THE SKIT TIMES

(17)

(A Quarterly Bulletin of Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur)

SKIT

The creative is the place where no one else has ever been. You have to leave the city of your comfort and go into the wilderness of your intuition. What you'll discover will be wonderful. What you'll discover is yourself.

-Alan Alda

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OUR PATH FOUNDER

1883-1972
Swami Keshvanandji

Our Vision

To promote higher learning in advanced technology and industrial research to make our country a global player

Our Mission

To promote quality education, training and research in the field of engineering by establishing effective interface with industry and to encourage faculty to undertake industry sponsored projects for students

SWAMI KESHVANANDJI: AN EXEMPLARY KARMYOGI

Born on December 17, 1883 at Manglooma village of Shekhawati region in Rajasthan, Swami Keshvanandji was at once a *sanyasi* (renouncer of world) and a *Karmyogi* (committed to action). He exhibited the spirit of selfless action guided by spiritual principles.

His wide realm of action included - freedom struggle, politics, education and social reforms. He left an indelible mark on his fellow beings and people as a freedom fighter and exhibited unswerving will for social reforms as a member of Rajya Sabha through his independent and unorthodox speeches.

He fought against his adverse circumstances and social constraints to quench his thirst for education. He studied Hindi and Sanskrit language ānd Devanagari and Gurumukhi scripts at Udasin Sadhu Ashram Fazilka. In spite of the little education, he founded more than 300 schools, 50 hostels and innumerable libraries, social service centers and museums.

In 1911, within a few years of his initiation into the Udasin Dasnami sect as a sanyasi, Swami Keshvanand started the "Vedant Pushp Vatika" library within the precincts of the Sadhu Ashram Fazilka. The following year, he started a Sanskrit school at the same place.

As the director of Gramothan Vidyapith, Sangaria, he not only focused on arranging and maintaining best available facilities of his time but also introduced various craft schools which were run on the contemporary scientific and modern lines by the trained teachers.

Great endorser of women education, Swamiji fought against the prevalent evils of dowry and unmatched marriages. He wondered 'how a society can progress when it is being burdened by increasing number of young and innocent widows.' Sangaria Vidyapeeth itself functioned as an epicenter for social reform, where discrimination of any kind was utterly detested.

Swamiji was a true saint who believed that the true service of the God lied not in renunciation of the world but in deeds for the welfare of society and dedicated his entire life to this mission.

--Narendra Kumar
Sr. Lecturer, Dept. of English

Messages

Director's Column

Excellence is a virtue that needs to be inculcated, imbibed and practiced in order to achieve sustainable growth in the present sharp-edged world. We understand the global best practices to keep our students abreast with the latest global technological advancements, so that SKITians, when join the cerebral capital of the world and expand the frontiers of SKIT across the globe, are in a position to lead the leaders.

To acquire certification for the quality standards that we follow in all the practices of technical academia, we invited the National Board of Accreditation to our Campus in May 2009. Looking at the positive experience and response of the team of we are expecting accreditation shortly for the Depts. of Computer Science and Engineering, Electrical Engineering and Mechanical Engineering, the departments for which the team was invited. To evaluate the remaining departments the Institute will invite NBA in near future. Quality assurance and maintenance is a team work and all - students, faculty, technical and administrative staff deserve a great applause for making conscientious efforts for maintaining and displaying quality measures in all their work.

I believe that SKIT group collectively will adhere to the same degree of commitment in conquering new heights in future.

(K.R. Bagaria)

Messages

Director's (Academics) Column

No society can progress if it fails to observe the highest standards of education in all disciplines. This is the responsibility of all individuals to ensure that no mediocrity encroach upon the space of superiority in any form or guise.

The biggest challenge that technical education is facing in India is to keep itself equipped with the latest technologies and the modes or mediums of imparting these. There is a dire need of investment in promoting research and development activities and upholding the standards of related paraphernalia and attracting and retaining the best talent in teaching fraternity, so that the quality standards of teaching learning process can be made globally competitive.

The centre and state governments must financially support all technical educational institutions indiscriminately - although some quality measure must be a condition for such grant - to help them improve their academic resources and laboratory research. The Industry should also come forward more vigorously to bridge the gap between industry and academia and provide the students with on-site experience as industry is the ultimate stake holder that is going to exploit the talent and skill-set of the technocrats-in-making.

Last but not the least, students themselves will have to take the responsibility of making themselves aware first about the quality standards of educational institutions and then selecting the best. It is they who can really boost the competition for quality in newly emerging educational institutions and thereby do noble task of upholding the excellent standards of education in society.

S.L. Surana

(Prof. S.L. Surana)

Messages

Principal's Column

The essential tenet of education encompasses more than just the teaching of what we read in books. True education is something which can be fruitfully passed on to future generations. Students today face greater challenges and so arises an urgent need for imparting quality education in all spheres.

Swami Keshvanand Institute of Technology, Management and Gramothan has always made sincere efforts to enrich and maintain quality standard in teaching-learning process. We at SKIT, understand that globalization and present economic slowdown has made it all the more challenging for engineering students to thrive in the corporate world. It is our sincerest endeavour to groom our students into globally competent techno-managers who are driven by creativity and enthusiasm and guided by our age-old values. Since the career opportunities are shrinking, although temporarily, students are required to prepare themselves for ever-increasing need for learning and pacing up with the rapid growth in knowledge and the needs of the contemporary knowledge society.

I invite you all to join hands with us in fulfilling the techno-managerial demands of society.

(Prof. Ram Singh)

Editorial

unraveling the treasure

CREATIVITY

The current issue is dedicated to one of the choicest embellishments inherent in all the creations of nature - creativity. Nature itself is an illustration of perennial creativity at work. The green that the cover page of the present issue is hued in is the very basis of the life on the earth.

Creativity is not a remote or alien terrain to any human being. It is very much a part and parcel of our intuitive faculty, a faculty which needs the solace of solitude to give spark to the ambers of creativity. Albert Einstein observes that 'the intuitive mind is a sacred gift and the rational mind is a faithful servant. We have created a society that honors the servant and has forgotten the gift.' The truth is that in the flurry of grabbing more and more we have sent our inner self into dormancy. This silencing of the self brings down the possibility of any new creation.

The great romantic poet and prose writer William Wordsworth defines poetry as the 'spontaneous overflow of powerful feelings' and 'emotions recollected in tranquility.' This definition applied to creativity in general demands the tranquility on the part of the creator.

The words of Alan Alda that the cover page carries make it explicit that to be creative is nothing but what the scripture always preaches- the realisation of one's very self. That is possible only when we create conducive conditions for coming in contact with the inner self.

The things are never over for ever. Possibility is an eternal seed whose sprouting can commence as soon as it encounters the creative spring. So let's keep aside the aridity of the past and focus on what lies ahead keeping the following words of Monika Waldwin in mind:

'The moment when you first wake up in the morning is the most wonderful of the twenty-four hours. No matter how weary or dreary you may feel, you possess the certainty that, during the day that lies before you, absolutely anything may happen. And the fact that it practically always doesn't, matters not a jot. The possibility is always there.'

Narendra Kumar
(Narendra Kumar)
Editor-in-Chief

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encapulating the treasure

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inscription of happenings on SKIT arcadia

CAMPUS RECRUITMENTS

Training and Placement Cell has secured fabulous placements in the following companies of great repute for the students of 2008 and 2009 batches:

B.E. 2008 Batch

Sr. No.	Name of Company	No. of Selections
1.	Accenture Services Pvt. Ltd., Bangalore	32
2.	Adani Group	01
3.	Bharti Airtel Services Ltd., Delhi	10
4.	Birlasoft Ltd., Noida	07
5.	Bosch Ltd., Jaipur	02
6.	Global Logic Inc, Noida	01
7.	i-flex solutions Ltd., Mumbai	10
8.	Impetus Infotech India Pvt. Ltd., Indore	02
9.	Infosys Technologies Ltd., Bangalore	26
10.	Kanbay Software (India) Pvt. Ltd., Pune	06
11.	L & T Infotech Ltd., Mumbai	06
12.	L & T Limited (e-engineering Solutions), Mumbai	05
13.	Mphasis, an EDS Company, Bangalore	22
14.	Persistent Systems Ltd., Pune	09
15.	PharmARC Analytic Solutions, Bangalore	01
16.	Satyam Computers Service Ltd., Hyderabad	09
17.	Syntel INC, Pune	12
18.	Tech Mahindra Ltd., Pune	37
19.	Torry Harris Business Solutions, Bangalore	04
20.	U S Technology, Chennai	06
21.	Zenith Software Ltd. Bangalore	09
22.	Uttam Galva Steel, Mumbai	04
23.	Life Business Projects, Delhi	05
24.	Wipro BPO (A division a Wipro Ltd.), New Delhi	28
25.	Mahindra & Mahindra Ltd., Mumbai	01
26.	Ocean Ship Management Services, Mumbai	03
27.	Saint Gobain Glass, Tamil Nadu	01
28.	Wipro BPO, Gurgaon	01
29.	Huawei Telecommunications Co. Pvt. Ltd. Gurgaon	01
30.	HCL Technologies Ltd. (BPO), Noida	10
31.	IBM India Pvt. Ltd. (BPO), Bangalore	06
32.	Indian Military Academy, Dehradun	02
33.	NEC, Jaipur	02
34.	IBM India Pvt. Ltd., Bangalore	05
35.	Hughes Communications India Ltd., Gurgaon	01
	Total	**287**

B.E. 2009 Batch

Sr. No.	Name of Company	No. of Selections
1.	Infosys Technologies Ltd., Bangalore	80
2.	Capgemini, Hyderabad	07
3.	L&T Ltd. (Core), Mumbai	06
4.	Persistent Systems Ltd., Pune	07
5.	Converge-I Technologies Ltd., Kochin	19
6.	Accenture Services Pvt. Ltd., Bangalore	14
7.	Syntel Inc, Pune	07
8.	Nagarro, Gurgaon	03
9.	Entity Solutions Ltd., Udaipur	03
10.	Wipro Technologies Ltd.	73
11.	NEC, Jaipur	05
12.	Wipro (BPO)	17
13.	Zensar	02
14.	Havmor Yellowpages	04
15.	Havmor Infodesigns	06
16.	Electrotherm India Pvt. Ltd.	04
17.	Hughes Communications India Ltd., Gurgaon	11
18.	HCL BPO	12
19.	GirnarSoft	01
20.	A3logics	04
21.	Indian Army	01
	Total	**286**

MBA 2008 Batch		
Sr. No.	Company	Selections
1.	Kotak Securities Ltd., Mumbai	03
2.	Shriram Transport Finance Co. Ltd., Chennai	02
3.	Desai Brothers Ltd., Pune	10
4.	Becon Insurance Brokers Pvt. Ltd., Vadodara	09
5.	Wipro Limited, New Delhi (BPO)	03
6.	HDFC Bank, Allahabad	02
7.	Bharti Airtel Services Limited, Delhi	03
8.	Max New York Life Insurance Co. Ltd, Gurgaon	01
	Total	**33**

MBA 2009 Batch		
Sr. No.	Company	Selections
1.	Wipro (BPO)	02
2.	Havmor Yellowpages	20
3.	Havmor Infodesigns	05
4.	Vodafone	10
5.	Barclays Shared Services Pvt. Ltd.	04
	Total	**41**

SWAMI KESHVANAND INSTITUTE OF SCIENCES LAUNCHED

SKIT Group is launching Swami Keshvanand Institute of Sciences from the academic session 2009-10. The Institute will be affiliated with the University of Rajasthan and will start with a degree course in Business Management with an intake of sixty students.

NBA VISITS THE CAMPUS

A team of National Accreditation Board visited SKIT for evaluating quality standards maintained in the Dept. of Computer Science and Engineering, Dept. of Mechanical Engineering and Dept. of Electrical Engineering on May 22-24, 2009. The team evaluated the quality standards maintained in teaching learning, infrastructure and other functional areas and activities. Looking at the positive experience of the team we are expecting accreditation shortly from NBA for the aforesaid departments.

PRAVAH-2009

The techno-cultural and sports extravaganza, Pravah-2008 was organised on May 7- May 10, 2009. The inaugural function witnessed the gracious presence of the Chief Guest, Hon'ble Justice Mr. Chatra Ram Meel, Retd. Justice, Rajasthan High Court and Guest of Honour, Mr. Himanshu Goyal, Country Manager of IBM for South Asia.

Speaking on this occasion Hon'ble Justice Mr. Meel appreciated the efforts of SKIT carried out in the direction of *gramothan*. He emphasised over the need of commitment to social responsibility along with fulfilling one's personal ambitions. Guest of Honour, Mr. Himanshu Goyal also laid stress over the need of commitment and devotion to one's profession. Quoting Confucius he said that if one loves one's work one doesn't have to do it. He guided SKITians on how they can be relevant to IBM. He applauded SKIT for its excellent performance in IBM's Great Mind Challenge Contest. SKITians' performance in this contest has placed SKIT among the IBM's top fifteen colleges of India. He also inaugurated the SKIT's "Eco Friends Club" by launching its vision and mission and watering a plant.

Pravah-2009 witnessed more than fifty inter-collegiate and hundreds of intra-collegiate fascinating technical, cultural and sports events. Hundreds of teams from more than twenty five colleges of the state participated in various events. Fabulous prizes including cash, gift vouchers and electronic gadgets and audience prizes were among the main attractions of these competitions.

Inter-collegiate events included - Pesquiser (Technical Paper Presentation), Hello kaun pehchan kaun, Arcadia (Eco-Friends Exhibition), Labyrinth, Empressario, Robomania, Art of Techno (Technical Exhibition), Le Travail, Circuit Rider, Code Kontrolleur, Gimmicks, Code booster, Cryptics, Corpo-tsar, Dalal Street, Doxana, Advertizia, Kavyanjali, Olampiya, Lanparty, Robomania, Brain Mine, Euphonical Nite and Symphony etc.

In addition to inter-collegiate events, a large number of highly innovative and interesting intracollegiate events, exclusively for SKITians, were also organised. These included: SKIT Idol, Web synapse, Fun freaks,

The following students of SKIT won prizes in various inter-collegiate events:

Name	Prize
Pesquiser: Technical Paper Presentation	
(a) Mechanical Engineering	
Sanveer Singh Puri (IV B.E., ME)	Winner
Arjun Pal (IV B.E., ME)	Runner up
(b) Electrical Engineering	
Pooja Sharma (IV B.E., EE)	Winner
Gargi Tiwari (IV B.E., EE)	Runner up
(c) Computer Science/Information Technology	
Ankur Pranshul	Winner
Shantanu Miya Bajaj and Tripti Sachdeva (II B.Tech.)	II Runner up
(d) Management Studies	
Neha Sharma and Anjana Ojha	Winner
Hello kaun pehchan kaun?	
Naman Joshi, Kushagra Gupta, Rishi Sudhansh Pandey and Mayank Kumawat	Winner
Ankur, Govind, Abhinav and Rahul Gupta	Runner up
Arcadia	
Ratika Goyal, Ramandeep Gill, Shakshi Gupta, Gazal Arora, Pooja Gupta and Amrita Prakash	Winner
Labyrinth	
Tarun Arora (IV BE, CSE)	Winner
Shalini Mathur (MBA II Sem.)	I Runner up
Arpita Sharma (IV BE, CSE)	II Runner up
Empressario	
Deepika Mathur, Pranshu Tripathi & Dilip Agarwal (All MBA IV Sem.)	Runner up
ISTE Students' Chapter Activities	
(a) Art of Techno (Hardware Category)	
Amit Joshi and Priya Rajan (IV BE)	Winner
Ashish Gupta and Team	Runner up
(b) Art of Techno (Software Category)	
Abhishek Vyas (IV B.E.)	Winner
(c) Le Travail	
Srishti Banerjee (IV BE)	Winner
Ashish Rhijwani and Sakshi Mathur (IV BE)	Runner up
Akash Tikkiwal and Nishant Gulathi (IV BE)	Consolation
(d) Circuit Rider	
Ashish Gupta and Somya Singhal (IV BE, ECE)	Winner
Ashish Rhijwani and Vaibhav Mittal (IV BE, ECE)	Runner up
(e) Code Kontrolleur	
Ashish Gupta and team (IV BE, ECE)	Winner
Tanuj Mahajan and Nishant Jain (IV BE, ECE)	Runner up
Gimmicks	
Shalini Mathur & Ajay Khandelwal (MBA II Sem.)	Winner
Jatan Dave, Deepak Soni & Sharad	Runner up
Code booster	
Ankit Rawat (II BE)	Winner
Nikhil Rathi (III BE)	Runner up
Cryptics	
Nupur Rathi and Adamya Kant	Winner

Name	Prize
Corpo-bsar	
Nishant Gulathi (IV BE, IT)	Winner
Agam Khare (I B.Tech.)	Runner up
Dalal Street	
Sharad Saxena and Jatan Dave (IV BE, CSE)	Winner
Doxasna	
Nupur Rathi and Admya Kaur	Winner
Harish Kumar	Runner up
Priyanka Singh and Ritu	II Runner up
Advertizia	
Savita, Manisha Chaudhary, Shalini Mathur, Neha Sharma & Kavita Rani	Runner up
Kavyanjali	
Narendra Sharma	Winner
Olampiya	
Basket Ball (Boys) SKIT	Winner
Basket Ball (Girls) SKIT	I Runner up
Badminton (Girls) SKIT	II Runner up
Table Tennis (Girls) SKIT	I Runner up
Volley Ball (Boys) SKIT	I Runner up
Lanparty	
(a) Fifa 07	
Harish Poonia	Winner
Himesh Rajpal	Runner up
(b) Unreal Foumaiet	
Ablimany Belari	Winner
Ablimany Pauwa	Runner up
Robominia	
(a) Robo Marathon	
Hunters	Winner
(b) Robo Beam	
Ankit	Runner up
Brain Mine	
SKIT	Runner up
Euphonical Nite	
Abhinav Sharma (IV B.E. IT) [Song solo]	Runner up
Symphony	
Akanksha Jain (II B.Tech, CSE) [Classical/semiclassical (solo)]	Runner up
Zypher Group [Classical/semiclassical (group)]	First
Nritya Group [Classical/semiclassical]	Runner up
Shikha Sharma (II B.Tech, IT) [Folk (solo)]	First
Shabnam Bano (III B.Tech, IT) [Folk (solo)]	Runner up
Ashke Group [Folk (group)]	First
Kudiyan Group [Folk (group)]	Runner up
Sudhansh Bhatnagar (IV B.E., ECE) [Western (solo)]	First
Vikas Kshtriya (III B.E., EE) [Western (solo)]	Runner up
Rockers Group [Western (group)]	First
Dancing Dangers Group [Western (group)]	Runner up

Brain Cracking, RJ of cool age, Scrapper, Silent Fever, Treasure Hunt, Soap cutting, Bluff master, Jive with java, SKIT Spartans, Technomants, Debugger, Face+t-shirt painting, Mehandi, Slow bike race, Bus ek minute, Rangoli Competition, Mind sport, Bell the cat, Once upon a time, Jumbo mind, Digitronics, Hacking hounds, Toggle, Versatality, Puzzle hustle, Web streak, Techsharedes, Techno-corpo vision, Comic Making, Auto drive, Fix-pix and Digital photography etc. Some activities were organised exclusively for faculty and staff.

Annual Day Celebration:

Pravah-2009 concluded with its 'Annual Day' celebration. The function was graced by the benign presence of a huge number of invited guests. MLA Suratgarh Mr. Gangajal Meel, was the Chief Guest and Mr. Raja Ram Meel, Chief Patron SKIT, was the Guest of Honour for the occasion.

In his address to SKITians, Chief Guest Mr. Meel appreciated the efforts the Institute has made in the observance of quality standards. He said that the faculty and promoters of this Institute deserve great applause for providing best available teaching learning environment.

Guest of Honour, Mr. Raja Ram Meel also commended the Institute for its unswerving efforts to be at zenith in facilitating the best academic and infrastructural ambience. He promised to leave no stones unturned in whatever assistance is required from the promoters side.

The greeting and honouring of guests and inaugural speeches were followed by cultural programmes comprising myriad hues of folk and classical songs and dances, thrilling and mesmerizing western songs and dances, hilarious skits and various other entertaining activities. These programmes were studded with prize distribution to and honouring of academic and professional achievers. The celebration ended with sumptuous dinner for all.

Academic Excellence Awards

Prof. R.S. Nirjar Academic Trophy was awarded to Neha Anand(Electronics and Communication Engineering) for securing overall first rank in the college across all branches of III B.E. during the session 2007-08.

Prof. Alam Singh Academic Trophy was awarded to Bharti Goyal (Computer Science and Engineering) for securing overall first rank in the college across all branches of II B.E. during the session 2007-08.

Chief Patron Raja Ram Meel Academic Trophy was awarded to Kshipra Garg (Information Technology) for grabbing overall first rank in the college across all branches of I B.Tech during the session 2007-08.

MOU SIGNED BETWEEN SKIT AND IBM

SKIT and IBM have come to an understanding whereby SKITians will have free access to the educational resources of IBM. A "Memorandum of Understanding" has been exchanged between Director SKIT Mr. K.R. Bagaria and IBM's Country Head for South Asia Mr. Himanshu Goyal on May 8, 2009 during the inaugural function of SKIT's annual Techno-cultural Festival Pravah-2009.

CHIEF MINISTER ASHOK GEHLOT INAUGURATES VIT CAMPUS

Honorable Chief Minister Ashok Gehlot inaugurated the sister organisation of SKIT, Jaipur, VIT Campus - comprising Vivekananda Institute of Technology, Jaipur and Vivekananda College of Engineering, Jaipur - on December 24, 2008 on the occasion of Annual Function of the Institute. Mr. Harjiram Burdak, Minister for Agriculture, Govt. of Rajasthan presided over the function.

Both the guests were presented with "Abhinandan Patra" by Director VIT, Jaipur, Er. Gaurav Bagaria. The function observed a hoard of cultural programmes.

SKIT: GREAT PERFORMING COLLEGE IN TGMC 2008

SKIT has been awarded the *Great Performing College* Trophy by IBM for its outstanding performance in The Great Mind Challenge Competition 2008 (TGMC). Total 1513 college all across India participated in the competition and SKIT has emerged one among the top fifteen colleges to receive this award. Dr. Anil Choudhary, Professor and Head, Dept. of Information Technology received this award in a felicitation ceremony organised at IBM, Bangalore. TGMC contest promotes students from engineering colleges all across

India to develop real life solution, in a real life scenario using Open Source Software.

ASPIRATION 20-20

SKITians have put up a great show in the Aspiration 20-20, organised by Infosys Technologies Ltd. during the current academic session 2008-09. Thirty one students of SKIT have been sent certificates for their outstanding performance and Jignesh Rathi of III B.E. (IT) has been given the " Distinguished Student" award.

NATIONAL CONFERENCE ON "ADVANCES IN COMMUNICATION TECHNOLOGIES IN CYBER AGE"

A national conference on "Advances in Communication Technologies in Cyber Age" (ACTCA 2009) was organised jointly by Dept. of ECE, Swami Keshvanand Institute of Technology, Management and Gramothan, Jaipur, MNIT, Jaipur and IETE, Jaipur centre on the occasion of World Telecommunication and Information Society Day, 17 May 2009. Mr. G.K. Agrawal, C.G.M., BSNL, was the Chief Guest for the inaugural function. Fifty technical papers on diverse topics like High Speed Communication, Networks, Mobile Computing, Communication Technologies for Rural Areas, VLSI Technology for Communication System etc. were presented in four parallel technical sessions.

ENTREPRENEURSHIP WEEK: "VIRIDITY-2009" CELEBRATED

"TOPAZ," E-Cell of SKIT celebrated "E-Week India 2009: 'Go Green! The world is our business'" as "VIRIDITY 2009" on 07-09 February 2009. The celebration focussed on promoting and nurturing green business opportunities, green marketing and the use of renewable energy sources. The week at SKIT was observed as "No Plastic Week" and "Energy Saving Week."

