#### EWSLETTER - JUNE 2013



# Dronacharya College of Engineering

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#### Information Technology

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### From Editor's Desk:

"To embark on a journey of success one needs the tools of preparedness, foresight and strategy."

Education is important for every individual. It plays a vital role in changing the stare of a Nation. It makes a man realize about himself and his goals. Technical Education plays a vital role in human resource development of the country by improving the quality of life. It promotes the economic advancement and produces the technicians for a variety of industries.



Today, Dronacharya College of Engineering, Gurgaon has become dream-destination for every engineering aspirant due to the qualified and experienced faculty, excellent infrastructure with modern laboratories, Industry Institute interface transforming the students into responsible, self-reliant, career-oriented and confident citizens of India who serve the society and mankind in general. Here, the students are not only trained academically but are also given an adequate amount of exposure which is varied and comprehensive so as to make them responsible citizens, who go out of our portals to be reckoned among the best.

Editor, (Dr. Sunil K. Mishra)



### From HOD's Desk:

#### Time is the coin of life. Only you can determine how it will be spent.

Over the last decade and a half, the Department of Information Technology at Dronacharya College of Engineering, Gurgaon has played a pivotal role as an academic leader in society, by accelerating its Human Resource, modifying its knowledge, keeping abreast with modern trends and anticipating the requirements of tomorrow. We continuously and explicitly work to enhance our intellectual capital, our continuing role in society and our wider global place in technical education.



The intellectual capability of the academic staff of any technical institution is also one of the key-criteria to determine the success of its students studying in it. On account of competent faculty members with high degree of excellence and dedicative nature, our budding technocrats have always made the college proud by achieving number of Merit in the University Merit Lists.

Our students have won many prizes during this semester in various competitions. I congratulate all the winners & participants for making us proud by securing top positions in various National Level Events across India. I know that with the determination, discipline and dedication of my students and faculty members, we will take the name of Dronacharya to newer heights.

Head of Department, (Prof. (Dr.) Jitender Kumar)

#### One Week I.S.T.E. Workshop on Database Management Systems at IIT Bombay:

National Mission on Education through ICT (MHRD, Govt. of India) conducted a one week workshop from May 6th, 2013 to May 10th, 2013 at IIT Bombay. This is an important initiative taken by IIT Bombay to work with Engineering Colleges in the country to enhance the teaching skills of faculty members across India. The project called "Empowerment of Students & Teachers through Synchronous & Asynchronous Instruction,". Interested Faculty can attend the course at a remote centre close to their own college with tutorial and lab sessions conducted in the same centre. This programme is part of the National Mission on Education through ICT, supported by MHRD. The Faculty coordinators are invited from various remote centres for a five-day Coordinators` training workshop which is held at IIT Bombay. Mr. Vijender Singh Hooda of IT Department got an opportunity to attend the five day workshop. The Course Content of the workshop was developed by **Prof. S. Sudarshan** Department of Computer Science, IIT Bombay.



Ongoing workshop at IIT Seminar Hall



Mr. Vijender Singh Hooda with Prof. S. Sudarshan

### Farewell Function - 2013:

Farewell Function to the Final Year students of **Dronacharya College of Engineering, Gurgaon** was held on 1st May, The Farewell Function commenced with the lighting of Lamp by Hon'ble Chief-Guest, General Deepak Kapoor, PVSM, AVSM, SM, VSM, ADC, Former Chief of Army Staff followed by recitation of Saraswati Vandana and various Cultural Programs by the students enthralled the audience. Hon'ble Principal Prof. (Dr.) B. M. K. Prasad welcomed the Chief-guest on this ceremonial, ritualistic and significant occasion of the Farewell Function.

In his inaugural speech, Hon'ble Chief-guest insisted upon planning, perseverance, performance, which are the cordial principles of success in one's career. General Deepak Kapoor expressed that India needs bonafide, courageous, highly technical manpower in all the spheres such as defence, industry, bureaucracy and in politics also. If all four pillars of social structure are strong, certainly the dream of common people, India becoming a superpower by 2020 will come true.

