DTU TIMES

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SUMMARY

"Celebrating 71 Years of Excellence"

SHEILA DIKSHIT
CHIEF MINISTER

सत्यमेव जयते

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MESSAGE

The Government of Delhi is committed towards development of Delhi as the Knowledge Capital of India. The initiative to reconstitute Delhi College of Engineering into Delhi Technology University is a major milestone to equip Delhi with world class education, research and innovation capabilities.

With its focus on interdisciplinary engineering and synergy between science and engineering the university continues to attract highly talented students for its UG and PG programs.

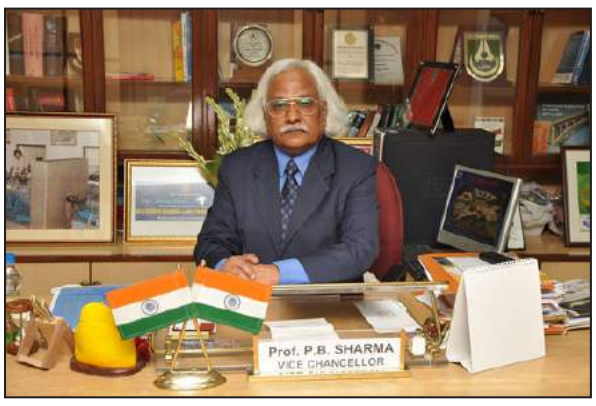
Its strong industry interface, excellent campus placements and international recognition of its innovations has earned DTU a high repute. With its 71 years of excellence in technical education and research DTU shall continue to march on the pathways of excellence and bring added glory to the nation in the years to come.

I extend my warm greetings to the students joining this world class institution in the 2012-13 academic sessions.

Sheila Dikshit

(SHEILA DIKSHIT)

From the Desk of Hon'ble Vice Chancellor, DTU



Let me begin by extending my warm greetings to all our stakeholders namely, the students, the present and past faculty and staff, our national and international collaborators, industry associates, our alumni, our well wishers in the society and our partners in progress of DTU on this momentous occasion of the 3rd Foundation Day of our rapidly advancing technological university.

Let me also at the same time acknowledge with gratitude the patronage and encouragement received from our mentors namely, the Visitor of DTU Her Excellency, the President of India Smt. Pratibha Devisingh Ji Patil, Hon'ble Lt. Governor and Chancellor of DTU Shri Tejendra Khanna Ji and Hon'ble Chief Minister of Delhi Smt. Sheila Dikshit Ji. On this momentous occasion we also acknowledge the support and cooperation of one and all who have helped us to build this institution to the eminence of

2 VC Address

high national and international acclaim and enabled us to march on the part of excellence during the illustrious journey of 71 years.

Delhi Technological University (since 2009), its predecessors Delhi College of Engineering (1965-2009) and Delhi Polytechnic (1941-1964) have provided to our nation and world at large some of the best and finest engineering and technology professionals who have led with distinction great enterprises and corporate houses in India and abroad, brought immense glory to their alma-mater while at the same time enhanced the pride of the profession of engineering by their distinguished services performed with utmost sincerity and commitment. The long list of distinguished alumni of this great institution which includes Vinod Dham, 1971 EC, The Designer of Pentium Chip, Raj Soin, 1969 Mech. Chairman, Soin International, Ohio, USA, K.L. Chugh, 1960 Mech, former CMD of ITC, Ajoy Choudhury, 1958 Architecture, Eminent Architect, Dr. Durga Das Agrawal, 1967 Mech. President and CEO, Piping Technology and Products, Houston, Prof. Bhuvenesh Goswami, 1959 Textile, Distinguished Alumni Professor, University of Clemson, USA, Prof. Yogi Goswami, 1969 Mech. Distinguished Professor of Solar Energy Technologies, University of Florida, USA, Yogesh Sud, 1969 Mech, NASA Gold Medalist Scientist, Surya Kant, Vice President and Head TCS America USA, A.K. Puri, 1975 Mech., Former CMD BHEL, A.K. Baweja, Former CMD, Hindustan Aero. Ltd., Sanjeev Ahuja, Former Chairman, Orange SA, Ashwani Kumar, CMD, Bharat Electronics Ltd., Anil Sardana, Managing Director, Tata Power Ltd., A.K. Purwaha, CMD, Engineers India Ltd., S.K. Vij, former Member Railway Board and President, Indian Building Congress, B.S. Duggal, former Director General of C.P.W.D., A.K. Khurana, Member Engineering, DDA, Satish Kumar Director Delhi Metro, Dr. Krishan Kumar Director(Technical) Maruti Udyog Ltd., Karnail Singh, IPS, DGP Mizoram Police, Arun Goyal, IAS, Minister of Commerce and Industry, Indian Embassy, Tokyo, Japan, Prof. Phanish Puranam, Professor at London Business School and many more, is a matter of great pride and honour for this mother institution of IIT Delhi, School of Planning and Architecture, College of Arts and it may not be wrong if we add to this premier league the famous Faculty of Management of Delhi University and Shri Ram College of Commerce, both having been nurtured by the initial genes from the then Delhi Polytechnic of Government of India at Kashmere Gate.

On this occasion when we embark on our academic session 2012-13 and celebrate 71 years of excellence of this great institution, let us get a renewed inspiration from our distinguished alumni and also from all those who have provided this institution the vital strength to stand among the tallest in the community of engineering institutions in India and have enabled us to earn a high recognition and repute abroad. And let this inspire us to march forward on the path of professional excellence and scale new frontiers of engineering & technology education & research in the years to come.

The illustrious march on the path of excellence of this premier institution began in 1941 at Kashmere Gate when the founding fathers of this great institution put together the concept of a model institution of higher learning in which engineering and technology excellence would flourish in a seamless environment of Arts and Sculpture, Town Planning and Architecture, Commerce and Management and Pure and Applied Sciences. Such was the conviction of the founding fathers that all these streams of learning and scholarship flourished under one roof, enriching a fuller understanding of engineering as a multifaceted discipline supported by a rich and profound understanding of humanities, social sciences, business and management and together serving the interest of the society and nation through Applied Engineering, Applied Arts, Planning and Management. It is also a matter of great satisfaction that the Delhi Polytechnic offered at that time engineering and technology programs of Certificate Level, Diploma Levels and the National Diploma equivalent to Degree levels, all from the same institution. Such a noble tradition is, however, today non-existent even in the best institutions of this country.

It is also a matter of great pride that the famous Delhi Polytechnic within the same campus had a Technical School to sensitize and nurture that vital engineering and technology instinct in its budding engineers while providing the thrill and excitement of India's rich and profound heritage, a legacy of excellence in design and town planning as was Kashmere Gate and the Old Delhi area then being the hub of India's great magnificence. No wonder, this institution produced some of the tallest personalities in engineering and technology, commerce and management, arts and sculpture and town planning and architecture. The only institution in the neighborhood at that time was the Thompson College of Engineering at Roorkee. Together these two institutions in the northern India were the torch bearers of India's excellence in engineering and technology education.

The transformation of Delhi College of Engineering into Delhi Technological University in 2009 through the Delhi Act 6 of 2009 marked a historic milestone in the march of this premier institution from strength to strength, nurturing excellence all along. This premier institution as a non-affiliating Teaching–cum–Research Technological University is equipped with the necessary academic and administrative autonomy which gave the opportunity to excel beyond the milestones of achievements already accomplished. During the last 3 years of functioning of DCE as DTU it has been our endeavour to ensure that the growth with quality becomes the guiding principle besides pursuing new frontiers of knowledge and innovations in emerging and new areas of engineering and technology. New Master's Programs in the area of Microwave and Optical Communication, Nano-Science and Technology, Bio-Informatics, Information Systems, Software Engineering, Geo-Tech Engineering and VLSI Design and Embedded System have been added, in addition to new Under Graduate programs in areas of Automobile Engineering, Electrical and Electronics Engineering, Software Engineering, Engineering Physics and lately Mathematics and Computing. Here again, the major focus has been on nurturing the vital synergy between science and engineering as also to foster inter-disciplinary and trans-departmental approaches. This has further enhanced our focus on industry-relevance and renewed our quest for excellence in an era of knowledge creation and innovations.

We have also established Delhi School of Management in DTU to nurture managerial excellence in a campus full of thrill and excitement of engineering and technology. The purpose here is to create a niche advantage in management education in areas of Technology Management, Knowledge and Innovation Management, Info-System Management and Supply Chain Management all requiring a technology temper and scientific bent of mind. The establishment of the Management School in the campus also equipped the institution with the necessary professional connect with the corporate and the world of business.

Well the year 2012-13 must be the year of professional enlightenment and hope for taking DTU to scale newer heights of glory by our distinguished contributions to education, research and innovations. This is also the year which shall provide a formidable thrust to the new infrastructure development for which planning has already taken place. During 2012-13 we wish to engage our faculty and students in a whole lot of activities to create the joy, thrill and excitement of engineering and technology and thus inspire them to serve the interest of the industry and community as also to support the growth of tomorrow's engineering.

"With its focus on industry relevance and its sustained quest for excellence, Delhi Technological University, DTU is marching ahead to become a global leader in engineering and technology education, research and innovations and we look forward to upsurge of the ever rising spirit of innovation and commitment to march on the pathways of excellence. Let me close by adding that "Pursuit of excellence demands unconditional commitment and fullest dedication while at the same time paying greatest attention to minutest details".

I invite the present generation of the students and members of the faculty of DTU to commit to creating engineering and technology excellence by their unconditional commitment and fullest dedication to their research and innovation activities and call upon them to engage in service of the society, the country and mankind at large.

Let DTU rise to pinnacle of glory by your deeds and actions and let the vision of the founding fathers of DTU be realised fully in coming years by DTU becoming a World Class University focussing on relevance led excellence and by leading the country in science and technology innovations and new product development.

Dated: 15.07.2012

Prof. P.B. Sharma
Vice Chancellor

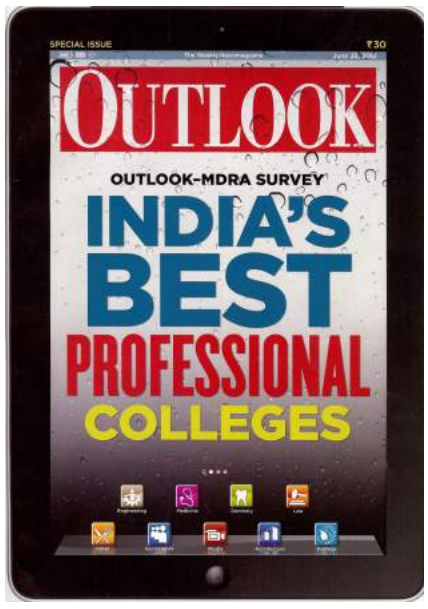
DTU ranks in top 10

DTU ranked 9th in Top 10 Engineering Institutions-MDRA Survey

Adding another feather to its cap, DTU has yet again been ranked among the top ten engineering institutions of the country including the IITs. Our university has been ranked ninth in the recent Outlook-MDRA Survey 2012 of '**Top 50 Engineering Colleges**'. In the same survey, our university stands at eighth position in the list of '**Top 10 Government Engineering Colleges which include IITs**'.

The eight institutions ahead of our university in this year's overall ranking include seven Indian Institutes of Technology (IITs) at Delhi, Kharagpur, Kanpur, Bombay, Madras, Guwahati and Varanasi, while the seventh institution is BITS Pilani. The survey also places our university at first position in the categories of 'Return on Investment', at fourth position in terms of 'Placements' and at second position in category of Top 3 Metro (Delhi & NCR). Our university has thus emerged as the best value for money for quality technical education and innovations as per the survey. This is all the more important as our university invests one fifth of the funds as compared to IITs. It may be added that highly talented students coming from various sections of society join DTU each year for pursuing high quality and industry relevant education here. The proactive support provided by the top leadership of our university under the able leadership of Prof. P.B. Sharma, Vice Chancellor and expert guidance provided by faculty members keeps the high tempo of students and enable them to pursue high quality research and innovation.

Feeling immensely happy over this ranking, Prof. P.B. Sharma, Vice Chancellor adds, "*Consequent*



upon becoming a technological University, the focus of erstwhile DCE has focussed on curriculum innovation, strong industry partnership and on seamless integration of science and engineering. Its research and innovations have been aligned to industry needs thus attracting the leading global brands to collaborate with DTU for cutting-edge research and development."

Conducted by well known media Group Outlook and research agency MDRA, the survey was undertaken to evaluate the status of educational institutions in the Country in varied professional fields like engineering, medical sciences, law, hotel management, dentistry, architecture, fashion technology etc. Detailed questionnaires were sent to over 1,400 colleges in the in nine streams: Engineering, Medicine, Dentistry, Social Work, Law, Hotel Management, Fashion Technology, Architecture and Mass Communication. The questionnaires, which were also put on the Outlook and MDRA websites, measured colleges on five key parameters. A panel of experts with reasonable experience in their fields was consulted to decide the parameters and sub-parameters for ranking and their importance. The same parameters and weightages were followed in years 2010, 2011 and also this year. Repeated follow-ups were undertaken to get responses from colleges. Given the quantum and quality of responses, seven streams—Engineering, Medicine, Dentistry, Social Work, Law, Architecture and Hotel Management—were found fit for objective analysis and evaluated on a combination of objective and perceptual data (with equal weightage).

RANKINGS

Top Engineering Colleges

The top 75 overall and the Top 10 breakdowns between govt and pvt colleges, zone and criteria wise

OUTLOOK, MDRA

Rank 2012	2011	Name of institute	P: Pvt G: Govt	City	Selection process (227)	Academic excellence (214)	Personality devt & ind interface (173)	Infrastructure (206)	Placement (180)	Overall score (1,000)
1	2	IIT	G	Delhi	207.4	196.7	154.2	189.3	167.3	914.9
2	1	IIT	G	Kharagpur	201.3	194.2	164.7	192.4	161.7	914.3
3	3	IIT	G	Bombay	206.9	191.6	145.1	196.8	167.2	907.6
4	4	IIT	G	Kanpur	197.4	197.8	152.3	190.0	166.4	903.9
5	5	IIT	G	Madras	202.9	193.6	141.7	196.7	163.7	898.6
6	7	IT, BHU	G	Varanasi	202.1	186.2	150.0	179.6	153.5	871.4
7	8	BITS	P	Pilani	191.8	178.1	159.8	191.3	149.9	870.9
8	NP	IIT	G	Guwahati	199.1	185.7	133.0	171.0	163.3	852.1
9	9	DTU	G	Delhi	198.9	165.3	137.0	177.6	165.2	844.0
10	10	NIT	G	Tiruchirapalli	185.3	174.5	138.3	179.2	163.2	840.3

Top 10 Engineering Colleges In Infrastructure & Facilities

Rank	Name of institute	City	Score (206)	Total score (1,000)
1	IIT	Bombay	196.8	907.6
2	IIT	Madras	196.7	898.6
3	IIT	Kharagpur	192.4	914.3
4	BITS	Pilani	191.3	870.9
5	IIT	Kanpur	190.0	903.9
6	IIT	Delhi	189.3	914.9
7	IT-BHU	Varanasi	179.6	871.4
8	NIT	Tiruchirapalli	179.2	840.3
9	BIT	Ranchi	179.1	813.8
10	DTU	Delhi	177.6	844.0

Top 10 Govt Colleges

Rank	Name of institute	City	Overall score
1	IIT	Delhi	914.9
2	IIT	Kharagpur	914.3
3	IIT	Bombay	907.6
4	IIT	Kanpur	903.9
5	IIT	Madras	898.6
6	IT-BHU	Varanasi	871.4
7	IIT	Guwahati	852.1
8	DTU	Delhi	844.0
9	NIT	Tiruchirapalli	840.3
10	ISMU	Dhanbad	833.7

Top 10 RoI In Govt Engineering Colleges

Rank	Name of institute	City	Average salary (in ₹ lakh)	Fee in ₹ lakh (entire course)	RoI
1	DTU	Delhi	5.50	0.96	5.73
2	ISMU	Dhanbad	6.14	1.26	4.89
3	IIT	Kharagpur	9.50	2.00	4.75
4	IIIT	Allahabad	8.00	2.00	4.00
5	NIT	Warangal	5.27	1.40	3.76
6	IIT	Guwahati	7.40	2.00	3.70
7	IIT	Bombay	7.00	2.00	3.50
8	NSIT	Delhi	6.47	1.92	3.37
9	IIT	Delhi	6.50	2.00	3.25
10	IIT	Madras	7.40	2.28	3.24

Top 10 Engineering Colleges In Selection Process

Rank	Name of institute	City	Score (227)	Total score (1,000)
1	IIT	Delhi	207.4	914.9
2	IIT	Bombay	206.9	907.6
3	IIT	Madras	202.9	898.6
4	IT-BHU	Varanasi	202.1	871.4
5	IIT	Kharagpur	201.3	914.3
6	IIT	Guwahati	199.1	852.1
7	DTU	Delhi	198.9	844.0
8	IIT	Kanpur	197.4	903.9
9	ISMU	Dhanbad	194.7	833.7
10	BITS	Pilani	191.8	870.9

Top 10 Engineering Colleges In Placement

Rank	Name of institute	City	Score (180)	Total score (1,000)
1	IIT	Delhi	167.3	914.9
2	IIT	Bombay	167.2	907.6
3	IIT	Kanpur	166.4	903.9
4	DTU	Delhi	165.2	844.0
5	IIT	Madras	163.7	898.6
6	IIT	Guwahati	163.3	852.1
7	NIT	Tiruchirapalli	163.2	840.3
8	IIIT	Hyderabad	163.0	823.0
9	IIT	Kharagpur	161.7	914.3
10	NIT	Warangal	159.9	799.6

UNMANNED AERIAL VEHICLE placed 3rd in 10th Annual SUAS Competition, USA

Delhi Technological University-Unmanned Aircraft System (DTU-UAS) has been placed overall 3rd after Cornell University and California State University, Northridge amongst 35 international teams at the 10th Annual SUAS competition organised by AUVSI 2012 in Maryland in June 2012. The team has been awarded

a trophy and a cash prize of $5100 did extremely well in all the mission, journal paper and oral presentation. The UAV team has achieved a fully autonomous take-off, autonomous waypoint navigation and search area with autonomous imagery as well. DTU-UAS defeated some of the biggies of the competition like North Carolina State University, Mississippi, University of Arizona, Kansas State etc. which had always been the top five teams.

The UAV is designed and developed by a student team from DTU. UAV can be used for persistent surveillance and reconnaissance survey over urban areas. The prototype UAV's test flight earlier this year was a success. Dr N.S. Raghava and Prof P.B. Sharma, Vice Chancellor, DTU are the mentors of UAV. UAV is led by a 11-member student team and Mr. Gaurav Gupta got funding support from Lockheed Martin in November 2009 after winning a US competition to design a small, next-generation. "This is designed for heavily populated cities like Delhi and Mumbai. It can be used to monitor the environment, and electromagnetic and building obstructions," explains Gaurav Gupta, team leader, DTU-UAS.

DTU Organises Flag off Ceremony of DTU FORMULA STUDENT CAR

The **DTU Formula Student Car** was flagged-off by Hon'ble Vice Chancellor, Prof. P.B Sharma in the presence of Deans and HODs on 4 July 2012 at the Delhi CM Residence. DTU Formula Student Car will be participating in the SAE International Competition being held at Silverstone, UK in 11th – 15th, July, 2012. The car has been innovatively designed and developed by an interdisciplinary Under Graduate Team of engineering students headed by Sh. Dipanshu Jain of Mechanical Engineering under the guidance of Faculty Advisor Sh. K. Srinivas, Assistant Professor, Deptt. of Mechanical Engineering. The Innovative features of the car include a single seater open cockpit open wheels racing car having minimal ground clearance least weight and is capable of achieving speed as high as 150 km/hr. This innovation has been sponsored by TATA Motors, Indian Oil, International Cars and Motors Ltd., SONA, Clutch Auto Ltd., autopsyche, KBX besides DTU.

