DNABIT

A step towards digital green revolution

DNABIT

Volume :   1

Year   :   2011-12

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EDITORIAL

It is with great pride and fulfillment, the editorial team of the College of Agricultural Information Technology presents the first issue of the AIT College magazine to its stakeholders. The essential purpose of this Magazine is to inform, engage, inspire and entertain a diverse readership — including parents, students, faculty, staff and other friends of the college. The magazine endeavors to reflect the values and the quality of the institution itself. By maintaining the respect and interest of its readers, the magazine aspires ultimately to inform the teething troubles of the college and to strengthen their commitment to its welfare.

B. Tech. (AIT) student fraternity was keen to show interest in contribution of various items in the magazine. The editorial board is thankful to all of them and expects more creative and innovative contributions in the future issues. The possible contributing area includes Agricultural Scenario in India and World, Technology Adoption and Application, Information Technology Initiatives in Agriculture etc. Though, care has been taken in compilation of the issue, the editorial board hopes that the readers like the effort and give support and encouragement overlooking the shortcomings. We welcome comments and feedback from the readers and look forward to creating a continued and collaborative relationship with one and all.

Dr. Raghuvirsinh Parmar

Shri Umesh Rathod

MESSAGE FROM PRINCIPAL AND DEAN

The College of Agricultural Information Technology started in 2009-10 with an objective to provide quality education and excellence in ever changing field of Agriculture Information Technology education. ICT is moving at a very fast pace. What was breakthrough yesterday is obsolete today. This has made it imperative for future technocrats to be familiar not only with technical domain skills but also with the technology of tomorrow. The maxim '**survival of fittest'** is more relevant now than ever before. We believe in value based quality education and faculty members here are striving hard for it, so that the products of AIT are well received by the industry, public and private sector organization and others. I hope gen-next technocrats passing from the institute will create difference in the field.

The main motto of the College of Agricultural Information Technology is to provide skilled manpower to Agriculture and IT industry. The College offers four year B.Tech. (AIT) and Post-graduate Diploma (AIT) courses. The degree course is not offered anywhere in India except by AAU, Anand and TAU, Tamilnadu. The course curriculum matches with the demand of rapidly changing technological and fiscal environment. The curriculum also engages students in disciplines beyond agricultural information technology to make them employable and well informed.

As the Principal and Dean of the College, I am pleased to release the first edition of the college magazine. I hope that it will give you a glimpse of the college progress since its inception. I appreciate the untiring efforts put in by the editorial board to bring out the college magazine in time.

Principal

Brief Introduction
of
College of Agricultural Information Technology

The Information and Communication Technology (ICT) in this era of globalization has accentuated new modes of knowledge transformation and communication patterns. ICT has opened up uncommon opportunities for developing countries in terms of providing low cost access to information. This is the fastest growing tool of communication ever with the number of users growing from 150 million in 1998 to more than 700 million in 2001 (Brown, 2002). India has 70% of its population, which is dependent on Agriculture for its livelihood. Considering this, use of ICT in Agriculture is of strategic importance in a country like India. ICT have tremendous potential in timely collection of data and distributing it to the potential users even in developing countries for low cost access to information.

Information and Communication Technologies are indispensable catalysts of agricultural development. These developments have opened up the door to a whole new generation of 'multi-modal' market information services that bring much needed price and product information directly to these farmers. According to http://digitaldivident.org , Asia as a region with 37 per cent of the world's ICT enabled projects for rural areas has a significant lead over other regions. There are examples of initiatives in several developing countries namely Bangladesh, India, Mauritius, Mexico, Peru, South Africa and Uganda. India with 57% of the Asian projects dominates Asia in the number of ICT enabled projects for rural development.

Objectives

(1) To conduct undergraduate academic programmes on Agricultural Information Technology (B. Tech.(AIT)).

(2) To conduct Postgraduate Diploma (PG.D.(AIT)) on Agricultural Information Technology for the M.Sc.(Ag.), M. V. Sc. , M. Tech. and Ph.D. Students.

(3) To conduct various training programmes related to Agricultural Information Technology for developing competence.

(4) To run short-term course on Agro informatics, GIS (Geographic Information System), MATLAB, Object oriented programming, Agriculture Software, Data communication and Networks, Agriculture Knowledge Management System, Network Application etc. in various fields of agriculture and allied sector and rural development.