Hon'ble Chairman, Dronacharya Group of Institutions, Dr. Satish Yadav, delivered a vote of thanks and expressed his gratitude to the Chief-guest General Kapoor and other members of *Dronacharya* fraternity for making this function a great success. Addressing the students he said that *Dronacharyans* always perform well in academia and other cocurricular activities and the alumni of this college placed across the globe are also doing their best to contribute for the social welfare.



Hon'ble Chief-guest General Deepak Kapoor lighting the lamp at Farewell Function-2013



Hon'ble Chief-guest blessing the students



Hon'ble Chairman, DGI, Dr. Satish Yadav motivating Dronacharyans



Hon'ble Chief-Guest receiving a token of reverence at the Farewell Function-2013

### Convocation - 2013:

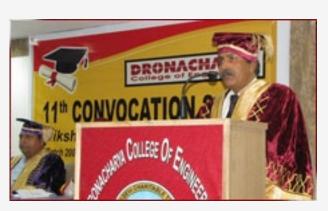
The 11th Annual Convocation Ceremony of Dronacharya College of Engineering, Gurgaon for conferment of B. Tech. degree on successful candidates of the 2008 - 2012 batch was held on 11th May 2013. Keeping with the tradition of "Dronacharya - a Gurukul combing tradition with modernity", the ceremony started with invocation and recitation of "Saraswati-Vandana". The occasion was graced by the esteemed presence of Hon'ble Chief-Guest Prof. (Dr.) Sarvadanand Arya, Ex-Vice Chancellor, Kurukshetra University, Kurukshetra; CCS Haryana Agriculture University, Hisar and Ex-Pro Vice Chancellor M. D. University, Rohtak. On this propitious occasion, a total of 300 students were awarded B.Tech. Degrees in various branches of Engineering.

At the outset, Hon'ble Principal Prof. (Dr.) B. M. K. Prasad, welcomed the esteemed Chief-Guest, essaying the achievements of the alumni and reminding the students to follow the path of dedication, hard-work, sincerity in their chosen careers and raise the Dronacharya flag high. He also emphasized that the students should make themselves strive towards sustainable development of society.

While delivering the Convocation Address the Hon'ble Chief-Guest highlighted how knowledge has emerged as the key driver of our economy today. He expressed that India is bestowed with a unique knowledge wealth of qualified young professionals which is increasing every year and as a society, we value and nurture the knowledge building activity.



Hon'ble Chief-Guest sitting with the dignitaries



Hon'ble Principal motivating the students on Convocation -13



Hon'ble Chief-Guest Prof. (Dr.) Sarvadanand, Ex-VC Kurukshetra University



Student receiving the B. Tech. Degree from the Chief-Guest

#### Two Week ISTE Workshop on "Database Management Systems" :

Indian Institute of Technology, Bombay (IIT, Bombay) organised a two-week ISTE workshop on "Database Management Systems" from 21st to 31st May, 2013 at Dronacharya College of Engineering, Gurgaon (Remote Centre, NME-ICT IIT Bombay) with the coordination of **Dr. Jitender**, Remote Centre Coordinator; **Mr. Vijender Hooda**, Workshop coordinator and Ms. Chesta Agrawal, Akash Coordinator. The workshop was conducted under National Mission on Education through ICT (NMEICT) sponsored by the Ministry of Human Resource Development, Govt. of India.

The workshop was inaugurated by a great orator, mentor and an ideal teacher **Padma Shri Honoured Prof. Deepak B.** Phatak who is Subrao Nilekani Chair Professor at IIT, Bombay. Prof. S. Sudarshan, Institute Chair Professor and *Head of Dept of CSE at IIT, Bombay* introduced various concepts related to Database Management Systems on Akash Tablets provided by MHRD, Govt of India. Mr. Abhilash K. S., Assistant Professor, Kreist ASI Lab, IIT Bombay talked about setting up of Moodle Software and creation of Moodle account. The workshop was very much useful.