The inaugural function witnessed the gracious presence of Mr. Sudhir Nijhawan, CMD, Nifty Innovations, Jaipur as the Chief Guest and Mr. Sudhansh Pant, MD, Rajasthan Vidyut Prasaran Nigam Ltd., Jaipur as the Guest of Honour along with other dignitaries.

Mr. Pant launched the logo of TOPAZ. TOPAZ recognised the contribution of Mr. Javed Kagaji, an entrepreneur dealing in manufacturing and export of all kind of environment friendly recycled handmade paper and paper products.

Inaugural function also witnessed the viewing of educational and motivational movies.

During the six-day event, expert lectures and discussions by renowned entrepreneurs were held. Students undertook several indoor and outdoor activities, including a variety of inter school and inter college competitions like poster-making, essay writing, plantation etc. A documentary on eco-friendly manufacturing units was made and screened on the sixth day. The SKIT campaign reached out to more than 35000 people during the week, besides spreading information through internet.

It is noteworthy that **National Entrepreneurship Network (NEN) has awarded SKIT as "Championship Runner Up" for its participation, by way of organising various events, in nationwide celebrated "E-Week India 2009."** More than 450 colleges from all across India participated in the event. The members of TOPAZ were felicitated by NEN at a function organised at Bangalore on 14 February 2009.

SEMINAR ON CONTEMPORARY HR CHALLENGES

Department of Management Studies organized a seminar on "Contemporary HR Challenges" on May 16, 2009 at SKIT campus. The seminar focused on the drastically changing economic scenario and the changes being posed by the resultant situations. During the seminar, twelve papers were presented along with five invited lectures.

SKIT TOASTMASTERS CLUB RECEIVES PRESIDENTIAL CLUB STATUS

SKIT Toasmasters Club has achieved "Presidential Club" status by completing nine requisite tasks including two Advanced Communicator Certifications, one Advanced Leader Certification, two Competent Leader Certifications, Seven Competent Communicator Certification and other office tasks.

AREA GOVERNOR ELECTED

Vineet Jain, Vice President (Personal Relations) of

SKIT Toastmasters Club has been elected the Area Governor of area I-4 of district 82 of Toastmasters International. Now he will lead all the toastmaster clubs of this area.

NATIONAL CONFERENCE ON "SERVICES MANAGEMENT: OPPORTUNITIES AND CHALLENGES"

Department of Management Studies successfully organized Two-Day Conference on "Services Management: Opportunities and Challenges" on December 12-13, 2008.

Many papers from inhouse and outside participants and five invited lectures were presented during the two day discourse. The seminar proved highly beneficial to the students from the viewpoint of discussion on upcoming employment opportunities in services sector.

"SYNERGY" LAUNCHED

SKIT's Department of Management Studies has come out with its own newsletter named "Synergy." Its debut issue was launched by the Director and Principal of the Institute on December 12, 2008 during the inaugural function of national conference on "Services Management: Opportunities and Challenges." The main objective of the news letter is building an everlasting relationship with the corporate world.

ON CAMPUS MEDICAL FACILITY

SKIT has entered into an agreement with the Apollo Clinic, Malviya Nagar, Jaipur which has started providing us with the services of an MD (Physician) doctor and other medical facilities from February 2009. Free consultation for faculty, staff and students is available now on every Tuesday, Thursday and Saturday from 2 pm to 4 pm. Medicines for common diseases like cold, headache, fever etc. are being provided free of cost by SKIT. Apollo Clinic Pharmacy has consented to provide a discount of 5% on medicines and 10% on all the medical tests for SKITians. A free dental checkup every month and special concessions on health checkups are also a part of this agreement.

SPECIAL LECTURE ON BRAIN POWER

Mr. Kamlesh Chandra, Learner and Life Skills Trainer, delivered a special lecture on "Super Memory for Super Success" on February 26, 2009. In his two hour long discourse Mr. Kamlesh focused on the effective exploitation of brain power.

SKIT STUDENT SCHOLARSHIP

A financial corpus has been created by the joint contribution of students, faculty, staff and management to initiate SKIT Student Scholarship for the needy and deserving students. The committee has been constituted to decide over the nature of scholarship and form the guidelines. The scholarship is likely to be launched from the session 2009-10.

CONDOLENCE MEETING HELD

A condolence meeting was held on 30 May 2009 to mourn the sudden demise of Neha Choudhary, IV B.E. (Electronics and Communication Engineering). Neha was a versatile student who always performed well in academics and extra-academics. The entire Institute feels bereaved on the loss of such a well-rounded student.

SKIT IEEE STUDENT CHAPTER LAUNCHED

Dept. of ECE has launched SKIT IEEE Student Chapter in January 2009 for both students and faculty. SKIT has opted for "Microwave Theory and Techniques" (MTT). The officiating members will be Mr. A.S. Poonia, Reader & Head, Dept. of ECE as Chairperson, Mr. Raghvendra Singh, Sr. Lecturer, ECE, as Vice Chairperson, Mr. Mukesh Arora, Sr. Lecturer, ECE and Ms. Seema Sethia, Reader, ECE. SKITians have shown a great interest in enrolling themselves with the Chapter.

EDUCATIONAL TOURS ORGANISED

Dept. of Electrical Engineering organised an educational tour to Biomass Plant, Unniara, Tonk, Super Thermal Power Plant, Rawatbhata, Kota, Hydro Power Plant, Ranapratap Sagar, Kota, and Instrumentation Limited, Kota, for the students of III B.Tech. in December 2008 under the coordination of Sonali Singh, Sr. Lecturer, Sarfaraz Nawaz, Sr. Lecturer and Ankush Tondon, Lecturer - all from Dept. of Electrical Engineering.

A two-day industrial visit for V Semester students of Electrical Engineering students was organised, in collaboration with IT & Training Department of RVPNL, on October 15-16, 2008. They visited (i) Practical Training Institue, NPH and (ii) State Load Dispatch centre, Transformer Maintenance Workshop and Switch Yard at 400 kV GSS Hirapura, Jaipur.

Various faculty members of SLDC, 400 kV GSS Hirapura and Practical Training Institute, NPH(Nallah Power House) guided and lectured students.

Department of Electronics and Communication Engineering organised an industrial tour under the coordination of Raghvendra Singh and Mukesh Arora - both Sr. Lecturers, Dept. of ECE - to Rajasthan Electronics and Instruments Ltd. (REIL) and several other industries for the students of III B. Tech. in December 2008. During the visit students gained onsite knowledge of SPV - Dust Dawn System, Photovoltaic Modules, Automatic Milk Bottling Plant, automatic cream extraction from milk and automatic switching of street lights.

Depts. of Computer Science and Engineering and Information Technology organised an industrial tour for the students of III B.Tech. to Infosys Technologies Ltd., Chandigarh and various other companies in the month of February. Students also visited Shimla as a part of this tour.

Dept. of Mechanical Engineering organised an educational tour and industry visit for the students of III B.E. from 21 February - 02 March, 2009. During this nine-day schedule students visited Vipul Steel Industries, Haridwar, Banbari Paper Mill, Haridwar, Mahindra & Mahindra Ltd., Hindustan Lever Ltd., Hydro Power Plant, Tehri and an under construction NTPC Power Plant on Tehri - Joshimath Highway. Students also visited many hill stations and enjoyed many adventurous activities like trekking, mountaineering, skiing, rafting etc. The visit was coordinated by Mr. Ashish Nayyar, Reader and Mr. Mradul Bansal, Lecturer, both from the Dept. of Mechanical Engineering.

Students of I B. Tech. visited Parle Factory Nimrana Alwar on December 24, 2008. Students gained onsite knowledge of manufacturing of Parle-G biscuits.

"SPARK" ATTENDED

A group of seventy students and six teachers visited Infosys Technologies Ltd., Chandigarh to participate in Infosys's initiative 'SPARK' on February 7, 2009. SPARK aims at generating awareness amongst the students about the recent technological and other developments in the field of I.T. Industry, so that students can assess their skills and prepare themselves better according to industry needs. It is noteworthy that SKIT is the first college of Rajasthan to participate in SPARK. Students also took this opportunity to visit Shimla on their way back.

ALUMNI MEET

SKIT Alumni Meet was organized on November 29-30, 2008 in Bangalore as many of the alumni are working in this IT city. Training and Placement officer Mr. Vineet Jain facilitated the Meet. SKIT Alumni from various companies like Infosys, Zenithsoft, Trianz, IBM, Wipro, Igate, e-Litmus, i-flex, Oracle etc. participated and discussed their career prospects and industry requirements and recommended an special emphasis on soft skills apart from the mastery over technical know-how to have a competitive edge over others.

Another Alumni Meet was organised on May 10, 2009 at the SKIT campus in which more than fifteen alumni participated. In the meet they discussed about their corporate experiences and expressed their views about enhancing industry-academia interface. Mr. Sarfaraz Nawaz, Sr. Lecturer, Dept. of EE coordinated the Meet.

INFOSYS HR ON SKIT CAMPUS

Global Entry Level Recruitment and Campus Relations Manager and Associate President Infosys Toastmasters Club, Mr. Saurabh Sharma visited SKIT on February 26, 2009. He participated in SKIT Toastmasters Club meeting and acted as General Evaluator. He appreciated the performance of SKIT Toastmasters and said that he will implement many valuable learnings from the meeting in his Pune Infosys Toastmasters Club. He interacted with the students of 2010 batch and discussed about the industry expectations from the entry level technocrats.

TOASTMASTER INTERNATIONAL'S SPEECH CONTEST AND TRAINING PROGRAM ATTENDED

A six member team of SKIT Toastmasters Club participated in Toastmasters' Area Level Speech Contests held at Gurgaon on February 22, 2009. In the contest two SKIT Toastmaster members performed the task of time counter and tally counter and Ms. Megha Pande bagged the second runners up award in the speech contest. Area Governor DTM Deepak Menon appreciated the efforts of the students. The contest was followed by Officers' Training Programme for the office bearers of SKIT Toastmasters Club.

ZEPHYR - 08

Students of II B.Tech. organised a fresher party, Zephyr-08, for I B.Tech. students on November 29, 2008. The program was inaugurated by Principal Prof. S.L. Surana and Registrar Mrs. Rachna Meel by lighting the lamp which was followed by the observation of silence for two minutes in the memory of martyrs of Mumbai Terrorist attacks. A number of cultural activities including various folk, semi classical and western songs and dances, and skits were put up by students. Mandeep Bagchi and Stuti Pareek were declared Mr. Fresher and Miss Fresher respectively on the basis of their display of reasoning and analytical skills in question-answer round.

BLOOD DONATION CAMP

Preservation of life is the next best thing that human being can manage to the God's prerogative - creating life. Following the same spirit SKIT Youth Red Cross Club organized a Blood Donation Camp on the Blood Donation Day, 1 October 2008 in collaboration with Lions Club, Jaipur, SMS Hospital, Jaipur and Santokhba Durlabhji Memorial Hospital, Jaipur and under the coordination of Mr. Ashish Nayyar, Sr. Lecturer, Dept. of Mechanical Engineering.

The inaugural function witnessed the gracious presence of Dr. Ajeet Bana, Cardiac Surgeon, Escort Hospital, Jaipur as the Chief Guest, Mr. Mehul Durlabhji, ICA Director, Santokhba Durlabhji Memorial Hospital, Jaipur as the Guest of Honour and other dignitaries including Lion Govind Sharma, District Coordinator, Lion Anil Sogani, Additional District Coordinator, both from Lions Club International, Jaipur.

During the camp 297 SKITians donated their blood. The camp was concluded with gift distribution to all the blood donors.

M. TECH COURSES COMMENCE

SKIT has added a new laurel in its pantheon of achievements by commencing M. Tech. courses in Digital Communication and Computer Science & Engineering with an intake of 18 in each branch from the current academic session 2008-09. One academic session has successfully been completed.

ROBOTICS WORKSHOP

A robotics workshop 'Robobeam' was conducted by Robosoft Systems, Mumbai on 6th -7th Oct 2008 on SKIT campus. Robosoft Systems, Mumbai is a dynamic R&D driven company in the field of robotics. By developing an active interest of youth in robotics, Robosoft Systems aims to lay a strong foundation for the technical development of our country.

The workshop was first of its kind conducted in Rajasthan at SKIT. Robobeam was a solar robotics workshop where the art of designing and building autonomous solar bots were taught by integration with solar cells and coreless pager motors. The robot that the students designed during the workshop was flexible enough to be modified for different applications such as line follower(based on beam robotics), photovore robot etc.

It is noteworthy that last year also a robotics workshop 'iTRIx' was conducted by TRI Technosolutions Pvt. Ltd. at SKIT and it focused on conceptualization and designing of complex systems and helped in clearing concepts related to embedded systems, artificial intelligence and automation. Students from major parts of India actively participated in this workshop and enjoyed their stay on SKIT campus during the workshop.

THE GREAT MIND CHALLENGE - IBM WORKSHOP

Keeping in mind the industrial requirement of well rounded software technocrats, Dept. of CSE and IT decided to take TGMC project orgainsed by IBM as a minor project for final year (CS/IT) students and about 60 teams participated in this. Various seminars and workshops were conducted in order to guide the project.

On 15 August 2008, IBM IT specialist Mr. Vikram Gaur took a session on open source technologies-eclipre, DB2 and WASCE and on 6 August 2008, IT Specialist Mr. Vikas Manoria conducted a practical session on RAD, Rational tool and Information Management System.

A review session was conducted by IBM on 14 October 2008 and the IBM team appreciated efforts of SKITians.

RECRUITMENT & CAMPUS RELATIONS MANAGER OF INFOSYS ON SKIT CAMPUS

Mr Saurabh Sharma, Manager, Global Entry Level Recruitment & Campus Relations, Infosys Technologies Ltd., visited SKIT on 19th September 2008 and had an interactive session with the students on 'Trends in IT Sector' and 'IT Industry - Requirements for soft skills & preparation for the same'.

He appreciated the efforts being put in by SKIT for enhancement of technical skills as well as soft skills of the students. Furthermore, he reinforced the importance of Toast Masters Club and motivated the students to join the club. He also made the students aware of the significance of learning Japanese language and had a meeting with the members of Toast Masters Club.

EXPERT PRESENTATION FROM CISCO

Mr Nitesh Mathur, Project Manager, Cisco visited SKIT on 27th September 2008 and had an interactive session with engineering students on "Key trends in networking industry". He also talked about the importance of networking courses in IT sector.

WORKSHOP ON EMBEDDED SYSTEMS AND MICROCONTROLLERS

In order to give student exposure to embedded systems a five-day workshop was organised on 24-28 September 2008 for the students of IV B.E. The workshop included basic theoretical knowledge of microcontrollers and hand-on training on micro-processor based projects. Fifty six student participated in the workshop rigorously and religiously.

SPORTS ACTIVITIES

Basket ball and volley ball teams of SKIT participated in XXIII National Open Sports Meet (BOSM-08) organised by BITS on September 10-14, 2008, Pilani under the guidance and coaching of Mr. Vachaswa Noonia and respective captaincy of Arjun Choudhary and Gautam Chimpa. SKIT won bronze medal in volley ball and played semi final in basket ball.

SKIT, under the supervision of sports incharge Mr. Vachaswa Noonia, organised an Annual Adventure Sports Festival from October 7 to October 12, 2008 in which nineteen students participated. The events in this fest included rappling, river crossing, rope-way up and down and a visit to Nahargarh for outing and mountaineering.

PROF. KESHAV RAE'S LECTURES

Prof. Keshav Rae, Ex-Director, Symbiosis and Ex-Dean, University of Wales, delivered lectures to students of I B.Tech., MBA I and II on October 13-16, 2008. In his lectures, he focused on the importance of communication skills, time management and other traits required for making a good manager. He also dealt with the nuances of group discussion and interview skills and etiquettes while facing a job interview.

EXPERT LECTURE BY D.P. CHIRANIA

Mr. D.P. Chirania, CECUM (IT and Training) delivered a lecture to B.E. V and VII Sem. Electrical Engineering students on "Power System Layout and Transmission System" on October 14, 2008. In the lecture he discussed the role and importance of various parts/components of power system. He also shared his views on upcoming entrepreneurial opportunities in distribution sector and discussed major upcoming projects of RVPNL and RVUNL in Rajasthan.

CAMPUS CONNECT: TECHNICAL ROLL OUT PROGRAMME

Campus Connect: Technical Roll Out Programme has been completed for total eight batches including from eighth to fifteenth batch students of IV and III B.E. The certificates have already been sent by Infosys Technologies Ltd. The registrations for the batches of sixteenth to twentieth comprising students of II B.Tech. have already started.

CAMPUS CONNECT: SOFT SKILLS ROLL OUT PROGRAMME

Soft Skills Roll Out Programme, as designed by Infosys Technologies, Bangalore, has been completed for four batches including the students of IV, III and II B.E. The certificates have already been sent by Infosys Technologies Ltd.

This hundred hours programme, comprising forty hours of training and sixty hours of project work, will help bridge the gap between industry and academia and make students industry-ready.

E-CELL "TOPAZ" LAUNCHED

SKIT has launched its entrepreneurship cell on December 23, 2008. Along with the launching, orientation program was also conducted for the students wherein Ms Winfred Crowford of Macabe shared experiences of her success story. Students were also shown a movie "October Sky" and learnings from the movie were discussed.

SKITians DO US PROUD

It is a matter of great pride for us that many SKITians participated in various national and state level cultural and technical festivals organized by various engineering

colleges and won fabulous prizes:

1. A team comprising Dhawan Shringi (II B. Tech, CSE), Mohit Gupta (II B. Tech, CSE), Abhinav Sinha (II B. Tech, CSE), Sahil Anand (II B. Tech, ECE) and Bharat Singh (II B. Tech, ECE) won first prize in Lan Gaming - Counter Strike 1.6 organised by JNIT, Jaipur as a part of Verve - 09.

2. In TECHVYOM held at RCEW, Jaipur Yogesh (I B. Tech.) won II Prize in Brainy C, Astha (I B. Tech.) bagged III prize in AGON, and the team of Pankaj Sharma and Anang (I B.Tech CSE) grabbed III prize in Innova.

3. Megha Pandey (II B.Tech, IT) won III prize in debate organised under "Kasturi" held on December 17-20 at Kanodia College, Jaipur.

4. Sahil Anand won second prize in Labyrinth (Counter Strike 1.6) held during Blitzschlag - 09 organised by MNIT, Jaipur on February 6 - 9, 2009.

5. Gaurav Ahuja (IV B.E., IT) participated in 33rd Junior Billiards National Championship held on 8 - 13 November, 2008 and organized by The Billiards & Snooker Federation of India.

6. Basket-ball team of SKIT won first prize in Panache - 2008 organised by VIT, Jaipur on December 19-20, 2008.

7. Badminton and Basketball team of SKIT grabbed third prize in SITE - 2009 organised by Shankara College, Jaipur.

8. Anant Joshi (III B.Tech, ME) won the first runner up prize in Mechanil Concevoir organised under Enigema Tech Fest of Kautilya Institute of Engineering & Technology.

PhD AWARDED

Dr. Pramila Kumawat, Sr. Lecturer, Dept. of Mathematics, is awarded Ph.D on December 22, 2008. She worked on 'Study of Bianchi Types I, V, IX Tilted Cosmological Models in General Relativity' under the guidance of Prof. Raj Bali, University of Rajasthan.

RESEARCH PAPERS PUBLISHED

Performance Evaluation of Static Transfer Switch

-- R.K. Pachar
Reader & Head, Dept. of EE

Published in *WSEAS TRANSACTIONS ON SYSTEMS AND CONTROL*, Issue 3, Volume 3, March 2008, pp 137-148.

Large Deflection of a Circular Plate Under Non Uniform Load Involving Certain Special Functions

-- Dr. Amber Srivastava
Reader, Dept. of Mathematics

Published in Acta *Ciencia Indica*, 34M, Vol. XXXIV, No.2, 2008.

Methodologies and Carboxyhaemoglobin Formation in Human Blood due to NO, And CO Exposure: A Mathematical Model

-- Dr. Sangeeta Vyas
Reader, Dept. of Chemistry

Published in *Chemical Product & Process Modeling* Vol-4, Issue 1, Article (9), Berkley (California) Electronic Press, 2009.

Polarographic Studies of Indium (III) and Thallium (I) Complexes with Dl-2 Alanine

-- Dr. Vinita Sharma
Reader, Dept. of Chemistry

Published in *Asian Journal of Chemistry*, Vol 21, No. 6 (June-July, 2009), pp. 4648-4652.

Broadband Dual Frequency Pentagonal Microstrip Antenna For Wireless Communication Systems

-- Brajraj Sharma
Lecturer, Dept. of Physics

Published in *IEEE* proceedings of International Conference on Recent Advancement in Microwave Theory and Techniques (Microwave - 2008).

Modified Rectangular Patch Antenna with Air-gap For Improved Bandwidth

-- Brajraj Sharma
Lecturer, Dept. of Physics

Published in *IEEE* proceedings of International Conference on Recent Advancement in Microwave Theory and Techniques (Microwave - 2008).

Bianchi Type I Magnetized Tilted Imperfect Barotropic Fluid Cosmological Model in Genera Relativity

-- Dr. Pramila Kumawat
Sr. Lecturer, Dept. of Mathematics

Published in *Gravitation and Cosmology*, 11, 317 (2008) published by Russian Gravitation Society Victoria University.

Bulk Viscous L.R.S. Bianchi Type V Tilted Stiff

Communiqué

Fluid Cosmological Model in General Relativity

- Dr. Pramila Kumawat
Sr. Lecturer, Dept. of Mathematics

Published in *Physics Letters*, B (USA), 665, 332 (2008).

Bianchi Type IX Tilted Cosmological Model for Barotropic Perfect Fluid Distribution in General Relativity

-- Dr. Pramila Kumawat
Sr. Lecturer, Dept. of Mathematics

Published in *Proceedings of National Academy of Science India*, 78, IVA (2008).

Magnohydrodynamic Poiserrile Stratified Flow in Porous Medium

-- Archana Rai
Sr. Lecturer, Dept. of Mathematics

Published in *Rajasthan Academy of Physical Sciences* Vol. 7, No. 4, December 2008.

BOOKS PUBLISHED

Fundamentals of Microwave Engineering

-A. S. Poonia
Reader & Head, Dept. of ECE

Published by **PHI Learning Pvt.**
Ltd., New Delhi.

1. A Text Book of Basic Environmental Engineering
2. Practical Environmental Engineering

--Dr. Sangeeta Vyas
Reader, Dept. of Chemistry

Published by Genius Publications, Jaipur.

1. Engineering Mathematics I
2. Engineering Mathematics III
3. Mathematics IV

--Dr. Rohit Mukherjee
Professor & Head, Dept. of Mathematics
Dr. Amber Srivastava
Reader, Dept. of Mathematics

Published by Genius Publications, Jaipur.

Numerical Methods and Applied Statistics

--Nupur Srivastava
Sr. Lecturer, Dept. of Mathematics

Published by Genius Publications, Jaipur.

Extra High Voltage AC/DC Transmission

--Sarfaraz Nawaz
Sr. Lecturer, Dept. of EE

Published by Vardhan Publishers and Distributors, Jaipur.

RESEARCH PAPERS PRESENTED

Static Transfer Switch: Performance Evaluation of Detection Scheme

--R.K. Pachar
Reader & Head, Dept. of EE

Presented at 12th *International Conference on CSECS*, held at Cairo, Egypt on July 22-24, 2008.

Mitigation of Power Quality Disturbance Using Power Electronics Devices

--Sonali Singh
Sr. Lecturer, Dept. of EE
--Sarfaraz Nawaz
Sr. Lecturer, Dept. of EE

Presented at 2nd national Conference on *Power Electronics and Intelligent Control*, held at MNIT, Jaipur on September 13-14, 2008.