92 Ph.D. Selections in DTU

With a view to significantly enhance the research capabilities in emerging areas of science and technology Delhi Technological University has selected 92 Ph.D. scholars for its Doctoral programs, 1 TRF and 3 Post Doctoral Fellows in its Engineering, Technology, Applied Sciences and Management Departments. The university has scored a near century for admissions to its PhD programs in various academic departments including Delhi School of Management. The selection has been made through a rigorous process involving screening test and interview before University Research Council. The University has received a record 1095 applications for admissions this year. The candidates have been selected on the basis of the screening test and interviews conducted by the University Research Committee. The University is offering 17 Full time Ph.D. Scholarships and also Teaching-cum-Research Fellowships alongside with Post Doctoral Fellowships to the highly deserving candidates. The selected candidates include candidates sponsored for Doctoral Research at our university from National Physical Laboratory, Samsung Electronics, Indian Institute of Petroleum, Dehradun with whom our university has MoU for collaboration on research and development.

"*The department wise PhD selections are 10 in Computer Engineering, 8 in Biotechnology, 13 in Applied Physics, 11 in Applied Chemistry, 3 Electronics and Communication, 3 in Civil Engineering, 8 in Environmental Engineering, 3 in Applied Mathematics, 9 in Electrical Engineering, 13 in Management, and 11 in Mechanical Engineering*," informs Dr. Ruchika Malhotra, co-coordinator for PhD Admissions 2012-13.

Our university has added to its faculty strength 90 new faculty members including 52 at the level of Assistant Professors and 38 at the level of Associate Professor and Professor. This way the total strength of faculty shall be crossing 300 at the beginning of academic session 2012-13.

Prof. P.B. Sharma, Honorable Vice Chancellor said, "*DTU lays a much greater emphasis on industry relevance research and has kept synergy between science and engineering as its major focus to create the scientific and technological manpower for the R&D organizations*".

Major areas for research at our university include Robotics and Machine Vision, VLSI Design and Embedded Systems, Microwave and Optical Communication, Nano Science and Technology, Software Engineering, Bio-Informatics, Computer Engineering, Advanced Mathematics, Engineering Physics, Clean Energy Technologies, Structural Engineering, New Generation Automobiles, Intelligent Power Systems, Info Security and Network Design and Polymer Science and Chemical Technology in addition to Supply Chain Management and Knowledge & Innovation Management.

India is attracting MNCs and leading global industries to establish R&D Centres in India and as such there is high demand for Doctoral Degree holders both for the teaching faculty in the universities and institutions of higher learning and also in the industries.

Online Admission 2012-13 for B.Tech program at DTU

Admissions to *15 B.Tech.* courses of Delhi Technological University (formerly Delhi College of Engineering) for the academic session 2012-13 will be made through online counseling on the basis of All India Ranks in AIEEE-2012. The candidates who have been declared eligible for central counseling by the CBSE and have secured 60% or more marks in the aggregate of Physics, Chemistry and Mathematics shall be eligible for admission. 85% of total seats will be available for the candidates from Delhi Region and remaining 15% seats will be for the candidates from outside Delhi Region. Other than reservation for SC, ST, OBC, persons with disabilities, children/widows of personnel of armed/paramilitary forces killed/disabled and Kashmiri Migrants. One seat over and above normal intake in each branch is earmarked reserved for Single Girl Child from Delhi Region. Total intake in 15 B. Tech. courses is 1531 for admission through AIEEE 2012 and 48 seats are available under NRI, FN (Foreign Nationals), and PIO (Person of Indian Origin) category.

Students seeking admission through AIEEE 2012 are required to download Bank Challan containing their particulars from DTU admission website www.dtuadmissions.nic.in. Bank Challan can be generated between June 13, 2012 to June 18, 2012. They can deposit Registration fee of Rs 1000 (plus Rs 30 as Bank charges) at any branch of SBI. After depositing registration fee, candidate can register online between June 20, 2012 to June 25, 2012. During this period candidate will first register on DTU admission website and create a login ID and password for this site. Now candidate can fill the application form and choices of branch online.

All candidates belonging to PD (Persons with Disabilities) category, who are registered, are required to appear before the Medical Board at Sanjay Gandhi Memorial Hospital S- Block, Mangolpuri, Delhi 110083 on 26.06.12 and 27.06.12 (any one day).

All CW candidates who are registered are required to appear before the Admission Committee, at Convocation Hall, DTU, Delhi on 26.06.2012 for their sub-category CW certificate verification. They should bring their AIEEE admit card, AIEEE Score card and CW subcategory certificate for required priority.

5% seats over and above the normal intake are earmarked for NRI/PIO/FN. Admissions for NRI/ FN (Foreign Nationals)/PIO (Person of Indian Origin) category candidates will also be made through online counseling. Candidates belonging to NRI/FN/PIO category who qualified SAT-II (Physics and Mathematics level -II) shall apply online during June 20, 2012 to June 25, 2012 and report DTU on June 27, 2012 for their eligibility and SAT-II score verification. They are not required to pay the registration fee of Rs. 1000/- through bank challan, instead they will pay it by a demand draft/ pay order on June 27, 2012 when they visit DTU.

Schedule for Online Counseling :

Opening of Web site and Registration Fee submission	13.06.2012 (Wednesday)
Closing of Registration Fee Submission	18.06.2012 (Monday)
Opening of Registration & Choice Filling (on line)	20.06.2012 (Wednesday)
Closing of Registration & Choice Filling (on line)	25.06.2012 (Monday)
Display of First list of admission	02.07.2012 (Monday)
Display of Second list for admission	10.07.2012 (Tuesday)
Display of Third list for admission	16.07.2012 (Monday)
PHYSICAL ATTENDANCE (As per schedule given on website)	20.07.2012 (Friday) & 21.07.2012 (Saturday)
Display of Fourth list for admission	24.07.2012 (Tuesday)
Display of Fifth list for admission	30.07.2012 (Monday)

All candidates who have not been allotted any seat till third round of counseling are required to report at DTU on 20.07.2012 & 21.07.2012 to mark their attendance for participating in remaining rounds of counseling. In case the candidate or his representative fails to report physically, he/she would not be eligible for the next round of the counseling in any case.

Sixth and Seventh round of online counseling will be done in August 2012 subject to availability of vacant seats.

Complete details for admission is available on the admission website " **http://dtuadmissions.nic.in** " .

Helpline numbers 9654456584, 9811364542 will be available for counseling help.

NOTE: Aspiring Candidates and their parents may be please note that all admissions in DTU, will be strictly made according to merit of AIEEE-2012. There is no discretionary quota in the university with any authority.

Highlighting the niche advantage of joining DTU, Vice Chancellor Prof. P.B. Sharma said, *"With its focus on industry relevance and strong interface of science and engineering, the DTU UG and PG programs are aimed at preparing the engineers of tomorrow. Our thrust is on quality of education and on culture of research and innovation right from UG onwards".*

Record Breaking Campus Placement

Our university has set an impeccable record of its campus placements for the academic session 2011-12. Google has offered a pay package of 1, 00,000 USD (55 Lakh INR) to Mr. Priyanshu Jain, fourth year student of Department of Computer Engineering. EPIC has offered Mr. Ajir Behari Gupta, Mr. Gaurav Kumar, Mr. Saikat K. Debnath, students of Department of Computer Engineering, DTU a pay package of 40 lakh INR. In addition to this, Mr. Saikat K. Debnath has also been offered a pay package of 20 Lakh INR from Google.

Priyanshu Jain

"*The companies which have visited the campus include Microsoft, Deloitte, Goldman Sachs, Directi, Texas Instruments, Indian Oil, Maruti, TCS, Mckinsey, Oracle, Engineers India Limited, NTPC, Wipro, Info Fidelity, Google, Adobe, and foreign companies such as Work Applications of Japan, EPIC of America*", informs Neeraj Nimwal, Placement Officer.

A major highlight of this year's placement is that the leading companies besides making job offers to the final year students are also offering paid internship to the 3rd year students. This shall further enhance the industry interface, prepare students for the technology challenges of the industries and in turn shall assure even better pre-placement jobs offers for the students.

Rejoicing at this Prof. P.B. Sharma, Vice Chancellor informs "*Our dream of transforming Delhi College of Engineering to Delhi Technological University has come true with the rise of esteem of our students in the eyes of world class industries and organizations. We are proud of Mr. Priyanshu, Mr. Ajay Behari Gupta, Mr. Gaurav Kumar, Mr. Saikat K. Debnath and Mr. Saikat K. Debnath students of Department of Computer Engineering and our faculty members who have shaped them to achieve such great heights.*"

DTU Students Excel on the Global Stage

Delhi Technological University students are scoring high percentiles in International Competitive examinations such as Graduate Management Admission Test (GMAT) and Graduate Record Examinations (GRE). **Dhruv Kumar** and **Himanshu Agarwal**, both final year students of Polymer Science & Chemical Technology, appeared in the GMAT and they have scored in the top 3 percentile (having a score of 740 out of 800). **Kumar Shaurya Shankar** student of Mechanical Engineering appeared in GRE and have scored in the top 1 percentile (having a score of 334 out of 340). Top international universities around the world use these test as a criterion for admission into the masters programs.

Aditya Krishna , student of Mechanical Engineering has been selected for MS program of **UC Berkley**, **Ankit Goila,** student of Mechanical engineering has been selected for MS program of **University of Michigan**, **Anurag Krishna**, student of Polymer Science & Chemical Technology has been selected for PhD program **of University of Auckland, Chaitanya Bhargava**, student of Mechanical Engineering has been selected for MS program of **University of Pennsylvania**, **Deepam Trivedi**, student of ECE has been selected for MS program of **North Carolina State University, Himanshu Agarwal** , student of Polymer Science & Chemical Technology has been selected for masters program of **Università Bocconi, Faisal Ahmed**, student of Civil Engineering has been selected for MS program of **Columbia University, Kumar Shaurya Shankar,** student of Mechanical Engineering has been selected for MS program of **University of Pennsylvania, Satyam Joshi**, student of Mechanical Engineering has been selected for MS program of **University of Purdue, Shubhasish Sasmal,** student of Mechanical Engineering has been selected for MS program of **University of Michigan, Siddharth Sagar**, student of Polymer Science & Chemical Technology has been selected for MS program of **University of Rochester and Vibhor Jain**, student of Mechanical Engineering has been selected for MS program of **Cass School of Business.**

"*The university has a strong focus on its educational and research programs. Our educational strategy provides for the troika of education, research and innovations right from Under Graduate education onwards. This way we equip our students with the wings of knowledge and power of innovation so much needed for excelling in the international arena*", informs Prof. P.B. Sharma, Vice Chancellor.

DTU Student awarded TCS BEST STUDENT AWARD

In a breakthrough step towards strengthening the academia-industry interface, our university has entered into a Memorandum of Understanding with Tata Consultancy Services (TCS). The MoU was exchanged between Prof. P.B. Sharma, Honorable Vice Chancellor and Dr K Kesavasamy, Head Academics Affairs, TCS. Speaking on the occasion, Prof. P.B. Sharma, Vice Chancellor remarked, "*One of the agenda of our university for year 2011-12 is to connect the world of academia to the world of industry so that together we can understand what new domains could be unleashed on the young minds.*" Dr. K Kesavasamy motivated the students to join professional societies so that dynamic education through technical reports, white papers and other professional activities could be imparted.

The occasion also saw the conferment of 'TCS Best Student Award' to **Ms. Shaily Jain** of Electrical Engineering branch. As a part of its 'Academic Interface Programme', TCS regularly bestows Best Student Awards to recognize and reward academic excellence among students.

The ceremony was attended by Mr. Rajat Sikka from TCS, Prof. S.K. Garg, Head of Training and Placement, faculty members and students of the university.

Dr. Ruchika Malhotra's Papers published in INTERNATIONAL JOURNALS

Dr. Ruchika Malhotra, Assistant Professor, Department of Software Engineering, wrote the following two papers which have been published in international journals of repute. We congratulate her on the success. Ruchika Malhotra and Ankita Jain, "**Fault Prediction Using Statistical and Machine Learning Methods for Improving Software Quality**", Journal of Information Processing, Vol. 8, No: 2, pp. 241~262, 2012.

Ruchika Malhotra and Megha Khanna, "**Investigation of relationship between object-oriented metrics and change proneness**", International Journal of Machine Learning and Cybernetics, Springer, 2012

Symposium on Concentrated Solar Power: Indo-Japan Joint Collaborative Research Project Organized

Our university organized the second symposium on Concentrated Solar Power: Indo-Japan Joint Collaborative Research Project, from 18th to 21st June, 2012. The Japanese delegation comprise of Prof. Kyoji Kunitomo, Dr. Hiroshi Kaneko & Mr. Mitsuo Nishio from Tokyo Institute of Technology, Mr. Kiyoshi Satake & Yoshinobu Kato from Tokyo Engineering, Tokyo and Mr. Hisaki Koseko, from Richo, Tokyo. The above Project collaboration intends to set up a 30 KW Cross Linear Concentrated Solar Power Plant at DTU and 1MW CSP Plant at Rajiv Gandhi Technological University, Bhopal.

The concentrated solar power holds a great promise for rapid expansion of solar energy in India as it serves the twin purpose of solar thermal energy as well as electric power. It is also highly suited for solar energy applications and for large size cold storage plants. The delegation has also visited Rajiv Gandhi Technical University, Bhopal where a national round table was been organized on Global energy technology, informs Dr. J.P. Kesari, Chief Solar Energy, Research and Development Coordinator.

According to Prof. P.B. Sharma, Honorable Vice Chancellor, "*The joint collaborative efforts between India and Japan with Tokyo Tech., Toyo Engineering, Richo of Japan and DTU, RGPV, SEC (MNRE) & Bergen Group of India is aimed at accelerating the development of cost effective and efficient CSPs to empower India with Solar Thermal & Solar Electric Power in plenty. The 2nd International Symposium on Concentrated Solar Power: Indo-Japan Joint Collaborative Research Project shall showcase the latest developments on CSP technology from Tokyo Tech. and its associated Japanese Industries and SEC, Bergen, RGPV and our university.*"

The Jawaharlal Nehru National Solar Mission of Govt. of India is making a strong headway towards deployment of solar power largely through grid connected Photo-voltaic (PV). The realization that Solar Energy is both the heat as well as light, it would be imperative to harness both the thermal as well as the Electric Power from Solar Power Plants of future to optimally utilize the Solar Energy. Concentrated Solar Power, CSP, has great potential for deployment of Solar Power in India to meet the twin requirement of Solar Refrigeration, Industrial Heat & Solar Air Conditioning on one hand and Solar Electricity on the other. It is highly cost effective when harnessed at large scale.

Solaris Rajpath Rally Organized

Our university organized 'DTU-Solaris Rajpath Rally' on 26 June 2012 at Rajpath. DTU-Solar Car and DTU-Solar Rickshaw were flagged-off by Prof. P.B. Sharma, Honorable Vice Chancellor. Our university is all set to participate in the South African Solar Challenge 2012 which is in September'12.

DTU-Solaris Avenir participated at the World Solar Challenge 2011 (WSC 2011) at Australia. 89 car teams had participated in this event and only 37 managed to reach Adelaide, starting from Darwin and completing 3000 km Journey. DTU-Solaris Avenir was recognized as World's Most Economic Solar Car at WSC 2011.

A highly innovative design, DTU Solar Car is capable of participating in the 3,000 km long Solar Car race from Darwin to Adelaide. The Solar Car is powered by Multi-crystalline Solar Cells with 16.66 % efficiency, capable of generating 1 KW of solar electricity. The vehicle is driven by high power Brush-less DC Hub motor especially designed for this purpose. The vehicle can attain the speed of 85 kmph on solar power itself. The Li-FePO4 batteries of 48V, rated at 40 Ampere hours provide the storage facility for this solar power driven vehicle. The MPPT charges the batteries from solar energy with an efficiency of 98%. It is equipped with front disk brakes and an efficient braking system that conserve energy even when the car stops. The steering supported with the aerodynamic design of the car provides for easy handling and reduced drag during driving. The efficient LED lighting system has been incorporated in the Solar Car to reduce energy losses and an indigenously designed Open Hardware based Vehicle Monitoring System has been incorporated to monitor the critical parameters including the display of the state of charge, GPS, Panel Output and it helps the driver to drive the car most efficiently. The South African Solar Challenge 2012 is the most prestigious event of its kind and attracts the world's best Technical Universities and Colleges to compete with their innovative designs of solar vehicles. One of the most exciting outcomes of the South African Solar Challenge 2012 is to identify the technologies that are likely to find their way into the production cars of tomorrow.

Prof. P.B. Sharma, Honourable Vice Chancellor said, "*with the increasing pressure of rising cost of crude oil, the automotive industry in India should turn towards innovative automobile solutions such as Solar Cars, Hybrid Vehicles and other such energy efficient vehicles in the near future*". DTU-Solar Car and DTU-Solar Rickshaw has been designed and developed by DTU Team Solaris comprising of an interdisciplinary group of Under-Graduates students headed by Shri. Dhiraj Mishra of Electronics and Communication Engineering Department and is supervised by Dr. J.P. Kesari, Associate Professor, Mechanical Engineering.

Salient features of DTU Solar Car:

• Multi-crystalline Solar Cells with 16.66 % efficiency provided by Indo-solar and encapsulated by Maharishi Solar Technologies, together they generate 1 KW.

• Driven by High power Brush-less DC Hub motor especially designed for this purpose, the vehicle can attain the speed of 85 kmph on solar power itself.

• The LifePO4 batteries of 48V, 40 Ah rated provides power in case the solar intensity fluctuates. The MPPT charges the batteries from solar energy with an efficiency of 98 %.

• Equipped with front disk brakes and an efficient braking system that conserve energy even when the car stops. The Steering supported with the aerodynamic design of the car supports the handling.

• Efficient LED lighting systems reduce energy loss and an indigenously designed Open Hardware based Vehicle Monitoring System that monitors and display the state of charge, GPS, Panel Output, helps the driver drive efficiently.

Salient features about STU-Solar Rickshaw:

• Eco-friendly Solar Rickshaw has speed upto 40km/hr.

• 300W Solar Panel used with Multi-crystalline PV solar cells.

• Range 20 km with one charge as battery back-up.

• 250 W Brushless Hub DC motor used along with a Nu-Vinci transmission that can carry load upto 325 kg

• Energy saving LED lights has been used for efficient utilization of power.

• Total development cost 1.2 lakhs and with mass production it may cost around 70,000.

MoU signed with Solar Energy Centre, Ministry of New and Renewable Energy

In a breakthrough step towards strengthening the academia-industry interface, our university has entered into a Memorandum of Understanding with Solar Energy Centre (SEC), Ministry of New and Renewable Energy, GoI. The MoU was signed by Prof. P.B. Sharma, Honorable Vice Chancellor and Dr. Bibek Bandyopadhyay, Advisor, Ministry of New and Renewable Energy (MNRE) in the presence of Secretary, Shri G.B Pradhan, Ministry of New and Renewable

Energy, Govt. of India and Joint Secretary, Shri Trun Kapoor, Ministry of New and Renewable Energy, Govt. of India today at the Office of Secretary, MNRE. Others present on the occasion included Prof. S. Maji, Dean (IRD), Dr. J.P Kesari, Associate Professor, Mechanical Engineering Department and Dr. Ruchika Malhotra, Assistant Professor, Computer Engineering and senior scientist of SEC.

The MoU broadly covers five areas of collaboration -- Joint M. Tech Thesis Supervision and Professional Courses for M. Tech registrants, Joint Ph.D. Program for MNRE scientists, Joint Research and Consultancy Projects by our faculty, Joint Refresher Courses for the Industry and Joint Conferences, Symposium and Workshops.