Prof. Deepak Phatak from IIT, Bombay delivering inaugural speech



Prof. S. Sudarshan, , IIT Bombay delivering his lecture



Faculty member receiving the provisional certificate of participation from Hon'ble Principal Prof (Dr.) B. M. K. Prasad



A group of participants of DBMS workshop with Hon'ble Principal, DCE and other dignitaries

### Resource Centre of Spoken Tutorials, IIT Bombay:

Dronacharya College of Engineering (DCE), Gurgaon has been approved as a Resource Centre for the Spoken Tutorials promoted by IIT, Bombay in association with Ministry of Human Resource Development, Govt. of India a part of National Mission on Education through ICT (NMEICT). DCE, Gurgaon is the first college in Haryana to receive this status with two-star rating.

On 22nd May 2013, during inauguration ceremony Mr. Arjun Chadha, Executive Officer, Spoken Tutorial Project represented IIT, Bombay and signed the agreement document for establishment of the Resource Centre. He also appreciated enthusiasm and caliber of Dronacharyans in learning various softwares.

The objective of establishing the Resource Centre is to conduct Free and Open Source Software (FOSS) workshops on different courses like Linux, Latex, Scilab, Python, PHPMySQL, Lotus.



Faculty members of DCE, Gurgaon attending the workshop



Mr. Sajjan Kr. Dixit from IIT Bombay during visit at DCE, Gurgaon



A group of students of CSE & IT along with HOD during the FOSS training



Hon'ble Principal Prof. (Dr.) B.M.K.Prasad receiving a token of reverence

#### ISTE Workshop on Analog Electronics:

The college has been a centre for two week ISTE workshop organized by IIT Kharagpur from  $4^{th}$  June 13 to  $14^{th}$  June 13 on Analog Electronics under the "National mission on education through ICT". The workshop was conducted using A-View technology through internet at selected remote centre across the country under MHRD. Around 8000 participants of 221 centers have participated in this workshop through video conferencing. The lectures for the above programme were delivered by following faculty members of IIT Kharagpur.

- Prof. Anindya Sundar Dhar
- 🕨 Prof. Pradip Mandal
- 🕨 Prof. Indrajit Chakraborti
- Prof. Achintya Haldu

Some faculty members from outside institutions and all the faculty members of the ECE dept. of the college attended the workshop. The faculty had the opportunity to ask questions from the concerned experts during the lectures. The workshop proved very useful and added to the knowledge and improvement in teaching skills of the faculty members who participated in the workshop.

### Workshop on "Mapping Employability Challenges in Technical Institutions":

Mr. Bhanu Pratap Saini, Associate Professor, IT attended two day workshop on "Mapping Employability Challenges in Technical Institutions" Organized by Interdisciplinary Faculty Group & Central Library of Maulana Azad National Institute of Technology Bhopal and Sponsored by M.P. State Tourism Development Corporation on May 9th - 10th 2013. The Aim of this training program was to provide a common platform for students, teachers and Industrialist to discuss their problems regarding employability because in this time about 50% students facing this problem. In this training program various methods are discussed and suggested which can help the student to face the challenges of employability. There is a gap between education and industries. There is a need to bridge the gap between education and industries so that students can face the challenges of employability.

### Leadership Program on National Convention on Leadership & Mindfulness :

Mr. Dharmendra Pal, Associate Professor, IT and Mr. Vishal Bharti, Associate Professor, CSE from Dronacharya College of Engineering, Gurgaon attended "Finale of CII Leadership Dialogue Series National Convention on Leadership and Mindfulness" on 3rd and 4th May 2013 at Epicentre, Sector 44, Gurgaon. The event was jointly supported by Max Health Care and Godrej Interio in alliance with SOIL (School of Inspired Leadership). The event saw the gracious presence of Mr. Rajat Mehta, Convention Chair & Chief Operating Officer, Max Life Insurance Company Ltd, Mr. Anil Shachdev, Chairman, CII National Committee on HR & CEO of SOIL, Mr. Rahul Khosla Managing Director, Max India, *Dr. Shubro Sen*, Director, Tata Management Training Centre and *Swami Nikhilananda ji*, Regional Head, Chinmaya and many others.



