June -17th July 2013** at the college campus.

Student's Viewpoint :

Electronics and Computer Engineering is a branch which is the thoughtful outcome of great minds working in academia and industry. To bridge the gap between academia curriculum and industry requirements branches like ECS are the need of hour. Integration of subjects like Embedded System, Microprocessors, Networking along with basic Computer Languages like C/C++, Advance Java and Security Systems enhances the chances of building a brighter future. So, I personally believe, a bit of hard work in these four years can make us reach good heights.

Aman Sharma
(Roll No. 14603)

I feel very positive and optimistic to be a student of the department of **Electronics and Computer Engineering**. I am utterly privileged to get pioneered by our Head of Department Prof. Swati Jha. The Department has always been on a high growth path to keep pace with the ever increasing importance of the major disciplines of study and current technology trends. A judicious mix of experienced and young faculty with strong commitment to academics has created an ambience for learning.
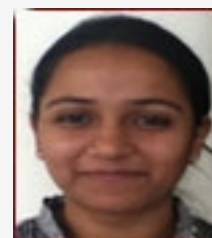
Ankit Malik
(Roll No. 14633)

"Knowledge will bring you the opportunity to make a difference" is the most suitable proverb for our ECS stream. This stream provides knowledge on both theoretical and the practical aspects of ECE and CSE. I feel honored and privileged to be a part of the ECS department, where faculty members help every student to explore their talent and provide constant support as well as guidance to bring out the best in them. I am extremely grateful to have Mrs. Swati Jha as our HOD, who has been very encouraging and supportive during challenging times. The department has also organized various workshops and industrial visits which has motivated the students to look beyond the theory and classroom knowledge, to experience how the real tech-world functions. These experiences have enabled us to see things from industry perspective and help us keep abreast with the new developments.

Tamanna Kundra
(Roll No. 14627)

"The future is full of challenges; let us take them in stride
Let us bow to make a difference, not just flow with the tide."

Dronacharya College of Engineering is entrusted with a sacred mission to bring up and groom the students, train them up in such a way that wherever they go they will uphold lofty traditions of Dronacharya Family. The ECS Department has well equipped labs, highly qualified and experienced faculty members who are always there to help and guide the students.

Sukhwinder Kaur
(Roll No. 14624)