(5) To help scientist and academicians of the university in various programming and networking in Agricultural Information Technology.

College activities

➢ **Academic Activities**

✓ Orientation for students admitted in B.Tech.(AIT) in academic year 2011-12

- ✓ Preparation of Academic Calendar for B.Tech.(AIT) and PGDAIT
- ✓ Accomplishment of UG teaching and PG teaching
- ✓ Preparation and modification of Syllabus for B.Tech.(AIT) SEM-V, VI
- ✓ Restructuring of Departments, Board of studies
- ✓ Student Counseling

➢ **Co curricular Activities**

- ✓ Encouragement of book reading under "Vanche Gujarat Abhiyan"
- ✓ Celebration of Teachers' Day
- ✓ Participation in Leadership Training at AAU, Anand
- ✓ Participation in technical event organized at ADIT, Vidyanagar
- ✓ Participation in "Foot Print", a technical event organized by M S University, Baroda.
- ✓ Participation in National Service Scheme activities
- ✓ Participation in SRC activities
- ✓ Educational Tour of DDU and Changa Campus to study research on Nano Technology
- ✓ Lecture on "Nano Technology and its Future" at Department of Physics, Gujarat University, Ahmedabad.
- ✓ Educational Visit of ISRO, Ahmedabad.

➢ **Developmental Activities – Infrastructure and facilities**

- ✓ Construction of Boys' Hostel for AIT Students
- ✓ Creating and strengthening the library facilities
- ✓ Preparation of Annual Budget
- ✓ Purchase of Non Recurring Items sanctioned in current financial year
- ✓ Utilization of allotted Grant

➢ **Placement**

- ✓ College has started SQIC (Student Quality Improvement Cell) to improve their performance in Competitive Examinations
- ✓ First batch of B.Tech.(AIT) will pass out in year 2012-13
- ✓ College is making contacts with different companies to provide better placement after completion of this course
- ✓ Making the students aware of the future prospects of higher studies and placements after completing B. Tech.(AIT)

Syllabus

The B.Tech. (Agricultural Information Technology) has been designed at Anand Agricultural University. The list of semester wise courses being offered is appended below:

FIRST SEMESTER

Sr. No.	Course Title	Credits
1	Applied Physical Sciences	3 (3+0)
2	Fundamentals of Computers and Operating System	3 (2+1)
3	Applied Mathematics	2 (2+0)
4	Introduction to Programming Languages & Object Oriented Concepts	3 (1+2)
5	Microeconomics	2 (1+1)
6	Applied Statistics	3 (2+1)
7	Orientation to Agricultural System	2 (1+1)
8	English for Speaking and Writing Skills	2* (1+1)
9	NCC /NSS / Physical Education	1* (0+1)

SECOND SEMESTER

Sr. No.	Course Title	Credits
1	Basic Electronics and Instrumentation Technology	3 (2+1)
2	Design and Analysis of Algorithms and Data Structure	3 (2+1)
3	Principles of Genetics	3 (2+1)
4	Computer Organization and Architecture	3 (3+0)
5	Soil and Crop Management	3 (2+1)
6	Commercial Horticulture	3 (2+1)
7	Probability and Information Systems	3 (2+1)
8	Software Engineering	2 (2+1)
9	NCC /NSS / Physical Education	1* (0+1)

THIRD SEMESTER

Sr. No.	Course Title	Credits
1	Compiler Design and Programming Languages	3 (2+1)
2	Data Base Management System	3 (2+1)
3	Operations Research	3 (2+1)
4	Functions of several variables, vector calculus and numerical methods	3 (2+1)
5	Greenhouse Production Technology	3 (2+1)
6	Introduction to Macroeconomics	3 (2+1)
7	Introduction to Biotechnology	3 (2+1)
8	Educational Tour	1* (0+1)
9	Plantation Management	2 (1+1)