Mr. Anil Sachdev discussing on "Integration of 5 values in leadership"



Dr. P. Nand Kumar speaking on "Sharing the key insights ethics in Leadership"

### Technology Vision : Camera With No Lens :

Bell Labs, New Jersey has built a camera that has no lens. The camera uses a LCD array, a photoelectric sensor and a computer to create always in-focus pictures. The architecture consists of two components, an aperture assembly and a sensor. No lens is used. The aperture assembly consists of a two dimensional array of aperture elements. The transmittance of each detection element. The proposed architecture is simple and reliable because no lens is used. The architecture can be used for capturing images of visible and other spectra such as infrared, or millimeter waves, in surveillance applications for detecting anomalies or extracting features such as speed of moving objects. Multiple sensors may be used with a single aperture assembly to capture multi-view images simultaneously.



The new camera has three main components: an LCD array that allows light to pass through, a RGB photoelectric sensor, and a computer to control the LCD and to process the data that is received from the sensor. To create an image, the LCD array is placed between an object to be "photographed" and the single pixel sensor. The computer sends signals to the LCD causing some of the crystals in the LCD to allow light to pass through. The crystals in the LCD are chosen by a random number generator. The end result is an LCD panel with a speckled pattern. The photoelectric sensor then captures the light that is allowed to pass through the LCD panel and sends the data to the computer. To create a single picture, multiple image-captures are taken with different random patterns generated on the LCD panel. The data from all of the image-captures is processed afterwards and the result is a single photographthe more image-captures taken, the higher the resolution of the final product.

Ms. Sanya Hameja (Roll No. 14486)

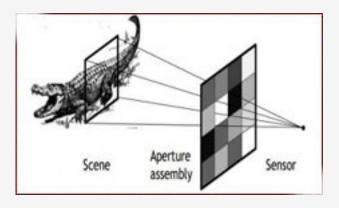




Figure: Top - Lab setup, Bottom - LCD screen and the sensor board with two sensors

#### Publication of Research Papers by Students:

Students of Information Technology department are actively engaged in getting their research papers published through a number of Conferences, Seminars and various National and International journals of repute.

- Mr. Nayan Kumar Singh and Ms. Kajal kanika published a research paper titled "A Holographic Locking System having Sensor" on Feb 2013 issue in International Journal of Computer Science And Management Research.
- Ms. Megha Aggrwal published a research paper titled "Green Computing" on Feb 2013 issue in International Journal of Computer Science, Engineering and Applications.
- Ms. A. Yeshvini, Ms. Komal Luthra and Ms. Kanika Arora published a research paper titled "Cancer Therapies using Nanobots" on Feb 2013 issue in International Journal of Computer Science And Management Research.
- 🕨 Ms. Priya Trivedi and Ms. Stuti Garg published a research paper titled "Cloud Computing" on Feb 2013 issue in International Journal of Engineering and Computer Science.
- Mr. Surya Mani Sharma published a research paper titled "Sonic Radar" on Feb 2013 issue in International Journal of Application or Innovation in Engineering & Management.
- Ms. Shailia Yadav and Ms. Sanya published a research paper titled "Green Computing: A Natural Impact on Computer" on March 2013 issue in in Asian Academic Research.
- Ms. Komal Luthra, Ms. Kanika Arora, Ms. A. Yeshvini and Mr. Mohit Mehinderrata published a research paper titled "Data Centre Networking Architecture" on Feb 2013 issue in in International Journal of Computer Science And Management Research.
- 📭 Ms. Ayeshvini and Ms. Komal Luthra published a research paper titled "Time Travel and cosmos" on March 2013 issue in in International Research Journal of Computer Science Engineering and Applications.
- Ms. Kanika Arora, Ms. Komal Luthra, Ms. A. Yeshvini and Mr. Sandeep yadav published a research paper titled "Arming Your security operation centre with right technology" on March 2013 issue in International Journal of Electronic Government Research.
- Mr. Surva Mani Sharma published a research paper titled "Multi Functional Autonomous Robotic System(MARS)" on April 2013 issue in International Journal of Innovative Science and Modern Engineering.
- Mr. Surya Mani Sharma published a research paper titled "Unmanned Ariel Vehicle" on April 2013 issue in International Journal of Innovative Science and Modern Engineering.
- Ms. Shefali Jain, Ms. Sonia Tiwari, Ms. Smita Bhardwaj published a research paper titled "Study on future of Artificial Intelligence" on April 2013 issue in International Journal of Scientific and Engineering Research.