Energy Efficient Lighting

--Ashish Nayyar
Reader, Dept. of ME

Presented at a national conference on *Innovation in Engineering & Technology*, jointly organised by Takniki Shiksha Vidyarthi Parishad, Rajasthan and Poornima Group of Colleges, Jaipur on 15 September 2008 at Poornima Group of Colleges, Jaipur.

Waste Heat Recovery Techniques

--Ashish Nayyar
Reader, Dept. of ME
--Shantnu Das
III B.E., Dept. of ME

Presented at a national conference on *Innovation in Engineering & Technology*, jointly organised by Takniki Shiksha Vidyarthi Parishad, Rajasthan and Poornima Group of Colleges, Jaipur on 15 September 2008 at Poornima Group of Colleges, Jaipur.

Bianchi Type I Tilted Cosmological Model for Barotropic Perfect Fluid Distribution in General Relativity

-- Dr. Pramila Kumawat
Sr. Lecturer, Dept. of Mathematics

Presented at Rajasthan Ganit Parishad's 20th Annual Conference on 'Emerging Fields in Mathematics and their Interdisciplinary Uses' organised by Department of Mathematics, Govt. College, Kota on January 18-19, 2009.

Removal of Antibiotics from Waste Water

– Dr. Sangeeta Vyas
Reader, Dept. of Chemistry

Presented at the conference of **International Convention on Water Resources Development and Management** organised by Civil Engineering Group during October 28-26, 2008 at BITS, Pilani.

Nitrate Contamination in Ground Water in Rajasthan

– Dr. Archana Saxena
Professor & Head, Dept. of Chemistry

Presented at 13th ISCB International Conference on "Interplay of Chemical and Biological Sciences: Impact on Health and Environment" organised by the Dept. of Chemistry, University of Delhi on 26 February - 1 March 2009.

On the Sum of Two Triangular Random Variables

-- Sangeeta Gupta
Sr. Lecturer, Dept. of Mathematics

Presented at Rajasthan Ganit Parishad's 20th Annual Conference on 'Emerging Fields in Mathematics and their Interdisciplinary Uses' organised by Department of Mathematics, Govt. College, Kota on January 18-19, 2009.

Influence of Processing Parameters on the Release of Atenol from Poly (D,L - Lactide-co-glycolide) (PLGA) Microspheres

-- Manish K. Gupta
Lecturer, SKIP

Presented at the 60th Indian Pharmaceutical Congress held at New Delhi on 12-14 December 2008.

The following papers were presented by SKITians in the national seminar on "Services Management: Opportunities and Challenges" organised by SKIT, Jaipur on December 12-13, 2008:

Quality Perspectives in Management Education

--Dr. Vikas Shrotriya
Professor, Dept. of Management Studies

Cross Sale of Retail Assets

– A.K. Pandey
Sr. Lecturer, Dept. of Management Studies

Customer Retention in Hospitality Sector

– Atul Gupta
Lecturer, Dept. of Management Studies

Comparative Analysis of Investors Behaviour in Public & Private Sector Banks

– Ona Ladiwal
Lecturer, Dept. of Management Studies

Potential Analysis of Life Insurance Services in India

– Shilpi Kuntal
Lecturer, Dept. of Management Studies

Customer Relationship Management in Services Marketing

--Shalini Mathur
I MBA

Consumer Behaviour & Market Segmentation in Marketing of Services

--Neha Sharma
I MBA

The following papers were presented in IETE National Conference on 'Advances in Communication Technologies in Cyber Age' organised on 17th May 2009 (World Telecommunication & Information Society Day) jointly by SKIT, Jaipur, The Institute of Electronics and Telecommunication Engineers, Jaipur and MNIT, Jaipur at SKIT, Jaipur:

A Concept Paper on 'VLSI Implementation of Turbo Decoders'

--A.S. Poonia
Reader and Head, Dept. of ECE

Technologies for Rural Development

--Dr. C.M. Choudhary
Prof. and Head, Dept. of CSE
--Mukesh Gupta (Reader, Dept. of CSE)
– Ankit Jain (Lecturer, Dept. of CSE)

Analysis &Benefits of MIMO Communication

--A.S. Poonia
Reader and Head, Dept. of ECE

Study on Recent and Forthcoming CMOS Technology

--*Seema Sethia*

Reader, Dept. of ECE

Somya Singhal (IV B.E., ECE)

Ashish Rijhwani (IV B.E., ECE)

Defect-Oriented Verification &Testing for Nano-Metric CMOS VLSI Circuits

--*A.S. Poonia*

Reader and Head, Dept. of ECE

4G – Seamless Mobility for Next Generation Networks

--*Dr. Anil Choudhary*

Prof. and Head, Dept. of IT

--*Saurabh Ranjan Srivastava (Sr. Lecturer, Dept. of IT)*

--*M. Beniwal (Sr. Lecturer, Dept. of IT)*

Speech Recognition Vehicle with Embedded System

--*Raghvendra Singh (Sr. Lecturer, Dept. of ECE)*

--*Mukesh Arora (Sr. Lecturer, Dept. of ECE)*

--*Surendra Lamba (Lecturer, Dept. of ECE)*

Aditya Sharma (IV B.E., ECE)

DeepikaDaluka (IV B.E., ECE)

Amit Joshi (IV B.E., ECE)

Turbo Decoding Algorithms for OFDM Transmission

--*A.S. Poonia*

Reader and Head, Dept. of ECE

The following research papers were presented by SKITians in the national seminar on "Contemporary HR Challenges" held on May 16, 2009 at Dept. of Management Studies, SKIT, Jaipur:

HR Issues in Education Industry in Today's Turbulent Time

--*Dr. Vikas Shrotriya*

Professor, Dept. of Management Studies

HR Challenges faced by Managers

--*Ms. Ona Ladiwal*

Lecturer, Dept. of Management Studies

HR Challenges with Special Reference to Indian IT Industry

--*Ms. Shilpi Kuntal*

Lecturer, Dept. of Management Studies

Recession: A Challenge or an opportunity for HR

--*Mr. Atul Gupta*

Lecturer, Dept. of Management Studies

CONFERENCES ATTENDED

Mr. Narendra Kumar, Sr. Lecturer and Ms. Neha Purohit, both from Dept. of English, attended a national seminar on "Rethinking Ability/Disability: Reflections and Representations in Indian Cinema" organized by Institute for Research in Interdisciplinary Studies (IRIS), Jaipur on September 25-27, 2008 at the University of Rajasthan, Jaipur.

Dr. Shilpi Saxena, Reader and Ms. Archana Rai, Sr. Lecturer, both from Dept. of Mathematics attended Rajasthan Ganit Parishad's 20th Annual Conference on 'Emerging Fields in Mathematics and their Interdisciplinary Uses' organised by Department of Mathematics, Govt. College, Kota on January 18-19, 2009.

Mr. Mukesh Chaudhary and Mr. Manish Kumar Gupta, both Lecturers at SKIP, along with 19 students attended the 60th Indian Pharmaceutical Congress held at New Delhi on 12-14 December 2008.

SUMMER SCHOOLS AND WORKSHOPS ATTENDED

Mr. Ramesh Pachar, Reader and Head, Dept. of Electrical Engineering and Ms. Divya Mathur, Lecturer, Dept. of Electrical Engineering, attended an AICTE sponsored summer school on "Advanced Power Electronics" from June 30 to July 11, 2008 held at Malviya National Institute of Technology, Jaipur.

Mr. Sarfaraz Nawaz, Sr. Lecturer and Mr. Anand Singh, Lecturer, both from Electrical Engineering Dept., attended an AICTE sponsored summer school on "Operation and Control of Modern Power System" from June 30 to July 11, 2008 held at Malviya National Institute of Technology, Jaipur.

Mr. Ashish Nayyar, Reader, Dept. of Mechanical Engineering, attended an AICTE sponsored summer

school on "Alternate Automobile Fuels" from June 30 to July 12, 2008 held at Malviya National Institute of Technology, Jaipur.

Ms. Bharti Gupta and Ms. Pooja Sharma, both lecturers, Dept. of Electronics and Communication Engineering attended an AICTE sponsored summer school on "Recent Advances in Microwave and Wireless Communication" from July 07 to July 18, 2008 held at Malviya National Institute of Technology, Jaipur.

Mr. A.K. Pandey, Sr. Lecturer, Dept. of Management Studies and Mr. Vinit Jain TPO attended a workshop on "Entrepreneurship Educators Course – Module I" organised jointly by National Entrepreneurship Network and SKIT Jaipur on December 26, 2008 at SKIT Campus. They also attended a workshop on "Entrepreneurship Educators Course – Module II" on January 6-8 jointly organised by National Entrepreneurship Network, Stanford University, USA and IIM, Bangalore and held at IIM, Bangalore.

Mr. Narendra Kumar, Sr. Lecturer and Ms. Neha Purohit, Lecturer, both from Dept. of English, attended a three-day workshop on Campus Connect: Soft Skills Program, conducted by Infosys Technologies Ltd. and organised at Infosys's Chandigarh campus between February 11, 2009 and February 13, 2009. Ms. Purohit was felicitated with the best presenter award in the session *The Art of Communication*.

ARTICLES PUBLISHED

Dr. Vikas Shrotriya, Professor, Dept. of Management Studies has published the following articles in various journals:

1. Depreciation Accounting

Published in May 2008 issue of *The Accounting World*, published by ICFAI University

2. Retraining - A Perspective

Published in July 2008 issue of *HRM Review*, published by ICFAI University

3. Outsourcing - An Alternative to Recruitment

Published in July 2008 issue of *MBA Review*, published by ICFAI University

4. Green Marketing

Published in July 2008 issue of *Marketing Mastermind*, published by ICFAI University

5. Life Cycle Costing

Published in August 2008 issue of *The Accounting World*, published by ICFAI University

6. Unemployment Versus Unemployability

Published in August 2008 issue of *MBA Review*, published by ICFAI University

7. Soft Skills-The Cutting Edge

Published in September 2008 issue of *MBA Review* published by ICFAI University

8. Segmentation In Financial Services Market

Published in September 2008 issue of *Advertising Express* published by ICFAI University

9. Human Resource Accounting

Published in October 2008 issue of *The Accounting World*, published by ICFAI University

10. Rural Marketing - A Perspective

Published in October 2008 issue of *Advertising Express* published by ICFAI University

11. Effective Inventory Management

Published in November 2008 issue of *The Accounting World*, published by ICFAI University

12. Placement Crisis Blow to B-schools

Published in December 2008 issue of *MBA Review*, published by ICFAI University.

13. Visual Merchandising

Published in December 2008 issue of *Advertising Express*, published by ICFAI University.

14. The Art of Delegation

Published in January 2009 issue of *HRM Review*, published by ICFAI University Press.

15. Trend Analysis of Working Capital & Sales of Dabur India Limited

Published in February 2009 issue of *The Accounting World*, published by ICFAI University Press.

16. Indian Job Market – Emerging Trends

Published in February 2009 issue of *MBA Review*, published by ICFAI University.

Alumni's Column

writing back to campus

Hi Junies,

My name is Puneet Jain, 2005 pass out. There after I worked in Infosys for around 30 months as of now pursuing my MBA in marketing in TAPMI and about to go for my internship in Lorea'l. I guess enough about me.
In short I am just one of you but travelling in a different time frame.

You must be wondering that why this mail is put up on the notice board and why should you invest your ultra precious time in reading somebody whom you don't even know.

Valid enough, frankly if I would have been in your place I might have ignored it but unfortunately I did not have such kind of luxury.

I am not writing this mail to give you any Gyan pertaining to your studies , soft silks , extracurricular activities and all that clichéd stuff. Definitely not , because I believe that you already have enough of that and more importantly I am not the one entitled for this job .

But now when I look back I think , although those things were not worth listening many a times but definitely worth implementing all the times.

Main motive of this mail is to put down some of the facts which I have observed while my interaction to this vibrant market to keep you updated. So here is goes :-

1.) Most of us were born in a knowledgeable society , grown up with information society and now we have to compete in Creative society. To simplify it is assumed that we have all the knowledge on our finger tips, we have all the possible gadgets to access information, and now we have to compete on the basis that how well we can understand and represent it.

2.) We are no more just students but rather a product. And better the quality of the product better is the market value.

3.) Now when we are entitled as a product, unlike other class of products it our responsibility to make sure that we are sellable. For that we should have a USP (Unique selling Point) such that something which makes us a differentiated person above rest of the crowd.

For example If a recruiter is on hunt first they will filter most of the people based on their eligibility criterion and then those who are through will perform in a selection round .

You have good grades/percentage. Good but that is something expected out of you, and most of the time that is the eligibility criterion. This is the something which gives us an opportunity or a platform where we can stand and demonstrate our selection abilities.

Where as selection abilities are mix of extracurricular activities, knowledge about current affairs , soft skills and other appreciable activities.

Remember nobody expects us to be perfect rather recruiters prefer balanced people as they provide some kind of flexibility to them to combat dynamic market conditions. And this Balanced mix serve as a USP.

4.) From a internet page I got an information that there are around 3573 (http://www.indicareer.com/engineering-colleges-in-india.html) engineering colleges across India out of which 90 are in Rajasthan. I believe it is a conservative number and the count is much more than this. So by that logic in the worst case , if you take the highest ranker from each college for a selection process there will be 3573 students competing in any given year and looking

at the market conditions it seems to be a huge number. So by that logic buyers (recruiters) have a huge population to select from.

"It is not important just to know but to show that you know ". I heard this saying somewhere although not sure of the source but the point is it is not sufficient that for us to learn but we should have all sorts of soft skills to make sure that others know that we have learnt. To put the same thing analogically I can say if you academics and abilities are the foundation stone of your career than soft skills are the tools using which you can shape it into a master piece.

These are some of the facts, but I am not going to give any interpretation or suggestion to you based on any of the facts, because I firmly believe that you are intelligent and capable enough to decipher the coded message and will be able to read between the lines.

Don't panic , don't get afraid JUST DO IT rest everything will automatically fall into place.

All the very best , take care and stay beautiful.

~Puneet

from: Saket Kabra <kabra.skit@gmail.com>		hide details May 19 (6 days ago)
to		tpo@skit.ac.in
date		May 19, 2009 4:24 AM
subject:		Re: SKIT Times
signed by		gmail.com

Respected Sir,

I am sorry that I could not make it to the alumni meet due to some other engagements.

It gives me great pleasure to inform you that I have been awarded Gold Medal for securing the highest CGPA in Finance stream during Post Graduate Diploma in Management from IMT-Nagpur, Class of 2007-09. I have got a job offer from TCSL, Mumbai which will be starting in June-2009. I will take this opportunity to thank all my teachers at SKIT, who have played a very significant role to make me what I am today.

It is great to see yet another wonderful edition of SKIT Times. It is a very good initiative taken by the college management to keep us informed about the latest happening from the campus. It is commendable that the college is taking so many initiatives (like the Toastmaster, TOPAZ, Conferences, IEEE Chapter and others for the overall development of the students. It was especially impressive to see this initiate of Entrepreneurship Cell, TOPAZ. I will like to tell my fellow Alma matter that, in times of such economic slowdown, the time is ripe for budding entrepreneurs to launch their business ideas. I would advise you to make full utilization of this cell.

I would also like to advise students to take part in all the possible extracurricular activities. These activities are not only a good ground for grooming your personality, but these activities will help you learn a lot of things, that books will not be able to teach. It was great to see so many papers, and articles presented and published by the SKIT family , but the disappointing fact was that none except two of them were from the student community. I would advise my fellow juniors to participate in as many conferences as possible, and feel free to ask for guidance from teachers as well as we pass outs.

Another thing that I have realized in my two years of MBA is that you should always be punctual, respect time, adhere to deadlines. With sincerity and hard work as your virtues, nobody can take success away from you.

All the best for all your future endeavors.

Thanks and Regards

Saket Kabra

B.E (Hons) in C.S. E , PGDM (Finance and I.T.M)

email id: kabra.skit@gmail.com

Career

conquer the heights

SOFT SKILLS – AN ESSENTIAL QUALIFICATION FOR SUCCESS

With the world getting global and perceptions changing, the need for 'smarter people for smarter jobs' has been realized drastically. Gone are the days when getting a job was one's ultimate goal. The time has come when finding a good job has become a mammoth task, but what is more crucial is to sustain oneself in this era of cut-throat competition. The need for a person being employable brings in the concept of soft skills.

The word soft skills is a synchronization of an employee's ability and adaptability to work better in a particular organization. The term signifies a wide panorama of personality traits, language and communication, personal habits, personal management and certain interpersonal skills.

Soft skills as a broad category are behavioural skills defining our interaction and conduct at the interpersonal and group level. Effective communication skills, appropriate exploitation of EQ (emotional quotient), proper handling of emotions while under stress, proper observation of all sorts of etiquettes and protocols, self and time management and above all, exhibition of high standards of ethical and moral values even when the proportion of grey shades is much higher than expected, are some of the touchstones on which the soft skills of a person can be tested.

Any corporate organization when looking for an employee expects the candidate to be a culmination of certain qualities. In other words, what matters for a corporate organization is a person's sound technical knowledge coupled with several soft skills. Behavioural training experts believe there are several soft skills that are required for a person to be employable. These may include interpersonal skills, team spirit, social grace, business etiquette, negotiation skills, behavioural traits such as attitude, motivation and time management.

Every person has a desire to grow up in the value chain, i.e. progressing up the ladder. At this juncture, the job related technical skills come up to be insufficient. Only having technical knowledge, no matter how sound it is, leaves certain gaps in the professional requirements. A person's soft-skills in such a case, can very potently do the gap-fill. There are several examples to support this view. For example, organizations, particularly those dealing with customers face to face have time and again felt the need for training their staff to use these skills. Such skills can yield greater returns apart from a good credibility and fruitful relationships with the customers. Soft skills thus complement the technical skills and pave the way for success.

The question that creeps in is how important soft skills are in a student's life. It has been observed quite often that students believe that passing the professional degree with flying colours assures their dream job, which is not always true. The dreams are shattered when despite having a strong academic record, the person is declared unemployable. The valid reason is, the academic knowledge teaches a student 'how to plan' but soft skills teach 'how to execute.' Just as planning is incomplete without execution academic knowledge is insufficient without soft skills.

Students coming from rural areas find it difficult to overcome the communication barriers because of inefficiency in English. They not only have to struggle with the syntax but also with the pronunciation and accent of this so-called foreign language. It is not simply the syntactical features of the language, but semantic features (non-verbal communication) such as body language, business etiquettes, that are some such lacunae that are the common problems of both, students coming from rural or urban backgrounds. They need to be filled in for providing our students with global competitive competence.

Other components of soft skills such as self and time management, adequate and appropriate exploitation of EQ, and highest respect for practice of ethical and moral values both in social and corporate conduct, are some of the

key elements in sustainable and comprehensive development of both the self and society. The lack of or inadequate focus on these hampers students' productivity with their being aware of these. But when mastered, they prove to be a boon to their owner.

A yet another reason is soft skills are 'life skills.' When a child is born his parents/guardians wish to inculcate in him the best values and principles, so he can achieve a respectable position in society. When he grows up as a student the emphasis is on building the best personality traits. These life skills when taught to students from a right age, not only convert them into admirable employees but also into admirable individuals. These soft skills groom a person to play the part of a link between the organization and the external world.

It will not be an exaggeration to say that it is one's personality that matters. Soft skills thus acquire a relevant position in India, where it is not there in the academic curricula. Soft skills are not just skills of a person's profession but skills to be lived with all through his life.

--Neha Purohit

Lecturer, Dept. of English

ENTREPRENEURSHIP

Starting a new business is such an exciting time in life. You've got an idea for a product or service that you know will be a success. All you've to do is make it happen. Follow these tips and you'll be well on your way to entrepreneurship.

1. Find your passion in life - Do some soul searching and make sure that the business you are about to begin is your true passion in life. Why venture into doing something "just because" – make it something you love to do.

2. Research, research, research - Take the time to do your homework. Find out all that you can about your new business, starting a business, and what kind of competition is out there. Don't rush in to anything. Your business will only succeed if you are filling a need or a void in the marketplace.

3. Develop a solid business plan - Whether or not you need financing for your business, you still need a business plan. Many people dread this process because they make it out to be a very daunting task. Daunting or not, it's crucial to your success. A business plan, at minimum, should be an outline of your goals and objectives for the business – attainable and reasonable goals – both strategic and financial. It can be one page, it can be twenty pages – just be sure to do it. Putting the plans that are constantly floating around in your head down on paper will make you accountable. Visit your plan often and make the necessary changes to ensure your success.

4. Develop a solid marketing plan - The marketing plan is an essential part of your business planning. You need to research your competition, analyze your strengths and weaknesses, and identify the risks, opportunities and threats posed by both internal and external

factors. In doing so you can easily determine a niche market, the best way to enter the market, and how to best turn your marketing efforts into revenue.

5. Create your USP - Your USP is your Unique Selling Proposition. This is what makes you stand out from the competition. Why should people buy your product or service over the competition? Do you offer the best price? Do you have a superior product? Do you offer the best customer service? Your niche coupled with your USP and a good marketing plan can quickly position you at the forefront of the marketplace – you'll blow the competition away.

6. Establish your external support system - Starting a business on your own can be overwhelming. Don't be afraid to ask for assistance when and where you need it. Draw on the resources closest to you such as family and friends. The Internet offers a number of opportunities to establish a system of peers including social networks such as Twitter, Facebook, etc., teleseminars, message boards, and discussion groups. Check out the various online and offline networking groups and associations. Chances are you have a local SBA office, Small Business Development Center, or SCORE office in your area that can be a great source of resources for starting and growing your business.

7. Communicate with your internal support system - Without the support of those closest to you – kids, spouses, parents and

significant others – it can be difficult to dedicate the necessary time and resources to developing your business. By communicating your plans, goals and objectives with your internal support system you better your chances of gaining their support and getting them behind your new venture. Keep the communication lines open so that they understand what you're going through and let them know how they can best be of help to you.

8. Give it time - Rome wasn't built in a day, nor will your business turn a profit in a day. It takes time to build a successful business.

9. Reward yourself - Be sure to reward yourself for all your successes no matter how big or how small. Sooner or later all of your efforts will begin to pay off. Be proud of yourself and do a little something special just for you – you deserve it!

--Ashish Gupta
II B.Tech., ECE

HABITS OF HIGHLY CREATIVE PEOPLE

Many people believe that creativity is inborn and only a chosen few are creative. While it is true that creativity is inborn, it is not true that only a chosen few are creative. Everyone is born creative. In the process of growing up, educating yourself and adapting yourself to the environment, you slowly add blocks to your creativity and forget that you had it in the first place.

The difference between a creative and not so creative person is not so in the creativity that they were born with but in the creativity that they have lost. How can you enhance your creative ability? Here are some habits:

1. Creative people are full of curiosity. They have lots of questions. They keep asking what, when, how, why and where. A questioning mind is an open mind. Only an open mind can be creative. A knowing mind can never be creative. A questioning stance sensitises the mind in a special way and it is able to sense what would have been missed otherwise.

2. Creative people are problem friendly. Creative pople are problem friendly. They just roll up their sleeves when there is a problem. They see problems as opportunities to improve the quality of life. Being faced with a problem is never a problem. Life is a fascinating rhythm of problems and solutions. To be problem-averse is to be life-averse. Problems come into your life and convey a message. If you run away from them, you miss the message.

3. Creative people value their ideas. They realise the value of an idea. They carry a small notepad to note down ideas whenever they occur. Many times, just because they have a notepad and are looking for ideas to jot down, they can spot ideas which they would have otherwise missed.

4. Creative people embrace challenges. Creative people thrive on challenges. Challenges bring the best out of them.

5. Creative people are full of enthusiasm. Creative pople are enthusiastic about the goals. This works as fuel to their journey, propelling them to their goals.

6. Creative people are persistent. They know that people may initially respond to their new ideas like the immune system responds to a virus. They 'll try to reject the idea in a number of ways.

7. Creative people are optimists. They have a deeply held belief that most,if not all, ploblems can be solved. No challenge is too big to be overcome.

