



Dronacharya College of Engineering

ISSUE

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Information Technology

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From Editor's Desk :

With the advent of **New Year 2011**, we are entering into a new world of technological research and development. The global economic order, the rapid rate of technological advancement, the information revolution, all have opened multifaceted challenges as well as opportunities for the engineers of this millennium. At **Dronacharya College of Engineering**, we are deeply conscious of the challenges and responsibilities which the present world order represents. Ability to envisage, innovate and adapt to every challenge and latest technology is going to be the forte of this age. We are committed to produce engineers who are innovative, creative and capable of evolving solution, which are cost effective for various applications in business, industry and organization.



We are continuously putting our efforts to assist meritorious, under privileged students and enable them to participate in various opportunities which can uplift their quality of career and life. The team of high qualified and well-experienced faculty members moulds and mentors the students for prospective careers. No efforts are being spared to bring this college on the world map among the top engineering colleges.

We are happy to place on record that our students make us proud by securing university ranks and better ratio of placement.

As part of co-curricular and extra-curricular activities, we conduct national and inter-collegiate level seminars, workshops; encourage students to participate in technical paper presentation contests, sports meet etc to make them professionally competent.

I wish a very warm and prosperous new year and assure you all that our DCE has been carved out and erected for taking a pride of place in today's and tomorrow's globalized ethos of engineering.

Editor, (Dr. Sunil K. Mishra)

From HOD's Desk :

**"Imagination is more important than knowledge.
Knowledge is limited; imagination encircles the world."**

At **Dronacharya**, we strive to maintain an environment that encourages scholarly inquiry, research, a spirit of creative independence and a deep commitment to academic excellence. To make our students professionally competent we provide innovative, qualitative technical education that helps students to enhance their knowledge and boost their confidence. To increase the technical competence in our students the department also organizes personality development classes, technical quizzes, seminars, conferences and workshops. Our department has played a vital role in signing **MOU with IBM** for overall development of our students in all spheres. The department has also been instrumental in signing **MOU with i3India**.



Our students showed their creative thinking, organizing skills and decision making ability by organizing a four- day **(from 27 to 30th Oct 2010)** event "**Expedition 2010**", which was a grand success. In **Expedition**, i3India conducted a two- day workshop on latest Web technology **JOOMLA**, where students showed keen interest in developing a smart and excellent website within a very short span of time. On the 3rd day students and faculty members exchanged their views on various new technologies and ideas in "**National Seminar on Emerging Trends in Information Technology (NSETIT)**" on **30 Oct 2010**. The highlight of the event was "**Metamorphosis Journey from initiation to perfection**" in which COOs, CEOs and eminent experts from various industries guided students about the placement processes, demand in IT industry and the tips to crack any placement process. Highlight of Metamorphosis was the interaction of our alumni with the students. **Alumni** working at various prestigious positions in different MNCs like IBM, TCS, Patni Computers, Octane etc shared their experiences with students and also told them how to become successful and further raise the name of **Dronacharya** in all arena.

The department has a very attractive history of producing the maximum number of university toppers and of excellent placements. Our endeavor is not only to maintain this position but also keep on improving. We are proud to be engaged in building a magnificent edifice in the life of each and every students of IT department. Besides imparting technical education, we also strive to nurture the physical, mental, emotional and social aspects of our students' personality. The credit of scintillating success in placement and large number of Merits goes to the **sterling students**, the **dedicated faculty members** who work in utmost coordination, **motivation from our management**, guidance from our **Honorable Principal & Dean Academics**.

I wish all the students BEST OF LUCK for the university examination. I will also like to wish every Dronacharyan a very happy and prosperous 2011.

"Success is simple. Do what is right, the right way, at the right time"

Head of Department, (Dr. Jitender Kumar)

Major Events :

Expedition 2010

The **department of IT** organized a four-day program **Expedition 2010** from **27th Oct 2010 to 30th Oct 2010**, which included

- a) Web-Whip b) NSETIT c) Metamorphosis

Web-Whip:

The department organized a program called **Web-Whip**. A workshop on web technology and Web CMS : Joomla on **27th Oct and 28th Oct 2010**. The workshop included website planning, Joomla features basics of web development, JOOMLA installation and administration. Most of the students participated and developed a website of various domains. The best website developer team got domain name registration and Web hosting package free for one year from i3indya technologies.