FOURTH SEMESTER		
Sr. No.	Course Title	Credits
1	Programming for web portals – (PHP/JAVA/.Net)	3 (1+2)
2	Econometrics	3 (2+1)
3	Project Management for Information Systems	3 (2+1)
4	Environment Management	3 (2+1)
5	e-Commerce and Retailing Entrepreneurship	3 (2+1)
6	Design and Management of Web Portals	3 (2+1)
7	Agricultural Information Portals Management	3 (1+2)
8	Communications Theory/Computer Networks	3 (3+0)
9	Project I (Group)	1* (0+1)

FIFTH SEMESTER		
Sr. No.	Course Title	Credits
1	Parallel Processing, Supercomputing and Applications	3 (2+1)
2	Applications of Global Positioning Systems in Agriculture	2 (1+1)
3	GIS in Agriculture	3 (2+1)
4	Remote sensing of Natural Resources	3 (2+1)
5	Supply Chain Management	3 (2+1)
6	Enterprise Resource Planning	3 (2+1)
7	Commodity Marketing	3 (2+1)
8	Fundamentals and Applications of Nanotechnology	2 (1+1)
9	Bioinformatics Computing	2 (1+1)
10	Seminar I	1* (0+1)

SIXTH SEMESTER		
Sr. No.	Course Title	Credits
1	FORTRAN programming for parallel computing	3 (1+2)
2	WRF- NMM Forecasting nesting model	2 (0+2)
3	HPC Clusters and Parallel Computing for Simulations	3 (1+2)
4	Open Source Data Bases and KDD	3 (2+1)
5	SPSS, MATLAB and Knowledge Discovery	3 (1+2)
6	Data Mining – Java/Oracle	3 (1+2)
7	Atmospheric Science	3 (2+1)
8	Drug Discovery Informatics	3 (1+2)
9	Seminar II	2* (0+2)

SEVENTH SEMESTER		
Sr. No.	Course Title	Credits
1	Applications of RFID and WI-FI Technology	3 (2+1)
2	CAD and Multimedia Technology	3 (2+1)
3	CAD and Landscaping	3 (2+1)
4	Modeling, Simulation & Forecasting	3 (2+1)
5	Designing IVR systems and call center Management	3 (1+2)
6	Knowledge Resources and eLearning systems	3 (2+1)
7	Progressing for knowledge repository – PHP, JAVA, MYSQL, Flash, Dreamweaver	3 (1+2)
8	Knowledge Discovery and call center management & Designing eLearning portal	3 (1+2)
9	Project II	2* (0+2)
EIGHTH SEMESTER		
Sr. No.	Course Title	Credits
1	Internship (instead of RAWE)	20

* Non Credit Course

Teaching and Supporting Staff

Sr. No.	Name	Post	Qualification
1.	Dr. Y. R. Ghodasara	I/C Principal and Dean	M.C.A. Ph.D.
2.	Dr. R. S. Parmar	Associate Professor	M.Sc., MCA ,Ph.D.
3.	Dr. D. R. Kathiriya	Associate Professor	M.Sc., Ph.D.
4.	Dr. V. B. Darji	Associate Professor	M.Sc., Ph.D.
5.	Prof. M.P. Raj	Assistant Professor	M.C.A.
6.	Prof. K.P. Patel	Assistant Professor	M.C.A.
7.	Prof. D. K. Parmar	Assistant Professor	M.E.
8.	Dr. B. A. Amin	Assistant Professor	M.Sc., Ph.D.
9.	Dr. K. V. Patel	Assistant Professor	M.Sc., Ph.D.
10.	Prof G. J. Kamani	Assistant Professor	M.Sc., M. Phil.
11.	Prof. X. U. Shukla	Assistant Professor	M.C.A.
12.	Mr. B. S. Rathwa	Assistant Adm. Officer	Diploma, B.A.
13.	Mr. U. S. Rathod	Programmer	M.C.A.
14.	Mr. N. D. Shekhji	Senior Clerk	H.S.C.
15.	Mr. R. N. Borisaniya	Junior Clerk	B.Com
16.	Kum. M. A. Desai	Hostel Assistant Warden	P.R.S.