Shri G.B. Pradhan, Secretary, Ministry of New and Renewable Energy, while welcoming the initiative was of the view that ministry may explore the possibility of support for establishing full fledged academic department of renewable energy at our university to provide major boost to relevant R&D for renewable energy in India. Calling the collaboration between our university and SEC a "*partnership for research excellence"*, Prof. P.B. Sharma, Vice Chancellor said, "*This MoU is a stepping stone towards a long-term partnership between two premier organizations for solar energy R & D and product innovation*".

Under the MoU, Scientists in different fields of SEC will float M. Tech dissertation topics at the beginning of the odd semester; Special package of Practical courses for short duration of one-two week may be conducted at SEC to complement the theory courses in specialized area of Solar Energy. SEC scientists and our faculty are encouraged to apply for research funding from various agencies of the Govt. of India, Industries and abroad. The budget component of these project proposals should have provision for division of grants to these two organizations with their respective overheads. SEC scientists and the university's faculties are also encouraged to offer specialized crash courses to private and public sector personnel. The fee structure and such courses should be decided by the Joint Academic Interface Committee of SEC and our university

The MoU will be initially for a period of three

years and can be further renewed mutually. "*This collaboration is a golden opportunity for our students to garner research exposure and at the same time will enable employees of SEC to update their knowledge & skills*," added Dr. J.P Kesari, Associate Professor, Mechanical Engineering Department.

Delegation from Norwegian University of Science and Technology visits campus

A delegation from Norwegian University of Science and Technology (NTNU), Norway visited our university. The delegation consisted of Prof. Kjell J. Nilssen, Department of Biology, Faculty of Natural Sciences, NTNU along with 30 students of NTNU. The students were from various branches such as Biology, Environmental Sciences, Sociology, Ecology, Biotechnology, Medical Sciences and Behavioral sciences. The primary purpose of the visit was to explore the different activities, innovations and research being carried out at our university.

Welcoming the delegates, Prof. P.B. Sharma, Vice Chancellor, said, "*This visit will provide an excellent opportunity to students of NTNU to brain storm on innovative practices and research collaborations at DTU. We would be keen to explore the possibilitwy of students exchange and internships with NTNU*". He also made a presentation on Research & Innovations at our university for the visitors. Those present on the occasion included Dr. Ruchika Malhotra, Department of Software Engineering; Dr. J.P Kesari, Department of Mechanical Engineering, DTU; Dr. Rishu Chaujar, Department of Engineering Physics, DTU, be-

sides the Research scholars and students of our university.

The delegation visited Biodiesel research centre, Conducting Polymer laboratory and library at our university. Prof. Kjell J. Nilssen, Department of Biology, Faculty of Natural Sciences, NTNU provided an insight into NTNU and its academic environment.

Students of NTNU had several questions on the academic programmes at our university, specializations available, admission process for international students, availability of financial aid, research opportunities etc., which were satisfactorily answered by Prof. P.B. Sharma, Vice Chancellor.

With 20,000 students studying a range of disciplines in NTNU is Norway's second largest university, with an annual budget of about US $800 million. Its 53 departments are spread out over seven major campuses and graduate about 3,300 students every year, two-thirds of which are master's or PhD candidates. The university has more than 100 laboratory facilities distributed among the different faculties and departments. These are central elements in NTNU's education and research work. Even different faculties, NTNU is alive with the intellectual energy of people pursuing their dreams.

AEON 2012 AND WORKSHOP ON RECENT ADVANCES IN SOFTWARE ENGINEERING

The Society of Software Engineering, Department of Computer Engineering, Delhi Technological University (SSE-DTU) organized Aeon 2012 (the first ever tech fest of the society) and a Workshop on the Recent Advances in Software Engineering and Applications, on 20-21st April, 2012.

The workshop focused on the practical and research oriented aspects of software engineering. Theparticipants were able to learn and apply a structured approach to software engineering. The workshop was a blend of theory, application and case studies to reinforce the learning process.

The chief patron of the workshop was Prof. P.B. Sharma, founder Vice-Chancellor, DTU. . Stressing on the importance of Software Engineer¬ing in today's scenario, Prof. P.B. Shar-ma, Vice-Chancellor, said, "Software Engineering has emerged as an important dis¬cipline to create capabilities of computing, net¬working and applications which pervade to all activities of human endeavour. The all-pervad¬ing nature of software applications has made software engineering one of the most versatile branches of engineering benefitting one and all in the society".

The Chairperson for the workshop was Prof. Daya Gupta, HOD, Department of Software Engineering Department. The workshop coordinators were Dr. Rajni Jindal, Associate professor and Dr. Ruchika Malhotra, Assistant Proffessor.

The workshop commenced with inaugural sessions by Prof. Yogesh Singh, Vice Chancellor, Maharaja Sayajirao Universityof Baroda and Mr. Sanjay Rai, VP, Samsung Software Engineering Lab-India.

The workshop included lectures by eminent professionals on the advances and research in the areas of software quality, agile methodology, method engineering and software testing. It also featured latest software engineering tools and a Research track consisting of selected paper presentations from academicians, research scholars and students.

The first day saw talks by Dr. Bimlesh Wadhwa (Cloud Computing – Setting up a Researc h Roadmap), Senthil Kumar Kumarasamy Mani (Smarter Debuggers and Mining Software Repositories to"Help Developers Debug Bugs"), Dr.(Mrs.) Arvinder Kaur (Workshop on Function Point Counting), Yesha Grover(Open Source Licenses – Overview and Verification Process) and Dr Rajiv Nag (An insight into current Global practices in assuring software quality and project management - A Practitioners Views).

The second day had the following speakers: Dr. Ruchika Malhotra (A Systematic Approach To Testing Web Applications), Dr. Vijay Rao, Prof. Daya Gupta (Security Engineering Methods).

The second day also saw the organization of the 'Research Track'. The Research Track was chaired by Prof. M.N. Doja from Jamia Millia. Prof. P.S. Grover, Director General of GTBIT, GGSIPU was the keynote speaker. Dr. Pravin Chandra, alongwith with Prof. Grover, was the judge for the event.

AEON 2012 consisted of events like Software Display, UML Display, Three Lines of Code etc. all of which received encouraging participation.

The title sponsor for the event was Samsung India Pvt. Ltd. Tata Consultancy Services and Mona were the associate sponsors.

Orientation Programme at Central Library

The **Delhi Technological University Central Library** organized an "*Orientation Programmed on the Use of Online Journals*" on 19th April 2012.

In this programme the focus was on particular publishers, IEEE. The main aim of the orientation programmed was to make "maximum uses of online journals" and "to spread the awareness on the uses of online journals amongst the students, research scholars, faculty and teaching staff".

A resource person from the IEEE/IEL made the presentation on the following topics:

• How to access the journals/articles which were available in un der IEEE sites.
• How to make an account and how to get the latest information which was input in the IEEE.
• How to contribute/submit their articles/papers on IEEE.
• How to manage the IEEE with personal account in order to get the latest information update in the IEEE.
• What benefit the users get by subscribing the IEEE?
• What benefit the users get by having a personal account in IEEE.etc?

Dr. Mohan Singh Mehta of Applied Physics R&D on ORGANIC LIGHT EMITTING POLYMERS

Dr. Mohan Singh Mehata, Assistant Professor, Department of Applied Physics has published four distinctive research papers on molecular spectroscopy of organic molecules, nano-particles, polymers with a high potential of their application in Light emitting devices, OLED, photovoltaic cell and in understanding biological systems.

These papers have been published in journals of repute with high Impact factor enlisted below:

• Research paper on organic light emitting polymer and nano-material was published as a single author in the Applied Physics Letter published by American Institute of Physics.
• The second paper had been published (on organic light emitting diode) in collaboration of Hokkaido University, Japan. The paper received high degree of appreciation.
• Third paper was a collaborative work between him and Chinese Academy of Science, Dalian, China. It was published in J. Phys. Chem. published by American Chemical Society.
• The forth paper was also published in one of the most reputed journal of American Chemical Society in the field of nano science in collaboration with Hokkaido University, Japan and IACS Calcutta.
• The fifth paper dealing with Polymer Organic light emitting material, which has a direct interface with applications in the field of OLED, has been submitted for publication. This work has been carried out in collaboration with Hokkaido University, Japan and National Chiao Tung University, Taiwan.

AUTOMOTIVE ENGINEERING

Automotive Engineering is a branch of vehicle engineering incorporating elements of mechanical, electrical, electronic, software and safety engineering as applied to the design, manufacture and operation of motorcycles, automobiles, buses and trucks and their respective engineering subsystems.

As an Automotive Engineer, some of the engineering attributes/disciplines that are of paramount importance are- safety engineering, fuel economy/emissions, vehicle dynamics, NVH engineering (noise, vibration and harshness),performance, shift quality, durability/ corrosion engineering, package/ ergonomics engineering, climate control, drivability, cost, program timing, assembly feasibility.

• Under automotive engineering, one can become a development engineer. He has the responsibility for coordinating delivery of the engineering attributes of a complete automobile (bus, car, truck, van, SUV, etc.)As dictated by the automobile manufacturer, governmental regulations, and the customer who buys the product.

• The development engineer is concerned with the interactions of all systems in the complete automobile. While there are multiple components and systems in an automobile that have to function as designed, they must also work in harmony with the complete automobile.

• Another aspect of the development engineer's job is a trade-off process required to deliver all the automobile attributes at a certain acceptable level.

• The Development Engineer is also responsible for organizing automobile level testing, validation, and certification.

Career Prospects:

• The possibility of an automobile engineer to find job is maximum in automobile manufacturing industries. Apart from it one can find jobs in service station, private transport companies and Defense Services. Self-employment is also possible in setting up automobile garages or maintenance of workshops.

• One who is still having the desire to continue his/her educational career can also continue by joining M.Tech and PhD programs.

In this case he/she could become a researcher or scientist and further help in the development of the field. One can also join as part time or full time lecturer or professor in engineering colleges/universities in India and abroad.

Famous Automotive Engineers:

• Dilip Chhabria is an Indian automobile designer. He is the founder of DC Design.

BIO TECHNOLOGY

Biotechnology is a field of engineering that involves the use of living organisms and bioprocesses in agriculture, medicine and other fields requiring bio products. It is one of the latest and most upcoming branches of engineering in India. The concept encompasses a wide range of procedures for modifying living organisms according to human purposes — going back to domestication of animals, cultivation of plants, and "improvements" to these through breeding programs that employ artificial selection and hybridization. By comparison to biotechnology, bioengineering is generally thought of as a related field with its emphasis more on higher systems approaches (not necessarily altering or using biological materials directly) for interfacing with and utilizing living things. Biotechnology draws on the pure biological sciences (genetics, microbiology, animal cell culture, molecular biology, biochemistry, embryology, cell biology) and in many instances it is also dependent on knowledge and methods from outside the sphere of biology (chemical engineering, bioprocess engineering, information technology, and bio-robotics).

• Since Biotechnologies are always non-polluting and, often, labor intensive. Also they make use of replenishable natural resources and help their conservation. Thus they help, directly or indirectly, in saving energy. The cost of products produced through a biotechnological process is almost always less than that of the same product produced, say, through a chemical synthetic route.

• Biotechnologies are less accident-prone. In spite of their high level of intellectual sophistication, it is easier to train people to handle biotechnologies than other technologies. Above all, they are interesting and exciting for all those involved with them.

Career Prospects:

• Research and development: Since it is a contemporary and booming branch it offers a lot of scope for those who are interested in unraveling new mysteries hidden at cellular level.

• Industrial prospective: An example is the designing of an organism to produce a useful chemical. Another example is the using of enzymes as industrial catalysts to either produce valuable chemicals or destroy hazardous/polluting chemicals. Biotechnology tends to consume less in resources than traditional processes used to produce industrial goods.

• Agricultural prospective: Various career options in agriculture sector open up for biotechnologists. An example would be the selection and domestication of plants. Another example is the designing of transgenic plants to grow under specific environments in the presence (or absence) of chemicals.

• Biotechnology as aid in therapy: In medicine, modern biotechnology finds promising applications in such areas as drug production, pharmacogenomics, gene therapy, genetic testing (or genetic screening): techniques in molecular biology detect genetic diseases. To test the developing fetus for Down syndrome, Amniocentesis and chorionic villus sampling can be used.

Famous Biotechnologists:

• Kiran Mazumdar-Shaw is an Indian entrepreneur. She is the Chairman & Managing Director of Biocon Limited a biotechnology company based in Bangalore , India.

CIVIL ENGINEERING

Civil Engineering focuses on the infrastructure of the world which include water works, sewers, dams, power plants, transmission towers/lines, railroads, highways, bridges, tunnels, irrigation canals, river navigation, shipping canals, traffic control, mass transit, airport runways, terminals, industrial plant buildings, skyscrapers, etc.

• Among the important subdivisions of the field are construction engineering, irrigation engineering, transportation engineering, soils and foundation engineering, geodetic engineering, hydraulic engineering, and coastal and ocean engineering.

• Civil engineers build the world's infrastructure. Most people cannot imagine life without the many contributions of civil engineers to the public's health, safety and standard of living. Its history is linked to knowledge of structures, materials science, geography, soils, hydrology, environment, mechanics and other fields.

• It is one of the most promising branch of today both in India and rest of the world. Over the past few years India has witnessed an unprecedented development in the infrastructure sector which will continue to foster over the coming years, the horizon for the civil engineers is broadening day by day.

• These days a variety of courses are also offered for management in this field like construction management, sustainable design, structural engineering, geo-technology, transportation and many more.

Career Prospects:

• Civil Engineers can find work as a supervisor of a construction site or a managerial position or in design, research as well as teaching in government services or private concerns. They can also work as independent consultants.

Famous Civil Engineers:

• E. Sreedharan, former MD of DMRC

• H. D. Deve Gowda, former Prime Minister of India

COMPUTER SCIENCE ENGINEERING

Computer engineers apply the principles of computer science and mathematical analysis to the design, development, testing, and evaluation of the software and systems that make computers work.

• The tasks performed by these workers evolve quickly, reflecting new areas of specialization or changes in technology, as well as the preferences and practices of employers. They also analyze users' needs and design, construct, and maintain general computer applications software or specialized utility programs.

• These workers use different programming languages, depending on the purpose of the program. The programming languages most often used are C, C++, and Java, with FORTRAN and COBOL used less commonly.

• Some computer engineers develop both packaged systems and systems software or create customized applications. Working with the organization, they coordinate each department's computer needs-ordering, inventory, billing, and payroll record keeping (DATABASE MANAGEMENT SYSTEM).

Career Prospects:

The branch boasts of enormous job prospects and so happens to be the most sought after as it attracts huge placement offers from the best paymasters of the planet like GOOGLE, MICROSOFT, FACEBOOK, ADOBE and many more.

Famous CS Engineers:

• Ajay Bhatt: Co-Inventor of the USB. Chief Client Platform Architect at Intel

• Krishna Bharat: Principal Scientist at Google - Famous for creating Google News

ELECTRICAL ENGINEERING

Electrical engineering is a professional engineering discipline that deals with the study and application of electricity, electronics and electromagnetism. The field first became an identifiable occupation in the late nineteenth century with the commercialization of the electric telegraph and electrical power supply.

• Electrical Engineers generally deal with an extravagant palate of courses which include Electromagnetism, Control Theory, Electronic circuits and their application, Power Engineering, Digital Systems, Power Systems, Electrical machines, Artificial Intelligence, Optoelectronics, Signal Processing and Fundamentals of Communication Theory. Moreover this field also diversifies itself by providing an insight into some components of Computer Engineering.

• The field of Electrical engineering is continuously evolving with recent advances in Printable Solar Cells, Wireless Energy Transmission, Hybrid Vehicles and Clean Energy Development.

Career Prospects:

• **Designing**: Electrical engineers engage in design of signaling equipment, power stations, power generation equipment, motors, switchgears and cables and electronic devices

• **Research**: Research opportunities in areas such as power generation and transmission systems, transformers, switchgear and electric motors, nano electronics, telemetry and control systems are also available

• Diversified Energy Generation: Futures in the field of renewable energy sources and also nuclear power generation are also bright for electrical engineers.

Famous Electrical Engineers:

• N.R. Narayana Murthy, the founder of Infosys Technologies is one of the most famous personalities in India's I-T sector. Born on August 20, 1946, he obtained a degree in electrical engineering from the National Institute of Engineering under University of Mysore

ELECTRICAL AND ELECTRONICS ENGINEERING

Electrical and Electronics Engineering is an exciting and dynamic field which deals the generation, transfer and conversion of electrical power. Moreover it is also concerned with the transfer of information using radio waves, design of electronic circuits and development of control systems.

Electrical and Electronics Engineers generally deal with an extravagant palate of courses which include Control Theory, Electronic circuits and their application, Power Engineering, Digital Systems, Power Systems, Electrical machines, Digital electronics , Embedded systems, Systems engineering, Signal Processing and Fundamentals of Communication Theory and Control systems.

The field of Electrical and Electronics engineering is continuously evolving with recent advances in Printable Solar Cells, Wireless Energy Transmission, Hybrid Vehicles and Clean Energy Development, nano-cable development.

Career Prospects:

• **Designing**: Electrical and Electronics engineers engage in design of signaling equipment, power stations, power generation equipment, motors, switchgears, cables, electronic devices and Communication Devices.

• **Research**: Research opportunities in areas such as power generation and transmission systems, transformers, switchgear and electric motors, nano and micro electronics, telemetry and control systems are also available

• **Telecommunications**: Since Electrical and Electronics engineers are exposed to the electronics department in more detail careers prospects in communication industry also exist.

Famous Electrical and Electronics Engineers:

• Amir Bose. Bose is a Bengali, Indian engineer who studied in the US. He invented many patents in loud speaker design, and founded the Bose Corporation, a large audio equipment company. Bose was even inducted into the National Inventors Hall of Fame.

ENGINEERING PHYSICS with Majors in ECT

Engineering physics with Majors in Electronics and Communication Technology, is a four year rigorous B.Tech Program, which includes courses in Electronics and Communication, Microelectronics, Semiconductor devices, Optoelectronics, Robotics & Intelligent systems, Photonics, Quantum Information systems and Material Science. Students major in Electronics and Communication Technology and choose a minor in any one of the four electives namely Nano Science and Technology, Photonics, Robotics and Intelligent Systems & Nuclear Engineering.

Engineering Physics provides students with a firm foundation in physics and mathematics, together with engineering design and problem-solving skills. It has been purposefully designed to be rigorous, demanding and exhaustive so that students gain technological expertise to cause and manage the fast paced technological revolutions with ease, hone sharp analytical skills and stand firm on the sound foundations of their ethical and professional moral values. This makes them ideal to cater to the growing demand of the 21st Century Industries.

Career Prospects:

• Engineering physicists perform research and development in high-technology industries in the fields of telecommunications, microelectronics and micro devices, lasers, and novel materials. Additionally thorough training provided in fundamentals and applied technology, increasingly; today's graduates are exploring other burgeoning fields, such as biotechnology, nanotechnology, communications technology, computer design, and software development. Graduates can also enter into advanced degree programs to conduct research, and instruct the next generation of physicists.

• An engineering physics major comes in handy for a range of job opportunities, including positions in research and development ("R&D") at high-technology industries as well as jobs in national laboratories and universities. Further career development may lead to a position as staff engineer, scientist, or technical director.

Famous EP People:

• Dr. Vikram Sarabhai, Father of ISRO

• Sir C.V. Raman, Nobel Laureate in Physics

ELECTRONICS AND COMMUNICATION ENGINEERING

Electronics And Communication Engineering is considered one of the most prime branches of the university, this branch opens up a whole new arena of possibilities. The ECE curriculum provides a wide perspective of the field of electronics and allows the student to decide his future directions. The focus in the study programme is on understanding electronic networks and devices, electromagnetic field theory, computer fundamentals, as also their protection, and communication and control systems. This branch is for those who can feel or live in the world of diodes, transistors and ICs.