#### Placement:

The Placement department of Dronacharya College of engineering very hard for students career development and placements. The department conducts personality development program, mock interviews, aptitude preparation and group discussion programs on regular basis. The Placement and Training Cell conducts training programmes to prepare the students to face the recruitment process and to meet the needs of the industry. The department of Information technology also conducts customized program for Technical Aptitude, Group Discussion and Interview preparation as per the requirement of the company visiting the campus.

S. No.	Name	Roll No.	Branch	Company	Designation	Salary
1.	Ankit Arora	12336	IT	Group Concorde	Trainee	2 LPA
2.	Ankit Arora	12336	IT	Leeway Hertz	Trainee	2.2 LPA
3.	Deepak	12344	IT	Archer Business Solution Pvt. Ltd.	IT support engineer	2.4 LPA
4.	Dushyant Yadav	12347	IT	Asta Tech. Services Pvt. Ltd.	Network Analyst	2.2 LPA

S. No.	Name	Roll No.	Branch	Company	Designation	Salary
5.	Ira Arora	12351	ΙΤ	NIIT Ltd.	Setup Configuration Specialist	2.8 LPA
6.	Mayank	12355	ΙΤ	Criescer Enterprises Pvt. Ltd.	IT support engineer	2.2 LPA
7.	Monica Bansal	12358	IT	Zycus INC	GET	3.85 LPA
8.	Neetu Choudhary	12367	ΙΤ	Vivaki India	Search Analyst	2 LPA
9.	Prashant Kumar	12370	ΙΤ	Revert Technology Pvt. Ltd.	Trainee	1.5 LPA
10.	Rohit Goel	12378	ΙΤ	Wapmerr India	Associate Software Engineer	2.5 LPA
11.	Sandeep Singh	12380	IT	Revert Technology Pvt. Ltd.	Trainee	1.5 LPA
12.	Shivangi Mudgil	12385	ΙΤ	NIIT Ltd.	Trainee	1.5 LPA
13.	Subodh Kant Pandey	12386	IT	Cogniscient Business Solutions Pvt. Ltd.	SQL Developer	1.5 LPA
14.	Sugandh	12387	IT	NIIT Ltd.	Trainee	1.5 LPA
15.	Sweta Tanwar	12391	ΙΤ	Revert Technology Pvt. Ltd.	Trainee	1.5 LPA
16.	Yograj Soni	12399	IT	BluEnt e Solutions (P) Ltd.	Trainee	1.07 LPA

# University Merit Holders :

Students of Information Technology department are committed to give the best result in the university examinations. The department has got the maximum merits in the academic year 2012 in the entire university. Eight students of IT department have placed themselves in the merit list of **Aug-Dec 2012**.

Roll No.	Name	Semester	University Rank	Photograph
14486	Sanya Harneja	III Semester	01st	
14461	Pervinder Kaur	III Semester	07th	

Roll No.	Name	Semester	University Rank	Photograph
14490	Shikha	III Semester	11th	
14402	Aastha Kapoor	III Semester	13th	
14497	Shweta Kharbanda	III Semester	15th	
13452	Ritu Aparna	V Semester	06th	
12358	Monika Bansal	VII Semester	02nd	
12385	Shivangi Mudgil	VII Semester	08th	



#### FACE CUM VOICE RECOGNITION:

Face recognition technology is the least intrusive and fastest biometric technology. It works with the most obvious individual identifier i.e. Human Face. Facial Recognition analyzes the characteristics of a person's face images input through a digital video camera. It measures the overall facial structure, including distances between eyes, nose & mouth and jaw edges. These measurements are retained in a database and used for comparisons when a user stands before the camera. This biometric has been widely and perhaps wildly, touted as a fantastic system for recognizing potential threats. (Whether terrorist, scam artist or known criminal) but so far has been unproven in high-level usage. It is currently used only in verification systems with a good deal of success.

Every face has numerous, distinguishable landmarks and the different peaks and valleys-that make up one's facial characteristics unique. Each human face has approximately 80 nodal points. Some of these features measured by the Facial Recognition Technology include distance between the eyes, width of the nose, depth of the eye sockets, shape of the cheekbones and length of the jaw line etc.