Students Enrolled in the Academic Year 2012-2013 B.Tech. (AIT)

No.	Name of Students	No.	Name of Students
1	Barot Jayeshkumar Mahendrabhai	21	Patel Primalkumar Bharatbhai
2	Chauhan Kailasben Rangitsinh	22	Patel Priyamkumar Rameshbhai
3	Chauhan Nitiksha Maheshbhai	23	Patel Shivangi Jeetendrabhai
4	Chavda Hitesh Govindbhai	24	Rana Govindsinh Jagatsinh
5	Dobariya Nikunj Bhikhabhai	25	Rathod Akshaykumar Mahendrabhai
6	Gohil Vishalkumar Mahendrabhai	26	Shaikh Zulqiyarbhai Hakimbhai
7	Jadav Akashkumar Naginbhai	27	Parmar Chirag Arvindbhai
8	Kachhiya Vishalkumar Vijaykumar	28	Parmar Ketul Francis
9	Modh Rifaliben Kamleshbhai	29	Patel Riteshkumar Girishbhai
10	Momin Inayathaider Abidali	30	Raulji Ravirajsinh Pravinsinh
11	Odedara Deveeben Sarmanbhai	31	Sundesha Amrutlal Vaktaji
12	Pansuriya Chirag Mansukhbhai		
13	Parmar Henishbhai Sureshbhai		
14	Patel Ashviniben Kanubhai		
15	Patel Brijeshkumar Mukeshbhai		
16	Patel Divyaben Sunilbhai		
17	Patel Hirenkumar Dineshkumar		
18	Patel Mayurkumar Jagdishbhai		
19	Patel Mehulkumar Manharbhai		
20	Patel Parthkumar Shaileshkumar		

Student Representative Council

Student Reprehensive Council (SRC) is basically a student-operated college committee designed to promote college spirit and leadership among students. Students participating in all levels of the Council do maintain a high standard of personal conduct. Council members skillfully demonstrate leadership qualities by serving as good examples of behavior through their deed and actions.

The Student Representative Council (SRC) is formed –

- ✓ To develop positive attitude and to practice good citizenship.

- ✓ To promote harmonious relation throughout the entire college.

- ✓ To improve student/faculty relationship.

- ✓ To improve college morale and general welfare.

- ✓ To provide a forum for student expression.

- ✓ To plan special events or projects.

Benefits of being involved in student representative council include

Opportunity to improve reading and writing skills, gain experience in public speaking, and hone other skills like team-building and cooperation. Students learn how to make a positive impact on college and community environment. In addition, Student Representative Council gives a platform to meet new friends and work with a wide variety of people.

Objectives of the Student Representative Council are:

- ✓ To provide a democratic platform in which students can address the college related issues.

- ✓ To maintain open communication between students and faculty.

- ✓ To make students aware of the duties and responsibilities of good citizen.

The SRC plans and organizes different co-curricular and extra-curricular activities including sports, literary and cultural events, beside hosting other student related college events.

The SRC for the year 2011-12

Patron : Dr. Y. R. Ghodasara , I/C Principal and Dean

Chairman : Prof. K .P. Patel, Assistant Professor

General Secretary : Mr. R. J. Thakar, B.Tech. 3rd year

Staff Advisors

SR. No.	Name	Designation	Activities
1.	Dr. Y. R. Ghodasara	Associate Professor	NSS
2.	Dr. R. S. Parmar	Associate Professor	College Magazine, Literary Activity
3.	Mr. Mayur Raj	Assistant Professor	Social Gathering & Athletics
4.	Mr. D. K. Parmar	Assistant Professor	Indoor games
5.	Mr. B. A. Amin	Assistant Professor	Outdoor games, Adventure
6.	Mr. K. V. Patel	Assistant Professor	Cultural Activities

Student Representatives

Sr. No.	Name	Semester	Activities
1.	Ms. Foram V. Vithani	Third	Cultural Activities (LR)
2.	Mr. Swapnil Prakash	Fifth	Literary
3.	Mr. Hiren B. Patel	Fifth	Outdoor games
4.	Mr. Ganshyam J. Patel	Fifth	Indoor games
5.	Ms. Arwa Y. Chavda	Third	College Magazine
6.	Mr. Darshitsinh Kiransinh Sindha	Fifth	Social Gathering
7.	Mr. Jaydip Jayantilal Chopda	Fifth	Adventure
8.	Mr. Rushik N. Sutariya	Third	Athletics
9.	Mr. Parth R. Patel	Third	NSS

SRC Activities Conducted for the year 2011-12

The Student Representative Council of college conducted various activities such as literary activities, cultural events, sports, fine arts and others. Brief information of various activities is given below.