• It equips one with the knowledge of electronic devices and circuits, computer architecture and microprocessors, VLSI and embedded systems, electromagnetic field theory, analog and digital communications, digital signal processing, microwave & broadband communications, image processing, computer vision, bio-medical signal processing and optical communication as well.

• Students having strong logical and analytical skills along with the capability to capture new things and attention to detail always do well in this field.

Career Prospects:

• An electronics engineer can get a job in Central Government, State Governments and their sponsored corporations in public enterprises and the private organizations like All India Radio, Indian Telephone Industries, MTNL, National Physical Laboratories, AIR, Civil Aviation Department; Post and Telegraph Department; Co-ordination Department, National Physical Laboratory, Bharat Electronics Limited, Development Centers in various States etc. Dealing in manufacture, sales and services of electronics consumer goods and appliances.

• Research and development: ECE is a dynamic branch that is evolving as we speak, new user interfaces are in development, and ways to change the user interaction with the computer world are in development with hundreds of unexplored avenues waiting for a push at the door.

• Manufacturing: An electronics and communication engineer finds use in electronics manufacturing units where he works on the interface of the product, technology supporting it, and what not, so this branch is expected to grow even further with the fusion of technology and human life.

Famous EC Engineers:

• Claude Shannon, founder of the Information Theory.

• Almon H. Clegg, pioneer in the revolution of Digital Audio.

ENVIRONMENTAL ENGINEERING

Those, who wish to apply for this branch, should consider the following facts to understand and analyze its scope and application:

• It is a misconception that ENE simply deals with the subjects of biology, specifically relating to the ones taught at primary levels in schools. In DTU, ENE is included under the department of Civil Engineering. So, the budding environmental engineers get a lucrative deal to prove their mettle in both the areas by being versed in the fields of environmental biology and biochemistry and in the subjects pertaining to civil engineering as well.

• With the advent of technology and lack of sustainable development, there are innumerable environmental concerns to tackle. With issues like global warming, climatic changes, there is a dire need of environment engineers in this present scenario.

• In DTU, under the guidance of an extremely dedicated faculty, the students get to learn all the nuances of their branch properly. DTU is one of those few esteemed institution which gives the students an opportunity to pursue environmental engineering.

• Apart from the usual classroom study, workshops, field visits and conferences are arranged regularly which help students in understanding the recent advancements in this rapidly changing field of study.

Career Prospects:

• Environmental engineering is a promising field with immense opportunities for research and innovations. Given the vast opportunities and technological advancements waiting to be unfolded, students with a scientific bent of mind would enhance the possibility of continuing their MS/PhD in research institutions abroad.

• Job prospects for professionals with qualification in environmental engineering are bright in research centres, NGOs and various governmental departments working towards green development.

• Candidates with M.Tech in environmental engineering have opportunities to work for government built assessment committees which study and analyze the environmental risks involved in certain projects. The report of such a committee is then submitted to the concerned authority for further observation. Scholars with PhD in environmental engineering can opt for teaching jobs in colleges and universities.

Famous Environmental Engineers:

• Ellen Swallow Richards, pioneer in environmental chemistry

• Sudhakar Kesavan, CEO, ICF International

INFORMATION TECHNOLOGY

Information Technology marks a progres¬sive stage of engineering, fusing together the technologies and knowledge involved in com¬puters, communication systems and microelec¬tronics. Students are able to learn the merging together of algorithms and management.

• It spans through various course areas includ¬ing data constructs, programming languages, operating systems and software design. The branch deals with a wide domain of services in the private industry sectors ranging from bank¬ing, consultancy to software design and data¬base.

• The branch produces professionals who deal with application development, web designing and even business strategies.

• The course also aims at making students ca¬pable of dealing with issues like cyber security and management of entire systems.

• Students, by virtue of practical demonstra¬tions, are able to study the algorithms and tech¬nologies used in sectors such as graphics with a closer proximity and a better understanding.

Career Prospects:

• Information Technology stream offers a lot of job opportunities for the graduates. IT Service provider based companies concerned in hardware/software development, application and its testing employ IT professionals. There are also lots of job opportunities available in India as well as abroad.

• IT professionals perform a variety of func¬tions that range from installing applications to designing complex computer networks and in¬formation databases.

• Network and computer systems administrators work with the physical computer networks of a variety of organizations and therefore are employed in many industries thereby making information technology, one of the most promising and rewarding field. Skilled professionals working in multinational companies can earn a handsome salary bracket.

• A few of the duties that IT professionals per¬form may include data management, network¬ing, engineering computer hardware, database and software design, as well as management and administration of entire systems. Informa¬tion technology is starting to spread further than the conventional personal computer and net¬work technologies, and more into integrations of other technologies such as the use of cell phones, televisions, automobiles, and more, which is increasing the demand for such jobs.

Famous IT Engineers:

• N.R. Narayan Murthy, Founder, Infosys

MECHANICAL ENGINEERING

Mechanical engineering, one of the oldest and broadest engineering disciplines, applies the principles of physics and materials science for analysis, design, manufacturing, and maintenance of mechanical systems. It involves the production and usage of heat and mechanical power for the design, production, and operation of machines and tools.

• Some core concepts that Mechanical Engineers must deal with-Mechanics, Kinematics, Thermodynamics, Materials science, Structural Analysis, Computer Aided Engineering, Product Lifecycle Management, Area of Analysis and Designing-Manufacturing Plants, Industrial Equipment and Machinery, Heating and Cooling Systems, Transport Systems, Aircraft, Watercraft, Robotics, Medical Devices.

• The field has continually evolved to incorporate advancements in technology, and mechanical engineers today are pursuing developments in such fields as composites, mechatronics, and nanotechnology.

• Mechanical engineering overlaps with aerospace engineering, civil engineering, electrical engineering, petroleum engineering, and chemical engineering to varying amounts.

Career Prospects:

• **The Designers**- Mechanical engineers involved in design may devise petrol or diesel engines for automobiles, ball bearings, pumps, compressors, conveyors, cars, trucks, buses, ships or aircraft. They may work with engineers from other disciplines to design entire manufacturing plants. Some of them may spend their working lives simply analyzing equipment that is supposed to improve performance, in industries that have nothing to do with mechanical engineering.

• **The Manufacturing Unit** -Mechanical engineers involved in manufacturing may supervise and co-ordinate the manufacturing of all the products mentioned above, right from deciding which machines to use to manufacture the products and what kind of materials to use in their manufacture in making the machine tools (the machines which make the machines that manufacture the products) themselves. They also develop techniques to improve and speed up the manufacture of these machines.

• **The Research Department**- Mechanical engineers involved in research figure out stuff like how to design the shape of a submarine so that it makes the least noise, or how to design aircrafts like the Stealth, which simply do not show up on the enemy's radar screen.

• **The Sales Department** -Companies might even hire mechanical engineers in their sales department, if they are selling the kind of technical product that only mechanical engineers can understand.

Famous Mechanical Engineers:

• Karl Benz and Gottlieb Daimler -Responsible for the Mercedes-Benz.

• Chester F. Carlson -Invented a copying process called xerography, which later was used in the making of the Xerox machine.

POLYMER SCIENCE AND CHEMICAL TECHNOLOGY

Polymer and chemical technology is a dynamic branch which combines the disciplines of both polymer science and chemical technology. It is a dedicated new field of chemistry dealing with plastic, molded material, and synthetic fibers. Often termed macromolecular science it is classified into polymer physics, polymer chemistry, and polymer characterization.

• Polymer science in India has applications in paint industry, molded plastic manufacturing sector, electrical industry, and industrial and household equipment segment; Asian Paints, Berger Paints in the paints sector; Anchor Industries, Havel's India Limited in the electrical segment; and Supreme Industries and Blow Plast Limited in the molded plastic sector are the leading employers of polymer science scholars. Companies like IOCL, GAIL and Reliance are major players in the field of polymer chemistry.

• Chemical Technology is relatively older field of study and includes subjects like Heat and mass transfer, process equipment design, etc. Chemical engineers work in areas such as chemicals, biotechnology, pharmaceuticals, food, energy, environment, consumer products, electronics, nanotechnology, advanced materials, and finance. Chemical engineers are employed in many big companies like ONGC, reliance, GAIL, IOCL, Kribhco among others.

Career Prospects:

• **Engineering**: In many areas of engineering, the demand for well-qualified, skilled graduates outstrips supply. There are many opportunities in a wide range of functions in the engineering industry. An upsurge in the industry has provided roles for chemical engineers in processing and design of reaction vessels and processes.

• **Energy and utilities** – India's energy and utilities industry is a vast and diverse sector comprising oil, petroleum and gas, nuclear power and coal, water and waste management, renewable energy industries, and energy conservation organizations. The sector plays an indispensable role in the global economy, with fossil fuels considered among the world's most important resources.

• **Manufacturing** - opportunities for graduates are available in research and development, design, production, distribution and logistics management, marketing and sales, finance and IT.

• **The Research Department**- Chemical engineers involved in research have a great future especially in the field of biodegradable plastics and packaging films, alternate fuel, medicines and nanotechnology.

Famous PSCT Engineers:

• Edwin R.Gilliland, noted for research into distillation and fluid bed catalytic cracking

• Vladimir Haensel, inventor of the "Platforming" (Platinum Reforming) process

PRODUCTION AND INDUSTRIAL ENGINEERING

Production engineering is a combination of manufacturing technology with management science. A production engineer typically has a wide knowledge of engineering practices and is aware of the management challenges related to production. The goal is to accomplish the production in the smoothest, most-judicious and most-economical way.

• Processes one must work upon as a Production Engineer-Castings, Joining processes, Metal cutting & tool design, Metrology, Machine tools, Machining systems, Automation, Jigs and fixtures, and die and mould design.

• In industry, once the design is realized, production engineering concepts regarding work-study, ergonomics, operation research, manufacturing management, materials management, production planning, etc., play important roles in efficient production processes.

• Industrial engineering is a branch of engineering dealing with the optimization of complex processes or systems. It is concerned with the development, improvement, implementation and evaluation of integrated systems of people, money, knowledge, information, equipment, energy, materials, analysis and synthesis, as well as the mathematical, physical and social sciences together with the principles and methods of engineering design to specify, predict, and evaluate the results to be obtained from such systems or processes.

• Its underlying concepts overlap considerably with certain business-oriented disciplines such as Operations Management.

Career Prospects:

• Production engineers select manufacturing equipment and processes for mass production. They design manufacturing plants and worry about things like costs and safety.

• Operations engineers are responsible for the day-to-day control of such facilities as chemical, nuclear, manufacturing, transportation, communication, or water treatment plants.

• Quality assurance engineers focus on ensuring that products are made to desired quality.

Famous Production Engineers:

• Sakichi Toyoda and his son Kiichiro Toyoda established Just-in-Time within the Toyoda Group.

• Taiichi Ohno, considered to be the creator of the Toyota Production System and the Father of the Kanban System

SOFTWARE ENGINEERING

Software Engineering is the application of a systematic, disciplined, quantifiable approach to the development, operation, and maintenance of software, and the study of these approaches; that is, the application of engineering to software. It is the application of engineering to software because it integrates significant mathematics, computer science and practices whose origins are in Engineering.

• Software engineering is the elite version of IT where an understanding of the underlying hardware, electronics, and physics is required to assess that the resulting product will not only meet functional requirements, but also meet timing, safety, reliability, security and fault tolerance requirements .

Career Prospects:

• There are numerous companies looking for software engineers. They provide white-collared jobs which are high-paying. Software engineers are also outsourced from India, by multinationals from abroad. Attractive pay-scale, enticing opportunities and overall, the plethora of options have made software engineering a sort of unique profession. Software engineering is playing a leading role in almost all the business fields, because of its dynamic business applications, which is efficient enough of solving complicated problems.

Famous Software Engineers:

• Paul Buchheit, Developer of Gmail

• Michael Widenius, Co-founder of MySQL

CULTURAL SOCIETIES

DHOOM
DANCE CLUB

Dancing is like dreaming with your feet! - Constance

The Dance society truly believes in the above written quote. In a University of Technical Engineers, Dhoom is a platform to discover the concealed dancer within oneself.

Dhoom successfully organizes events like **CRANKDAT, BHANGRA, NRITTYA** and **RHYTHM** in the annual Cultural Fest ENGIFEST.

MADHURIMA
MUSIC CLUB

Music is what feelings sound like.

Madhurima was formally inaugurated on August 3, 1996 by noted music director Sri. Paravoor G. Devarajan. All the members approved noted Film Music Director Late Sri. Deva Rajan Master to be its patron and considered it as a great fortune. In fact, he remained as our Patron until his demise in 2006. And we are proud to state that ours' was the only club that had his patronage throughout his illustrious career in the Malayalam film industry. Madhurima organizes events at the annual cultural fest ENGIFEST to promote music as life without music is a mistake.

PRATIBIMB
THEATRE CLUB

'The pit of a theatre is the one place where the tears of virtuous and wicked men alike are mingled. '

When do we realize that there is an actor in each one of us? When we are caught cheating in the examination hall? It is never too late to hone that extraordinary skill you possess, the talent that makes you famous in your friend circle, the ability to slip into any character with ease. If you believe you belong to the stage then Pratibimb is the society for you.

SPIC MACAY
INDIAN CULTURE
AND HERITAGE SOCIETY

The "big bang" of **SPIC MACAY** came in 1972 at a concert of Ustad Nasir Aminuddin Dagar and Ustad Zia Fariduddin Dagar at the Brooklyn Academy of Music in New York. After a few sporadic concerts (notable amongst them was that of Ustad Ali Akbar Khan) at Columbia University, New York, under the aegis of the India Club of Columbia University during the period 1972-76, the idea took a more defined direction in 1977 in India. However in 1979, a two-day programme again at IIT Delhi of Ustad Bismillah Khan, Dagar Bandhu, Ustad Amjad Ali Khan and Ustad Sitahid Parvez turned out to be a marginal success.

SPIC MACAY is an affirmation of a priceless cultural heritage rooted in what is essentially Indian. With the onslaught of rapid change and global homogenization, this multifaceted Indian heritage is being increasingly marginalized and diluted. SPIC MACAY seeks to conserve and promote an awareness of this rich and heterogeneous cultural tapestry amongst the youth of this country through focus on the classical arts, with their attendant legends, rituals, mythology and philosophy and to facilitate an awareness of their deeper and subtler values.

PARCHHAYI
PHOTOGRAPHY CLUB

Photo & Film Soc. DTU has been created by the students of DTU (formerly DCE) to nurture the talent and offer a platform to all those students who are passionate about photography and want to discover and imbibe knowledge about various aspects of film-making. It's the first initiative towards the wide field of photography which received an over-whelming response from all the students.

The society has been organizing fairly successful series of events in the past under the aegis of **Arte fotografia**. This included a workshop by Mr. Hemant Uppal on different aspects of photography and videography; an online photography competition that saw whooping 2000+ entries on different themes coming in from across the country; an exhibition to showcase the selected entries and much more. It must come as no surprise that the Parchayyi Society did the full coverage of the university's cult fest Engifest and techno-management fest Innova'12. Moreover, a portfolio shoot was organized by the society during Engifest which received an overwhelming response from one and all.

The society is currently working on the **DTU 360 Project** and is involved in making of a short documentary film. Always brimming with some or the other engaging activity, the society promises to enthrall all by organizing a photography workshop-cum-competition for all the photography enthusiasts across the city on the World's Photography Day, 19th August. Students can stay updated by joining group on Facebook where they can share their work and get updated from the experiences of Veterans and professionals of the field.

IEEE

IEEE is the world's largest professional association dedicated to advancing technological innovation and excellence for the benefit of humanity. IEEE and its members inspire a global community through

IEEE has highly cited publications, conferences, technology standards, and professional and educational activities. IEEE's core purpose is to foster technological innovation and excellence for the benefit of humanity. It has more than 400,000 members in more than 160 countries.

IEEE DTU student branch (formerly IEEE DCE student branch) is *the oldest student branch* in Delhi Section of Asia Pacific. With a history spanning over 30 years, IEEE DTU has come a long way. It is the head of HUB 3 of IEEE Delhi section under the GINI (Global Integrated Network of IEEE) project and mentor of IEEE branches of elite colleges like BITS Pilani.

IEEE DTU is also *the largest student branch* in Delhi section since it has the largest number of student members. Prof. Ashok Bhattacharyya, the branch counselor has been associated with the IEEE DTU student branch for over 30 years. He has also been conferred with "the Best Branch Counselor Award". Dr. Rachna Garg from the Department of Electrical Engineering of Delhi Technological University is the Student Activities Coordinator of the IEEE Delhi section.

IEEE DTU also received "**the Larry K Wilson Award**" in 1998 & 2002, "**AT&T Bell Lab Award**" in 2000 and "**Silver Award**" for "**The Best Website**" in 1999. Apart from these awards, IEEE DTU has several achievements to its credit. www.dcetech.com a Student Resource Portal, a social communication and technical resource platform for the student engineering community. It is a widely used and acclaimed website known to students of not only DTU but other engineering colleges as well.

The IEEE calendar in DTU starts with **TECHWEEK**. A series of workshops is held during TECHWEEK to introduce cutting edge technologies used by the industry. It is followed by a multimedia quiz and SPAVe (Students' Professional Awareness Venture) – a highly coveted managerial event. During the season of college festivals, the student branch organizes **TROIKA**, the annual technical festival of IEEE DTU. They organize a plethora of events during TROIKA.

SPAC – Students' Professional Awareness Conference- a highly acclaimed conference which acts as an interface between the industry and the student community is held afterwards. And the academic year comes to a close with the "Fuchcha Event" where the budding IEEE DTUites display the skills that they acquired during their 1st year in college and IEEE.

CSI

Formed in 1965, the **CSI** has been instrumental in guiding the Indian IT industry down the right path since its formative years. Today, the CSI has 69 chapters all over India, 381 student branches, and more than 70,000 members, including India's most famous IT industry leaders, brilliant scientists and dedicated academicians.

The mission of the CSI is to facilitate research, knowledge sharing, learning and career enhancement for all categories of IT professionals, while simultaneously inspiring and nurturing new entrants into the industry and helping them to integrate into the IT community. The CSI is also working closely with other industry associations, government bodies and academia to ensure that the benefits of IT advancement ultimately percolate down to every single citizen of India.

The DTU student branch gives us the opportunity of being a distinguished member of this global fraternity. The activities conducted for the students associated to CSI include various workshops which enlighten us about the upcoming softwares, be it Adobe Photoshop, Dreamweaver, Movie-making, Linux, Flash or even Robotics. CSI has some magnificent events to its credits: **PHOENIX** and **AVANTGARDE**. The three days technical fiesta, Phoenix, renders a superior platform for the doers to earn and the observers to learn a lot.

Several events and series of activities include the LAN gaming, Android, Code Breaking, Ad Making, Web Maniax, Robota including Robo Rally, Animation, quizzing and several other events that cater to all kinds of talent.

IET

The **Institution of Engineering and Technology** was formed by the Institution of Electrical Engineers (IEE) and the Institution of Incorporated Engineers (IIE) and now has more than 150,000 members worldwide. It is the largest professional engineering society in Europe and the second largest of its type in the world.

The IET organizes more than 120 conferences and events every year and publishes more than 100 new titles every year, a rich mix of books, journals and magazines, with a back catalogue of more than 500 publications, and provided more than $800,000 worth of scholarships awarded to students each year. The IET provides a global knowledge network to facilitate the exchange of ideas and promote the positive role of science, engineering and technology in the world.