8. Creative people go for the big kill. They realise that the first idea is just the starting point. It is in the process of fleshing it out that some magical cross-connections happen and the original normal idea turns into a killer idea.

9. Creative people are good at reframing any situation. Reframing allows you to look at a situation from a different angle. A different view has the power to change your entire perception of the situation. Reframing can breathe new life into a dead situation.

10. Creative people are not afraid of failures. They realise that the energy that creates great ideas also creates errors. They know that failure is not really the opposite of success. In fact both failure and success are on the same side of the spectrum because both are the result of an attempt made.

--Gaurav Gautam
II B. Tech., IT

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Neha Anand, IV B.E., ECE, receiving
Prof. R.S. Nirjar Academic Trophy

Bharti Goyal, III B.E., CSE, receiving
Prof. Alam Singh Academic Trophy

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...n'ble Justice Mr. Chatra Ram Meel, Retd. Justice Rajasthan High Court (left), being honoured by Mr. Surja Ram Meel, Chairman, SKIT (right)

Mr. Himanshu Goyal, IBM's Country Manager for South Asia (left), being honoured by Mr. K.R. Bagaria, Director, SKIT (right)

. Ganga Jal Meel, MLA Suratgarh (left) being honoured by Mr. Anil Bafna, Vice Chairman, SKIT (right)

Mr. R.N. Arvind, Retd. IAS (right) being honoured by Prof. (Dr.) Ram Singh, Principal, SKIT (left)

Volleyball Team (SKIT) being awarded by Prof. (Dr.) Ram Singh, Principal (SKIT)

Basketball Team (SKIT) being awarded by Prof. (Dr.) Ram Singh, Principal (SKIT)

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Cultural Kaleidoscope

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Electrical Engineering

Muses' Arcadia

springs of the mount Helicon

MY MENTOR

I met him with my eyes sunk in tears,
my soul captured by fears;
I dare not utter a single word suddenly,
a whisper broke the ice and I heard;
grieve not my child, chase all thy fears away,
he took my shivering hand in his,
my soul felt a heavenly bliss;
Oh! what a pleasant moment it was!
I met my mentor, a wonderful day it was.
with great warmth he said,
it is tough people, not tough times that last,
don't give up all your dreams, if one did not come true
don't hate all roses, if one got you scratched.
I followed him like a sunflower,
a smile captured my face,
All that I could not; now I wanted to say,
the ferocious night ended in a short span,
and sun began to shine, saying;
"hey! dear don't panic
Everything will be just fine
Everything will be just fine."

--Shalini Mathur
II MBA

THINGS ARE NOT SAME

Things are different now
Things are not same
Everything has changed
Even I have changed
My eyes when still, reminisce
My eyes when still, memorize.
That day when I ceased to individualize
That day when I concluded to materialize
I found solitude in Feast
I found solitude in old mementos
Sometimes I jump off point reality
Sometimes I elope reality
To where there is sympathy and rapport
To where there is you and me

—Neha Kapoor
Lecturer, Dept. of CSE/IT

MY LIFE – WITHOUT DEFINITION

My life is full of glee but also has some pain.
I laugh when I am happy,
I laugh sometimes when I'm getting mad,
But I laugh too when I am sad.
I cry when I'm sad and can't hide anymore,
I cry when I'm happy and can't show anymore,
I cry when I laugh too much.
It's hard to know how I'm feeling,
but I like it in that way only.
I try to put away my feelings that I don't want anyone
to know.
My life, my life,
is full of glee but also has some pain.

--Akshay Jain
II B.Tech., CSE

MY LIFE

Distorted life,
Constant strife,
I wish it may,
I wish that were,
Unlimited dreams ,
In my heart somewhere.

My boat is struck between the storm,
Where to go ,Where I came from.
I can't guess what the fate has in store,
Drowned in the sea or to the shore.

Bed of roses the life is not,
So bad could be I never thought,
Desires sore high willingness low,
Someone please take my life with a bow.

Night hangs over the day so bright,
Like the moon won over the sun in a fight.
Darkness shadows even my life,
The lamp of my fate is devoid of light.

The road to fame is covered with stones,

The success's one may break your bone,
What I would be the God may know,
But couldn't he ever phone and tell.

I sound pessimistic but it is a fact,
I am experiencing it with all my tact.
I know you not but I know that for sure,
My life definitely is not better than yours.

--*Happy Garg*
II B.Tech., CSE

ASPECTS OF MY LIFE

Life is pure and kind
My life is full of remorse and regret
Life consists of everyone
My life consists of only "me"
Life consists of life
My life is full of "withered leaves" and agony
Life told me what I comprehend now
My life helped me accept it
Life taught me to be tough
My life taught me to become it
Life is the subject
My life is the object
Life told me to compete
My life told me to give up
Life thought I actually would give up
My life kept me strong not for others, but for me.

--*Amrita Prakash*
II B.Tech., CSE

HOW CAN ONE GIVE SUCH SWEET SMILES

How can one give such sweet smiles,
When one is so deplored by sorrows for miles,
How can I give the same smiles,
When life brings me nothing but just tears in my eyes,
I wondered for such a long time,
What reason you had to smile that long,
To keep smiling though troubles come,
And still remain sweet and silently overcome,
It's such a mystery to me,
Your smiles from heaven with joy,

I adore and yet desire you,
But I'd rather you smile those at me,
I feel blessed and glad when I see you smile,
Even if I'm sad and alone,
Your smiles take me somewhere,
I don't even know where, May be nearby heaven
But it was you,
You gave me the reason to smile,
To smile with no reason,
To smile for a smile,
I think life is just like that,
We need not a single subject to smile,
For a smile is the subject itself,
To rejoice and open-heartedly give thanks,
I learned to smile because of you,
Because your smiles bring me joy when blue,
It proves how well and powerful,
A simple sweet smile can become so beautiful,
Smile for the sake of a smile,
Smile for the sake of joyousness,
Smile for the sake of life,
Smile because of hope left in life,
Smile my friends
Just smile...

--*Dolly Agrawal*
II B.Tech., CSE.

SOMETIMES- IT IS A MATTER OF SOMETIME

Sometimes you have to take up the challenge
Sometimes you have to prove yourself
Sometimes you have to accept your defeat
Sometimes you have to give "cosmetic smile"
Sometimes you have to be "natural", as you are
Sometimes you have to burst in cry
Sometimes you have to show concern for others
Sometimes you have to be little bit diplomatic
Sometimes you have to laugh
Sometimes you have to show anger
Sometimes you have to be alert and vigilant
But, the only thing that you have to do everytime
Is to learn from each moment...

--*Akshay Jain*
II B.Tech., CSE

Technigenius

technical flair of technocrats

## HYDROGEN: FUTURE OF ENERGY

"I believe that water will one day be employed as fuel, that hydrogen and oxygen which constitute it, used singly or together, will furnish an inexhaustible source of heat and light, of an intensity of which coal is not capable. I believe then that when the deposits of coal are exhausted, we shall heat and warm ourselves with water. Water will be the coal of the future."

<div align="right">

Jules Vernes (1870) L'île mystérieuse

</div>

Energy is the primary and most universal measure of all kinds of work by human beings and nature. Every thing what happens in the world is the expression of flow of energy in one of its forms. Energy crisis is due to the two reasons; firstly that the population of the world has increased rapidly and secondly the standard of living of human beings has increased. The population of human beings has increased in the last century by a factor of 6 but the energy consumption by a factor of 80 [Bulletin, Magazin der eidgenossischen technischen Hochschule Zurich 276 (2000)]. The reserves of fossil fuels on earth are limited and predictions based on the continuation of the energy consumption development show that the demand will soon exceed the supply. Demand for energy will continue to grow even if governments adopt vigorous policies to conserve energy. Nuclear energy requires skilled technicians and poses the safety as regards to radioactive waste disposal. While fossils fuels the main fuels for the thermal power, will get exhausted eventually in the next century. Further the consumption of the fossils fuels has a major drawback. The consumption of the fossil fuels is responsible for the increase of the carbon dioxide in the atmosphere by approximately 3×10^{12} kg/year [Climate change 2001; Syntesis Report, Robert T. Watson (ed.), Published for the Intergovernmental Panel on Climate change IPCC,(2001) Cambridge University Press, Cambridge, UK]. This is well known that carbon dioxide is a greenhouse gas and thus causes an increase of the average temperature on earth. There is another major problem with the increase of the carbon dioxide. A large amount of approximately 98% of carbon dioxide on earth is dissolved in the water of the oceans (7.5×10^{14} kg in the atmosphere, 4.1×10^{16} kg in the ocean). But the problem is that as the temperature of the water increases, the solubility of the carbon dioxide decreases by approximately 3 per cent per kelvin. If this happens the carbon dioxide solubility equilibrium between atmosphere and ocean shifts towards the atmosphere and leads to an additional increase of the greenhouse gas in the atmosphere. Therefore other systems based on non-conventional and renewable sources are being tried by many countries. Hydrogen energy, solar energy, wind energy and other non-conventional energy sources are the sources; those are to be utilized in future.

It is widely believed that hydrogen will within a few tens of years become the fuel that powers most vehicles and portable devices, i.e. hydrogen will become the means of storing and transporting energy. Hydrogen as energy can play an important role as an alternative to conventional fuels. The reason is that this invisible, tasteless gas is the most abundant element in the universe and the relatively ease production of hydrogen from the various renewable sources of energy -hydroelectric, wind, solar, geothermal - with water being the only raw material needed. As a completely non-polluting fuel, it may hold the answer to growing environmental concerns about atmospheric accumulation of carbon dioxide and the resultant greenhouse effect. One of the most attractive features of hydrogen as an energy carrier is that the use of hydrogen as a source of energy is cyclic, a cycle of very short duration as shown in figure. The energy from sunlight can de converted into electricity by means of photovoltaic cells. The electricity produced can be utilized to dissociate water into hydrogen and oxygen. The oxygen is released in the atmosphere whereas hydrogen can be stored as a gas, liquid or in the form of metal hydride. Finally, hydrogen together with the oxygen is combusted and energy is released as work and heat leaving water or steam into the atmosphere.
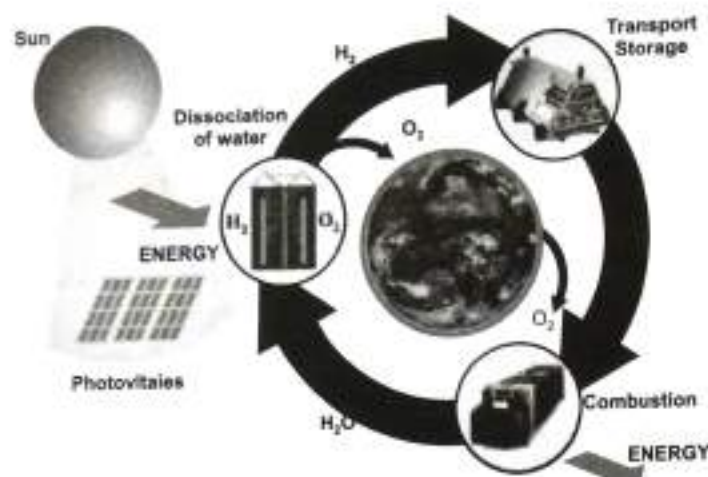
While hydrogen has many obvious advantages, there remains a problem with storage and transportation and there are certain negative aspects of hydrogen also. These aspects and possible risks involved with its usage are primarily because hydrogen is colourless, odourless, tasteless and non-toxic under normal conditions. Hydrogen is potentially explosive due to the wide limits on the explosive ranges (4-75 vol.-% hydrogen); it has extremely low ignition energy, a low viscosity, high combustion and detonation velocities, all of which are contributory factors to the hazards associated with hydrogen. Pressurised hydrogen gas takes a great deal of volume compared with, for example, gasoline with equal energy content - about 30 times bigger volume at 100atm gas pressure. Condensed hydrogen is about ten times denser, but is much too expensive to produce and maintain. [The Metal-Hydrogen System-Basic Bulk Properties; Y.Fukai, Springer-Verlag, Berlin, 1993).]. So if hydrogen is to be used on a large-scale basis, storage is a key problem.

Metal Hydrides as Hydrogen Storage Devices

The use of metal hydrides for the storage of hydrogen as a fuel is an important development. Many metals combine chemically with hydrogen to form a class of compound known as "Metal Hydrides". The metal hydrogen bond offers the advantage of very high volumetric hydrogen density at moderate pressure, which is about 60% of higher than that of liquid hydrogen [J.J.Reilly, G.d.Sandrock, Scientific American; 242 (1980) 5118.]. The advantage of the metal hydride system is that hydrogen being stored as a metal at low pressure and that it stores more volume than compressed gaseous or liquid hydrogen. When the hydrogen gas is needed it can be recaptured by lowering the pressure below, or raising the temperature of the metal hydride above the absorption process. A metal hydride must have certain properties like high hydrogen content, moderate thermal stability so that the 'stored' hydrogen can be recovered at moderate temperatures such as can be provided from locally available heat sources like solar, preferably below 1000C, fast formation and decomposition kinetics to satisfy the charge – discharge requirements of the system for the particular application, operating and maintenance cost and purchased energy requirements per storage cycle should be low etc. In addition the cost of the metal hydride system should also be as low as possible.
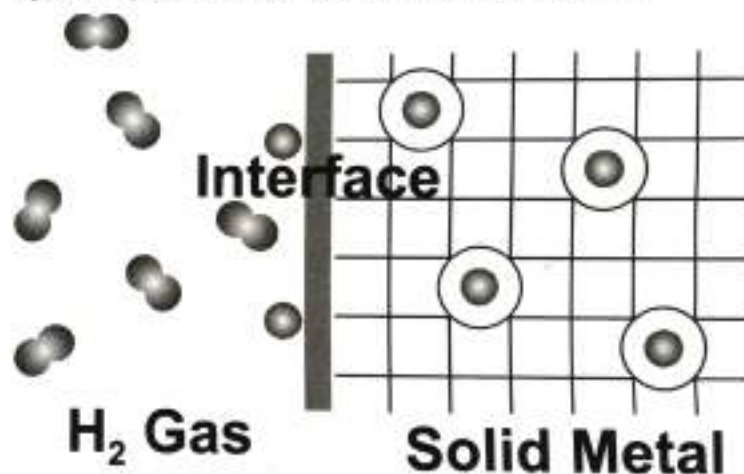
(Fig. Formation of Metal Hydride)

Several metal hydrides are available commercially, representing a good solution for hydrogen storage where the weight factor is not a problem. For vehicles, the problem with metal hydride is the high weight compared to the amount of hydrogen stored. Around 50 metallic elements of the periodic table can absorb hydrogen in great quantity and the possible choices of hydrogen storage materials are, therefore, enormous. Many scientific and engineering studies have been carried out of the absorption/desorption of hydrogen in metals and development of such storage devices. The problem of

weight has still not been solved in spite of extensive research. Researchers are therefore trying to think in new directions, by trying to lighten the alloys for one, and finding methods of packing the hydrogen in higher concentrations. **Intermetallic compounds** are, by universally accepted convention, represented by the generic formula AB_x, where A represents the hydride – forming metal, B represents the non-hydriding metal and X which may or may not be an integer, is the atomic ratio of B to A. Four classes of intermetallic compounds have been developed. **AB – type alloys**: In these intermetallic compounds Ti is the hydride forming constituent with some transition metals, like Fe, Co, Ni, Cr, V. Among all the binary intermetallic compounds of titanium only FeTi has been found suitable for hydrogen storage. A_2B – **type alloy**: Mainly based on the magnesium as the hydride-forming constituent for example Mg_2Ni. AB_2 – type alloy: mainly based on zirconium as the hydride forming element. Among many ZrB_2 (B= Fe, Co, Mo) compounds investigated, those with B=Fe, Co and Mo, exhibited very poor hydrogen absorption. On the other hand those with B=V, Cr and Mn absorbed hydrogen, but suffered from excessive stability of their hydrides, manifested by high heats of formation and very low plateau pressures. For example $ZrMn_2$, $Zr(Mn_{1.5}Fe_{0.5})_2$. AB_5 – **type** alloys: based mainly on rare earth metals as the hydride forming elements. For example Li based like $LaNi_5$, Ce based alloy like $CeNi_5$, $CeNi_{5-x}Y_x$ (x=0,1,1.5,2...Y=Co, Cr, Zr etc.) Besides the alloys described above, there are several other families of intermetallics having a capability of hydrogen absorption, none of which has attained commercial interest like A_2B, AB_2, A_2B_7, A_6B etc. Metal hydrides are very effective to store large amounts of hydrogen in a safe and compact way. All the reversible hydrides working around ambient temperature and atmospheric pressure consist of transition metals; therefore the gravimetric hydrogen density is limited to less than 3 mass%. It is still a challenge to explore the properties of the lightweight metal hydrides. Complex hydrides, sometimes referred to as classical chemical hydrides[R. Aiello, M. A. Matthews, D. L. Reger and J. E. Collins, Int. J. Hydrogen Energy, 23, 1103 (1998)] previously were considered for hydrogen storage only in the context of releasing the hydrogen via hydrolysis. To be

considered as a viable hydrogen storage medium, a material must be capable of being regenerated with a minimal energy penalty. It also must release the hydrogen at a temperature of less than 100°C in order to be compatible with fuel cells and must have an installed hydrogen density of 6.5 wt%. [Complex Hydrides for Hydrogen Storage;Darlene K. Slattery and Michael D. Hampton; Proceedings of the 2002 U.S. DOE Hydrogen Program Review NREL/CP-610-32405].The group one two and three light elements, e.g. Li, Mg, B, Al, build a large variety of metal hydrogen complexes. They are especially interesting because of their lightweight and the number of hydrogen atoms per metal atom. The main difference of the complex hydrides to the above described metallic hydrides is the transition to an ionic or covalent compound of the metals upon hydrogen absorption. The hydrogen in the complex hydrides is often located in the corners of a tetrahedral with boron or aluminum in the center. One of the most interesting features of the metallic hydrides is the extremely high volumetric density of the hydrogen atoms present in the host lattice. Complex hydrides of aluminum are attractive as hydrogen storage compounds due to their large hydrogen content. Unfortunately, their application in this manner has been impractical as a result of the great difficulties in reversing the hydrogen release reaction. Since workers in several laboratories have reported the discovery of a number of catalysts that improve the reversing of the hydrogen release by $NaAlH_4$, Na_3AlH_6, and $LiAlH_4$, interest in the use of complex hydrides of aluminum as hydrogen storage media has been rekindled. The volumetric hydrogen density is 150 kg m⁻³ found in Mg_2FeH_6 and $Al(BH_4)_3$.

Hydrogen will be stored in various ways depending on the application e.g. mobile or stationary but only successful commercial large-scale application of metal hydrides so far is the metal hydride battery, which has supplied battery power to many small electrical appliances such as mobile phones and portable computers. Metal hydrides have so far not become useful as storage devices for hydrogen gas even though they have some distinct advantages over pressurized hydrogen gas, both improved safety and reduced volume. Today we know about several efficient and safe ways to store

hydrogen, however there are many other new potential materials and methods possible to increase the hydrogen density significantly. Hydrogen is likely to be the synthetic fuel for the future because of the large heating value. The material science challenge is to better understand the electronic behavior of the interaction of hydrogen with other elements and especially metals. Complex compounds like $Al(BH_4)_3$ have to be investigated and new compounds from the light weight metals and hydrogen will be discovered. However, just like the fossil fuels have started the industrial age, hydrogen will start an economic and technical revolution. Once the investments for the production of renewable energy are carried out, human beings will profit from a hydrogen based environmentally clean energy economy.

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ENERGY EFFICIENT LIGHTING

Abstract

Energy is one of the major inputs for economic development of any country. Lighting is an essential requirement for any facility and it touches the day-to-day lives of people in more ways than one. It accounts for 15% of the total energy consumed in a developing country as against about 7%–10% in developed countries. India's installed capacity of power generation is about 112 058 MW (CEA 2004). According to an estimate of the share of electricity used and the lighting component for major sectors (Table 1), about 15% of the total electricity generated is used for lighting purposes in various sectors. The devices and techniques used for lighting are so old and conventional that there is a great loss of electricity consumed in it. Further the method of installation, position of lamps, architecture of building and control mechanism has a great influence on energy demand for lighting. In this paper we have discussed the type of artificial light sources, luminaires, their benefits, limitations and control mechanism for saving the energy in lighting.

Introduction

Energy savings resulting from daylighting not only lower electric-lighting but also reduce cooling and heating loads. The best way of saving the energy in lighting is the use of natural light. In this paper our main concentration is on saving of energy while using artificial lighting sources. For this purpose, we must know the available techniques.

Artificial lighting sources

The main available light sources are: incandescent lamp, fluorescent tube, Sulfur lamp, LED light, Electrodless induction lamps, CFL, MR16 lamps, Metal halide lamps and T5 lamps. Out of these first two are conventionally used from a long time, we will not discuss about these two.

Sulfur lamp

It is a high output electrodeless lamp. The sulfur lamp bulb consists of a spherical quartz envelope filled with a few milligrams of sulfur and an inert noble gas, such as argon, which is weakly, ionized using microwaves.

Unlike conventional sources whose outputs typically diminish 75% over time, sulfur lamps will maintain their efficiency and light output over their entire lifetimes. By eliminating the need to compensate for lamp lumen depreciation, fewer sulfur lamps can provide a required light level. In addition, sulfur lamps contain no mercury, an environmentally toxic substance used in all other conventional efficient sources.

The sulfur lamp was developed originally by scientists (now at Fusion Lighting in Rockville, Maryland) who discovered that sulfur excited by microwave energy could be used in place of mercury in ultraviolet industrial lamps to produce a high-quality white light. The design life of the bulb is approximately 60,000 hours. However, the design life of magnetrons is currently only about 15,000 to 20,000 hours.

With the exception of fluorescent lamps, the warm-up time of the sulfur lamp is notably shorter than for other gas discharge lamps, even at low ambient temperatures. It reaches 80% of its final luminous flux within twenty seconds, and the lamp can be restarted approximately five minutes after a power cut.

The sulfur plasma consists mainly of dimer molecules (S2), which generates the light through molecular

emission. Because this, instead of atomic emission, is the mechanism of light generation, the emission spectrum is continuous throughout the visible spectrum. The lamp's output is low in infrared energy, and less than 1% is ultraviolet light. As much as 73% of the emitted radiation is in the visible spectrum, far more than other types of lamps. The visible light output mimics sunlight better than any other artificial light source and the lack of harmful ultraviolet radiation is an extra benefit. Unlike fluorescent and high-intensity discharge lamps, sulfur lamps contain no mercury. Therefore, sulfur lamps do not pose a threat to the environment or require special disposal. In addition, use of sulfur lamps has the potential to reduce the total amount of energy required for lighting. Because the amount of light produced from one bulb is so great, it is usually necessary to distribute the light to areas far removed from the lamp. The most common method used is light pipes. Indirect fixtures direct most of their luminous flux upward toward a ceiling. A highly reflective ceiling can then serve as a secondary source of diffusive, low luminance, high visual quality lighting for interior spaces. The primary advantages of indirect lighting are the opportunity to significantly reduce indirect glare potential and to completely eliminate direct source viewing.

LED: Light emitting Diode

A Light Emitting Diode (LED) is a semiconductor device which converts electricity into light. The light is generated inside the very small (0.25 mm2) semiconductor chip, which is a solid crystal material. The different layers of crystal in the semiconductor chip determine the wavelength, or color, of light emitted. Due to the high index of refraction of the chip only 30 % of the light generated is emitted. The epoxy encapsulation helps reduce the refractive index difference allowing more light to be emitted. One of the advantages of LEDs is their long life. Manufacturers rate colored LEDs for 100,000 operating hours.

Their efficacies vary depending on the color of the LED. Red LEDs have efficacies around 45 lumens per watt (lm/W) – blue and green LEDs are around 30 lm/W. white light LEDs have efficacies similar to those of

incandescent lamps (40 lm/W). LED lighting has been around since the 1960s, but is just now beginning to appear in the residential market for space lighting. At first white LEDs were only possible by "rainbow" groups of three LEDs – red, green, and blue – by controlling the current to each to yield an overall white light.