NSETIT:

The department organized a **National seminar on Emerging trends in Information Technology (NSETIT-2010)** on **29th Oct 2010**. It is the premier forum for the presentation of technological advances and research results in the fields of information technology. Various faculty members along with the students participated in the seminar which included various research topics like Cloud Computing, SOA, Web Crawler, Web Spoofing etc. The purpose of this seminar was to share and Nurture the seeds of ideas on the broad range of areas related with information technologies.

Metamorphosis:

This event organized by **IT department** on **30th Oct 2010**, focused on transforming the young individuals into successful professionals. In the current industrial scenario where successful professional career demands an outstanding individual with the culmination of qualities like leadership, confidence, and competency, a proficient intelligentsia from various institution, faculty members and alumni proved to be a guiding force for our students.



Respected Principal, DCE, addressing the gathering



A participant, Mr. V. Hooda getting a certificate



Principal honoring the guest with a memento



An alumna, DCE discussing with students

Placement :

Dronacharya College of Engineering is a renowned name for 100% campus placements in different MNCs. We are proud to share the list of some of the students of IT Department placed in the year 2010:

S.No	Student Name	Roll No.	Company Name
1	Abhinav Semality	9274	3 a Mobile
2	Ruchird Shukul	9314	3 a Mobile
3	Vibhuti Kohli	9330	3 a Mobile
4	Avinash Dhingra	9219	Accenture Technologies
5	Bhawana Gera	9282	Accenture Technologies
6	Deepak Gupta	9284	Accenture Technologies
7	Ishita Khattar	9291	Accenture Technologies
8	Rahul Malik	9310	Accenture Technologies

S.No	Student Name	Roll No.	Company Name
9	Renu Kumari	9312	Accenture Technologies
10	Sakshi Chopra	9316	Accenture Technologies
11	Tanya Malhotra	9327	Accenture Technologies
12	Kanchan Nagpal	9293	Accenture Technologies, IBM
13	Richa Mehta	9313	Accenture Technologies, IBM
14	Mahesh Kumar	9296	Amdocs
15	Ishita Khattar	9291	Bhagatdeep Software P. Ltd.
16	Abhimanyu Chaddha	9281	HCL
17	Kshitiz Kharbanda	9294	HCL
18	Nishi	9305	Hewitt Associates
19	Hemant Kumar Bajaj	9289	Hewitt Associates
20	Jatin Mukhija	9291	Hewitt Associates
21	Kshitiz Kharbanda	9294	Hewitt Associates
22	Neetu Sharma	9304	Hewitt Associates
23	Deepak Kumar	9283	Hewitt Associates
24	Saurabh Kumar Singh	9324	Hewitt Associates
25	Geetika Rajpal	9287	IBM
26	Nitika Sharma	9306	IBM
27	Garima Ahuja	9286	Inter Globe Technologies
28	Nupur Talwar	9308	Inter Globe Technologies
29	Nishi	9305	IT Global Software
30	Shweta Pal	9322	IT Global Software
31	Kshitiz Kharbanda	9294	Mahindra Satyam
32	Tanya Malhotra	9327	OATI
33	Yamini Tyagi	9333	Rave Technologies
34	Kshitiz Kharbanda	9294	TCS
35	Utsav Mishra	9328	TCS
36	Apurva Dhingra	9278	Think Future Technologies

Live Project Undertaken by Students :

Feel The Digital World

"**FEEL THE DIGITAL WORLD**" is a project inspired by **Pranav Mistry's Sixth Sense** which aims at bridging the gap between the intangible digital information and the tangible world.

We've evolved over millions of years to sense the world around us. When we encounter something, someone or some place, we use our five natural senses to perceive information about it; that information helps us make decisions and choose the right actions to take. But arguably, the most useful information that can help us make the right decision is not naturally perceivable with our five senses, namely the data, information and knowledge that mankind has accumulated about everything and which is increasingly all available online. Although the miniaturization of computing devices allows us to carry computers in our pockets, keeping us continually connected to the digital world, there is no link between our digital devices and our interactions with the physical world. Information is confined traditionally on paper or digitally on a screen. The project bridges this gap, bringing intangible, digital information out into the tangible world, and allowing us to interact with this information via natural hand gestures.