The **IET DCE** Chapter is specifically organized to keep you informed, enhance your skills and knowledge, and involve you in helping to develop the future of Engineering and Technology. Since 2007 IET organizes an annual technical fest named Renaissance. It aims at providing a platform for the students, professionals and academicians to come together, share their ideas and exhibit their talent.

SAE

SAE International is a global association of more than 128,000 engineers and related technical experts in the aerospace, automotive and commercial-vehicle industries. SAE International's core competencies are life-long learning and voluntary consensus standards development.SAE DTU Chapter started with a mere 15 members and now boasts of 250 student memberships.

This society boasts of 6 major international Projects including Formula Student, MiniBaja, Supermileage Vehicle, Defianz, Moonbuggy Team, AUV team. The society was also awarded as the II best **SAE INDIA** Students' Chapter at SAE international Mobility Conference, Chennai. It also organized workshops and industrial trips to various companies like Maruti Udyog Limited, Bosch, Hero Honda, Escorts Ltd., BHEL Haridwar, and Sona Koyo Steerings. INNOVA – the annual technical festival of Mechanical, Civil and Production Engineering departments is organized every year under the aegis of this society.

SPIE

SPIE is an international society advancing an interdisciplinary approach to the science and application of light. The combined talents of everyone involved in SPIE contribute to new scientific discovery. Collective knowledge provides the base on which the next generation of scientists and engineers can explore the promise of light.

SPIE provides wonderful opportunities to everyone who is interested in the enchanting world of optics, by providing a gateway to resources in the form of research, a vast digital library, many conferences, exhibitions and seminars, many different online courses imparted through videos, CDs and DVDs and much, much more.

Established in the 2004, **SPIE DCE** Chapter has made an impact in the associated communities. The chapter has successfully entered into its sixth year of functioning with a team of newly elected office bearers in place. SPIE DCE Chapter aims at inculcating temperament of research and development among scholars and faculty members in the area of optics and photons at Delhi College of Engineering. AURORA was the first attempt of the society in 2011 as a Technical Fest. The spellbound response to the fest predicted sheer excellence in the forthcoming years.

IPI

Indian Plastics Institute (IPI), the only Technical Professional Body for Plastics in India proudly started its premier chapter in Delhi on 17th January 2012. Choosing Delhi Technological University for heralding this prestigious chapter is a laurel in itself. With sincere and persistent efforts to bridge the gap between industries and the university by Honorable Vice Chancellor, Professor P.B. Sharma; +Prof. G. L. Verma, Head of the Department, Department of Applied Chemistry and Polymer Sciences and Dr. Roli Purwar, the college now boasts of association with the prime institute that is a paragon of connecting the students with the industry leaders. The IPI-DTU chapter basically aims at increasing the industry-student interactions, imparting more practical knowledge and the know-how of the plastic industry in India. There have been several industrial visits facilitated by IPI to Action Shoes, Bayer Chemicals, UFLEX and IOCL which has enabled the students to come a step closer to the industries. These trips have been a great learning experience for the students and seeing the enthusiasm of the students IPI-DTU promises to organize such trips at a more regular basis in the future.

SCEE

The **Society for Civil and Environmental Engineering** was founded in 2010 under the able guidance of the Head of Department Prof. A.K. Gupta and with the initiation of the students. The Society has conducted various workshops in the field of surveying, bridge analysis, AUTOCADD and many more.

SIFE

SIFE stands for Students in Free Enterprise. It is an international non-profit organization that works with leaders in business and higher education to mobilize university students to make a difference in their communities while developing the skills to become socially responsible business leaders. Participating students form teams on their university campuses and apply business concepts to develop outreach projects that improve the quality of life and standard of living for people in need.

An annual series of regional and national competitions provides a forum for teams to present the results of their projects, and to be evaluated by business leaders serving as judges. National champion teams advance to the prestigious SIFE World Cup. In addition to the community aspect of the program, SIFE's leadership and career initiatives create meaningful opportunities for learning and exchange among the participants as well as the placement of students and alumni with companies in search of emerging talent. The DTU Chapter of SIFE is newly formed organization and marching ahead with new ideas and plans.

ROTARACT CLUB

Rotary International is the world's first service club organization, with more than 1.2 million members in 33,000 clubs worldwide. Rotary club members are volunteers who work locally, regionally, and internationally to combat hunger, improve health and sanitation, provide education and job training, promote peace, and eradicate polio, under the motto of 'Service above Self'.

Primarily we will focus on Social Awareness regarding social and environmental issues, Cloth Donation Camps, Blood Donation Camps, Slum Education, Providing food to lower sections and so on. This is an initiative taken for providing selfless service to the needful and under-privileged. A cloth donation camp was organized in the month of April at the university.

E-CELL

The Entrepreneurship Development Cell of Delhi Technological University is an initiative to empower the youth of the na¬tion to stimulate the hidden entrepreneur in them. The E-Cell is a non-profit organiza¬tion consisting of some of the most dynam¬ic students of the college, with a mission to:

1. Educate our community about what En¬trepreneurship means, and to inspire more and more students to take up entrepreneur¬ship as a career and become the role models for the coming generation of entrepreneurs from our university.

2. Help the budding engineers of the institution realize their dreams of establishing their own start-ups, aiding them in conceptualizing and executing their plans by fine-tuning their strategy and bring them on platform where they can interact with the industry and hence further hone their enterprising skills.

3. Build a big network of student enterprises from our university and facilitate interaction with entrepreneurs, incubators, seed funds and angel investors all over India and support them in all their endeavors.

To achieve these goals, E-Cell host various workshops, speaker sessions, Business Plan workshops, Case study workshops, innovative games and competitions for the aspiring entrepreneurs and support them by providing necessary resources such as seed funding, mentoring, consultancy and networking.

KARTAVYA A SOCIAL INITIATIVE

"*We make a living by what we get. We make a life by what we give!*"

A social initiative inspired by this poignant thought, Kartavya-DTU aims to focus 'youth' energy rendered latent by the lack of initiative, towards fruitful social advancement. Being endowed with all possible resources for a comfortable lifestyle, most of us continue to remain oblivious to the social scenario around us. It is time we let go of that selfish streak within and explore our beneficent side by indulging in social labor.

Some of the aims and goals of Kartavya-DTU are:

• To encourage the youth to participate in various activities concerning social issues like women empowerment, illiteracy and discrimination.
• To work under the guidance of esteemed
• NGOs to utilize their will and strength to work for the society.
• To organize literary events in the campus like book donation, motivational lectures, evening school etc.
• To organize recreational events for underprivileged kids to spread happiness in their lives Kartavya has initiated an education programme at JEEVAN, an orphanage near the campus where Kartavya members teach math, computers and English to underprivileged children. Kartavya welcomes volunteers to join this education campaign. BE a part of the society.

MUN SOCIETY

Model United Nations .Ok now what is that?

It is an academic simulation of the United Nations that aims to educate participants about current events, topics in international relations, diplomacy and the United Nations agenda.

So what do you do there? Every student gets an opportunity to represent country of the United

Nations and is given an agenda which is on the list of United Nations. Every Student is supposed to research and then discuss and deliberate on those issues and find solutions. What is the purpose?

The purpose is very simple: awareness.

For those to whom United Nations is only a concept that came into existence after the World War II, for those who believe that the responsibility of this country and this world lies with the officials sitting in air conditioned offices, for those who believe that why care about the future when they live in the present, for those who know that one should not give money to an 8 year old girl on the red light but fail to acknowledge this part of the world, MUN is an eye opener. What do I learn? It teaches one to speak one's mind without the fear of sounding dumb, it enables you to carry forward a discussion of an agenda like the Darfur Issue with a 100 odd students and, most importantly, it instigates in you great thinking and leadership qualities.

SOCIETY OF SOFTWARE ENGINEERING

Dedicated to advancing software innovation and excellence for the benefit of students, the DTU-SSE is a young society formed by the technically inclined software engineering students. The society primarily focuses on making students realize their true potential and to facilitate the process, it connects them directly to the industry stalwarts. In the last semester, the society added feathers to its cap by organizing Aeon'12, a stupendously crafted technical fest that culminated with a fascinating workshop on 'recent advances in software engineering' .Marching ahead with innovative yet engaging activities for the future, the society is bound to make its mark.

AUTONOMOUS UNDERWATER VEHICLE (AUV)

VARUN represents a technological dream achieved by a team of DCE students for competing in the Autonomous Underwater Vehicle Competition held by **AUVSI** every year.It has been designed using the latest technologies in mechanical and electronic instrumentation with cutting edge software developed from the ground up. This project showcases the viability of this kind of robot not only as a research test bed, but also as a useful platform for shallow water applications.

The team is composed of a group of undergraduate students headed by their faculty advisor. Ever since its inception, the team has been collaborating intensively with local, national and international resources.

The team secured the *14th position* in the International AUVSI competition held at SSC Transdec, San Diego in the year 2009. The fourth generation team is developing a completely new prototype, using better technologies and hopes to fare much better this year.

UNMANNED AERIAL SYSTEMS (UAS)

The **DTU UAS** project was initiated with the primary purpose of developing technologies so as to reduce India's dependence on foreign ISR (Intelligence, Surveillance and Reconnaissance) products. The project aims to:

- Maximize in-house research and development
- Minimize the usage of Commercial off the Shelf products so as to keep the costs low.
-Develop UAVs with reliability and safety as their core USPs.

The team participates in the AUVSI Student UAS Competition (an international inter-university aerial robotics challenge) which is held annually in Webster Field, Maryland, USA.

SOLARIS

Solaris is one of the most prestigious projects at our university.

The aim of the team is to develop a new age solar car, thereby marking a new beginning in the field of solar automobile technology and leading to the economical use of solar and other environmentally-friendly vehicles down the road. Solar car is a concept vehicle that derives its energy solely from the Sun. The solar energy is trapped by highly efficient solar cells, and is converted to mechanical energy through complex mechanism.

The team is currently working on utilizing solar power to cross the speed barrier of 100 km ph and to represent India and Asia on a world platform. The team has already got many feathers in its cap. Two first year students of Team Solaris secured 3rd Position at SAE (Society of Automotive Engineers) National level Student solar design contest 2010. They have been credited with sponsors; everything is done by the students! The team was first constituted in the year 2002.

The team faces the challenge of competing with the best brains and matching upto the best technologies in the ever expanding competition. The sharp thinking and sincere diligence paid off as the team in its very first attempt bagged"**the FISITA Best Endeavour Award**". The team was declared runners up in cost effectiveness in 2006 and has taken up the challenge of fabricating the lightest and fastest car this year

DESIGN AND WEB DEVELOPMENT (DWD)

Design and Web Development Group (DWD) is a student community founded in February, 2009. The community aimed at developing and maintaining Web Services at Delhi Technological University formerly known as Delhi College of Engineering.

DWD was established to enhance and maintain the Delhi college of Engineering's (now known as Delhi technological university) status in the field of web services. It were the serious efforts of the group that the SMS and mail information system was setup in the university and every student now gets regular alerts by this. The OPAC has been made online and various workshops were conducted for sharing the knowledge at the audio visual room in library. The university was made self dependent and all the websites hosted within the campus. The team aims at providing facilities for all the college and establishes a web based communication system within the college.

DEFIANZ RACING

The **Defianz Racing Team** is known for developing, designing and manufacturing every year a formula style racing car that competes at the Formula Student UK at Silverstone Circuit together with over 200 teams from all over the world. The team is divided in five modules with each module having one leader who coordinates with all members.

Every year the team works on mproving on different aspects of their car and become serious competitors in the competition. They switched to a 2001 Honda CBR 600 in this season from the previous Yamaha WR 450 considering the reliability of the former.

The indigenous car so developed by the team has time and again received several accolades for the same. It achieved 9th overall ranking among 70 teams from around the globe in the Cost Event and was hugely appreciated in the design report, scored points equivalent to rank 23rd overall. They are the first Asian team to use carbon fiber as they used an indigenous method for making the bodyworks of the car using a mixture of Glass fiber and Carbon fiber. The team is also known for being the lightest car from Asia which installed a brake biasing control for the first time. The team is the only ASIAN team to have bagged "**the FISISTA- best Endeavour award**".

This year, the team is going to participate in Formula Student UK Competition which is scheduled to take place from 11th to 15th of July'12.

DTU SUPERMILEAGE TEAM

The **DTU Supermileage Team**, was established in 2005 keeping in mind the looming threat posed by future fuel crisis. The team aims to develop a vehicle which explores the maximum mileage that can be achieved from a single litre of gasoline and at the same time reduce the impact of gasoline powered vehicles on the environment without the need for major cost. The vehicle developed last year had successfully delivered an astonishing mileage of 252 km/litre.

In the past the team has participated in the SAE Supermileage Competition held at Michigan, USA; Finnish Mileage Marathon held at Tampere, Finland and the Shell Eco Marathon, Malaysia winning accolades such as the :

Most Visually Appealing Design : SAE Supermileage Competitions 2005
Best Team Attitude : SAE Supermileage Competition 2005
Best Design Report : SAE Supermileage Competition 2007
Best New Team : Finnish Mileage Marathon 2009

The team also participated in Shell Eco Marathon, Malaysia 2011 where the team was one of the few to clear the rigorous inspection rounds.

This year the team is through with the designing and is in the fabrication stage. The team intends to participate in the Shell Eco Marathon, Asia. To be held at Sepang International Circuit, near Kuala Lumpur, Malaysia.

TEAM XTREME- DTU MINI BAJA

The story began 8 years from now when in 2003 a group of fearless engineers resolved to put their theoretical knowledge and skills to test by building a car that was not only one of the kind in India but whose successors would go on to become an inspiration in MINI BAJA history. Spearheaded by Dr. Prof. P.B. Sharma and Dr. Prof. S. Maji, the first ever car project took shape in the history of our university.

And thus was born **TEAM RESISTANCE**, a unit of undergraduate students who were resistant to every tide of problem that came their way. Marching from strength to strength, the TEAM RESISTANCE took the shape and name of **TEAM XTREME** that has 12 student members led by Faculty Advisor Sh. Vijay Gautam ; Aadityeshwar Singhdeo, Rahul Mehendiratta , Yogesh Sharma , Aakash Sharma, Abhishek Sharma, Shantanu Dasgupta ,Prateek Singh , Raunaq Bhadjatia , Sidharth Wali , Adeel Ahmed , Nitish Chhabra , Rishiraj Asthana. Mini Baja in association with SAE (Society of Automotive Engineers) is an intercollegiate competition in which each team designs and fabricates an **All Terrain Vehicle (ATV)** which goes through static and rigorous dynamic evaluations during the event.

Team Xtreme participated in the **BAJA SAE INDIA 2012**(Feb.) and **BAJA SAE AUBURN, USA 2012**(April) recently. In the India event, TEAM XTREME's ATV was the lightest car with 235 kg as compared to the second lightest car of 240 kg of IIT Bombay.

In addition to that, the team also got the highest marks and appreciation from the judges in the design evaluation category theeby making it the best design of the season. Unfortunately, things weren't in favor of the team and due to some issues the team was disqualified in spite of being the Best Design and Lightest car and failed to get the above acknowledgement. For the USA event, the team got 35th rank (out of 102) in the design category and an overall 77thrank (out of 102) fighting against unprecedented happening (cargo was released from US Customs on the second day of the event causing heavy loss of event time and activities).

The TEAM XTREME's ATV was also showcased at the AUTO EXPO 2012 held in January recently. The ATV was applauded and appreciated by all and sundry.

INTELLIGENT GROUND VEHICLE (IGV-DTU)

Team IGV-DTU is a new addition to our already existing teams. It stands for Intelligent Ground Vehicle and was started in the year 2011 with an aim to promote the development of low cost autonomous vehicle in the country.

The team participated in the IGVC 2012 held at Michigan from June 8 to June 11, and was highly appreciated for the design and fabrication of the vehicle. The team performed better than the likes of IIT KGP and had a good standing among the 47 teams that participated.

The technologies involved in the IGV are those of emerging and burgeoning industries today. Among those applications are many with great opportunities for breakthroughs and innovation, and employment opportunities for knowledgeable young engineers abound. It's a very beneficial project for both civil and defense purposes and when in full effect it will give a new outlook to urban transportation systems in cities.

It basically serves two industrial applications-

• **Military Mobility** - Mine Detection, Platooning, Unmanned Weapons Deployment and Surveillance Systems

• **Intelligent Transportation Systems (ITS)** - Collision Avoidance, Obstacle Detection, Automated Highway Systems, Lane Departure Warning, Unmanned Maintenance Vehicles

ENGINEERS MAKING INDIA PROUD

• **Er. Rachpal Singh Gill** was a Sikh Indian civil engineer responsible for key engineering projects such as the Bhakra Nangal hydro power complex, Ranjit Sagar Dam, Pong Dam, and the thermal power plants at Bathinda as well asRoopnagar. Rachpal Singh graduated in civil engineering from King's College, University of London.

• **G.N. Ramachandran's** contribution to the elucidation of the triple helix's complex structure is the most important work done in the basic sciences in independent India.

• **Sir M. Visvesvaraya** was a notable Indian engineer, scholar, statesman and the Diwan of Mysore during 1912 to 1919. Internationally recognised for his genius in harnessing water resources, he was responsible for successful design and construction of several river dams, bridges and implementing irrigation and drinking water schemes all over India. In India, Engineer's day is celebrated on September 15. This day is celebrated in his honour.

• **Vinod Dham** is an Inventor, Entrepreneur and Venture Capitalist. He is popularly known as the Father of the Pentium chip, for his contribution to the development of highly successful Pentium Processors from Intel. Dham completed his graduation in Electrical Engineering from the Delhi College of Engineering in 1971 at the age of 21.

• **Arjun Makhijani** is an electrical and nuclear engineer who is President of the Institute for Energy and Environmental Research.

• **Dr. Ravi B. Grover** is an Indian nuclear scientist and a mechanical engineer. He is widely given credit of building India's Nuclear bomb.

• **Pawan** is President of the Automotive and Farm Equipment sectors of Mahindra Group. He joined Mahindra in October 1993 as a General Manager, R&D. Pawan holds a Bachelors of Science in Mechanical Engineering from IIT, Kanpur. Post his Engineering degree, he earned his PhD from Cornell University, USA. He's also a graduate of the Harvard Business School Advanced Management Program.

• **Girish Wagh** is the vice president and head small car project of Tata motors.he is key figure in the Tata Nanos project.A mechanical engineer from the Maharashtra Institute of Technology.wagh did a post graduate programme in manufacturing from mumbai B school-S P Jain Institute of Management and Research.

• **Sabeer Bhatia** is an Indian American entrepreneur who co-founded the Hotmail email service and Jaxtr . He went to US to get a bachelor's degree at the California Institute of Technology after a foreign transfer from BITS Pilani, Rajasthan. He earned a master's degree in electrical engineering from Stanford University.

• Sh. K.L. Chugh

He is the Independent Non-Executive Chairman of the Board of Gati Limited. He had been the Chairman of ITC Group from November 1991 to December 1995. On his retirement he was honored with the title of Chairman Emeritus - ITC. ME' 67 Batch.

He was elected **Financial World's International CEO of the Year** in 1994 & in 1993 was adjudged amongst the Top 2 Best Indian Chief Executives. He was appointed Director on the Central Board of Reserve Bank of India, Shipping Credit and Investment Company of India Ltd., Tourism Finance Corporation of India & National Housing Bank of India and Member, Board of Governors, National Council of Applied Economic Research, IIM Kolkata, Administrative Staff College of India, President AIMA.

•Sh. Promod Haque

(B.Sc. Elect. Engineering. 1969 Batch) Managing Partner, Norwest Venture Partners (NVP), a US-based venture capital firm, manages more than $1.8 billion in venture capital.

He has been ranked as a top dealmaker on the annual Forbes Midas List for the past five years, and in 2004, **Forbes named him as the #1 venture capitalist** based on performance over the last decade.