SPORTS

Sr. No.	Event Name	Date	Organization
1	Basketball	09-09-2011	College of Agricultural Information Technology
2	Volleyball	12-09-2011	College of Agricultural Information Technology
3	Kabaddi	17-09-2011	SMC College of Dairy Science
4	Chess	10-01-2012	International Agri -Business
5	Badminton	21-01-2012	B. A. College of Agriculture
6	Cricket	29-01-2012	College of Food Processing Technology and Bio-Energy

CULTURAL EVENTS

Sr. No.	Event Name	Date	Organization
1	Drama	07-01-2012	SMC College of Dairy Science
2	Folk Dance		
3	Mono Acting		
4	Patriotic Song		

FINE ARTS EVENTS

Sr. No.	Event Name	Date	Organization
1	Rangoli	02-5-2012 to 05-05-2012	College of Agricultural Information Technology
2	Face Painting		
3	Collage		
4	Poster Making		
5	Cartooning		
6	Clay modeling		
7	On the spot painting		

TECHNOLOGY, KNOWLEDGE AND CREATIVITY EVENT

Sr. No.	Event Name	Date	Organization
1	Photography		
2	Sound Tripping (Sense)		
3	Short Film Making	05-5-2012 to 07-05-2012	College of Agricultural Information Technology
4	AIT Logo Making		
5	Treasure hunt		
6	Dumb charade		
7	Quiz		
8	LAN gaming		
9	Cine Magic		

NSS ACTIVITIES CONDUCTED FOR THE YEAR 2011-12

Event Name	Date	Participants
Independence Day Celebration	August, 2011	25
Thalassemia Test Campaign	September, 2011	30
Mahatma Gandhi's Birthday Celebration	October, 2011	14
NSS Day Celebration at Veer Narmad University, Surat	October, 2011	09
AIDS Awareness Quiz	December ,2011	30
Special NSS Camp at Village Agas ,Anand	December 28, 2011 to January 3, 2012	15
Republic Day Celebration	January, 2012	10
Global Warming Awareness Programme	February, 2012	28

At the push of a button:
Direct Video Assisted Redressal offers instant solutions

Dr. R. S. Parmar (Associate Professor),
Dr. D. R. Kathiriya (Director of Information Technology)
and Umesh Rathod (Programmer)

As we know that agriculture is a backbone for the Indian Economy. With the state of the art Internet infrastructure available, agriculture extension departments are using ICT to disseminate information to farmers. In developed countries information dissemination through ICT proved to be very effective for the growth of the farmers and the agriculture sector, due to the fact that farmers of developing countries are Internet and computer savvy. On the contrary despite using the same technologies and the same approach to help Indian farmers, our efforts are not being effective. One of the reasons we can say could be, the literacy gap between the farmers of the developed countries and farmers of India. It is a fact that, even though Indian farmers cannot write on a piece of paper, or use Internet or even read a news paper but one thing Indian farmer can do is to talk about his problems in his own language with a greater detail. So in order to help Indian farmer, we need to take a very innovative approach by providing them a medium or a technology, through which they can talk and explain their problems. We must use ICT to help Indian farmers but not in a way that developed countries are using i.e. help through e-mail, chat, Internet web sites but in way that Indian farmer can ask for a help with the push of a button, same way get the solutions for their problems with the push of a button. We all can agree that even though most of the Indian farmers are not literate but what they can easily do is, press a single button and record his problem with a sample and press a few more numbers in a keypad to get his answers.

The Solution

The solution to bridge the communication gap between the scientists (the knowledge) and the farmers (the user) in a very efficient way is the DVAR technology. It is an innovative approach to help Indian farmers for their day to day problems. Farmers can get correct answers directly from the scientists in an efficient and timely manner.

✓ It does not expect farmer to be literate

✓ It does not expect farmer to know about whom to submit his problem given that there are many branches of agriculture research

✓ It only expects farmer to come with his diseased crop/plant sample, press a button and follow some audio/visual prompts in a local language, put his sample, explain his problem and go home and next day come up with his receipt, press few numbers and get his solution directly from the scientist, very specific to his problem.