The Software intends to implement a gestural camera that takes photos of the scene the user is looking at by detecting the 'framing' gesture. The main objective of this project is to ensure that the camera recognizes and tracks user's hand gestures and physical objects using computer-vision based techniques. The software program processes the video stream data captured by the camera and tracks the locations of the colored markers (visual tracking fiducially) at the tip of the user's fingers using simple computer-vision techniques or motion detection.

Project Guide

Ms. Maneela Tuteja

Team



Karan Kharb
(Roll No.10361)



Kumud Bhardwaj
(Roll No. 10363)



Manoj Kumar
(Roll No.10364)

Spy Car

The main objective of the project is to develop and provide the new technological system of security. It is used within the geographical areas and specific boundaries.

The **SPY CAR** containing a web - cam which is hidden part of the car that gives us the exact location of our device. As we want to track the path and record the video of this we can easily use the SPY CAR. With the help of the SPY CAR we can take the snap shots of the location and also derive the information related to the area in which our car is roaming. The web cam that we attached on the car is 360 degree revolving which is easier for us to track the things that we want.

Project Guide

▣ Mrs. Hema R.

Team



Ashu Gautam
(Roll No.10349)



Ahish Yadav
(Roll No. 10348)



Birender Singh
(Roll No.10351)

MCWC: My City Without Crime

MCWC is the next generation police and law enforcement reporting tools, and setting up intelligence platforms that agencies use to take incoming incident reports, lessen live employee resources and allow these enforcement agencies to reallocate resources to much needed community. The purpose of this project is to help those who protect us by their services.

The important aspects of the MCWC include:

- ▣ Making a virtual police station to avoid hard data maintenance and provide fast services.
- ▣ Citizens can make complaint by filling complaint form about missing persons, valuables or any theft.
- ▣ Maintains history of the employee's right from the date of join to his retirement. Also the Retired employee record is maintained.
- ▣ Track profile of all the employees, citizens.
- ▣ Confirmation link is sent to the new user and employee when signing up.
- ▣ Java client facility for working officers.
- ▣ Chat facility is available for working officers.
- ▣ FAQ section is also included for users benefit.
- ▣ Cooperation with prison management, traffic police and court.
- ▣ 24*7 availability.

Project Guide

▣ Ms. Maneela Tuteja

Team



Nitesh Punia
(Roll No.10368)



Neeraj Kumar
(Roll No. 10366)

Technology Focus :

3-D Technology

There are a lot of ways to achieve a 3D display. Most of them are based on a simple principal - display a different image to each eye, and so create the illusion of a 3D image (this is called stereoscopy). Stereoscopic 3D is the 'classic' way to make 3D, actually invented in the 1830s. The idea is to provide a different image to the left and right eye and use special spectacles that make sure that each eye gets the right image. This can be done using color-separation, polarization or fancier active-shutter LCD technology. A 3D display is a screen that shows a three dimensional picture.



Sonia Goyat
(Roll No.10386)

A 3D picture makes for a more interesting and real viewing experience. 3D displays also have practical usages in medicine and other fields.

Background

Probably the easiest way to make 3D images is to separate the right and left image using colors. The image has two color "layers", and you separate the layers using glasses that have blue/red lenses. This is called **Anaglyph 3D**. A better technique uses polarized lenses. Again, you display two images, each using a different polarization, and the glasses filter the image for each eye. This technique (used in Disney World and Universal Studios for example, using two synchronized projectors) allows full-color viewing.

Active 3 D Glasses

The new breed of 3D TVs and projectors make use of a simple idea - you display images for the left and right eye alternatively - once the image for the left eye, and once for the right. Now all you have to do is wear glasses that block each eye in sync with the display, and you get 3D. Active Shutter 3D glasses main advantage is that the image looks great - just as they look in 2D on the same display. If you refresh the screen fast enough, it also feels good and there are much less headaches and nausea than with polarizing glasses. Active-3D is very costly, though. The display must refresh the screen fast enough - at least 60Hz for each eye, which means 120Hz for the display itself. The glasses are also expensive - they have to include 2 LCDs, and batteries. And you also has to synchronize the display to the glasses (usually using Infra-red).