In 2006, he was presented with a Global Leadership award from NASSCOM.

• Dr. Ravi B. Grover

is an Indian nuclear scientist and completed his Bachelor's degree in Mechanical Engineering from the Delhi College of Engineering in 1970 and joined the staff of BARC. He is the founding director of the Homi Bhabha National Institute, the Director of the Department of Atomic Energy's Strategic Planning Group (SPG) and Director of the Knowledge Management Group (formerly Associate Director, Technical Coordination & International Relations Group) at BARC. He is a member of the World Nuclear University as a representative of the BARC training school. He is a fellow of the Indian National Academy of Engineering. Ravi Grover is one half of the Kakodkar-Grover duo who are chiefly responsible for the success of the Indo-US negotiations that culminated in the 123 agreement signed in July 2007.Anil Kakodkar and Ravi Grover were the technical advisors to India's politicians in the tense negotiations that led to the Indo-US nuclear agreement, a culmintion of two years of painstaking negotiations.

• Sh. Vinod Dham

He is perhaps the most well-known of all the DCE alumni, commonly known as the **father of Pentium chip**. He did his Bachelors in Electrical Engineering from Delhi College of Engineering in 1971. While making a presentation at the IEEE conference in Monterrey, California on re-programmable memory, he received an offer from the Intel to work with them.

In January 1990, he was in-charge of developing the 586 or Pentium processor. He worked relentlessly on the project and the Pentium processor was a big hit in the market. He rose up the corporate ladder and reached the position of the Vice President of the Intel's Microprocessor Products Group. He quit Intel in 1995. Presently, he is the Executive MD of NEA Indo-US Ventures.

•Sh.Gopal Miglani

He is the Founder and **President of BitRouter**, a TV and set-top box software solutions company. In 1997 he founded SoftProse, Inc., another Digital TV company which was acquired by Next Level Communications / Motorola in 2000.

•Sh. Ashok K. Puri

(Electrical, 1969 Batch) **Chairman and Managing Director, BHEL**. He was been conferred the prestigious Eminent Engineer Award for the year 2004 by the Institution of Engineers (India). He is a member of the governing body of Council of Scientific and Industrial Research. He has earlier been honored with string of awards which include Eminent Engineer and Engineering Personality Awards by Institution of Engineers and Udyog Ratna Award conferred by the Government of Madhya Pradesh and Government of Uttaranchal for his outstanding contribution to the industrial development.

•Sh.Anil Kumar Sardana

(BSc Elect. Engg. 1980 Batch) Managing **Director, North Delhi Power (NDPL)**, has been conferred the 'Asian Power CEO of the Year Award' for 2006.Over the years, he has successfully managed turnaround and change management in two key organizations, and established independent & JV companies from concept to benchmark performance standards. He has held Membership of the CII National Committee on Corporate Social Responsibility, and was Chairman of the CII CSR Sub-committee (Northern Region), as also the Sub-committee of Power, Water and Energy. He was also Chairman of the Tata Northern Regional Forum for three years.

• Sh. Raj Soin

- Mechanical engineering graduate in 1971, member of the board of Ohio Venture Capital Authority and President of the Asian Indian Alliance.

In 1984, he started his business viz. **Modern Technologies Corporation (MTC)**. In June 2002, MTC Technologies had an initial public offering and is listed on the NASDAQ. Headquartered in Dayton, OH, MTC Technologies has sales in excess of $180 million and employs over 1500 people in 25 cities in 18 states.

Over the years, Soin has invested in numerous entrepreneurs from the Miami Valley to Silicon Valley and around the globe.

The multi-national complex of companies that comprise the Soin family include; Corbus L.L.c., Composite Technologies Company L.L.c., Custom Manufacturing Solutions Inc., Corbus (India), JMD Development, Integrated Information Technologies Corporation (Denver, Colorado), Integration Corporation (Fort Walton Beach, Florida)

• Sh. Ashok K. Baweja

(B.Sc. Elect. Engineering. 1970 Batch) **Chairman, Hindustan Aeronautics Ltd**

Sh. Ashok K. Baweja joined Hindustan Aeronautics Limited (HAL) as a Management Trainee in 1972 and stands apart as the only officer from within, who rose from the ranks to occupy the highest post of Chairman from 1st Dec 2004. He has worked in various assignments in manufacturing and production planning in the Helicopter and Engine Divisions.He is also the President Elect of Aeronautical Society of India and Fellow of Aeronautical Society, UK.

• Sh. A.K. Purwaha

Chairman & Managing Director, Engineers India Limited (EIL)

Shri A. K. Purwaha is the Chairman & Managing Director of Engineers India Limited since 1st October, 2009. He is an Electrical Engineer from Delhi University. He has more than 32 years of extensive experience in Oil & Gas Sector. Shri Purwaha started his career with ONGC, almost at the inception of Bombay High in Drilling Business Group and worked in Bombay High.

He joined GAIL (India) Limited in 1985. Mr. Purwaha is also the recipient of OCEANTEX 2010 Leadership and Excellence award and Industry Doyen by CIDIC in 2011.

UNDERSTANDING THE UNIVERSE

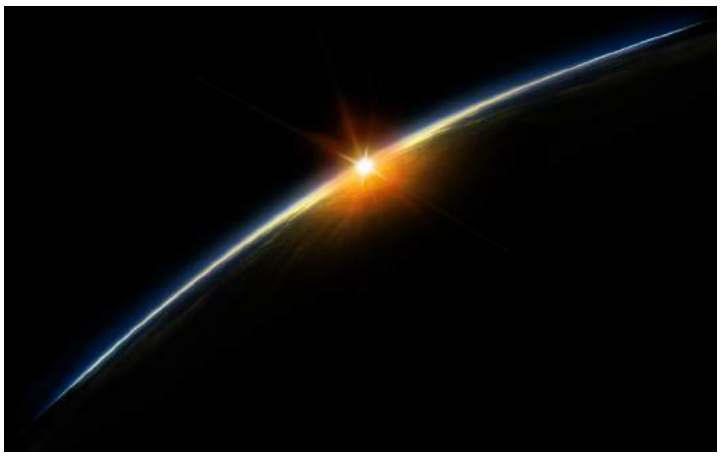
Dr Krishen Kumar,
Honorary Visiting Professor at DTU

Expanding the boundaries of our knowledge to understand the birth, existence, and extinction processes of universe presents one of the greatest challenges of all times. This includes the understanding of time, space, matter, and life.

Scientists have advanced the Big Bang theory as one of the most plausible explanations for the formation of universe. According to this theory, the entire universe was once confined to a small space; ten to the power minus fifty centimeters, the space of a nucleus, smaller than a pea, or smaller than an American dime. For a time up to ten to the power minus forty three seconds there was grand unification of all forces characterized by the Planck epoch. At this time, the result of Big Bang was the separation of the gravitational force. This was followed by the separation of strong force at about ten to the power minus thirty five seconds. Finally, the weak and electromagnetic forces became differentiated at ten to the power minus eleven seconds.

At a time of about one micro second, protons, neutrons, and hadrons formed followed by the formation of deuterium, helium, lithium, and hydrogen at about a second after the bang. From three minutes to about half a million years, matter dominated with recombination and the onset of gravitational instability. Since then, the universe continues to expand with the formation of galaxies and black holes. It was also characterized by a fall of temperature from three times ten to the power of thirty one degrees Kelvin to about two point seven six degrees Kelvin today.

This explanation of the expansion of the universe is based on the shift of hydrogen lines toward red end of the electromagnetic spectrum. Also known as the Doppler shift, it allows the calculation of the Hubble constant, which is based on how fast the velocities of galaxies increase with their distance from Earth. Cosmologists using theoretical tools available to date estimate the age of the universe anywhere from seven to twenty billion years. Some scientists have advanced the notion that time and space were created due to Big Bang.



For many reasons, the Big Bang leaves difficult and unanswered questions behind ranging from cosmological red shift being caused by Compton Effect as opposed to Doppler Effect to some scientists maintaining that globular clusters in our galaxy are older than fifteen billion years.

The measurements of Uranium content in stars shows the minimum age of the universe to be twelve billion years, whereas, those of the Hubble constant produce an age of about ten billion years. In this respect questions have been raised about the range of validity of the Hubble constant.Recent reports stating that the farther reaches of universe are accelerating at a faster rate has also added complexity to this thought. Another aspect of unknowns is that the survey of visible and luminous matter yields mass density of only one percent of the critical density of the matter in the universe. Recent findings from the Hubble and Chandra telescopes show black holes with an age of about thirteen billion years and galaxies separating at larger rates than has been observed and assumed to date.

Astronomy and cosmology have engaged the inhabitants of India for more than five thousand years. Indeed, it has been said that knowledge makes it possible to break the cycle of Samsara (birth death rebirth) and the gift of knowledge is the greatest gift.

In Nayaya philosophy, the means of obtaining knowledge are given as Pramanas. These include Pratyaksha (sense perception), Khyati (awareness of relationship due to senses), Anumana (inference), Upamana (similarity), Paroksha (invisible/instinctive/intuitive), and Manaskara (mental concentration/meditation.

One of the profound concepts advanced in India is that of Kala or time defined as the power that limits the existence of eternal elements in matter. The *smallest time* known as Truti is about one tenth of a nano second. From this time there are four times defined before Tala, which can last from half to three fourths of a second. Bharatha, the writer of music and dance is said to have recognized more than twenty two Talas.

From Tala five times are identified before Kala, about forty eight seconds. Kala again appears after four more gradations in the scale of time. This time it is defined as the sense of appointed time/mealtime, from six to eight hours. Three definitions from this comes Pahsha, fifteen days.

On the higher end, one Manush Varsha is defined approximately as three hundred and sixty five days. The time scales following this are Kali, Dvapur, Trita, and Satya Yugs. A Maha Yug is the combination of these four Yugs and is estimated to last four point thirty two million years. This is followed by the definitions of Mun Vantar, Kalpa, Brahma Varsha, and life of Brahma. This last time scale is about three hundred and fourteen trillion years with the integers appearing in this time scale are those of pi being a profound result as it points to continuity of the circular frame. Within the time scales from Truti to the life of Brahma, cycles of birth, existence, and annihilation are expected for matter and life. The larger of these cycles are known as Pralays. The largest being the age of Brahma, at the end of which entire universe is destroyed and then recreated. The Indian method of calculations is based on revolution of moon around the Earth and few of the time scales have been confirmed using the movement of Earth around sun in the recent past.

According to the Indian calendar, the universe is going through Kali Yug at this time. The time left for the first Pralay (annihilation) is about two point three five billion years. This number is close to the number that corresponds to the expansion of Sun and loss of solar light to a significant level based on modern theories of the activity of Sun. It will cause major extinction of Earth and therefore life on Earth.

Within the context of Kala, the cycle of life is also expounded in the Indian philosophy. Brahma is said to be the creator of life. Scientists believe that Brahma could be the DNA/RNA that resides in every cell of living entities. Indeed, the literature says that Brahma resides in all living beings and originated from water. The thought of life takes on a series of manifestations as Matsya (fish), Kurma (tortise), Varaha (mammals), Narasimha (half human half animal), and Vamana (short human). Higher forms of life follow this. Fossils found in India and Kenya are dated back to twelve to fourteen million years and indicate the existence of short humans, while recent findings from fossils found in Chad, point to the possibility of humans with some animal features.

We find ourselves at a crossroad of the exploration of the universe with diverging views and a heap of questions before us. What then should be done?

The answer may lie in casting the net larger where all possibilities are considered for discussion and introspection. It is here that the thoughts of the universe and life in it as expressed in the literature of India should be considered and investigated.

One must ask, "*Why were such thoughts expressed in India at that time?*" So, Kala might hold a mighty hint for us to pursue!

We welcome the Honorary Professors at DTU

Dr. Kumar Krishen and Dr. B.D. Malhotra have recently joined DTU as Honorary Professors. Dr. Kumar Krishen is the ST/Senior Scien¬tist / Lead Technologist for the Technology Transfer & Commercialization Office, NASA Johnson Space Center (JSC), Houston, Tex¬as. Dr. Krishen has served at Virginia Tech as University Fellow for Technology Trans¬fer, Office of Special Initiatives, and Visiting Professor on a special NASA assignment. He also served as Adjunct Professor at Rice University. Currently, he holds the appoint¬ment of Honorary Professor for Delhi Tech¬nological University.

Dr B.D. Malhotra joined the Department of Biotechnology at Delhi Technological University as a Professor with effect from 19 October2011 after his voluntary retirement as Chief Scientist and Head of the Department Science & Technology Centre on Biomolecular Electronics at the National Physical Laboratory (CSIR), India . Prof. Malhotra received his M.Sc and PhD in physics from the University of Delhi, Delhi in 1973 and 1980, respectively. He has published 219 original papers in international journals, has filed 10 patents, has edited/co-edited two books on biosensors and polymer electronics. His research papers cited widely (citations>4342) carry an h-index of 37. He has research experience of about 25 years in the field of biomolecular electronics and has guided 19 Ph.D and several M.Tech/MSc students till date.

TO THE COLLEGE!!

Pranay Bhardwaj
3rd year, Mechanical

There are two kinds of people in this world. The ones who do engineering and the ones who don't. If you were the one who got this copy of DTU Times from our campus then it is obvious which kind are you. I hope that I could say that you don't choose engineering; engineering chooses you. La Harry Potter style. But sadly it is not so. We choose engineering ourselves; the degree at least, can't say the same about the profession.

So how did we make this decision? Or more dramatically speaking, how did you arrive at this point in your life? Was it watching your uncle or cousin or your father (lucky you!) doing well for themselves after doing engineering from some prestigious college. Or was it because you were told from a very young age that people with good IQ take science? Or maybe your neighbor got into IIT or DCE and you simply got jealous? Whether it was the stability that engineering promises or the hopes of cashing some moolah or maybe the first word you said after you were born was 'technology', whatever the reason be, somehow we thought that engineering was the way ahead. We saw a perceived value attached to it. Or because we could. Yes, this is also a very big part of that decision. Whatever the competition was, and no matter how tough or easy the paper was set, we cracked it. We could and hence we did. No regrets. And that's why today we are here.

Now today you stand at the pedestal of a great institution with more than 70 years of excellence under its belt, wondering perhaps, 'Is this the place for me'? Well this was the question we all have asked ourselves at one point or another in or life. I did it. My seniors, my juniors and our great alumni once faced the same question? Take a deep breath. This is a very important question, and a lot depends on it. Many of you have already made their minds to join us. For those who are still in two minds, I will give you a suggestion. If you are smart, like to explore various career options, want to get in touch with a huge pool of successful people (read our alumni), love freedom and want to enhance your social life, DTU is just the place for you. Those of you, who have already decided to join us, will have 4 amazing years of college life with one of the best engineering courses of the country and some of the most promising prospects (read the students in DTU) that this country has to offer.

Help will be given at DTU to those who ask for it.

We welcome you with open arms to our world – Delhi Technological University.

I suggest you come here with an open mind. Explore the various opportunities available in this college; participate in the plethora of extracurricular activities and societies offered in the campus; find your favorite subjects, excel at them; make friends and in the process learn more about yourselves and become wiser. Don't force any of the above on yourself. If you enjoy doing something, leave no stones unturned to excel at it. If you don't just remember that Sachin Tendulkar is not a great swimmer, neither can Bill Gates play football. You don't have to succeed at everything. Just find your niche. Try to engage yourself in the various research activities going on in the college or start something on your own with a few friends or a teacher. Hopefully by the time the college ends you will have a deep knowledge of any subject of your interest, which you can pursue later in your life. It might so happen that you get an admission, through GRE, in MIT or Stanford or various other colleges around the world for higher studies. Or maybe you will prepare yourself for the corporate life, learning the most cutting edge technologies in your respective field used today by the companies and becoming an expert in it; perhaps leaving the campus with a big salary. But if it so happens that inspite of your intent you are not able to develop interest in engineering then don't lose heart, DTU, formerly the mighty DCE, has an unparallel record of producing the finest entrepreneurs. If it so happens that you are interested in management you can go for CAT or GMAT. Atleast 40% of our students go for MBA and they too are hugely successful in their fields. Even highly unconventional career paths have also been taken by our alumni. Some have become writers, models, stage actors, poets etc. And it is no hidden fact, that DCE also has produced its fare share of IAS, IPS and officers of other cadres in the Indian Administration.

The possibilities are endless. If you are one of those people who don't give up in between and persevere, you will find DTU to be a great place to unleash your true potential. You can become whatever you want to be.

And it all comes down to your decision, as Dumbledore said, "*It is our choices, Harry, that show what we truly are, far more than our abilities.*" **So what did you choose?**

THE TICKET PLEASE...

Three engineers and three accountants are travelling by train to a conference. At the station, the three accountants each buy tickets and watch as the three engineers buy only a single ticket. "*How are three people going to travel on only one ticket?*" asks an accountant. "*Watch and you'll see*," answers an engineer.

They all board the train.

The accountants take their respective seats but all Three engineers cram into a restroom and close the door behind them. Shortly after the train has departed, the conductor comes around collecting tickets.

He knocks on the restroom door and says, "*Ticket, please.*" The door opens just a crack and a single arm emerges with a ticket in hand. The conductor takes it and moves on.

The accountants saw this and agreed it was quite a clever idea. So after the conference, the accountants decide to copy the engineers on the return trip and save some money.

When they get to the station, they buy a single ticket for the return trip. To their astonishment, the engineers buy no tickets at all.

"*How are you going to travel without a ticket?*" says one perplexed accountant. "*Watch and you'll see*," answers an engineer.

When they board the train the three accountants cram into a restroom and the three engineers cram into another one nearby. The train departs. Shortly afterward, one of the engineers leaves his restroom and walks over to the restroom where the accountants are hiding. He knocks on the door and says, "*Ticket please.*"

THE PATH TO FREEDOM

Miteshwar Singh
IInd Year, EE

The leaders of the free world boast of their ability to preserve and even improve the great institution of democracy. It (theoretically) provides each man freedom irrespective of caste, colour or creed. It has long been believed that true freedom arises from free will i.e. our ability to decide the course of our lives be it black or white or even grey. But if we are not presented with all the available choices is this truly freedom?

We as budding members of society find ourselves at a crossroads in life when we wish to decide the perfect career to undertake. Due to intensive propaganda by relatives, peers and the media, Medicine, Engineering, Economics etc find prominence in the list of choices. Based on these factors and assuming parental pressure does not exist one makes a choice. However the truth about the remaining careers eludes us and despite this a decision has been made. Is this free choice? Is this freedom?

As we introspect, our mind makes us relive and realize the times when this case of lack of information of all the choices took place. A little more thought brings out the fact that this happens every day and is not limited to any particular event. If one does not know of all the routes to the destination we can never make a judgment regarding the best road to take. This fact

strips us of our so called freedom. Absence of knowledge crawls its way to a place high up in the list of reasons. But it is not due to the dearth of information (which is in plenty these days due to the media and the internet), but the inability of our mind to search for the road which has no signposts leading up to it and is oft without a milestone.

It has been written that life is a journey and the destination holds only ulterior importance. It is the experiences we gain from the road that count. An initiative to find or even make a new road to travel on widens the horizon of possibilities which lie ahead. It might even change the destination!

The freedom of humanity does not lie in the well preserved pieces of parchment which historians call the constitution. On the contrary it lies in the unlimited choices we ought to have in life, and our battle to attain them.

THAT LOST TIARA..... .....

Madhuri Gautam,
4th Year, IT

One night, in my dream I saw 'With that beautiful smile, those chubby cheeks and cute features, wearing a frock, the little fairy princess girl dancing to the beats elated and laughing merrily in that big room'. The moment was mesmerizing, but suddenly lights go off and the little girl was frightened. She stopped dancing and crying bitterly. The terror was horrifying and with the thunderous gush of wave, everything was dark. I was trying to enter only to find myself locked outside the room. I was shouting to the dark inside. Then

silent prevails and finally one of the doors opened. Now, I could see only her beautiful shining tiara lying on the floor. That little princess had gone and suddenly my voice chocked and I got up startled.