Project guide: Ms. Nidhi Jindal

#### **Team Members:**



Isha Malhotra (Roll No. 13420)



Komal Sharma (Roll No. 13426)



Menu Yadav (Roll No. 13430)



Molisha Mehra (Roll No. 13435)

#### REALITY-MINING OF MOUTH SPREAD & EMERGENCY RESPONSE SYSTEM:

This model uses the existing reality mining techniques with amendment to form a better emergency response system that eliminates the manual knowledge base technique. It provides better solution for data-loss flaw in the current sensors. Our multi-level approach defines clique and most influential person in the clique. We propose best way of information transfer in emergency conditions. It provides proper rehabilitation methods and best way to test vaccination. On our other application we proposed incorporation of this model in government scheme distribution system for increasing its efficiency and credibility.

#### Sociometric-Badges (Cell Phones)

Most of the cellphones offer number of position based sensors like GPS, network location provider, Wi-Fi and Bluetooth. Among these GPS and data from network location provider can be used for locating the place and other position based sensors like Wi-Fi and Bluetooth for detecting face-to-face interaction. Motion based sensors like Gravity, Linear Acceleration, Orientation Sensors, Gyroscope, Rotation Vector and activity sensor. To gather the above information efficiently we are using "Fun framework" developed in MIT Media Lab.

This is an android based framework and is easily available for modification and further research. Funf provides us easy application-building system to collect mobile based communication traces. This is used at client-end and transfers data to the

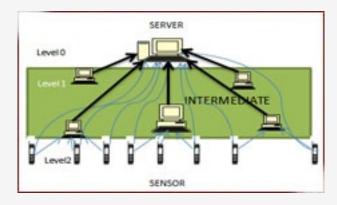


Fig: Multi-level architecture, Server; intermediate and sensor

Project guide: Ms. Maneela Tuteja

Team Member:



Deepak Vashisth (Roll No. 14413)

#### Student's Viewpoint:

"Dream, Dream Dream.....Dreams transform into thoughts, and thoughts result in action."

These thoughts of A. P. J. Abdul Kalam came to the realization when I became a part of Information Technology Department of *Dronacharya College Of Engineering*. The faculty members always inspire us to enhance our knowledge and skills. They not only try to uplift our educational skills but also provide us with favorable opportunities. I am thankful for all this support, encouragement and guidelines.



Ritu Aparna (Roll No. 13452) VI SEM



The faculty and staff members along with our **HOD Sir, Prof. (Dr.) Jitender Kumar** are concerned about the intellectual as well as extra curricular activities of the students. They make us aware of every new computing technique and also provide us knowledge about every seminar workshop and event which we should participate in. It is only because of their such a great hard work that students are getting overwhelming results and the huge no of merits in the University. Our Faculty members are always ready to help all the students in every way they can. I am proud to be a student of IT DEPARTMENT.



Jyoti Hazrati (Roll No. 14434) IV SEM

It's my honour to speak about my IT department. The department is very known by its name, hardworking students and cooperative faculty members. It creates many technocrats every year with great skills and technology that plays very important role in our country's development. IT department always comes with many innovative ideas to raise the graph of our college. Our department provides the best faculty staff with great experiences and provides 99% result this year. It couldn't be possible without the persistent, guidance, support, determination of the staff member of IT department. I am very lucky to be a member of **Dronacharya College** and of course under the guidance of our Honorable Principal (**Prof. (Dr.) B. M. K. Prasad).** 



Ms. Kavita Rawat (Roll No. 14438) IV SEM

## Education is the power to think clearly, the power to act well in the world's work, and the power to appreciate life."

I am really glad to be associated with the Department of Information Technology at **Dronacharya College of Engineering**. Information Technology Department is been counted amongst the best department of **Dronacharya College of Engineering**. Under the guidance and support of our respected HOD Sir, **Prof. (Dr.) Jitender Kumar**, the department has achieved lot of success and excellence in past few years. The objective and aim is to equip students with the fundamental knowledge, interdisciplinary problem solving skills and to groom them as World Class Technocrats. At the end I would like to say ......IT ROCKS!!!!!



Deepak Vashisth (Roll No. 14413) IV SEM