LED uses about ten milliamps to operate at about a tenth of a watt. LEDs are small in size, but can be grouped together for higher intensity applications. LED fixtures require a driver which is analogous to the ballast in fluorescent fixtures. The drivers are typically built into the fixture (like fluorescent ballasts) or they are a plug transformer for portable (plug-in) fixtures. The plug-in transformers allow the fixture to run on standard 120 volt alternating current (AC), with a modest (about 15 to 20 percent) power loss.

The efficacy of a typical residential application LED is approximately 20 lumens per watt (LPW), though efficacies of up to 100 LPW have been created in laboratory settings.

LEDs are better at placing light in a single direction than incandescent or fluorescent bulbs. Because of their directional output, they have unique design features that can be exploited by clever designs. LED strip lights can be installed under counters, in hallways, and in staircases; concentrated arrays can be used for room lighting. Waterproof, outdoor fixtures are also available. Some manufacturers consider applications such as gardens, walkways, and decorative fixtures outside garage doors to be the most cost-efficient.

LED lights are more rugged and damage-resistant than compact fluorescents and incandescent bulbs. LED lights don't flicker. They are very heat sensitive; excessive heat or inappropriate applications dramatically reduce both light output and lifetime.

Electrodeless Induction Lamps

In an induction (electrodeless) lamp, light is generated by means of induction combined with a gas discharge within a bulb. Generally available in three configurations and offered by the major lamp manufacturers and their nomenclature, or lamp-naming system for these lamps has been established separately by each one of them. Because

induction lamps utilize the same kind of tri-phosphor technology as the new generation of fluorescent lamps, their color rendering properties are very good. They generally achieve color rendering indexes of 80 or higher. Each manufacturer offers different correlated color temperatures for their product, ranging from 2700 to 4100 K.

The main benefit of using induction technology to generate light is that because there are no electrodes that degrade over time with lamp operation, the life of the lamp is greatly increased. The life expectancy is much greater than that of other traditional light sources, making it a good choice for applications that require low maintenance or involve hard-to-reach places.

Compact fluorescent lamps (CFLs)

CFLs offer many of the benefits linear fluorescent lamps offer because of their reduced width and smaller size. The internal construction and operation of compact fluorescent lamps (CFL) is similar to linear fluorescent lamps. Like linear fluorescent lamps, all CFLs require a ballast to operate. The most important differences between CFLs and linear fluorescent lamps are size (CFLs are smaller in size) and the lamp/ballast configuration.

Specifiers and end users use CFL products to replace incandescent lamps in luminaires with medium screwbase sockets, such as ceiling- and wall-mounted luminaires, exterior luminaires, recessed downlights, track lighting, and floor and table lamps. CFL products can reduce energy and maintenance costs compared to incandescent lamps. In fact manufacturers often indicate the "equivalent incandescent wattage" on the packaging of their CFL products. However, CFL products differ from comparable incandescent lamps and from each other in size, shape, light output, power quality, and life. The National Lighting Product Information Program (NLPIP) produced this issue of Specifier Reports to promote better understanding of screwbase CFL products and to provide guidance to specifiers on selecting them. As with all fluorescent lamps, CFLs emit light when low-pressure mercury vapor is energized inside the lamp, which produces ultraviolet (UV) radiation. The UV radiation is absorbed by a phosphor coating on the inner surface of the lamp, which converts the radiation to light.

MR16 lamps

"MR" stands for multifaceted reflector, a pressed glass reflector with the inside (reflecting side) surface composed of facets and covered by a reflective coating and 16 is the number of eighths of an inch the front is in diameter. These facets provide optical control by gathering the light from the filament to create a concentrated beam of light. The reflectors of some MR lamps have a smooth inside surface instead of facets, but they are still called MR lamps by convention.

MR16 is a standard format for halogen reflector lamps made by a variety of manufactures. MR16-compatible LED lamps are also available. MR16 lamps are regularly used in place of compact fluorescent lamps or standard incandescent light bulbs for applications including residential lighting and retail lighting. MR16 lamps were originally designed for use in slide projectors. They are well suited to a variety of applications that require directional lighting of low to medium intensity, such as track lighting, recessed ceiling lights, desk lamps, pendant fixtures, landscape lighting, retail display lighting and bicycle headlights.

MR16 lamps have a CCT of between 2800 K and 3200 K depending on the manufacturer and type of lamp. The CCT of MR16 lamps is higher than that of general incandescent lamps because their filament temperature is higher due to a more compact filament size made for low-voltage use. In addition, the dichroic coatings on the reflectors of MR16 lamps remove some long-wavelength light, resulting in higher CCTs. The CRI of MR16 lamps ranges between 95 and 100. NLPIP tested several 50-watt MR16 samples of the same type (EXN) to determine their lumen output, which ranged between 560 lumens to 710 lumens, and averaged 625 lumens. In general, low-voltage halogen lamps have higher efficacies than common incandescent lamps because the low-voltage filament is more compact than a 120-volt filament. The low-voltage filament does not need as much electric power to keep it hot.

T5 Lamps

The newest family of linear fluorescent lamps is the T5 line of lamps, which consists of standard and high-output

(HO) T5 lamps. The standard T5 lamp was developed in Europe several years ago, and then introduced to the North American market in 1996.

Like T8 lamps, straight-tube T5 lamps are available in nominal 2-, 3-, 4-, and 5-ft lengths. The 4-ft T5 lamp is actually 45.8 in. long from pin end to pin end. Generally, the standard T5 lamp and electronic ballast system has light output and efficacy comparable to a T8 lamp/electronic ballast system.

Similar to T8 lamps, the T5 is available in correlated color temperatures of 3,000°K, 3,500°K, and 4,100°K. While T8 lamps are available with a color-rendering index (CRI) of 75 or 85, all T5 lamps have a CRI of 85 or 82, depending on the manufacturer.

While the standard T5 and T5 HO are of the same diameter and length, the 4-ft T5 is rated at 2,900 lumens, similar to the lumen per watt output of a T8 lamp. On the other hand, the 4-ft T5 HO lamp is rated as high as 5,000 lumens, offering twice the maintained light output of a T8 lamp. This means that on some projects a designer can use fewer fluorescent fixtures or lamps, thus providing certain savings on installation and long-term maintenance.

A variety of new fixture designs take advantage of the T5 lamp's dimensions and other characteristics. Thus these fixtures distribute the lumen output uniformly and achieve a good brightness ratio across the ceiling. Because the T5 lamp is only available in metric dimensions, and since it can't be easily retrofitted into existing T8 or T12 fixtures, the T5 lamp family is generally not misapplied.

Fibre optic lighting system

A fiber optic lighting system transports light from a remote light source via optical fibers to illuminate specific areas or objects. Fiber optic lighting has the capability to provide unique and appealing lighting solutions, but is not typically used to provide general ambient lighting for a space. Instead, fiber optic lighting systems are most often used to provide accent lighting in small display cases, to outline architectural features, for signage, or to provide lighting in wet, hazardous, or difficult to access locations where directly mounting an electric light source would be dangerous or difficult to maintain.

Energy Efficient Lighting

If we will use right type of lamps and luminaires at proper position according to application, we can save a lot of energy. Energy efficiency cannot be obtained by mere selection of more efficient lamps. Efficient luminaires alone with the lamp of efficacy achieve the optimum efficiency.

For achieving better efficiency, luminaires that are having distribution characteristics appropriate for the task interior should be selected. The luminaires fitted with a lamp should ensure that discomfort glare and veiling refection are minimized. Some recommendations for efficient lighting have been mentioned below:

✎ **Use of energy efficient fluorescent lamps in place of "Conventional" fluorescent lamps.** Energy efficient lamps are based on the highly sophisticated tri- phosphor fluorescent powder technology. They offer excellent colour rendering properties in addition to the very luminous efficacy.

✎ **Use of compact fluorescent lamps (CFL's) in place of incandescent lamps.** Compact fluorescent lamps are generally considered best for replacement of lower wattage incandescent lamps. CFL's are highly suitable for places such as Living rooms, Hotel lounges, Bars, Restaurants, Pathways, Building entrances, Corridors, etc.

✎ **Use of metal halide lamps in place of mercury/ sodium vapour lamps.** Metal halide lamps provide high color rendering index when compared with mercury & sodium vapour lamps. These lamps offer efficient white light. Hence, metal halide is the choice for colour critical application where, higher illumination levels are required. These lamps are highly suitable for application such as assembly line, inspection areas, painting shops, etc. It is recommended to install metal halide lamps where colour rendering is more critical.

✎ **Use of High Pressure sodium vapour (HPSV) lamps for application where colour rendering is not critical.** High Pressure sodium (HPSV) lamps offer more efficacy.

But the colour rendering property of HPSV is very low. Hence, it is recommended to install HPSV lamps for applications such street lighting, yard lighting, etc.

Use of LED panel indicator lamps in place of filament lamps. Panel indicator lamps are used widely in industries for monitoring, fault indication, signaling. Etc. Conventionally filament lamps are used for the purpose. The LEDs have the various advantages over the filament lamps i.e.

1. Lesser power consumption (Less than 1 W/lamps)
2. Withstand high voltage fluctuation in the power supply
3. Longer operating life (more then 1,00,000 hours)

Use of electronics blast: Electromagnetic type ballast operating at a voltage frequency of 50-60 Hz. while electronic ballasts operating at frequencies of 20,000-60,000 Hz. This high frequency operation causes lighting systems to convert electric power to light more efficiently than systems run by standard electromagnetic ballasts.

Task Lighting: Task lighting means providing task related light. Task light is used to increase illuminance on the reading area or on the localised task area and control Contrast (vision) by positioned light source at right place. It is important that unnecessary high level of uniform lighting is avoided and maintained the flexibility to relocate the luminaires or redirect the light.

Occupancy sensors: Occupancy sensors have become a mainstream solution for eliminating wasted lighting energy. Occupancy sensors automatically turn off lighting in unoccupied spaces such as classrooms, conference rooms, public spaces, dormitories, and large offices. The typical office spends 29% of its electrical energy costs for lighting. Occupancy sensors can reduce these charges by 50% or more, at an energy savings of 5 minute - 20 minute per square foot.

Two technologies dominate the occupancy sensor market: infrared and ultrasonic. Passive infrared sensors detect temperature changes in a room, and work well where the entire room is within the sensor's field of view. Ultrasonic sensors use high frequency sound, much like bats do, to detect motion (even around corners). Dual-technology sensors use both methods, increasing accuracy and flexibility, but at a higher price.

Dimming Controls: Both manual Dimming control and Preset scene dimming control with photosensors are used for dimming lights. Manual dimming gives occupants of a space an added degree of control and satisfaction, as well as the opportunity to help save energy. Slider switches allow the occupant to change the lighting over the complete output range. They are the simplest of the manual controls. Preset scene dimming controls change the dimming settings for various lights all at once with the press of a button. The occupant can preset a number of different patterns for the lights. Fluorescent lighting fixtures that you want to be dimmed require special dimming ballasts and compatible control devices.

Microprocessor based controllers: Another modern method is usage of microprocessor controlled infrared dimming or switching circuits. The lighting control can be obtained by using logic units located in the ceiling, which can take per-programme command and activate specified lighting circuits.

Optimum usage of day lighting: Whenever the orientation of a building permits, day lighting can be used in combination with electric lighting. This should not introduce glare or a server imbalance of brightness in visual environment.

Servo stabilizer for lighting feeder: Servo stabilizer can be installed for the lighting feeders. This will provide stabilized voltage for the lighting equipment. The performance of "gears" such as chokes, ballasts, will also improve due to the stabilized voltage.

Sector	Electricity used (percentage of total)	Lighting component (percentage of total electricity used)
Industry	49	4-5*
Commercial/public	17	4-5
Domestic	10	50-90
Other	24	2

* Though at the industrial level, the lighting component is less than 5%, in certain industries such as textiles, pharmaceuticals, and electronics, it may be up to

15% of the industry s total consumption. For information technology and certain types of commercial/building sectors, it could even be 40% of their total consumption.

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DISTRIBUTED GENERATION

What is Distributed Generation?

Distributed generation (or DG) generally refers to small-scale (typically 1 kW – 50 MW) electric power generators that produce electricity at a site close to customers or that are tied to an electric distribution system. Distributed generators include, but are not limited to synchronous generators, induction generators, reciprocating engines, micro turbines (combustion turbines that run on high-energy fossil fuels such as oil, propane, natural gas, gasoline or diesel), combustion gas turbines, fuel cells, solar photovoltaic, and wind turbines.

Applications of Distributed Generating Systems

There are many reasons a customer may choose to install a distributed generator. DG can be used to generate a customer's entire electricity supply; for peak shaving (generating a portion of a customer's electricity onsite to reduce the amount of electricity purchased during peak price periods); for standby or emergency generation (as a backup to Wires Owner's power supply); as a green power source (using renewable technology); or for increased reliability. In some remote locations, DG can be less costly as it eliminates the need for expensive construction of distribution and/or transmission lines.

DG Technologies

There are a number of DG technologies. Some are tried and tested but a number are new, developing technologies. DG technologies include fossil-fuelled devices as well as those that use renewable fuels. The basic categories described here include both renewable and more conventional DG technologies.

(i) Cogeneration

Cogeneration, also known as CHP, refers to any system that generates electricity and heat in a single process. A cogeneration plant offers the additional advantage that the waste heat from the generation process can be used beneficially rather than rejected to the environment. This heat can be used in industrial processes or to provide heat to local communities.

(ii) Wind power

The exploitation of wind energy is of course centuries old. However, it is only in the last few decades that windpower has made serious inroads into electricity generation. Until recently, the scale of wind generators has meant that they all qualified as DG. However, offshore wind farms could have total electrical outputs of up to 1GW in the future and so will require super grid connection. Wind generation presents the power system with a number of challenges. Firstly, the output of a wind farm is essentially uncontrollable. This presents an additional challenge to the control systems that ensure a balance between supply and demand and constant system frequency. Secondly, most wind generators have different electrical characteristics to conventional synchronous generators and this has to be taken account of when connecting them to the transmission and distribution systems. However, it is possible for wind generation to make a significant contribution to the electricity supply system and it is currently the leading renewable generating technology in many countries.

(iii) DG using Biofuels

Biofuels include:

∕ **Biomass** – this can be a wet or dry fuel derived from plant material and animal wastes. It can be combusted to generate electricity and/or heat in plants having a wide range of outputs. Wet wastes can be fermented to produce a gas that can be used in gas engines or gas boilers.

∕ **Biogas** – This is essentially the same as the gas

derived from wet biomass. The most common example of biogas is landfill gas. However, the same basic process that occurs in a landfill site can be reproduced in an anaerobic digester. This device allows organic material to decompose in the absence of oxygen in a controlled way, releasing methane.

(iv) Photovoltaic

Photovoltaic cells convert the sun's energy directly into direct current (DC) electricity. A particular advantage of this technology is that it can be very effectively integrated into the structure of buildings. From a distribution system perspective it is important to note that this technology requires its DC output to be converted to AC at the interface with the grid. This process introduces harmonic distortion to the grid and it is vital that the level of this distortion is controlled within limits set by industry standards.

(v) Fuel Cells

The Fuel Cell is essentially a very simple device which was invented in the 19th century. It is a device that allows hydrogen and oxygen to be combined to produce electricity - the reverse of the electrolysis process. The development of fuel cells has been constrained primarily by the difficulty of making them cost effective.

(vi) Micro generation

The term "micro generation" covers a wide range of electricity generating technologies. There is not as yet a well recognized definition of the term. It is usually used in the context of the generation of electricity at domestic scale. Examples of micro generation technologies include:

- Wind turbines designed for domestic or small commercial applications having outputs of a few KW.

- Domestic, gas-fired CHP devices also starting at about 1kW of electrical output but able to meet domestic heating demands as well.

- Photovoltaic panels for domestic application; and

- Fuel-cell based CHP devices – still some way from commercial reality but a promising future opportunity.

Benefits of Distributed Generating Systems

Distributed Generation:

- Has a lower capital cost because of the small size of the DG (although the investment cost per kVA of a DG can be much higher than that of a large power plant).

- May reduce the need for large infrastructure construction or upgrades because the DG can be constructed at the load location.

- If the DG provides power for local use, it may reduce pressure on distribution and transmission lines.

- With some technologies, produces zero or near-zero pollutant emissions over its useful life (not taking into consideration pollutant emissions over the entire product lifecycle ie. pollution produced during the manufacturing, or after decommissioning of the DG system).

- With some technologies such as solar or wind, it is a form of renewable energy.

- Can increase power reliability as back-up or stand-by power to customers.

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WIBREE

WIBREE is an ultra low power, short range radio technology offering connectivity between mobile devices and small, button cell battery powered devices. First open technology offering connectivity between mobile devices or personal computers, and products such as watches, wireless keyboards, gaming and sports sensors. Wibree is interoperable radio technology for small devices developed by Nokia. Devices with WIBREE support can communicate with

the internet, allowing information to be sent backwards and forwards. And because of low data rates, the cost of this data transfer will be a negligible portion of the user's monthly phone contract. A wide range of additional services those are too expensive for widespread deployment will be enabled. There is an irony in the fact that the origins of Wibree were the alternative proposal for the radio and Media Access Controller (MAC) for the 802.15.4 standard, which is now the basis of ZigBee and other short range radio networks.

What Wibree does

Wibree's main application is to provide an ultra low power radio within the 2.4GHz band. Wibree is aiming to produce a radio that can transmit a small packet of data approximately every second. This low power drain is achieved by designing a radio and protocol that allows the device to sleep for most of its life. It can wake up quickly, when it will broadcast its requirement to transfer data on a number of advertising channels across the spectrum. The receiving device, which is likely to contain a larger battery as it will be on for more of the time, will acknowledge the message and tell the first device which channel to send its data on. At the same time it will acknowledge the reception, and at that point both can again go back to sleep. The whole process will take less than three or four milliseconds. The same Bluetooth chip that contains the Wibree radio within the phone will be constantly scanning the radio spectrum as part of its adaptive frequency hopping requirement to see what spectrum is free. It makes perfect sense to share this information with the Wibree radio to give it the frequency agility that it needs to meet high reliability applications. So living inside a Bluetooth chip becomes a doubly positive advantage for Wibree.

In its initial release, WIBREE covers watch, sensors and Human Interface Devices (HID). Wireless sensing is another great market waiting to happen. It doesn't just cover industrial monitors in factories, but encompasses pulling information from medical devices, home alarms and anything where some form of device needs to send information. It also opens up the market for "power-free" devices that either use solar energy, or some of the more recent energy scavenging power sources that produce power from thermal heat (such as the human body) or vibration.

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IRIS SCANNING

Iris Scanning is a method of biometric authentication that uses pattern recognition technique based on high resolution of the irises of an individual eye.

Biometrics is an automated method of capturing a person's unique biological data that distinguishes him or her from another individual. Iris scanning technology help unlock doors and access bank accounts and also log on to computer. It confirms the identity of the person based on his identity card. It is an externally visible colored ring around the pupil of every human eye which is absolutely unique. Iris recognition has emerged as one of the most powerful and accurate identification techniques in the modern world. It has proven to be the most foolproof technique for the identification of individuals without the use of id cards, PINs and passwords. Iris scanning facilitates automatic identification whereby electronic transactions or access to places, information or accounts are made easier, quicker and more secure.

The properties of the iris that enhance its suitability for use in high confidence identification system are following:

1. Extremely data rich physical structure about 400 identifying features

2. Genetic independence as no two eyes are same.

3. Stability over time.

4. Its inherent isolation and protection from the external environment.

5. The impossibility of surgically modifying it without unacceptable risk to vision.

6. Its physiological response to light, which provides one of several natural tests against artifice.

7. The ease of registering its image from some distance without subject's physical contact.

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CELL PHONE CLONING: A NEW TECH CRIME

Mobile communication has been readily available for several years, and is major business today. Because of its usefulness and the money involved in the business, it is subject to fraud.

Some of the features of mobile communication make it an alluring target for criminals. It is a relatively new invention, so not all people are quite familiar with its possibilities, in good or in bad. Its newness also means

intense competition among mobile phone service providers as they are attracting customers. The major threat to mobile phone is from cloning.

Cell phone cloning is copying the identity of one mobile telephone to another mobile telephone.

Cloning is the process of taking the programmed information that is stored in a legitimate mobile phone and illegally programming the identical information into another mobile phone. The result is that the "cloned" phone can make and receive calls and the charges for those calls are billed to the legitimate subscriber. The service provider network does not have a way to differentiate between the legitimate phone and the "cloned" phone

Cloning involves modifying or replacing the EPROM in the phone with a new chip which would allow you to configure an ESN (Electronic Serial Number) via software. One would also have to change the MIN (Mobile Identification Number).

When one has successfully changed the ESN/MIN pair, his phone is an effective clone of the other phone.

Cloning requires access to ESN and MIN pairs. ESN/MIN pairs were discovered in several ways:

1. Sniffing the cellular network

2. Trashing cellular companies or cellular resellers

3. Hacking cellular companies or cellular resellers

WHAT ARE EMIE AND PIN?

ESN mean Electronic Serial Number. This number is loaded when the phone number is manufactured. This number cannot be tampered or changed by the user or subscriber. If this number is known a mobile can be cloned easily.

Personal Identification Number (PIN). Every subscriber provides a Personal Identification Number (PIN) to its user. This is a unique number. If PIN and ESN are known, a mobile phone can be cloned in seconds using some softwares like Patagonia. which is used to clone CDMA phones.

Patagonia is software available in the market which is used to clone CDMA phone. There are other Softwares available in the market to clone GSM phone.

Did one realize there is a lucrative black market in stolen and "cloned" Sim cards? This is possible because Sims are not network specific and, though tamper-proof, their security is flawed. In fact, a Sim can be cloned many times and the resulting cards are used in numerous phones, each feeding illegally off the same bill.

But there are locking mechanisms on the cellular phones that require a PIN to access the phone. An 8-digit PIN requires approximately 50,000,000 guesses, but there may be ways for sophisticated attackers to bypass it.

HOW TO KNOW THAT THE CELL HAS BEEN CLONED?

✎ Frequent wrong number phone calls to your phone, or hang-ups.

✎ Difficulty in placing outgoing calls.

✎ Difficulty in retrieving voice mail messages.

✎ Incoming calls constantly receiving busy signals or wrong numbers. Unusual calls appearing on your phone bills.

Messages and calls sent by cloned phones can be tracked. However, if the accused manages to clone the IMEI number of the handset also, for which softwares are available, there is no way, he can be traced.

Service providers have adopted certain measures to prevent cellular fraud. These include encryption, blocking, blacklisting, user verification and traffic analysis

Authentication is the most robust and reliable method for preventing cloning fraud and it is the only industry "standard" method for eliminating cloning.

It is in initial stages in India so it is essential that intended mobile crime legislation be comprehensive enough to incorporate cellular phone fraud, in particular "cloning fraud" as a specific crime.

--Gaurav Gautam

II B.Tech., I.T.

GREEN CHEMISTRY FOR SUSTAINABLE DEVELOPMENT

"It is better to prevent waste than to treat or clean"

Energy requirement should be recognized for its impact on environment and should be minimized. Synthetic methods should be conducted at ambient pressure and temperature.

Green Chemistry is the utilisation of a set of principles that reduces or eliminates the use or generation of hazardous substances in the design, manufacture and application of chemical products.

NEED OF GREEN CHEMISTRY

1. Green chemistry looks at pollution prevention on the molecular scale and is an extremely important area of Chemistry.

2. The Green Chemistry program supports the invention of more environment friendly chemical processes.

GREEN CHEMISTRY AIMS AT

Waste Minimisation at Source

Use of Catalysts in place of Reagents

Using Non-Toxic Reagents

Use of Renewable Resources

Improved Atom Efficiency

Use of Solvent Free or Recyclable Environmentally Benign Solvent systems

THE 12 PRINCIPLES OF GREEN CHEMISTRY

1. **Prevention:** It is better to prevent waste than to treat or clean up waste after it has been created.