NO - 3 D Glasses (Auto - Stereoscopy)

Auto-Stereoscopic displays display different pixels to each eye, using optics (lenses or barriers) to direct the correct pixels to each eye. The nice part is that you don't need to wear any glasses to experience the 3D image! But there are many problems with these new kinds of technologies. Basically there is just one location you can be in order to view the 3D correctly (just one viewpoint). You can add more viewpoints, but each viewpoint actually requires two 'dedicated display'. This means that if you want 10 places from which you can view the 3D, you need to be able to produce 20 sets of displays - that's a lot of pixels. Another issue is that the display is always in 3D. You can't view a 2D image. There are some solutions to that, too (for example Sharp is using 2 sets of LCD layers - one for 3D and one for 2D, and you can turn off the one you do not want to use).

Volumetric Displays : Real 3 D Image

The most straightforward way to create a 3D display is to actually creating it in 3D. These are called volumetric displays, and scientists are working on all sorts of way to create them, which usually involves lasers and rotating or vibrating mirrors. A couple of years ago researchers create a volumetric display using a mirror that is rotating very fast, and a projector that projects an image on it... this creates a 3D image that you can view all around (360 degrees).

3 D Cameras

Obviously, you have to shoot content in 3D if you want to view it in a 3D TV (although there is technology that takes a 2D film and turns it into 3D). Basically you have to shoot the same scene from 2 cameras, and make sure that they are in sync and have a fixed distance between them. Several companies are working on professional 3D movie cameras that have 2 lenses built-in in the same camera, which obviously makes everything easier. Back in **2009 Fujifilm** released the first **'home'** digital camera that can shoot photos in 3D.

Student's Viewpoint :

"Dronacharyans - Expect nothing less than perfection from us"

Information technology is the use of electronic computers and computer software to convert, store, protect process, transmit, and securely retrieve information. IT includes 3 things- First is to understand the level of IT as the value process in the organization, second is to take IT as a business morale and third thing is to understand IT as a level for building network organizations emphasizing the idea of interactivity and innovation. Dronacharya College of Engineering is focusing on rendering data and information in visual format. The Department of IT had organized the technical events like WEB WHIP which helped students to learn a technology named "Joomla" and METAMORPHOSIS - initiation to perfection in which the alumni's and HR's were called from various companies which gave the students the spirit to interact with the dignitaries and solve their queries. This helped the students to pursue the information and ballooned to encompass many aspects of computing and technology. Hence I would like to call a halt by saying **"IT ROCKS"**.



Shefali Singh (Roll No. 11387)

The IT department of **Dronacharya College of Engineering** is one of the best departments in this campus providing highly technology-oriented training to the young talented minds. The department has an intellectual framework, which is an endearing mix of old and new, traditional and modern. The department constitutes of highly qualified, experienced and dedicated teaching faculty members. All the faculty members are highly professional and inspire the students to follow their footsteps. Their wide range of knowledge helps the students to take on any problem related to the computer science or information technology fields wherein new technologies are being invented every second, unraveling new vistas and extending the horizons of knowledge with every passing day.



The students of IT department have wings, wings of independence to help them explore their own self and beyond. With the right mix of creative talents, use of innovative technologies and strong relationships with various industries, the Department delivers quality methods of teaching that help students enhance their knowledge, understand the importance of being leaders in the area of their interest and provide them with an unbeatable edge to success in today's demanding work place and global market. The opportunities provided here give the students the confidence to face the outside world. All the best possible efforts are made to make sure that students get best quality education. As a result our students to achieve their target of entering into big business houses or heading for esteemed Institutions in the country and to the foreign shores for higher studies.

Ankita Aggarwal (Roll No.10340)

The department of Information Technology is renowned for cutting-edge research and for imparting state of art education. We believe in achieving excellence by striving thoroughly for it. We strongly conceive lines **"Expect nothing less than perfection"**.

Our department has always taken initiative to provide practical knowledge to students. Recently held **"Expedition 2010"** was a huge success.

Our students are well placed in various software industries like Infosys, HCL, TCS, and Accenture. The primary moto of our department is to produce competitive quality engineers. To achieve the same strong emphasis is laid on fundamentals of IT and students undergo regular practical training & various workshops are held from time to time. Experts from various industries & alumni placed in premier institutes come and motivate our students.



Neha Pandita (Roll No.11368)

We are hypersensitive to social issues which concern our region as well as state and mankind in general. At DCE, a girl student is viewed with admiration, compassion and commiseration. Top fifteen girl students are given a straight waive off in yearly tuition fee based on Merit. Welfare of the students happens to be pious priority and primary objective of our college.

I am proud to be a Dronacharyan.



Aakanksha Vats (Roll No.10335)