The horror dream was what I would call the personified cruelty of the people of our society that form that section for whom being a girl means nothing and a burden. In today's fast and growing world where women haves reached to the top of the success peak along with the men, there are examples of brutal acts that snatches the lives of such little princess brutally and recklessly. Nowadays I am shocked to encounter these acts more often in the news and couldn't believe on what I come to know more recently that "How a father can take his daughter's life because he wanted a son. Baby Afreen died because of the old stigma attached to humans to have a son, and that transforms a father into a hideous murderer. And not just Baby Afreen but alike her uncountable tender souls have been crushed, tears have been shed, lives have been burnt into ashes and uncountable smiles have been buried under the weight of cries till now but unable to melt that stone-heart. I did not understand the crime of that little girl who was ruthlessly beaten up by his father.

"*Is being a girl a grave mistake?*" When God has not created any discrimination providing the similar capabilities then why a common man created by the same God questions on the existence of a girl. When societies are getting more and more sophisticated day by day and education has spread its wings far in the world, then why these crimes
are gaining visibility. How is it that when on one side of the coin, today's women are conquering the success peak, the other side is abysmally showing the critical helplessness of the women. It is shameful that when people are building strong concrete houses, the mere human civilization basics are residing on shaky grounds with such acrimonious acts flourishing.

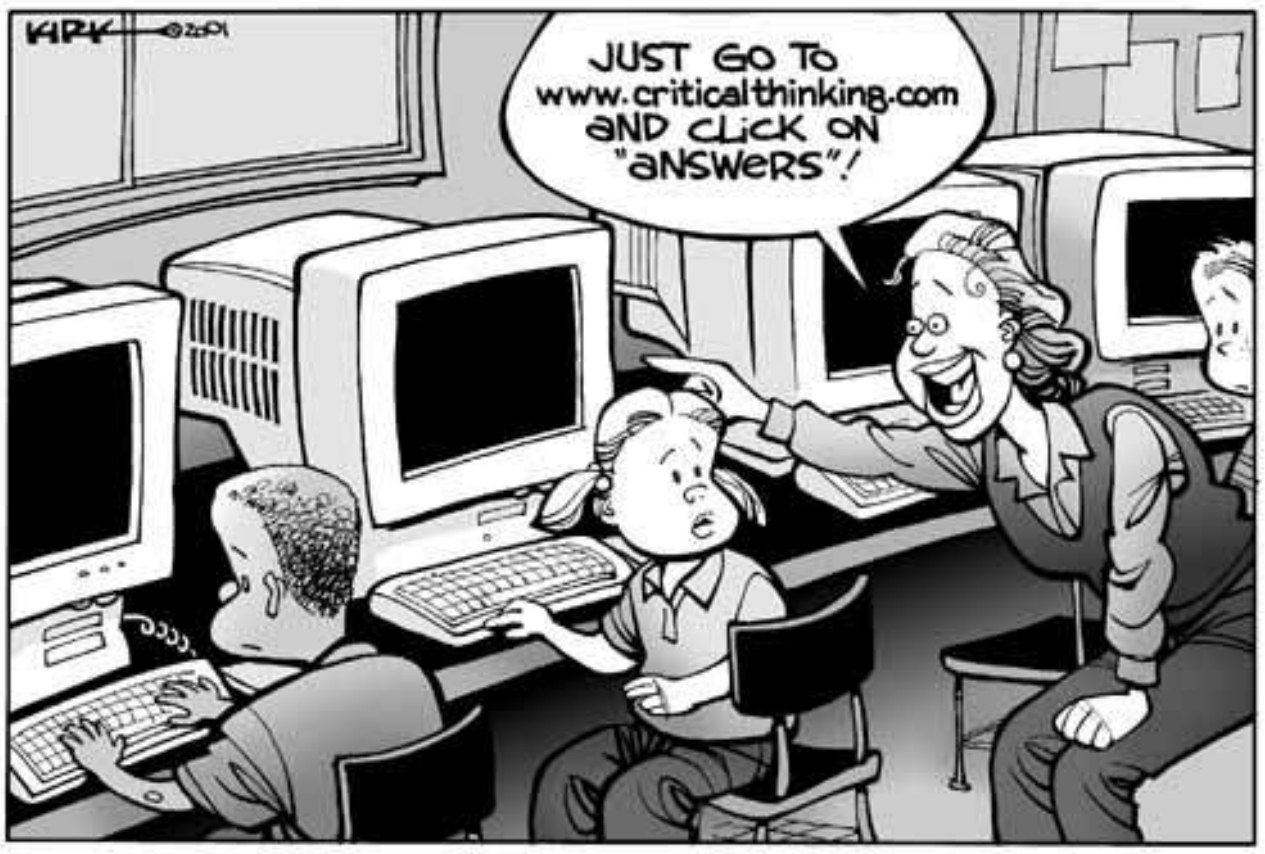
What is it that gives courage to someone to take away the most beautiful gift of life, blessed by the God, from his most beautiful creature 'A GIRL'? Is he that blind to ignore the innocence of her twinkling eyes? Is he that much deaf to the sorrow cries of her crying to us 'TO LET ME LIVE'? The truth is that, that section of our developing society has become handicapped towards the existence of a girl. I am fed up with such blunders and I see that door opens from where I can put forth my protest towards those for whom girl is a mere burden and a mistake of God in place of a boy. I am proud to be a girl and I know that no one can snatch the "RIGHT TO LIVE", "RIGHT TO FREEDOM","RIGHT TO SPEAK" and above all "RIGHT TO HAPPINESS" from a girl because these rights hold same for every citizen of the country. It is our duty to be aware so that no other Neha or Afreen can lose her life. Today's youth is one such power that can create wonders and should come forward towards this gender discrimination. Through this small initiative, I appeal to everyone reading this article to realize and make others realize the 'Worth of a Girl', and sticking to the adage. Then only she will be seeing laughing and dancing with her shining tiara on her head.

YES, I BLAME THE SYSTEM!

By Sagar Rastogi and Kumar Pratik, 2nd year

'Don't blame the system, just keep your goal in mind'. Enough with that age-old line! Yes, I blame the system, and I have my reasons to do so. Don't tell me that there is no point, for what I am about to say is not just my viewpoint; it is shared by more people than you would think, none of whom are brave enough to say what needs to be said though.

Albert Einstein once said "*Why should I remember something which I can find in a book?*" It begs me to question - Who are we to question the greatest mind that ever lived? Of course, the answer is - We are the system! Is academic excellence really the best parameter to judge a person's worth? If yes, is our methodology to test academic excellence good enough; is it not flawed at its very core? I know that your entire body just reverberated with a resounding 'YES'. Yes, my friends, it is so very flawed.



How? Let's consider this. Does mugging up some formulae from a book make you more skilled, more intelligent than others? No, it does not. What it does do on the other hand, is stunt your ability to think beyond. Clearly, the emphasis is on the ability to understand, and to learn not on the ability to invent, to question, and to think! Don't you think that if a student spent hours and hours trying to derive the Pythagoras theorem and finally succeeding, it would be a better utilization of his/her brain than trying to remember what the formula was, like a first generation Robot? Of course, understanding is a very important aspect of education, but most definitely not at the cost of imagination. The greatest minds in our history were those who questioned the system, who dared to think beyond. Leonardo da Vinci, Isaac Newton, Nicola Tesla – they were all rebels in one way or the other. The real question I suppose is - are we trying to raise more of Aryabhatts and Ramanujams in the future or Siddharth Mallyas, Rahul Gandhis, and Chetan Bhagats?

I move on to my next point - 'Why do students suddenly seem to become dimwits from geniuses overnight in engineering colleges?' Hormones, lifestyle, alcohol, laptops? I say this on behalf of a major fraction of the 1.2 billion Indians, who have been wanting to say this all along, none of the above. Then, what? Curriculum and the way academics are handled by people infinitely more qualified than me, that ladies and gentlemen, is the root cause. Now, I know that theory is an integral aspect of education,

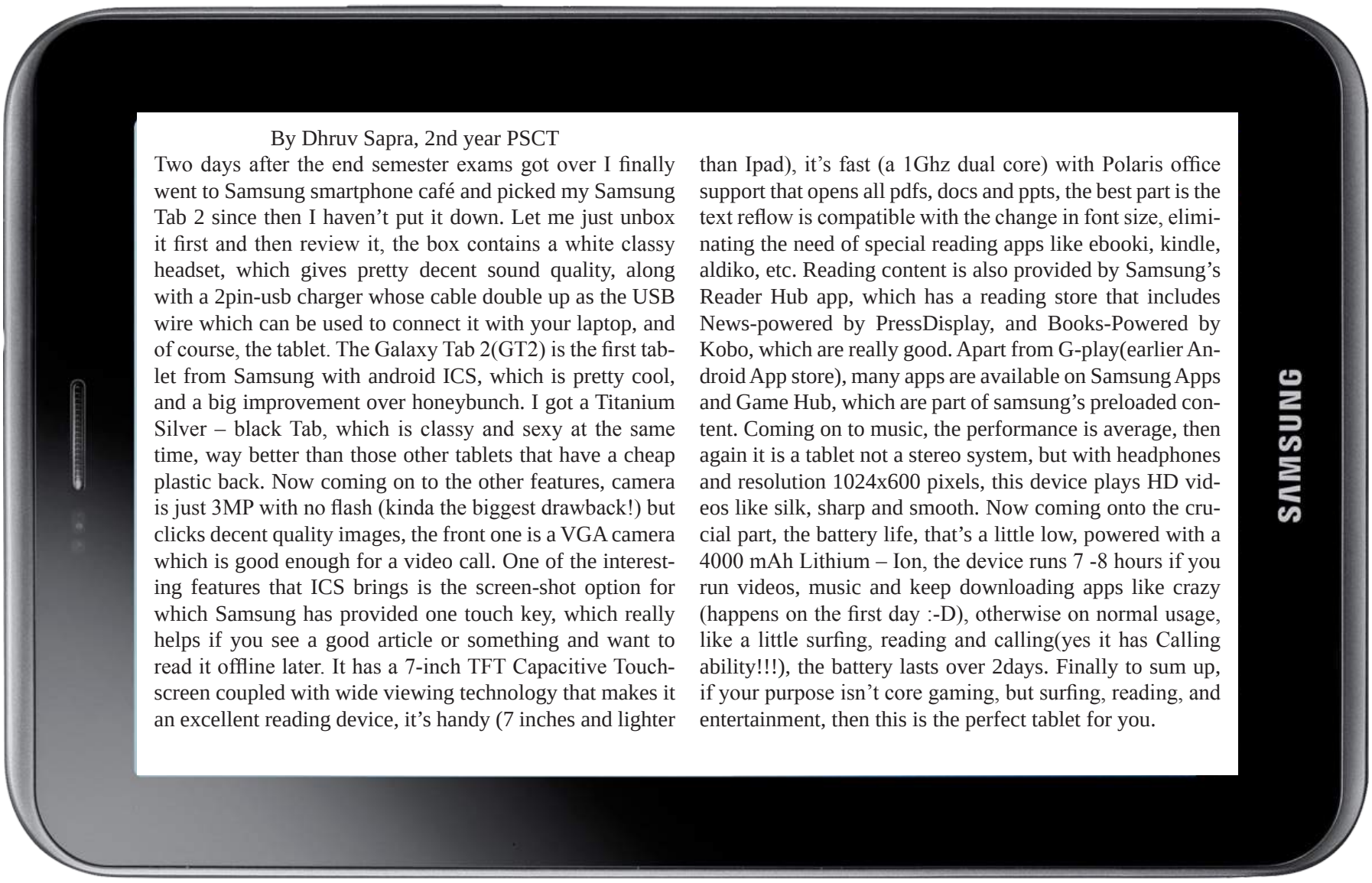
but what good could ever come of cramming hundreds of books into our heads, only to forget everything the very day after the exam? I already sense the response: Why don't you study beforehand? Here's why: Is it worth it? No, because let's face it, what we study has little to absolutely no relation with our future. At the end of the day, we have to think about our careers, our jobs, and the knowledge we gained from cramming those books is absolutely redundant! It's not a fact, but do look it up, but I think that hardly the successful people nowadays are engineers. They probably are college drop-outs who have decided to learn something for themselves and succeeded in it.

I am ranting about the system because I know a better system. As simple as that. Why can't engineering be what it promised beforehand? A place to unravel how the most complex things work, to design innovative machines, and above all, to be different from the rest! With what the course currently comprises, I could very well switch to any other under-graduate course from science or commerce, and I still would not find a difference. And, that is the bitter truth.

Then of course, there is the word 'VIVA' that sends shivers through the spines of engineering students. What is the ideology behind these examinations? I can guess. To make students open up, be able to answer whatever is thrown at them, especially because in future, they will have to attend numerous interviews! Sounds good enough but again there's a flaw. How can you possibly assess the entire knowledge of a student, worth 60 marks out of a possible hundred, in five to ten minutes, in practical papers which have nothing practical about them in the first place? That too, from questions as random and unpredictable as the number of stars in the universe. And frankly, viva-voce will not help one bit in an interview, that is quite obvious to most of us. Would it not be smarter to hold group discussions about things that catch the curiosity, be it a new technological invention, or an old-discarded hypothesis? We need to stop living in the past, and think of radical new solutions. Powerpoint presentations are already a thing of past. Are we really not smart enough to move forward with time and technology?

I can go on and on with the solutions, but unless we are brave enough to stand up and recognize that we have a problem, nothing can be done about it, rest assured. No, don't call me a cynic, for a cynic does not believe a change is possible. I do, and I implore every single person who has read this article to believe so, and do something about it. And yet, all said and done, I am still proud to be an engineer. And, yes, I will try and learn something while in college, if I haven't already!

CUSTOMER REVIEW:
SAMSUNG GALAXY TAB 2 P3100



By Dhruv Sapra, 2nd year PSCT

Two days after the end semester exams got over I finally went to Samsung smartphone café and picked my Samsung Tab 2 since then I haven't put it down. Let me just unbox it first and then review it, the box contains a white classy headset, which gives pretty decent sound quality, along with a 2pin-usb charger whose cable double up as the USB wire which can be used to connect it with your laptop, and of course, the tablet. The Galaxy Tab 2(GT2) is the first tablet from Samsung with android ICS, which is pretty cool, and a big improvement over honeybunch. I got a Titanium Silver – black Tab, which is classy and sexy at the same time, way better than those other tablets that have a cheap plastic back. Now coming on to the other features, camera is just 3MP with no flash (kinda the biggest drawback!) but clicks decent quality images, the front one is a VGA camera which is good enough for a video call. One of the interesting features that ICS brings is the screen-shot option for which Samsung has provided one touch key, which really helps if you see a good article or something and want to read it offline later. It has a 7-inch TFT Capacitive Touchscreen coupled with wide viewing technology that makes it an excellent reading device, it's handy (7 inches and lighter than Ipad), it's fast (a 1Ghz dual core) with Polaris office support that opens all pdfs, docs and ppts, the best part is the text reflow is compatible with the change in font size, eliminating the need of special reading apps like ebooki, kindle, aldiko, etc. Reading content is also provided by Samsung's Reader Hub app, which has a reading store that includes News-powered by PressDisplay, and Books-Powered by Kobo, which are really good. Apart from G-play(earlier Android App store), many apps are available on Samsung Apps and Game Hub, which are part of samsung's preloaded content. Coming on to music, the performance is average, then again it is a tablet not a stereo system, but with headphones and resolution 1024x600 pixels, this device plays HD videos like silk, sharp and smooth. Now coming onto the crucial part, the battery life, that's a little low, powered with a 4000 mAh Lithium – Ion, the device runs 7 -8 hours if you run videos, music and keep downloading apps like crazy (happens on the first day :-D), otherwise on normal usage, like a little surfing, reading and calling(yes it has Calling ability!!!), the battery lasts over 2days. Finally to sum up, if your purpose isn't core gaming, but surfing, reading, and entertainment, then this is the perfect tablet for you.

HTC One X:The one you'd love to buy

BY: Rishabh Kumar,
2nd year PSCT

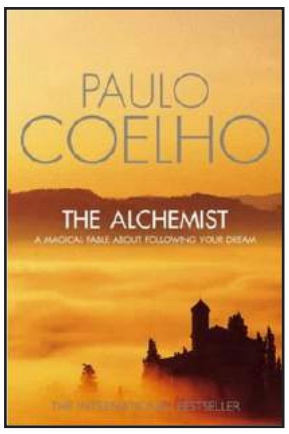
HTC one x is one of the phones that are going to make people around you jealous. The 4-PLUS-1 Tegra 3 makes its smartphone debut here, the polycarbonate body adds that extra solid feel and grip, while the 4.7" second-generation S-IPS LCD of HD resolution on the front gives a crystal-clear view to the world of Sense 4.0 and Android 4.0 ICS. An amazing 8MP shooter with a dedicated imaging chip, captures images really fast, thanks to the built-in image processing chip. As a matter of fact, you can even download special "THD" games on HTC One X, thanks to the tegra 3 chipset. Be it any game, or app, the size and the requirements don't matter cause One X can handle them like a baby. There is simply no lag in this mobile, though Sense 4.0 still needs some tuning, but still, Sense UI is way better than the Samsung's Touchwiz. The best part is that all these beauty features come with a slim waistline of just 8.9mm!! That's simply amazing!!

On the downside, this phone is still not the 'perfect' one. Sense UI needs to add support for native video calling, the browsing experience can be improved and battery backup needs to be increased. Though multi-tasking glitches have been removed largely after the 1.29 update, but there is a room for improvement. Apart from the above stated problems, I'm totally in love with this one and would undoubtedly recommend it. Anyone who wants have to lay his hands on this monster can freely contact me.

Hell yeah!! I own this beast.

BOOK REVIEWS

The Alchemist



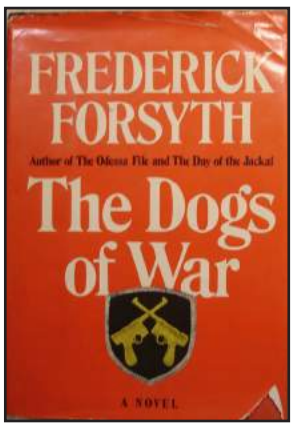
By Pranay Bhardwaj

Written by Paulo Coelho, The Alchemist tells the story of Santiago, a young Spanish Shepherd. After having a recurring dream of finding fortune in the Egyptian desert, Santiago leaves Spain and embarks on a journey to Egypt's pyramids. Along the way, Santiago meets people, gains wisdom and contentment, and makes several different types of discoveries. The book not only urges the reader to follow their dreams to find personal achievement and happiness, but also shows that riches and fortune are not always found in money and possessions.It is an exciting novel that bursts with optimism; it is the kind of novel that tells you that everything is possible as long as you really want it to happen. That may sound like an oversimplified version of new-age philosophy and mysticism, but as Coelho states "simple things are the most valuable and only wise people appreciate them".

Other Books which are equally enlightening are –

1. The Last Lecture – Randy Pausch& Jeffrey Zaslow
2. Tuesday's with Morrie – Mitch Albom
3. To kill a Mocking Bird- Harper Lee
4. The Catcher in the Rye - J.D Salinger
5. Letter's to a Young Poet- R M Rilke

The Dogs Of War



By Shashank Sharma

"Cry 'Havoc!', and let slip the dogs of war".

Even though Shakespeare made this term famous I read it first while reading The Dogs of War. It was one of my earliest novels and one of the reasons why Frederick Forsyth is one of my favourite authors still.

The novel is gritty, fast paced and methodical. It is about an attempted coup-d'etat of Zangaro, a fictional African nation. The men hired for this venture are mercenaries, ruthless killers all of them.