2. **Atom Economy:** Synthetic methods should be designed to maximise the incorporation of all materials used in the process into the final product.

3. **Less Hazardous Chemical Synthesis:** Wherever practicable, synthetic methods should be designed to use and generate substances that possess little or no toxicity to people or the environment.

4. **Designing Safer Chemicals:** Chemical products should be designed to affect their desired function while minimising their toxicity.

5. **Safer Solvents and Auxiliaries:** The use of auxiliary substances (e.g., solvents or separation agents) should be made unnecessary whenever possible and

innocuous when used.

6. **Design for Energy Efficiency:** Energy requirements of chemical processes should be recognised for their environmental and economic impacts and should be minimised. If possible, synthetic methods should be conducted at ambient temperature and pressure.

7. **Use of Renewable Feedstocks:** A raw material or feedstock should be renewable rather than depleting whenever technically and economically practicable.

8. **Reduce Derivatives:** Unnecessary derivatization (use of blocking groups, protection/de-protection, and temporary modification of physical/chemical processes) should be minimised or avoided if possible, because such steps require additional reagents and can generate waste.

9. **Catalysis:** Catalytic reagents (as selective as possible) are superior to stoichiometric reagents.

10. **Design for Degradation:** Chemical products should be designed so that at the end of their function they break down into innocuous degradation products and do not persist in the environment.

11. **Real-time Analysis for Pollution Prevention:** Analytical methodologies need to be further developed to allow for real-time, in-process monitoring and control prior to the formation of hazardous substances.

12. **Inherently Safer Chemistry for Accident Prevention:** Substances and the form of a substance used in a chemical process should be chosen to minimise the potential for chemical accidents, including releases, explosions, and fires.

APPLICATIONS

Energy: Green Chemistry will be essential in developing the alternatives for energy generation (photovoltaics, hydrogen, fuel cells, bio based fuels, etc.) as well as to continue the path toward energy efficiency with catalysis and product design at the forefront

Global Change: Concerns for climate change, oceanic temperature, stratospheric chemistry and global distillation can be addressed through the development and implementation of green chemistry technologies

/ **Resource Depletion:** Renewable resources can be made increasingly viable technologically and economically through green chemist. A raw material of feedstock should be renewable rather than depleting wherever technically and economically practical.

/ **Food Supply:** While current food levels are sufficient but distribution is inadequate Agricultural methods are unsustainable and thereby Future food production intensity is needed. Green chemistry can address many food supply issues.

/ **Toxics in the Environment:** Substances that are toxic to humans, the biosphere and all that sustains it, are currently still being released at a cost of life, health and sustainability. One of green chemistry's greatest strengths is the ability to design for reduced hazard.

CONCLUSION:

Green chemistry is not only a solution to all environmental problems but also the most fundamental eco-friendly approach to prevent pollution.

--Akshay Jain

II B.Tech., CSE

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NANOROBOTICS

Nanorobotics is the technology of creating machines or robots at or close to the microscopic scale of a nanometre (10^{-9} metres).Nanorobotics is an emerging field that deals with the controlled manipulation of objects with nanometer-scale dimensions.Typically, an atom has a diameter of a few Ångstroms (1 Å = 0.1 nm = 10^{-10} m), therefore, Nanorobotics is concerned with interactions with atomic- and molecular-sized objects-and is sometimes called Molecular Robotics.

Nanotechnology can enable to build the bridges for the post-human future through the fabrication of microscopic robots comprised of nanocomponents. Such nanorobots are expected to have dimensions comparable to bacteria. Nan robots (nanobots, nanoids, nanites or nanonites) would be typical devices ranging in size from 0.1-10 micrometers and constructed of nanoscale or molecular components. As no artificial non-biological nanorobots have yet been created, they remain a hypothetical concept.

EXAMPLE:-

An example is a sensor having a switch approximately 1.5 nanometers across, capable of counting specific molecules in a chemical sample.Recently, Rice University has demonstrated a single-molecule car which is developed by a chemical process and includes buckyballs for wheels. It is actuated by controlling the environmental temperature and by positioning a scanning tunneling microscope tip.

Directions for pursuing Nanotechnology is being pursued along two converging directions.

TOP DOWN :-

For example, the line width of the original Pentium chip is 350 nm. Current optical lithography techniques have obvious resolution limitations because of the wavelength of visible light, which is in the order of 500 nm. X-ray and electron-beam lithography will push sizes further down, but with a great increase in complexity and cost of fabrication. These top-down techniques do not seem promising for building nanomachines that require precise positioning of atoms or molecules.

BOTTOM UP:-

One can proceed from the bottom up, by assembling atoms and molecules into functional components and systems. There are two main approaches for building useful devices from nanoscale components. The first is based on self-assembly, and is a natural evolution of traditional chemistry and bulk processing. The other is based on controlled positioning of nanoscale objects, direct application of forces, electric fields, and so on.

SOME RELATED TERMS:-

[1] Nanorobots

Nanorobots have been a recurring theme in many science-fiction novels, sci-fi shows and movies.It is a robot which allows precision interactions with nanoscale objects, or can manipulate with nanoscale resolution.The nanorobots could be used for a large range of applications, also for manipulating and repairing cells

Basically, we may observe two distinct kind of nanorobot utilization. One is nanorobots for the surgery intervention, and the other is nanorobot to monitor patients' body.

[2] NUBOT

Nubot is an abbreviation for "Nucleic Acid Robots." Nubots are synthetic robotics devices the nanoscale. Representative nubots include the several DNA walkers.

APPLICATIONS:-

⟋ Nanorobots to improve health care:Using nanorobots to deliver drugs and fight diseases is not a new idea. Of course, nanorobots floating inside our bodies to improve our health are still years away. However, an international team of American and Australian researchers is developing a nanorobot hardware architecture for medical defense. They have developed a nanorobot control design (NCD) software which helps them to simulate the behavior of these future nanorobots.

⟋ Nanorobot for Brain Aneurysm which replenish armor, health, enhance strength, speed and even enable active camouflage.

⟋ Medical Nanorobotics for Diabetes Control

⟋ Nanorobot Hardware Architecture for Medical Defense

⟋ Nanorobot Architecture for Medical Target Identification

⟋ Hardware Architecture for Nanorobot Application in Cerebral Aneurysm

⟋ Nanorobots for Laparoscopic Cancer Surgery

⟋ Medical Nanorobot Architecture Based on Nanobioelectronics

⟋ Nanorobot for Treatment of Patients with Artery Occlusion

⟋ Computational Nanomechatronics: A Pathway for Control and Manufacturing Nanorobots

⟋ Pro-Inflammatory Cytokines and Soluble Adhesion Molecules as Activating Triggers for Nanorobots

⟋ Nanorobots as Cellular Assistants in Inflammatory Responses

⟋ Assembly Automation with Evolutionary Nanorobots and Sensor-Based Control applied to Nanomedicine

⟋ Nanosystem Design with Dynamic Collision Detection for Autonomous Nanorobot Motion Control using Neural Networks

⟋ Autonomous Multi-Robot Sensor-Based Cooperation for Nanomedicine

⟋ Autonomous Nanorobotic Control for Competitive Molecular System Design

– Amrita Prakash (II B.Tech., CSE)
– Varsha Gaurav (II B.Tech., ECE)

Some happy talent, and some fortunate opportunity, may form the two sides of the ladder on which some men mount, but the rounds of that ladder must be made of stuff to stand wear and tear; and there is no substitute for thorough-going, ardent, and sincere earnestness.

--Charles Dickens in *David Copperfield*

Uncertainty and expectation are the joys of life. Security is an insipid thing, and the overtaking and possessing of a wish discovers the folly of the chase.

--William Congreve in *Love for Love*

To be conscious that you are ignorant is a great step to knowledge.

--Benjamin Disraeli in *Sybil*

'Tis not the dying for a faith that's so hard, Master Harry--every man of every nation has done that--'tis the living up to it that is difficult...

--William M. Thackeray in *The History of Henry Esmond*

Inspiron
inspire aspirations

1% INSPIRATION

Thomas Edison once said "Genius is 99%, perspiration and 1% inspiration". But, still that 1% of inspiration is the sole requirement for converting that 99% to success.

Have you ever wondered that a pencil, a small pencil which you thought was just writing instrument can teach so many things?

1. It tells us that everything you do leaves a mark whether you do good or bad, it will surely leave a positive or a negative impression on others.

2. It tells us that the important thing is how we are from inside and not outside which means that our quality and virtues leave a lasting impression on others and not our outside beauty.

3. Moreover it tells us that in life we will go through painful sharpening which will make us better. The difficult times are always there to make us stronger.

4. It tells us that we can always correct our mistakes, so never be afraid to take risk. We should take challenges, accept difficulties because even if we fall, there's always a next time.

5. Last and the best it says, "Allow yourself to be guided and held by the hand which holds you", so if we allow ourselves to be guided and held by God's hand, we can surely achieve success in life.

Have you heard the story of the ugly elephant, well if not, I tell you. In a forest there was a very ugly baby elephant called "Jumbo". No other animal in the jungle used to play with him and he was always downtrodden and embarrassed by other animals.

The duck used to say to him "Look at you, elephant you are so ugly and black, with a long pipe like trunk hanging, I am so white and beautiful.

The monkey used to tease him by saying "Look at me I can jump from one tree to another, can you do so?

Poor little elephant would have nothing to say in these matters.

On a hot summer afternoon when all the animals were sleeping, the whole jungle was caught in a mighty fire. All animals began to panic, but our brave little elephant shouted on top of his voice and called all other elephants and they all filled their trunks with water and within minutes, the whole fire was extinguished.

Jumbo became a hero and every other animal felt ashamed that they used to tease him and now he had saved their lives.

Through this story, I just want everyone to understand that we should never underestimate others. We all have this habit of passing comments on people, on fat people, on thin people, on the short, on the dark, on the physically deformed and so on. Even if we do not pass comments many of us just think something ill about them. We should understand that God has created each of us equal and we should learn to respect each other and not to laugh or tease others.

Blacks were always ill treated in America!! Now can you think how much foolish it is to just discriminate on the basis of colour of a person? Are we civilized or not? But now they have set an example by choosing a black president Obama.

Be at your best,

And leave the rest,

Joys and sorrows come and go,

And surely you have to pass thorough,

Life is a struggle but,

Crossing all barriers,

You make your way,

Think you can do it,

Don't be idle and sit,

Because, In the end

the man who wins is

the man who thinks he can.

There was once a man who had four wives. He loved his fourth wife the most, fed her with delicacies and gave her the most beautiful clothes. He loved his third wife too, as she was very beautiful. He always feared that she might run away with someone.

Whenever he had problems he went for help to his second wife and she took good care of him and sorted out his problems.

But he always neglected his first wife although she loved him the

most.

The days of pleasure turned into miserable ones when he was diagnosed with cancer and doctor told him that he would die soon.

He got very sad as he thought he would be alone now. So he asked his fourth wife if she would die with him, she clearly replied no. His third wife had already run away with someone else on hearing about his disease. He then went to his second wife, she said that she always helped him but now she cannot die with him. He got disappointed an went to his first wife but to his surprise, she readily agreed to die with him. The man was deeply moved and thought only one thing that it would have been much better if he had taken good care of her. Now, like the man we all have four wives.

Our fourth wife is our body whom we love the most, feed it with good dishes, decorate with beautiful clothes but when we die it doesn't accompany us.

Our third wife is the possession, property that we have which always goes to someone else when we die and we do not take it with us.

Our second wife is our friends and family. However they might solve our problems during our lives they will not go with us.

Our first wife is our soul which we neglect throughout our lives, never caring about it but our soul always goes with us when we die. So we should do some soul seeking in our lives and care for it and not just run after materialistic pleasures.

This is the only way to become better persons and thus we would have no unsettled issues when we die.

When you were born you cried and everyone rejoiced, live your life in such a way that when you die you rejoice and the whole world cries.

Life is not measured by the number of breaths that we take but by the number of moments that take our breath away.

--Happy Garg
II B.Tech, CSE

My meaning simply is, that whatever I have tried to do in life, I have tried with all my heart to do well; that whatever I have devoted myself to, I have devoted myself to completely; that in great aims and in small, I have always been thoroughly in earnest.

--Charles Dickens in *David Copperfield*

'My advice is, never do tomorrow what you can do today. Procrastination is the thief of time.'

--Charles Dickens in *David Copperfield*

. . . you know nothing about Hope, that immortal, delicious maiden forever courted forever propitious, whom fools have called deceitful, as if it were Hope that carried the cup of disappointment, whereas it is her deadly enemy, Certainty, whom she only escapes by transformation.

--George Eliot in *Daniel Deronda*

INSPIRATION

I am here to inspire my audience but before that we should properly comprehend the meaning, recognition, relevance and application of this word called "INSPIRATION". Inspiration is something which cannot be restricted to a precise boundary as far as its meaning is concerned. It can be inspiration for somebody and philosophy for someone else. You won't believe but it is true that in our day to day life so many things which come across to us try to inspire us in some or the other way. Now it depends upon us how well and how early we derive any kind of positive thought or inspiration from that. CONFUSED??? Lets consider the nature for instance. Sun! Sun inspires us to serve all even if we have to burn ourself. Rivers! They inspire us to flow and keep on running despite of so many boulders and hurdles on the way. Have you ever seen ants? If ever noticed they always walk in a straight queue and never break it. Thus, they inspire us to be disciplined. Similarly there can be innumerable examples of such sources of inspiration. Not only nature but the people around us, whether they are our family members, friends, colleagues or even strangers can inspire us in one or the other way. But all in all it actually depends on our perception and attitude. Some people make a person as their mentor and always try to have some inspiration from them whether directly or indirectly. Now this is also a very good manner of inspiring oneself. This mentor can be a popular personality like a politician, a freedom fighter, an industrialist, a film star or even your

parents or siblings. Now comes a query - what actually we want to follow. Obviously, we want to have something which we don't have and is in a strong requirement of. For example if you believe that your life is lacking optimism, then we should look for a relevant source of inspiration through which we can have an optimistic thinking.

Now, some people believe that they don't need any inspiration. They are just perfect or if not they are contended with what they are and with what they have. Or some people just can't grab the fact that there can be any kind of thing which they actually require. But this is not the correct attitude. Me, you and everybody out there is a human who is not at all perfect. Everybody needs inspiration. Even an artist who actually portrays the beauty of nature on a piece of paper/canvas is inspired by nature. We should not at all feel any kind of hesitation or embarrassment by getting inspired from others in any manner. I am here not only to explain to you the importance of "inspiration" but meanwhile inspire you to be inspired from any potential source of inspiration. Look for others. Don't get envious of their happiness or success but try to find out what is that one quality which you are lacking to reach your desired level of happiness or success. Like, if one does not get good marks in his/her exams but his friends does, inspite of getting jealous of him just look out at your weaknesses and try to eradicate them. Inspiration is something that motivates you, gives you the zeal to do something, to

perform and to prove yourself. But inspiration and motivation both should be continuous.

To quote Zig Ziglar, 'People often say that motivation doesn't last. Well, neither does bathing - that's why we recommend it daily."

Apart from a mentor or people around you, inspiring quotes also help you.

When you read inspiring quotes they may motivate you, evoke powerful emotions, and strike a chord with your own thoughts and feelings. In short, they can have a profound effect on you. But the process does not end with just getting or recognizing your source of inspiration. Planning or thought should always preceed action. Otherwise every other thing will just be futile. Whatever you want to do and achieve, go for it. Take a step forward today towards your goals in life. Even a journey of a thousand miles begins with a single step. Only after a few days you will feel inspired, moved and focussed enough to achieve your goals. Make today one of those days and pursue what you want with all your heart, body and mind. Believe in yourself and your abilities, focus on your goals. For today, let your desires and ambitions shine. Steal yourself for action and make today great.

Always remember life is too short to achieve all your goals so don't just waste your precious time in getting conscious about your weaknesses and areas of improvement. It is never easy to face your fears, self-doubts

and gain the confidence to pursue your dreams. But it is harder and sadder to look back with regrets tomorrow and in future years on what you didn't do when you had the chance. Your time is precious, so throw caution to the wind. Just for today, achieve your secret dreams and desires, and trust in yourself. To paraphrase Walt Disney, 'Don't dream it, do it'.

--*Sakshi Gupta*
II B.Tech. CSE

A man and a woman were involved in a terrible car crash, but amazingly neither of them was injured. After climbing out of their separate cars and looking at each other the woman finally said. "The fact that neither of us was hurt must be a sign that we were meant to meet each other, and were meant to be friends." The man, still shocked, nodded his head in agreement.

Just at that moment an unopened bottle of whiskey rolled out of the woman's car and she said "again this must be a sign that we were meant to 'toast' our friendship with a drink."

The man (by this point needing a drink) took hold of the bottle and drank a few mouthfuls. He gave it back to the woman and asked "aren't you going to have any?" The woman (wiping her fingerprints off the bottle) shook her head and replied. "You know...I think I'll just wait for the police to arrive before I drink anything."

Greeneros

love green... nurture life...

GO GREEN

"I heard a thousand blended notes,

While in a grove I sat reclined,

In that sweet mood when pleasant thoughts bring sad thoughts to the mind."

"To her fair works did Nature link

The human should that through me ran

And much it grieved my heart to think

What man has made of man"

William Wordsworth has summed up the callous attitude of humans towards the very environment that has nurtured them in this couplet . It underlines the need for us to wake up to the call, lest we should become the reason for our own extinction.

The silver lining in the cloud is that in today's era, there is a global realization that for sustainable development, the world needs to become increasingly sensitive to the environment. The green movement today is revolutionizing every sector of the global economy and it has become as large as the telecommunications revolution of the 1990's.

But the question is why do we need to spur the green movement?

The answer to the above question lies in analyzing the effects of the long – term usage of fossil fuels for meeting the energy demands. It has led to a significant variation in the expected patterns of average weather over an appropriately significant portion of time.

These abnormal changes are referred to as climatic changes. The primary factors responsible for it include glaciation, ocean variability, hysterisis, effects of CO2 and human influence.

A significant portion of climatic changes is due to human impact which includes the use of aerosols, emissions from cement industry, inefficient land-use and deforestation to make grazing land available for livestock.

A host of geo engineering techniques are being adopted to battle climate change. Significant among them are green house gas removal by biomass energy capture and storage or union fertilization and hydrological geo engineering.

With the setting up of the Inter-governmental panel on climatic change, global warming and climatic changes have been identified as possible threats to the earth. Hence there is a campaign to explore business opportunities in the green sector. It is a move by various organizations to explore possible avenues to adopt the use of bio-degradable eco-friendly products.

The opportunities fundamentally lie in three sectors. The first is the use of organic products. From organic foods, cosmetics to organic houseware, it is a fad that has caught on and it is likely to increase in the coming decade. The next sector deals with trash recycling, for eg, the production of plant food from agricultural residue. The third sector is the government sector, which deals with crafting of goods / services to help local businesses to comply with environmental regulations.

The development of green technology to speed up the process of biodegradation of resistant materials like plastics, polymers etc. which have endangered the very existence of life form can also open up wide vistas of green business opportunities.

In the global market, it is an established notion that companies that outperform the environment, outperform financially.

Thus, 'Green Investing' leads to better management of resources that translates into stronger earnings and hence greater shareholders value.

Did you know that a plastic bag takes 1000 years to decompose?

This is a small example to demonstrate the damaging effect that a widespread lifestyle practice can have on the environment. Hence it is mandatory to spread awareness and bring about the change in the types of products for daily usage.

The process of 'Green Marketing' incorporates product modification, changes to the production process and packaging changes etc. to inculcate the application of green

products in people's lives. The quintessential examples of successful green marketing have been the changeover of the public transport system to CNG in Delhi since 2002 and the introduction of Philiph Light's CFL bulb which gave the incandescent bulb strong competition. The Development of the mass rapid transit system like metro rail is not only a great social equalizer, but it is a fast and efficient system that has a direct bearing in reducing the use of vehicles emitting green house gases.

But green marketing comes with its host of disadvantages as customers are skeptical of green claims and the reputation of the company is at stake if a claim is found to be counterfeit, a situation referred to as 'Green Washing"

Hence, the effective implementation of green marketing has three steps. First, the organization needs to be genuine about its green claims and to have consistent business policies. Second, it needs to educate the customers on why to use green products and third, it should provide an opportunity for them to actively participate in the process.

The adoption of green marketing and exploration of green business avenues can have noteworthy consequences but to reap the rich benefits of the green movement, there needs to be a paradigm shift in the basic sources of fulfilling energy demands. These alternative sources of energy can include biomass. The

biomass umbrella includes biofeuls, biodiesel, bioalcohols, bioethers, biogas and solid biofeuls. Recently, biofuels from foodstuffs which include converting grain harvest accounted for merely 16% of the autofuel needs of the US. This outcome indicates that placing energy markets in competition with food markets results in higher food prices and has an insignificant impact on energy issues.

Another alternative fo fossil feuls is ethanol which uses corn / sugarcane as fullstock and the residue (bagasse) is used to process heat and power. The use of commercially viable hellulosic ethanol has been shown to increase yield and reduce the 'carbon footprint'.

Another alternative source can be zero carbon alternatives like nuclear power and clean coal technology but due to problems in nuclear waste disposal, a complete changeover to these sources is not feasible till the advanced techniques of nuclear waste disposal are not developed.

Other alternative sources include renewable resources of energy like solar power, hydropower, geothermal power, wave power and tidal power solar power technology is used in solar water heaters, solar ovens are for solar lighting etc. As solar energy is evenly distributed and widely available, it has the potential to meet a large part of the global energy requirement. Hydro power can be harnessed to generate electricity and has no green house

gas emissions but dams suffer from problems of dam failures, flow shortage, population relocation and environmental damage. On the other hand, harnessing of tidal and wave power is limited only to specific regions but it is more predictable than wind energy.

With the advent of the industrial revolution in the early 19th century and gross mismanagement of the environment to fuel the greed of consumerism over the last two decades has had widespread global repercussions. The most significant among them is the rise in global temperature and the expansion of 'ozone hole'. The ice caps of the northern and southern hemisphere and the higher reaches of mountains across the world holding major reserves of pure water have started melting due to the phenomena of global warming giving rise to the loss of such reserves and the submergence of low-lying cultivable land

Zeno has said that

"The goal of life is living in agreement with nature"

In order to live in agreement with nature, we need to realize our duty towards it at three levels. At the individual level, each one of us needs to incorporate green habits in our lifestyles and pledge to adopt a more eco-friendly approach. Switching off the lights when not in use may seem a trivial thing to do but the saved energy would account for 25% of the total energy. Some of the practices to be adopted can include using paper bags, recycling

waste, following proper garbage disposable techniques by segregating bio-degradable and non-biodegradable waste.

At an organisational level, the corporate thinking of profit maximization needs to give way to corporate responsibility to the environment and society at large and to ensure that the exploitation of business opportunity does not in any way conflict with the environment preservation drive.

The paws at national and global level need to be redefined to ensure that the defaulting corporate houses are put to severe disadvantage and those adhering to the norms are allowed 'carbon credits', so that their product becomes competitive in its market segment.

At the national and international level, a comprehensive policy needs to be evolved to ensure that further degradation of the environment is prevented at all costs and that the future generation is not made to suffer due to the sins committed by the past and present generations.

Let us all respond to mother nature's call and come together to make our earth a healthier and happier place to live in. In the concluding part, I would like to quote a saying by Carson which goes. "Those who contemplate the beauty of the earth find reserves of strength that last as long as life lasts"

HEAL THE WORLD!

-- *Srishti Banerjee*

IV BE, IT

IMAGINE GREEN

"Green is the prime color of the world and from which its loveliness arises"

The colour green symbolizes life. The word green is closely related to the old English verb "grown" which means "to grave". It is used to describe plants or the ocean. Green also symbolizes hope and growth. Apart from it green colour is also associated with regeneration, fertility and rebirth. Abundant in nature, green signifies growth, renewal, health and environment. On the flip side green is jealousy or envy and inexperience too. With having both warming and cooling effect it denotes balance, harmony and stability. Apart from it green is also the traditional colour of Islam. Green is synonymous with our nature, our environment.

If we have a magnified look at the spectrum of sun rays then we will find out that green is the central colour of its spectrum that is VIBGYOR. Moreover it is not only the central colour of spectrum but is also the central part of human life as the chlorophyll which is the autotroph, the only thing which is able to produce its own food, is also green. Life begins with green. Imagine if there would have been no green then there would have been no existence of human beings on this earth.

In the early ages human being used to eat flesh when he felt hungry, then slowly he learned how to use fire and steadily he also

learned how to grow crops. When he started growing crops he started settling down and then civilization came into existence which is also a result of green. The civilization today is the result of green only. Besides in literature, green has always been the favourite colour of poets. Green takes one deep into the lap of nature and gives immense happiness and mental satisfaction.

Human being is closely related to environment, for his basic needs he has always looked up to it. Nature has been the dwelling place of homosapians. But as science progressed the greed of homosapians increased and they inturn started exploiting their own nature, their own environment. The greed rose to such an extent that they forgot their own root that is their very own nature, their environment their dwelling place. Development of science and technology led to urbanization and industrialization. This in turn resulted in the exploitation of mother nature, they started polluting their environment and started adding unwanted material in nature. Interference of human being in nature has risen to an alarming level which has adversely affected our ecological balance. For instance the nuclear waste which has been dumped into oceans affects the vegetation and aquatic life in about 100 km^2 area. Moreover human beings have not left outer space unaffected as the space crafts after finishing their life cycle remain in space as waste material which is going to be worst

than that of ongoing financial crisis. Also we will be facing a severe shortage of various natural resources such as petroleum and coal by 2035 if the consumption or rather exploitation goes on with the same pace. Also the consumption of these natural resources add various harmful gases like carbon di oxide (CO_2), sulpher di oxide (SO_2), carbon mono oxide (CO) etc. The pollutant particles like lead particles are also added to the environment. These unwanted gases and particles result in various healthhazarding phenomenon like global warming, green house effect and acid rain. These all calamities are the result of disturbing ecological balance. Its high time now to "Go Green" and go back to our roots. We will have to spread awareness and also we will have to switch to cleaner and greener fuel for daily purpose use and for our energy requirement.

Now a days a technique called "carbon crediting" is also popular which can tell how much carbon is being added in the environment by an individual. By doing this one can know by what extent one is polluting one's dwelling place and how one can reduce it to the minimum extent possible.

Among the cleaner and greener fuel we have got biodiesel, which is produced by transesterfication of various agricultural products like soyabean etc. It has no carbon content and is much cleaner as compared to diesel and petroleum. Also it can be mixed with diesel in vehicles to increase efficiency and to

decrease pollution. Another replacement of petrol is CNG which is far more clean fuel than the petrol. All the public transport in Delhi are running on CNG which is a non polluting gas. Apart from this for our energy requirement we can use the untrapped and untraced energy of hydrates which are available in abundance at the costal area of our country. Hydrate is much cleaner available option as compared to thermal power or nuclear power which causes pollution and later one which leaves radioactive byproducts. No byproduct is produced when hydrate is used to generate energy.

More and more awareness campaigns have to be run and sponsored so that one can know ones' moral duties and responsibility to the mother nature. People must be made aware of how their misuse of nature is affecting it and how it can be prevented. They must be made aware of the contribution of people like Sundar Lal Bahuguna who started "Chipko Andolan" and opposed the cutting down of trees. Also in Rajasthan Amrita Devi did the same thing and led several lives for not allowing to cut down forests.

So one must be made aware of the nature too. Also one should switch to much cleaner and greener fuel which will not only help in reducing pollution level but will also help maintain our ecological balance. Moreover it will also help in retaining the meaning of word green which

means life, health and environment. It must be remembered that "Dawn does not come twice to awaken the man"

So its high time to take care of our mother nature.

--*Anupam Jain*
III B.E., ECE

NATURE

Beneath the oceans
and on their shores,
Crossing the river that roars,
Feel it.
In the blowing of wind,
In the rustle of leaves,
Feel it.
In the sound of birds,
In the morning sun,
In the beautiful flowers,
And in the fawn that runs,
Feel the presence of nature.
The nature reveals
its beauty then,
Sky limits us to some heights,
But we have taken our flights,
To go past and search for the,
Hidden treasures of nature.

Things are beautiful for those
who feel it,
and nature is a pleasure for....
Those who value it.

--*Happy Garg*
II B.Tech, CSE

कथा

पूर्णता का अहसास

आज नन्दिनी का मन बड़ा ही अकेला महसूस कर रहा था। उसे लग रहा था मानो सागर की हजारों करोड़ों लहरें उसके अन्तर्मन में उथल-पुथल मचा रही हैं। उसे अन्दर तक झकझोर रही हैं। उससे कह रही हैं देखो वक्त की दौड़ में तुम बहुत अकेली पड़ गई हो। कौन तुम्हें मातृत्व का सुख देकर आनन्दित करेगा। कौन तुम्हारे बुढ़ापे की लाठी बनेगा?

कई बार उसका दिल हुआ कि एक प्यारा सा बच्चा गोद ले लें लेकिन फिर लगा अगर खुद ही किसी तरह माँ बन जाए तो और भी अच्छा है। इसी चक्कर में कितने ही डॉक्टरों, नीम हकीमों, बाबाओं और तांत्रिकों के पास जा चुकी है वो पर कोई फायदा नहीं। उसने कभी किसी एक पर भरोसा कर पूरा इलाज करवाया ही नहीं। निशान्त को हर महीने डॉक्टर के जाना आफत लगती है तो वो भी कहीं न कहीं आलस कर जाती है। कभी तीन महीने तो कभी छः महीने बाद डॉक्टर पर से भरोसा उठ जाता है और इलाज अधूरा ही छोड़ देती है। और फिर कुछ फायदा भी तो नहीं इलाज के साथ अहतियात भी तो जरूरी है। निशान्त को डॉक्टर ने कितनी बार मना किया है कि सिगरेट पीना छोड़ दो, ये तुम्हारी सेहत से खिलवाड़ कर रही है। पर नहीं, निशान्त को तो जैसे कोई फर्क ही नहीं पड़ता। ऐसी बात नहीं है कि वो बाप नहीं बनना चाहते? पर वो सिगरेट पीना नहीं छोड़ सकते।

तभी उसे याद आया कि पिछली बार जब उनके दोस्त घर आये थे तो उन्होंने कहा था, मैं ऐसा नहीं कहता कि तुम्हारा खुद का बच्चा नहीं हो सकता। भगवान पर भरोसा रखो वो सबकी सुनता है। पर दोस्त मेरी बात मानो तुम एक बच्चा गोद ले लो। तुम्हारी जिन्दगी में भी बहार आ जाएगी और एक अनाथ को भी नाम मिल जाएगा

और फिर अगर तुम्हारा बच्चा हो गया तो उसे भी एक भाई मिल जाएगा। मेरी बात पर गौर करना दोस्त! चलता हूँ।"

पहले तो उसका दिल भी नहीं माना। अपना खून तो आखिर अपना खून होता है और निशान्त भी तो यही चाहते हैं। उन्हें किसी अनाथ को अपना नाम देना पसन्द नहीं। पर आज उसे ऐसा लग रहा है कि इसमें बुराई ही क्या है। निशान्त को भी समझना चाहिए। उनका तो पूरा दिन ऑफिस में या क्लाइन्ट्स से मिलते-जुलते बीत जाता है पर वो तो पूरा दिन अकेली, अन्दर ही अन्दर टूटती जा रही है। लेकिन अब निशांत से बात करके वो अपनी इस जिन्दगी के खालीपन को दूर करके ही रहेगी। उसे एक बच्चा चाहिये ही किसी भी तरह। उसके कान अब माँ शब्द सुनने को और नहीं तरसेंगे। अब मैं इस खूबसूरत चेहरे पर एक भी पल दुख के बादल नहीं देखना चाहता। तभी अचानक निशांत बोला चलो कपड़े बदलो, तैयार हो जाओ। और कमरे से बाहर चला गया। नंदिनी तो उसके इस व्यवहार का ठीक से आकलन भी नहीं कर पाई थी। और कुछ कहने सुनने का मौका दिया ही कहाँ निशान्त ने उसे। खैर वो तैयार होने चली गई। बाहर आकर निशान्त ने कहीं फोन लगाया। दोनों गाड़ी में बैठ गये। निशांत उसके दोनों हाथ अपने हाथों में ले बोला – मुझे माफ कर दो। नंदिनी ने पूछना चाहा कहाँ जा रहे हैं लेकिन जुबां ने साथ नहीं दिया। कुछ देर बाद गाड़ी रूकी। बिल्डिंग पर लगा बोर्ड पढ़कर नंदिनी चौंक गई। 'अनाथालय'। उसने निशान्त को देखा जो मुस्कुरा कर उसे ही देख रहा था। एक प्यारी सी मुस्कान नंदिनी के अधरों पर भी खिल गई। अब उसे पूर्णता का अहसास होने लगा है– वो अब माँ बनने जा रही है माँ।

–विभूति मंगल

प्रथम बी.टैक, कम्प्यूटर विज्ञान एवं अभियांत्रिकी

कोशिश

तनहा बैठा सोच रहा हूँ,
कुछ ख्वाब में सजो रहा हूँ
अपने बारे में नहीं,
मैं किसी और के बारे में सोच रहा हूँ
दिल के कुछ अरमां कागज पर लिख सकूँ,
बस इतनी सी कोशिश, मैं कर रहा हूँ।
दूसरों के रब के बारे में सुनता हूँ हर रोज
बस अपने रब की तलाश मैं कर रहा हूँ।
ढूँढे मुझमें कोई अपना रब
या मैं ढूँढू उसमें अपना रब
बस ये छोटी सी पहेली सुलझाने की
कोशिश मैं कर रहा हूँ।
सपने दूसरों के हकीकत में बदलते देखता
हूँ हर रोज,
तभी तो अपने ख्वाबों की हकीकत देखने की
कोशिश मैं कर रहा हूँ।
चलता हूँ जिस राह पे मैं,
मेरे पीछे उसी के लिए,
एक बड़ी पंक्ति में देख रहा हूँ
फिर अगले पल दूसरों की खुशी के लिए,
उसी पंक्ति से अलग मैं खुद को देख रहा हूँ।
निराश नहीं, हताश नहीं, खुश हूँ मैं,
क्योंकि दूसरों से ज्यादा गम सहने का हुनर,
मैं खुद में देख रहा हूँ।
दूसरों के लिए "जय हो–जय हो"
सुनता हूँ हर रोज
बस अपनी "जय–हो"
का इंतजार मैं कर रहा हूँ।।
तभी तो इन सबसे दूर,
अपनी एक अलग दुनिया
की ख्वाहिश मैं कर रहा हूँ
घर जाकर मम्मी के पास बैठ के,
उनकी गोद में सिर रखकर
उनकी आँचल की छाँव तले
इस दुनिया को भूल जाने की कोशिश
मैं कर रहा हूँ।।

–महेन्द्र पाल सिंह यादव

द्वितीय वर्ष, इलेक्ट्रॉनिकी एवं संचार

तमन्ना

वक्त आ चुका था। आखिर उसे उसकी जिन्दगी की सच्चाई बताने का। बस यही सही वक्त था उसे उसकी जिंदगीनुमा किताब के कुछ अनखुले पत्रों को खोलने का।

काफी हिम्मत करके मैंने अपना निश्चय लिया था। जैसे ही वो ऑफिस से आई एक बार जी किया सब कुछ अभी बता दूँ लेकिन शायद रात के खाने के बाद जब वो फ्री होगी तो सही समय रहेगा शायद उसके और मेरे दोनों के लिए।

खाने की टेबल पर आज काफी सन्नाटा था सिर्फ कांटे और छुरी की आवाजें आ रही थी। एक अनकही खामोशी बहुत कुछ कह रही थी। ये खामोशी, कई बार काटने को दौड़ती।

मुझसे रहा नहीं गया शायद ये खामोशी ही थी जिसने मेरे सब्र के बांध को तोड़ दिया। बिना उससे कुछ बोले मैंने अपनी बात शुरू की।

आज से लगभग 20 साल पहले हम जौनपुर में रहते थे। काफी सम्पन्न ये आखिर वो शहर के जाने माने अफसर जो थे उन्हीं के दफ्तर में एक बाबू दिनकर बाबू थे जिनकी माली हालत ठीक नहीं थी। होती भी कैसे आखिर सात–सात लड़कियाँ थी उनकी। आठवें के आने का इंतजार कि शायद वो लड़का हो। लेकिन बदकिस्मती देखो फिर से लड़की का जन्म। घर में काफी दिनों तक वही रोना–पीटना चलता रहा लेकिन इस बार हालत कुछ और थी। वो उसे अपनाना नहीं चाहते थे। जब दिनकर बाबू ने मुझसे कुछ पैसे उधार मांगे तो कारण पूछने पर शायद उनके दिल का गुबार बाहर निकल आया और उसने अपने घर की सारी रामायण कह दी। और गुस्से में यह भी बोल दिया कि वो उस नवजात बच्ची को कहीं छोड़ने जा रहे हैं। लेकिन इस शहर में नहीं ताकि वो कहीं भी किसी भी हालत में उनके पास ना आ जाए। मैं भी उनके पास बैठी सब कुछ सुन रही थी। हमने उसे समझाने की कोशिश की कि लड़कियाँ अभिशाप नहीं बल्कि वरदान होती है। लेकिन उसे तो सिर्फ लड़का चाहिए था।

आखिर हमने निश्चय किया हम उस लड़की को गोद लेंगे। दिनकर ने हमारी बात मान भी ली और वो लड़की हमारे पास रहने लगी। कुछ ही महिनों बाद हमारा ट्रांसफर उस शहर से कहीं दूर हो गया और उसके बाद हमने भी दिनकर और उसके परिवार की कोई खबर नहीं ली। हमने लड़की को अपने बच्चों की तरह पाला और उसे एक आई.पी.एस. ऑफिसर बनाया ताकि वो निराश्रितों की मदद कर सके। 'वो लड़की कोई और नहीं बल्कि तुम हो तमन्ना।'

इतना सब कुछ सुनने के बाद भी वो शायद कुछ पूछना चाहती थी कि मैंने उसे ये सब क्यूं बताया। मेरा जवाब भी हाजिर था ताकि वो उन सब लड़कियों का बचपन बर्बाद होने से बचाये और उनको सक्षम बनाये।

उसने कहा, "आज मेरे पास ऑफिस में वही दिनकर बाबू आये थे जिन्होंने मुझे 20 साल पहले ही मार दिया था। मुझे मुझसे मांग रहे थे। मेरे बाद उन्हें एक लड़का हुआ जिसे उनके लाड प्यार ने बिगाड़ दिया और वो बड़ा होकर शराबी बना अपने माता–पिता को घर से बेदखल कर दिया। किसी तरह वो हमारा पता लगाके मेरे ऑफिस आये थे। लेकिन मैंने ये कहके कि वो बेटी तभी मर चुकी थी आज किसे लेने आये है, उनकी कोई मदद नहीं की ताकि उन्हें अपने गलती का अहसास हो सके।

ये सब सुन के मैं तो जड़ हो चुकी थी। खुद से पूछ रही थी कि मैं किसे समझा रही थी।

–संतोष चौधरी

द्वितीय बी.टैक., इलेक्ट्रोनिकी एवं संचार

रात यों कहने लगा मुझसे गगन का चाँद

रात यों कहने लगा मुझसे गगन का चाँद,
आदमी भी क्या अनोखा जीव है!
उलझनें अपनी बनाकर आप ही फँसता,
और फिर बेचैन हो जगता, न सोता है।

जानता है तू कि मैं कितना पुराना हूँ?
मैं चुका हूँ देख मनु को जनमते मरते
और लाखों बार तुझ से पागलों को भी
चाँदनी में बैठ स्वप्नों पर सही करते।

आदमी का स्वप्न? है वह बुलबुला जल का
आज उठता और कल फिर फूट जाता है
किन्तु, फिर भी धन्य ठहरा आदमी ही तो?
बुलबुलों से खेलता, कविता बनाता है।

मैं न बोला किन्तु मेरी रागिनी बोली,
देख फिर से चाँद ! मुझको जानता है तू?
स्वप्न मेरे बुलबुले हैं?है यही पानी ?
आग को भी क्या नहीं पहचानता है तू ?

मैं न वह जो स्वप्न पर केवल सही करते,
आग में उसको गला लोहा बनाता हूँ,
और उस पर नींव रखता हूँ नये घर की,
इस तरह दीवार फौलादी उठाता हूँ।

मनु नहीं, मनु पुत्र है यह सामने, जिसकी
कल्पना की जीभ में भी धार होती है,
वाण ही होते विचारों के नहीं केवल,
स्वप्न के भी हाथ में तलवार होती है।

स्वर्ग के सम्राट को जाकर खबर कर दे
रोज ही आकाश चढते जा रहे हैं वे,
रोकिये, जैसे बने इन स्वप्नवालों को,
स्वर्ग की ही ओर बढते आ रहें हैं वे।

–रामधारी सिंह दिनकर

काव्य रस

वाक्देवी का सुमधुर संगीत

शिक्षा

केवल एक शब्द नहीं
वास्तव में ये जीवन का सार है
"शिक्षा" स्वयं में समाए
ज्ञान का अथाह भंडार है।
रोशनी हैं कभी जो हमारी
राहें रोशन कर देती हैं
और आत्मसात होने पर हमें ही
आलौकिक प्रकाश से भर देती है
आशीर्वाद है कभी जो माँ शारदा से पाया है
जो अज्ञान की धूप में ज्ञान की करता
छाया है
गुरु है कभी जो हमें सिखाते हैं
ज्ञान के मोतियों से अलंकृत शिक्षा का हार
पहनाते हैं
दुख है कभी जो हमें सुख का मोल बताता है
पर बात तो ये है कि इंसान इसे कितना
समझ पाता है
शिक्षा एक नन्हा पौधा है कभी
जो विश्वास, सब्र और श्रद्धा माँगता है।
महक उठता है तब ये ज्ञान के फूलों से
जब इंसान इसके महत्त्व को जान जाता है।

—पूजा शर्मा
भूतपूर्व छात्रा, इलैक्ट्रॉनिकी एवं संचार

सुन्दर कौन

एक दिन विद्वानों की सभा में,
सभी थे विचार विमर्श में तल्लीन
कि सुन्दर कौन है इस जगत में,
वो जिसके पास रूप है, रंग है
या वो जिसके पास धन है, नोट है
या वो जो है सद्गुणों की सूरत।
चर्चा जोरों पर थी विषय था चटपटा,
लेकिन विद्वानों का उत्तर था अटपटा
एक बोला — 'रूप का क्या मोल,

पैसे के आगे सब गोल'
दूजा बोला — किस काम आए माया
सुन्दर कार में बैठे भैंस सी काया
एक बोला — 'बिल गेट्स सा कोई सेठ है'
दूजा बोला — 'यार ऐश्वर्या तो ग्रेट है'
तीजा बोला — 'ओबामा जी के आगे तो
दोनों ही फेल है।
तभी एक बुजुर्ग ने माइक सम्भाला
बोले — जबसे है मैंने होश सम्भाला
देखी है कई सुन्दरियों की सुन्दरता,
लखपतियों की मन मोहकता
अफसरों की हुकूमत,
पर मेरा तो यही है मत
सुन्दरता हो ऐसी जो रहे ताजिन्दगी
बरकरार
रूप धन, पद सब समय के हाथ है
बुरे समय में ये सब खाक हैं।
सद्गुण ही हैं वो खजाना भाई
जिसे चुरा ना सके कोई हरजाई।

सौरभ विश्वरूप
प्रथम बी.टैक., कम्प्यूटर विज्ञान एवं अभियांत्रिकी

हादसा

मेरे दिल से निकलता हर एक अल्फाज़
कर रहा है एक परिंदे की शक्ल अख्तियार
उसी की मानिंद उन्मुक्त उड़ना है चाहता
झूठ और फरेब की दीवार फाँदना है
चाहता
पर, इस नामुराद दुनिया की कारगुजारी
ढहा रही है इस कदर अँधियारी
उसके जमीर के खुले जख्म कुरेद के
आत्मा को पल—पल घायल यूँ कर के
अरमानों की ये कैसी चिता है जलाई?
ये दुनिया तो चाहे रोज एक नया तामाशा
काश की समझी जाती अँखियों की भाषा

और अब ना जाने कौनसा गुनाह वो कर गया
जो चिथड़े—चिथड़े उसका मालिक भी हो गया
सुना है कल बस उड़ने की तैयारी में ही था
जब उसके साथ ये हादसा हो गया।

—विभूति मंगल
प्रथम बी.टैक., कम्प्यूटर विज्ञान एवं अभियांत्रिकी

इंतजार

छूना चाहता हूँ एक बार आसमाँ,
पर पंखों का इंतजार है,
जीना चाहता हूँ एक पूरी जिन्दगी
पर समय का इंतजार है।
बदल दूँगा लकीरें इन हाथों की।
पर अवसर का इंतजार है।
देखे हैं आँखों ने सपने हजारों,
पर सच होने का इंतजार है।
टूट चुका हूँ पूरा अन्दर से मैं,
पर आखिरी चोट का इंतजार है।

—संदीप यादव
प्रथम बी.टैक., कम्प्यूटर विज्ञान एवं अभियांत्रिकी

ऐ मेरे भारत के वासी

ऐ मेरे भारत के वासी
तू कहाँ सो रहा है।
तेरे इस आलस्य के कारण
तेरा भविष्य मत्था टेक रो रहा है।
दुनिया छीन रही है तेरे हक को,
तू जानता भी नहीं कि तू क्या खो रहा है।
अभी भी समय है, जाग और संभल जा,
पूछ इस जग से की ये सब क्यों हो रहा है।
बढ़ते आतंक के कारण हर कोई यहाँ डर
रहा है,
हर गरीब आज यहाँ सौ—सौ मौतें मर रहा है।
हर कोई बन दुशासन द्रोपदी का चीर हर
रहा है,
पर नहीं है कोई जो बनके कृष्ण रक्षा कर

काव्य रस

रहा है,
जो ना सोचा, ना चाहा किसी ने
गांधी नेहरू के देश में आज वो सब हो
रहा है।
इस देश की फिक्र नहीं है किसी को,
हर नेता आज कुर्सी के लिए रो रहा है।
मर-मर के जी उठते हैं सिकंदर
तू जो आज न उठा
तो कहेंगे ये लोग,
देखो वो मूर्ख, आज भी सो रहा है।

—वैभव गुप्ता

प्रथम बी.टैक., कम्प्यूटर विज्ञान एवं अभियांत्रिकी

गिरफ्तारी

देश नेताओं की गिरफ्त में है,
योजनाएँ कागज की गिरफ्त में हैं,
कश्मीर आतंकवाद की गिरफ्त में है,
यह कैसा अजूबा देश फिर भी स्वतंत्र है।
भारतीय संस्कृति विदेश की गिरफ्त में है,
रंगमंच फिल्मों की गिरफ्त में है,
हो रहा अचरज, भारत फिर भी स्वतंत्र है।
नारी दहेज की गिरफ्त में है,
खिलाड़ी नशे की गिरफ्त में है,
विद्यार्थी राजनीति की गिरफ्त में है,
है न अनहोनी, भारत फिर भी स्वतंत्र है।
युवा पीढ़ी बेरोजगारी की गिरफ्त में है,
कर्मचारी अकर्मण्यता की गिरफ्त में है,
बालक दूरदर्शन की गिरफ्त में है,
व्यापारी कालाबाजारी की गिरफ्त में है,
कैसा आश्चर्य है, भारत फिर भी स्वतंत्र है।
तोड़ दो जंजीरें इस गिरफ्त की,
छोड़ दो स्थिति अनिश्चय की,
कमर कस लो भारत के उत्थान की,
फिर जोश में बोलो भारत आज स्वतंत्र है।

—पुष्पेन्द्र अग्रवाल

प्रथम बी.टैक., कम्प्यूटर विज्ञान एवं अभियांत्रिकी

नफरत

कहाँ गयी बड़ों की रहमत,
छोटों का शुक्र गुजार।
कहाँ गया भरत का आदर्श, लक्ष्मण का
प्यार।।
क्यों भाई-भाई से
वसीयत हेतु लड़ने लगा है।
क्यों आदमी-आदमी से
नफरत करने लगा है।।
कहाँ गये बेटे के आदाब,
पिता के आशीर्वचन।
कहाँ गयी श्रवण की श्रद्धा,
राम का आज्ञापालन।।
क्यों बेटा-बाप की सेवा से डरने लगा है।
क्यों आदमी-आदमी से
नफरत करने लगा है।
कहाँ गये नारी के जज्बात, नर की शान,
कहाँ गयी दुर्गा की कीर्ति, सीता की आन।
क्यों फिर आज दुर्योधन
द्रोपदी का चीर हरने लगा है,
क्यों आदमी-आदमी से
नफरत करने लगा है
कहाँ गये नेता के उसूल,
नौजवां की देशभक्ति।
कहाँ गया गाँधी का सत्य,
सुभाष, आजाद की शक्ति।।
क्यों आज नेता सिर्फ
अपना ही पेट भरने लगा है।
क्यों आदमी-आदमी से
नफरत करने लगा है
कहाँ गयी साथी की सदाकत,
साथी का विश्वास
कहाँ गयी कृष्ण की दोस्ती,
सुदामा की आस।

क्यों दोस्त दोस्तों के साथ
छलावा करने लगा है,
क्यों आदमी-आदमी से
नफरत करने लगा है।।

—पुष्पेन्द्र चौधरी

*द्वितीय बी.टैक., इलेक्ट्रॉनिकी एवं संचार
अभियांत्रिकी*

अनजान राहें

कोई अनजान राहों में चल जा रहा है,
कोई दलदल में फंसे जा रहा है।
कभी वो रास्ते चुन रहा है तो,
कभी रास्ते उसे चुन रहे हैं।
कभी अंधेरों में तो कभी उजालों में
कोई अनजान राहों में चल जा रहा है।
कभी सपनों में तो कभी हकीकत में
जिये जा रहा है वो,
कभी अपने लिए तो कभी अपनों के लिए
जीए जा रहा है
कोई अनजान राहों में चले जा रहा है।
कभी आदत को मजबूरी समझकर
तो कभी मजबूरी को आदत बनाकर,
कोई आगे बढ़े जा रहा है,
कोई अनजान राहों में चले जा रहा है।
लिखते-लिखते ही मुझे ख्याल आ रहा है
कि कहीं मैं ही तो नहीं,
जो चले जा रहा है।
हाँ, अभी सोचा तो पता चला,
मैं ही हूँ जो कभी दूर से तो कभी पास से,
तनहाइयों से लड़े जा रहे हैं,
कभी अनजाने में तो कभी जानबूझकर
अनजान राहों में चले जा रहे हैं।

—मुकेश कुमार रूण्डला

द्वितीय बी.टैक.