The progression is well paced, engaging and the characters are deep.

Recommended for everybody.

Other recommendations:-

1.Day of the Jackal- Frederick Forsyth
2.The Da Vinci Code- Dan Brown
3.The Eagle has Landed- Jack Higgins
4. The Odessa File- Frederick Forsyth
5. Hotel- Arthur hailey

MUSIC REVIEW

Dark Night of the Soul

By Shashank, 3rd Year

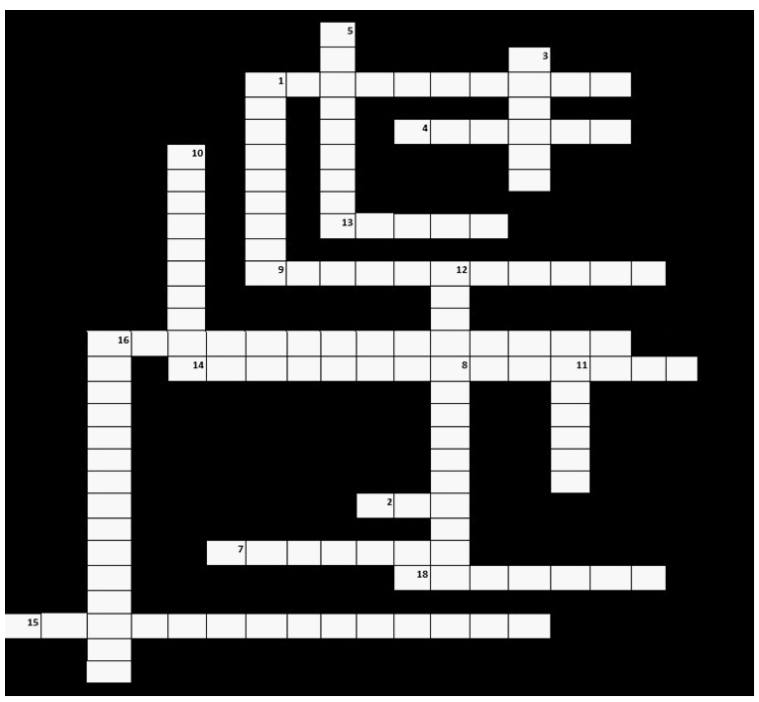
Dark Night of the Soul is an album written by Danger Mouse and Sparkle Horse. This album has a number of artists working on it like James Mercer of the Shins, Wayne Coyne of the Flaming Lips, Gruff Rhys of Super Furry Animals, Jason Lytle of Grandaddy, Julian Casablancas of the Strokes, Black Francis of the Pixies, Iggy Pop, Nina Persson of the Cardigans, Suzanne Vega, Vic Chesnutt, David Lynch, and Scott Spillane of Neutral Milk Hoteland the Gerbils; these singers also had a hand in composing and producing the work. Sparkle Horse leader Mark Lineaus led a troubled life battling addiction problems and constant depression.

So the collaboration between Danger Mouse and Sparkle Horse is perfect. Both the groups exemplify the good qualities of each other and with the addition of a plethora of renowned artists this album is a must have.

Songs like "Revenge", "Just War", "Jaykub" are wonderful, slow and smooth. "Pain" is a really fun song with a lot of dark undertones. "Everytime I'm With You" is a love song with a twist, it's dark and gritty and the lyrics are just perfect. My particular favourites are "Revenge", "Dark Night of the Soul" and "Pain" although all songs deserve praise. This is a complete album, one that is dark, twisted and exploring the baser emotions of the human psyche.

The Crossword

By Dhruv Sapra, 2nd Year



Across:

1.The real Fury who got Avengers together (4,6)
2. Links KFC, Taco Bell and Pizza Hut (3)
4. Russia's Google (6)
7. God's messenger, The Archangel (7)
8. The guy with JOBS's Apple (3,4)
9. U.S. Eagle in India (5,6)
13. Civilization/Calendar predicting Doomsday-December 21st, 2012(5)
14. "Broadcast yourself" (7)
15. "A person, who never made a mistake, never tried anything new."(6,8)
16. Chinese activist was the cause of a diplomatic firestorm between US and China(4,10)
18. If emoticons were on flags, this country would have a ☺ (7)

Down:

1. If cupcake was 1.5, this one is 5.0 (5,4)
3. Reebok is a subsidiary of this company (6)
5. Two years of work turned into a billion dollar app (9)
10. Guy with the most Oscars (4,6)
11. What Bryan Adams, Justin Bieber and Jim Carrey have in common (6)
12. This connects Viks, Pampers, Hugo boss, Gillette, Oral-B and Pantene (7,1,6)
16. Bill Watterson's famous creation (6,3,6)

HOW TO..

KEEP A HEALTHY LEVEL OF INSANITY???

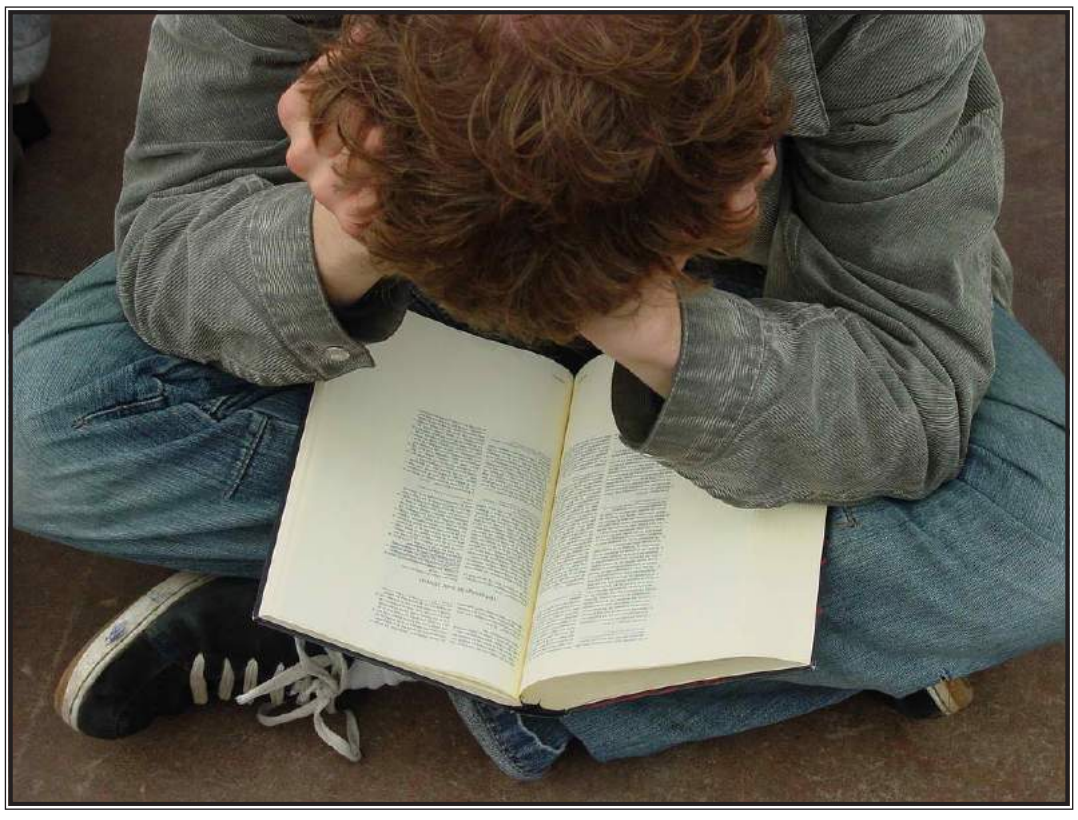
1) At lunch time, sit in your parked car and point a hair dryer at passing cars to see if they slow down.
2) Page yourself over the intercom. (Don't disguise your voice.)
3) Insist that your e mail addressis:Xena-goddess-of-fire@companyname.comor Elvis-the-King@companyname.com.
4) Every time someone asks you to do something, ask if they want fries with that.

5) Encourage your colleagues to join you in a little synchronized chair dancing.
6) Put your garbage can on your desk and label it "IN."
7) Develop an unnatural fear of staplers.
8) Put decaf in the coffee maker for 3 weeks. Once everyone has gotten over their caffeine addictions, switch to espresso.
9)Reply to everything someone says with, "That's what you think."
10) Adjust the tint on your monitor so that the brightness level lights up the entire work area. Insist to others that you like it that way.
11) Don't use any punctuation.
12) As often as possible, skip rather than walk.
13) Specify that your drive-through order is "to go."
14) Sing Along at the opera.
15) Go to a poetry recital and ask why the poems don't rhyme
16) Find out where your boss shops and buy exactly the same outfits.Wear them one day after your boss does. (This is especially effective if your boss is the opposite gender.)
17) Send e-mail to the rest of the company to tell them what you're doing.
For example: If anyone needs me, I'll be in the bathroom.
18) Put mosquito netting around your cubicle.
19) Five days in advance, tell your friends you can't attend their party because you're not in the mood.
20) Call 911 and ask if 911 is for emergencies
21) Call the psychic hotline and just say, "Guess"
22) Have your co-workers address you by your wrestling name, Rock Hard.
23) When the money comes out of the ATM, scream "I Won!", "I Won!" "3rd time this week!!!"
24) When leaving the Zoo, start running towards the parking lot,yelling"Run for your lives, they're loose!"
25) Tell your boss, "It's not the voices in my head that bother me, it's the voices in your head that do"
26) Tell your children over dinner. "Due to the economy, we are going to have to let one of you go.
27) Everytime you see a broom yell "Honey, your motheris here"

It was the day of the big sale. Rumors of the sale (and some advertising in the local paper) were the main reason for the long line that formed by 8:30, the store's opening time, in front of the store.
A small man pushed his way to the front of the line, only to be pushed back, amid loud and colorful curses. On the man's second attempt, he was punched square in the jaw, and knocked around a bit, and then thrown to the end of the line again. As he got up the second time, he said to the person at the end of the line...
"That does it! If they hit me one more time, I'm not going to open the store!"

IDIOTS AT WORK

1. I was signing the receipt for my credit card purchase when the clerk noticed that I had never signed my name on the Back of the credit card. She informed me that she could not complete the transaction unless the card was signed. When I asked why, she explained that it was necessary to compare the signature on the credit card with the signature I just signed on the receipt. So I signed the credit card in front of her. She carefully compared that signature to the one I signed on the receipt. As luck would have it, they matched.



2. I was at the airport, checking in at the gate, when the airport Employee asked, "*Has anyone put anything in your baggage without your knowledge?*" I said, "*If it was without my knowledge, how would I know?*" He smiled and nodded knowingly,"*That's why we ask.*"
3. Scene: A court room in Oklahoma where a person is on trial for murder. There is strong evidence indicating guilt; however, there is no corpse. In the defense's closing statement the lawyer, knowing that his client is guilty and that it looks like he'll probably be convicted, resorts to clevertrick. "*Ladies and gentlemen of the jury, I have a surprise for you all,*" the lawyer says as he looks at his watch. "*Within 1 minute, the person presumed dead in this case will walk into this court room,*" he says and he looks toward the courtroom door.
The jury, somewhat stunned, all looked on eagerly. A minute passes. Nothing happens. Finally the lawyer says: '*Actually, I made up the previous statement. But you all looked on with anticipation. I, therefore, put it to you that there is reasonable doubt in this case as to whether anyone was killed and insist that you return a verdict of not guilty.*"
The jury, clearly confused, retires to deliberate.
A very few minutes later, the jury returns and a representative pronounces a verdict of guilty. "*But how?*" inquires the lawyer. "*You must have had some doubt; I saw all of you stare at the door.*"
Answers the representative: "*Oh, we did look. But your client didn't.*"

UPCOMING FOOTBALL-TALENTS

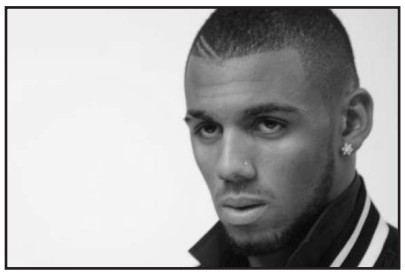
Every year, football throws up new names, bright young exciting talents who have nothing to lose and everything to gain from the game. Let's have a look at some of the brightest on offer right now.

1) **Lucas Moura**: The Brazilian youngster is being touted as the next big thing from Brazil, after Neymar has set the stage alight in the last couple of years. He plays for Sao Paulo, is very versatile and can play across the entire midfield, be it as an attacking midfielder, a winger, or even a holding midfielder. Blessed with great technique and dribbling abilities, Lucas has already won many admirers, latest among them the Madrid coach Jose Mourinho, who was scouting him recently. Chelsea have already had a mega bid rejected for the wonder-kid. Watch out for him in the coming days.

2) **Mario Gotze**: Gotze had burst out on the scene last season with BVB Dortmund, but has been plagued with injuries in 2011-12, and has been overshadowed by the meteoric rise of Shinji Kagawa this term. He plays second fiddle to MesutOzil in the German national team, but his vision and technique is second to none and is sure to create ripples in the footballing world, handling more responsibilities, with Kagawa leaving now.

3) **IkerMuniain**: Muniain is another one of the exceptionally talented Spanish youngsters, following the likes of Juan Mata, ThiagoAlcantara, Sergio Canales etc. He plays for Athletic Bilbao, is a winger by trade and has lighting feet, not to mention great vision and a footballing brain, something that people like Theo Walcott never had. He has put in some great performances in the last term for Marcelo Bielsa'steam. Of the top of the head, he tormented Manchester United defenders in the Europa league, not to mention running circles around Real Madrid defenders in the league game.

4) **Christian Eriksen**: You may have seen him play for Denmark in the Euro cup, and may be forgiven for thinking he is just another kid in football. But, you couldn't be more wrong, for this Ajax playmaker is as gifted as they come. He has terrific ball control, great vision and can dictate the pace of the game. And, although Ajax is still a European powerhouse, watch out for this Dane should he choose to move to greener pastures in the future.



5) **YannM'Vila**: The French born Rennes midfielder M'Vila is a defensive midfielder by trade, and has won many admirers with his performance in the last season. Arsenal have been touted as potential suitors, though rest assured he won't come on the cheap. Watch out for this man in the centre of midfield in the upcoming games of France. With a steely presence, he has great tackling technique, not to mention a great passing range.

6) **Raphael Varane**: Another Frenchman, Varane plies his trade with Real Madrid, and has been a great buy for Jose Mourinho's team. Ricardo Carvalho's injury problems and Pepe and Ramos' indisciplinedbehaviour has meant that Varane has often been thrown into the first eleven, and has put in some rock-solid performances. His aerial presence is of the highest level and he also has terrific ball control for a defender. His calm behaviour is something very rare in defenders, watch out for him this term.

7) **Alex-Oxlade Chamberlain**: Nicknamed "The Ox", Chamberlain has won many admirers with his performances for the Gunners, after Arsene Wenger had to throw him into the mix following many injuries to key players. He has won himself a ticket to the Euros with Hodgson's England and put in a decent shift against France. He has great pace, trickery and will be expected to be more involved in the first eleven in the coming season for Arsenal.

8) **David De Gea**: After making an expensive move to Manchester United last term, De Gea, who was relatively unknown at the time, came under some heavy criticism for his handling of aerial balls, but slowly he grew in stature and put in some world-class performances to ensure United's late fightback for the title. His reflexes are second to none, and although he still has to work on his physique and dealing with crosses, there is no doubt De Gea will come into his own this season.

9) **Eden Hazard**: Chelsea fans know everything there is to know about Eden Hazard. The Belgian winger, who can play in the hole just behind the striker, has great pace, wonderful dribbling qualities and can shoot with both feet. Also has great tricks up his sleeve, and he will be expected to light up the Premier League this season. Although it is still to be seen how he copes up with the expensive transfer price tag as well as the physicality of the Premier League, there is no doubt about his talent. To the uninitiated, he was Ligue 1's answer to La Liga's duo of Messi and Ronaldo, he is that highly rated!

10) **Javi Martinez:** Till last year, Martinez was a nobody. But, now after a stellar season with Bilbao, he has many top European clubs vying for his signature, Man-U, Real Madrid, Barcelona, Bayern Munich all in the picture. A holding midfielder by profession, Martinez has great versatility and can play in central defence, or as a playmaker upfront. He has great strength and stamina, and is a wonderful asset to have in a team.

Other notable names:

Stephan El Sharaawy, Ryan Bertrand, Kyle Walker, Isaac Cuenca, Ibrahim Afellay, Marko Marin, Jordi Alba, Shinji Kagawa, Marco Reus, Phil Jones, SofianneFeghoulli, NuriSahin.

TELE-MARITAL AFFAIR

A woman suspects her husband is cheating on her. One day, she dials her home and a strange woman answers.

The woman says, *"Who is this?"*

"This is the maid" answered the woman.

"We don't have a maid", said the woman.

The maid says, *"I was hired this morning by the man of the house."*

The woman says, *"Well, this is his wife. Is he there?"*

The maid replied, *"He is upstairs in the bedroom with someone who I figured was his wife."*

The woman is fuming. She says to the maid, *"Listen, would you like to make $50,000?"*

The maid says, *"What will I have to do?"*

The woman tells her, *"I want you to get my gun from the desk, and shoot the jerk and thewitch he's with."*

The maid puts the phone down; the woman hears footsteps and the gun shots.

The maid comes back to the phone, *"What do I do with the bodies?"* The woman says, *"Throw them in the swimming pool."*

Puzzled, the maid answers, "*But there's no pool here.*"

A long pause and the woman says, "Is this 555-4821?"

CAT 2011 Success!!

The students of DTU once again made their alma mater proud by achieving great results in the CAT 2011. More than 15 people scored more than 99 percentile in the prestigious exam, with Yash Khanna being the highest scorer from the university with a percentile of 99.92. He took admission in IIM C. A list of all the students of batch of 2012, along with a few students of batch of 2011 who appeared for CAT 2011, and secured good percentiles is given below:

ADMISSION TO IIM A:
- Ayush Bhutani
- Pratibha Sharma

ADMISSION TO IIM C:
- Yash Khanna
- Kunal Joshi
- Madhulika Srivastava
- Himanshu Baghel

ADMISSION TO IIM L:
- Shivang Gulati
- Nisha Bachani
- Sanskriti Garg

ADMISSION TO IIM I:
- Ishaan Bose (2011 batch)
- Aanchal Goyal (2011 batch)
- Vaibhav Goel
- Shreya Tandon
- Sakshi Yadav
- Prateek Jain
- Prakhar Porwal
- Manish Bansal

ADMISSION TO IIM K:
- Ishita Kumar
- Diksha Bajaj

THE TOP SCORES FROM OUR UNIVERSITY:

1) Yash Khanna - 99.92
2) Shivang Gulati 99.83
3) Sanskriti Garg - 99.81
4) Madhulika Srivastava - 99.79
5) Apoorv Varma - 99.75
6) Kunal Joshi - 99.63
7) Luv Bhagria - 99.59
8) Akshat Jha 99.55, Vaibhav Goel, 99.55
9) Aanchal Goyal 97.51
10) Dhruv singh Raghuvanshi - 99.48
11) Bhavya Jain - 99.40
12) Nisha Bachani - 99.16
13) Prateek Jain - 98.13
14) Prakhar Porwal – 99.12,
Saurabh Gupta - 99.12
15) Ishaan Bose 99.08

CROSSWORD

Across:
1. Joss Whedon
2. Yum
4. Yandex
7. Gabriel
8. Tim Cook
9.Nancy Powell
13. Mayan
14. Youtube
15. Albert Einstein
16. Chen Guangcheng
18. Denmark

Down:
1. Jelly bean
3. Adidas
5. Instagram
10. Walt Disney
11. Canada
12. Procter & Gamble
16. Calvin and Hobbes

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