रंगमंच

मानव जीवन

रेत के धोरों से उठती

धूल के समान स्वच्छंद

इधर–उधर फिरती

घटा के समान निश्छल

कभी बच्चे के मुख से निकलती

तुतलाती बोली सा पावन

तो कभी किसी उम्रदराज के दिल से

उमड़ती दुआओं का सावन।

घड़ी–घड़ी रंग बदलता

गिरगिट सा शातिर

हर पल को जीना चाहता

किसी अपने की खातिर

कभी कल–कल गिरता

झरने सा पागल

तो कभी सागर को जाती नदी सा बहता

पत्थरों को चूमता, हो भाव–विह्वल

यही तो है यही तो है मानव जीवन।

–विभूति मंगल

प्रथम बी.टैक., कम्प्यूटर विज्ञान एवं अभियांत्रिकी

सफलता

रोने से तकदीर बदलती नहीं है,

वक्त से पहले रात भी ढलती नहीं है

दूसरों की कामयाबी लगती आसाँ मगर

कामयाबी रास्ते में पड़ी मिलती नहीं है।

मिल जाती कामयाबी अगर इत्तिफाक से

यह भी सच है कि वह पचती नहीं है

कामयाबी पाना है पानी में आग लगाना

ऐसा भी लगता है जिंदगी में अक्सर

दुनिया अपने जज्बात समझती नहीं है।

हर शिकस्त के बाद टूट कर जो संभल

गया

फिर कौनसी बिगड़ी बात बनती नहीं है

हाथ बाँध कर बैठने से पहले सोच ऐ

मुसाफिर

अपने आप कोई जिंदगी संवरती नहीं है।

–रवि कुमार मंगल

प्रथम बी.टैक., सूचना प्रोद्योगिकी

राही हूँ

राही हूँ रास्ते में रात हो गयी तो क्या,

कल फिर सवेरा होगा,

दूर रात का अंधेरा होगा।

कल का दिन तो मेरा होगा।

मैं मंजिल की राह जाऊँगा,

राह में हर चट्टान से टकराऊँगा,

चट्टानों से टकराकर मेरा इम्तहा होगा,

कल मेरे हाथ में सारा जहाँ होगा।

राही हूँ रास्ते में बरसात हो गयी तो क्या।

अभी फिर सूरज निकलेगा,

मेरी राहों का हिम पिघलेगा।

उसका अगला पल तो मेरा होगा।

मैं लगातार कदम बढ़ाऊगा,

किसी कदम पर कुछ तो पाऊँगा,

मुझे पता है मेरा स्थान भी

मंजिल पर वहाँ होगा,

कल मेरी मुट्ठी में सारा जहाँ होगा।

दोस्तो "दोस्तम" की दोस्ती में कोई बात

होगी तो क्या,

कल फिर बिछुड़े गीतों का साथ होगा।

तुम्हारे हाथों से मिला मेरा हाथ होगा।

–पुष्पेन्द्र चौधरी

द्वितीय बी.टैक., इलेक्ट्रॉनिकी एवं संचार
अभियांत्रिकी

जीवन की परिभाषा

बस जीवन के दो कश लगा

और खुद का ढाँढास आप बैंधा,

नाकाम हुआ तू, तो क्या शर्म यहाँ,

एक हाथ थाम, एक हाथ बढ़ा।

यह स्वर्ग है, यही नरक है,

बस नाम मात्र का फर्क है,

गाहे–बगाहे के बाकी तर्क है,

जो चमक गया वो अर्क है

जो फिसल गया वो गर्क है,

फिसल पड़ा तो क्या शर्म यहाँ,

एक हाथ थाम एक हाथ बढ़ा।

बस जीवन के दो कश लगा

और खुद को ढांढस आप बैंधा।

हर दिल यहाँ मुश्ताक है

हर मोड़ पर कुछ अवसाद है

और कुछ समय–समय की बात है

जो चल पड़ा वो उस्ताद है

जो थक गया वो नाशाद है,

थक गया तू तो क्या शर्म यहाँ

एक हाथ थाम एक हाथ बढ़ा

बस जीवन के दो कश लगा

और खुद को ढांढस आप बैंधा।

क्या धर्म है, क्या अधर्म है

जीवन के अनसुलझे कुछ मर्म हैं

जब रोम–रोम तेरा पुलकित हो

बस वही तो सच्चा कर्म है,

जो लोग कहें, कुछ कहने दे

रूसवाई से क्या शर्म यहाँ

एक हाथ थाम एक हाथ बढ़ा

बस जीवन के दो कश लगा

और खुद को ढांढस आप बैंधा।

–महेन्द्र पाल सिंह यादव

द्वितीय वर्ष, इलेक्ट्रॉनिकी एवं संचार
अभियांत्रिकी

हास्य रागिनी

हास्य रस की क्रहक्रहाहट

आचार संहिता का अचार

पिछले दिनों होते देखी इक अजीब घटना।
नेताजी को
आचार संहिता का अचार डालते देखा
नेताजी की इस हरकत को देख
हम आश्चर्य के कुएँ में डूबे और पूछ बैठे
मेहरबान आप क्या कर रहे हैं?
कागजों पर मसाला लगा
अमृत बान में भर रहे हैं?
जवाब में मिला अचार डाल रहे हैं।
हमने भी आश्चर्य जताया और कहा
धोती को फाड़ रूमाल बना रहे हैं
फिर इक तलक हो कहने लगे
जिन कागजों का अचार डाल रहा हूँ
वे हैं अचार संहिता के
नेताजी की बात सुन हम ऐसे गिरे
जैसे सरेआम केले के छिलके पर पैर पड़े।
हम आपकी बात नहीं समझे
आचार संहिता तो पालन करने को होती है
फिर इसका मसालेदार अपमान क्यों कर
रहे हैं?
नेताजी ने प्रत्युत्तर दिया
आज कौन संहिता की पालना करता है
बड़ों का आदर कहो कोई करता है
दहेज मत लो, स्त्रियों की रक्षा करो
क्या कोई पालन करता है?
कानूनी अधिकारी को सामाजिक मेल जोल
नहीं बनाना चाहिए?
कोई मानता है।
जब हर जगह संहिता होती है भंग
तो मुझसे कोई सही की अपेक्षा क्यों करता है?
क्या आचार संहिता का सहारा ले जीता
जा सकता है?
वोटर को प्रलोभन न दे तो वोट कौन देगा?
बस यही कारण है

मैं आचार संहिता का अचार डाल रहा हूँ
ताकि अचार के तेल में रहे ये सुरक्षित
चुनाव के बाद निकाल ये कहूँगा
रखी अचार संहिता सुरक्षित मैंने
इसे महफूज रखने का साधन यही लगा
सो यही कर रहा हूँ
आचार संहिता का अचार डाल रहा हूँ।

—गौरव सिंडाना
प्रथम बी.टैक., कम्प्यूटर विज्ञान एवं अभियांत्रिकी

दहेज

अपने भावी दामाद से,
सस्नेह पूछा ससुर जी ने
मेरी पुत्री के जीवन नैया के
खेवनहार को दहेज में क्या—क्या चाहिए?
शर्म का मसादा उतार कर शान से फरमाये
बिन मुराद मांगी ससुर जी का सवाल
क्या—क्या न माँग लू सोचना हुआ गुहाल।
आपकी जिद से हम मजबूर हैं।
ज्यादा कुछ नहीं चाहिए,
आपकी बेटी खुद लक्ष्मी है
हमें तो सिफ टर चाहिए।
ससुर जी ने बड़े प्यार से पूछा
बेटा यह टर क्या होता है,
दामाद जी ने बड़ी अदा से कहा,
टर यानी मोटर, स्कूटर, रेफ्रीजरेटर,
जनरेटर, कम्प्यूटर, ट्रांजिस्टर, केलकुलेटर
माँग सुनकर ससुर जी मुस्कराये और कहा
अभी आते हैं
पहनाते हैं तुम्हें स्वेटर,
फिर देते हैं अपनी डॉटर (पुत्री)
जिसके हाथ में है हन्टर,
जो बनवायेगी तुमसे मटर, टमाटर, डालकर
वाटर,
तब तुम नजर आओगे वेटर

क्या इरादे है मिस्टर?
दामाद जी सकपकाये।
भागते नजर आये, जैसे हों हैलीकॉप्टर।

—प्रदीप बहेती
तृतीय बी.ई., सूचना प्रौद्योगिकी

अपनी कहानी

आओ सुनाता हूँ तुम्हें एक कहानी,
सच कहूँ तो सबकी कहानी
लेकिन मेरी जुबानी।
बारहवीं पास करते—करते
याद आ चुकी थी मुझे नानी,
लेकिन हर—बार कि तरह इस बार भी
कुछ करने की ठानी।
बड़े—बड़े सपने थे लेकिन
हो गए थे सब पानी पानी,
फिर एस.के.आई.टी. में एडमिशन लिया
जो कि थी बड़ी जानी पहचानी।।
सोचा था अगर इंजीनियर बना तो
बदलेगी मेरी कहानी,
और बिजनसमैन बना तो
क्या करेगा मेरे सामने अंबानी।
पर यहाँ आकर कर डाली
अपने दिमाग की हानी,
क्योंकि मौज मस्ती में
और कोई नहीं मेरा सानी।
सोचता हूँ अब पढ़ाई स्टार्ट कर दूँ
ताकि बन जाऊँ हस्ती जानी पहचानी।
लेकिन जानता हूँ वहीं एक दिन पहले
कोर्स करने की नौबत है आनी।
शुक्रिया जो पढ़ी आपने मेरी कहानी,
चलो दुआ करते है बदल जाए
जिनकी हो ये कहानी।

—अनिरुद्ध नेपालीया
द्वितीय बी.टैक., इलेक्ट्रोनिकी एवं संचार
अभियांत्रिकी

विविधा

भारतीय संस्कृति

है प्रीत जहाँ की रीत सदा

मै गीत वहाँ के गाता हूँ,

भारत का रहने वाला हूँ

भारत की बात बताता हूँ।।

भारतीय संस्कृति सदैव अन्वेषणीय रही है। यहाँ के पहनावे एवं वेशभूषा ने सदैव हर एक को अपनी ओर आकृष्ट किया है। यहाँ की वेशभूषा एवं पहनावा अतुलनीय है किन्तु त्रुटिपूर्वक तुलना कर रहा हूँ, क्षमा करें।

महान लेखक बाबू गुलाबराय के कुछ निबंध पढ़े, पढ़ कर जिस हिन्दी भाषा को महसूस किया, मजे आ गए। प्रत्येक निबंध में भारतीय संस्कृति के जिस प्रतिरूप से अवंगत कराया गया, पढ़कर मन अतीव प्रफुल्लित हुआ।

कहते हैं "हमारी पोशाक, पहनावा, वेशभूषा जातीय परिस्थिति देश के वातावरण और देश की भावनाओं से संबंधित है। जमीन पर बैठना, हाथ से खाना, नहाकर खाना, लम्बे ढीले कपड़े पहनना, बेसिले कपड़ों को अधिक शुद्ध मानना, ये सब चीजें देश की आवश्यकताओं और आदर्शों के अनुकूल है। गरम देश में पृथ्वी का स्पर्श इतना बुरा नहीं लगता, इसलिए यहाँ जूतों का इतना मान नहीं है, जितना विलायत में है।

इस देश में शरीर को अधिक महत्व नहीं दिया जाता, भावना अधिक महत्वपूर्ण है। इसलिए लम्बे कपड़ों को, जो शरीर को पूर्णतया ढक लें, अधिक महत्व दिया जाता है। किन्तु वर्तमान में परिदृश्य को देख लगता है कि युवक-युवतियाँ इसे प्रासंगिक नहीं मानते हैं।

हमारे यहाँ नंगे सिर की अपेक्षा सिर ढंकना अधिक सांस्कृतिक समझा जाता है किन्तु आजकल पगड़ी, अंगोछा केवल विशेष अवसर तक सीमित रह गए हैं।

उनका स्थान विभिन्न प्रकार की टोपियों ने ले लिया है।

कपड़े एवं जूतों की सभ्यता और कम से कम कपड़े पहनने और नंगे पैर रहने की सभ्यता में समन्वय की आवश्यकता है। अंग्रेजी सभ्यता में जूतों का विशेष महत्व है किन्तु उसे अपने यहाँ के चौका और पूजाग्रहों की सीमा पर आक्रमण न करना चाहिए।

यदि हम कुल्हड़ों के कूड़े का अच्छा बंदोबस्त कर सकें तो उससे अच्छी कोई चीज नहीं। आलस्य को वैज्ञानिकता पर विजय न पाना चाहिए। मैं परिवर्तन के खिलाफ नहीं, अंग्रेजी संस्कृति से भी सफाई और समय की पाबंदी की बहुत सी बातें सीखी जा सकती हैं।

किन्तु.. किन्तु आंख बंद करके केवल अनुसरण करके हम कोई सार्थक कदम नहीं उठा रहे, साथ ही साथ अपनी सांस्कृतिक विशेषता को भी खो रहे हैं।

कई प्रश्न अभी भी मन में हिचकोले खा रहे हैं, वे लेख रूप में अवश्य आएंगे, किन्तु क्या इस लेख का औचित्य दस प्रतिशत भी सफल हो पाएगा, पाठकों ये प्रश्न आप पर छोड़ता हूँ।

—ऋषि सुधांशु पाण्डेय

द्वितीय बी.ई. इलेक्ट्रोनिकी एवं संचार अभियांत्रिकी

बेवजह जिंदगी

जिंदा थे तो किसी ने पास भी न बिठाया

अब सभी मेरे चारों तरफ बैठे जा रहे हैं।

पहले तो किसी ने मेरा हाल भी न पूछा,

अब सभी आँसू बहाये जा रहे हैं।

पहले किसी ने एक रूमाल भी भेंट ना किया।

अब गरम-गरम शॉलें ओढ़ाए जा रहे हैं

सबको पता है, अब ये किसी काम का नहीं,

फिर भी बेचारे दुनियादारी निभाये जा रहे हैं।

पहले कभी किसी ने एक वक्त का खाना तक ना दिया,

अब तो देसी घी मुँह में डाले जा रहे हैं।

कभी कोई एक कदम भी मेरे साथ न चला,

अब फूलों से सजाकर कंधे पर उठाये जा रहे हैं।

जिस नाम को हमेशा बात-बात पर देते थे गाली,

आज उसी नाम को सुंदर अक्षरों में लिखवाये जा रहे हैं।

अब पता चला कि मौत कितनी बेहतर है जिंदगी से,

हम तो बेवजह जिंदगी जिये जा रहे हैं।

जीये जा रहे हैं।

—संदीप यादव

प्रथम बी.टैक. कम्प्यूटर विज्ञान एवं अभियांत्रिकी

याद

मैं भूल चुका हूँ जिस पल को

फिर क्यूँ वो तराना याद आया

जब छोड़ चुका हूँ मैं कश्ती

फिर क्यूँ वो समुंदर याद आया।

दिशा नई है, कहानी नई,

है रूह में बसी जवानी नई

मैं आज खड़ा हूँ इस पल में फिर क्यूँ वो जमाना याद आया

मेरे ख्वाब में, जवाब में, मेरी हर खुशी

हर अहसास में,

है गीत नया और राग नई

फिर क्यूँ वो तराना याद आया।

—संचित सैनी

प्रथम बी.टैक. कम्प्यूटर विज्ञान एवं अभियांत्रिकी

दुनिया

मैं आया था अकेला, खाली हाथ लिए,

चला जाऊँगा यहाँ से इक दिन खामोश

विविधा

रिश्तों के बंधनों को तोड़कर,
गुमनामियों के अंधेरों को छोड़ कर
इस दुनिया में एक जगह छोड़कर।
कुछ दिए गए, कुछ बनाए
निभाकर, बसाकर, रिश्तों को संवारकर
कुछ वादे कुछ कसमें देकर–लेकर
कई जन्मों का साथ लेकर
चला जाऊँगा इस दुनिया में एक जगह
छोड़कर।
हर घड़ी हर पल को जी कर
लम्हों–लम्हों की छोटी खुशियाँ बटोरकर
अपनों की याद लेकर हमसफर का साथ
लेकर
फिर आने की इक आस लेकर
चला जाऊँगा इस दुनिया में एक जगह
छोड़कर।

—सिद्धार्थ जैन

द्वितीय बी.टैक., कम्प्यूटर विज्ञान एवं अभियांत्रिकी

जिंदगी

मैं खुद नहीं समझ पाया जिन्दगी को अब
तक,
तुम्हें क्या बताऊँ क्या है जिंदगी।
एक अजब सी पहेली है जिन्दगी,
सब के साथ होते हुए भी अकेली है
जिन्दगी।
कभी लगता है खिलता फूल है जिंदगी
कभी लगता है वक्त की अड़ायी भूल है
जिंदगी।
कभी खुशियों से भरा रास्ता है जिंदगी,
तो कभी गमों का तूफान है जिंदगी।
कभी कलियों की तरह मासूम है जिंदगी
तो कभी गुनाहों का बोझ बन जाती है
जिंदगी।
बन जाती है पाँव की बेड़ी जिन्दगी
और कभी बन जाती है मजबूरी जिन्दगी।
लगता है कभी ख्वाबों की तस्वीर है
जिन्दगी।

लगता है कभी उजड़ा संसार है जिन्दगी।
कभी वीरानों में बस जाती है जिन्दगी
तो कभी महलों में सिसकती रह जाती है
जिन्दगी।
मुझे बस इतना बता दे ऐ दोस्त,
आखिर क्या है जिंदगी।

—संदीप यादव

प्रथम बी.टैक., कम्प्यूटर विज्ञान एवं अभियांत्रिकी

मेरी मुस्कुराहट

यूँ तो बहुत कुछ है पास मेरे,
फिर भी कुछ कमी सी है।
घिरा हूँ चारों तरफ से मुस्कुराते हुए चेहरों से,
फिर भी जिंदगी में उजाला भरने वाली
उस मुस्कुराहट की कमी सी है।।
दिख रही है पहचान अपनी
उठती हर नजर में,
फिर भी दिल को छू लेने वाली
उस निगाह की कमी सी है।।
खोया रहता हूँ रात–दिन अपने ही ख्यालों
में मैं,
फिर भी जिंदगी में रंग भरने वाले उस
कलाकार की कमी सी है
यूँ तो अकेले बैठे सोचता–विचारता रहता
हूँ मैं,
फिर भी तन्हाई में साथ निभाने वाले
उस यार की कमी सी है।
गूँजता है हर–दिन नये किस्सों–कोलाहलों
ठहाकों से,
फिर भी कानों में गुनगुनाती उस
खामोश–हँसी की कमी सी है।
वैसे तो गुनगुनाता रहता हूँ मैं हर पल,
फिर भी सुरों में साज भरने वाले उन
अधरों की कमी सी है।
बढ़ रहे हैं कदम मेरे पाने को नई मंजिलें,
फिर भी इन हाथों से छूट चुके उन
नरम हाथों की कमी सी है।

यूँ तो बहुत कुछ है पास मेरे,
फिर भी कुछ कमी सी है।
फिर भी हर पल मुस्कुराता रहता हूँ
क्योंकि...
मुस्कुराना जिंदगी की जरूरत सी है।

—महेन्द्र पाल सिंह यादव

द्वितीय बी.टैक., इलैक्ट्रॉनिकी एवं संचार

कॉलेज के दिन

याद आती है मुझे वो जवानी
अल्हड़ मस्ती और शैतानी
वो सीख देती दादी–नानी।
दिन वो गुजरे थे मस्ती में
शामें मनती थी बस्ती में
जब कूदे आग–हवा–पानी में
और मचता हल्ला गली कूचे में।
कभी रोज झरोखा सजता था
जब जोश जवानी का फूटा था
और छूटा पिंजरे से पंछी था।
बस जीत की हमेशा चाह रही थी
जब मिले न मीत से वो आह बनी थी
हर रोज सूरज कुछ कहता था
और बारिश चुप कर देती थी।
छुप–छुप कर उससे मिलने का
कुछ और मजा था जीने का
कॉलेज से गुपचुप खिसकने का
एक राज था हम सब यारों का।
कोई कुछ भी कहे क्या वो थे दिन
सब सूना है अब मेरे यारों बिन
कटती थीं रातें तारे गिन
अब सब कुछ जैसे गया है छिन।
इन साँसों में अब जान कहाँ
बस मन का खाली उल्लास यहाँ
कभी बजते थे थाली–गिलास जहाँ
अब कमी है वक्त की आज वहाँ।

—विभूति मंगल

प्रथम बी.टैक., कम्प्यूटर विज्ञान एवं अभियांत्रिकी

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