✓ It can help scientists to deliver training videos to only concern farmers

✓ It can help scientists to get consolidated problem solution from various available resources and deliver it to concern farmer i.e. training video about new farming techniques.

- ✓ It can help extension department to deliver training videos to all farmers regarding new techniques and ideas.
- ✓ It can help government to communicate to mass for specific awareness campaign

Technology

DVAR is designed to be used by illiterate Indian farmers who does not know computers, Internet, e-mail, chat and does not possess reading/writing skills. It is also designed to be a bandwidth aware, so it can be used on very low bandwidth connection without sacrificing the audio/video quality. The only difference between low bandwidth and high bandwidth setup is response time between the farmer and the scientists. Lower bandwidth DVAR setup will have longer response time compare to high bandwidth setup.

DVAR technology is a perfect mix of various technologies like:

- ✓ VOD Video on Demand
- ✓ OLVM Off line video messaging
- ✓ CMS Content Management System
- ✓ VC Video conferencing
- ✓ RDBMS Relational Database Management System

It is an integration of all the above technologies in a way that, the farmer or the scientist does not need to learn computer in order to communicate in an efficient and timely manner. Farmer will interact with push of a button and scientist will interact with click of a mouse. Both will interact with each other without the time bound so farmer can concentrate on how to get most out of his farm and scientist can concentrate on his research.
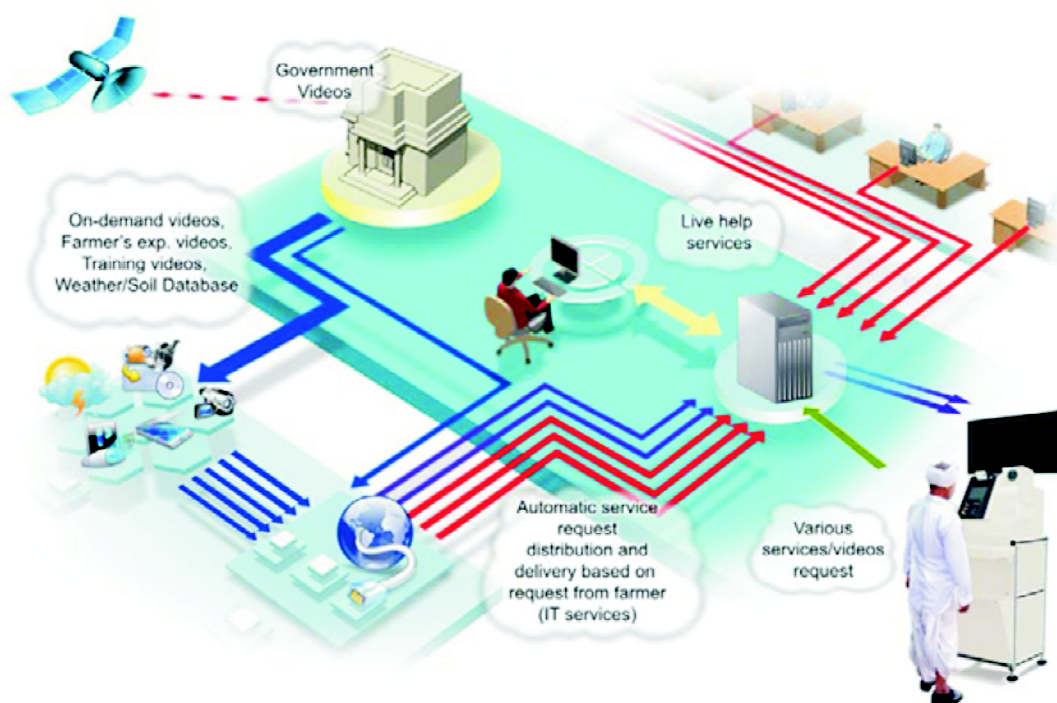
Services offered by the technology

DVAR technology is not about only being a farmer to scientist interaction medium; it can be effectively used by government, agriculture extension to create awareness amongst rural population.

- ✓ It can help farmers to solve their day to day problems with push of a button
- ✓ It can also help various government departments to interact with farmers, through awareness videos or one-on-one off-line messaging
- ✓ It can particularly help agriculture extension department to disseminate agriculture related awareness information to farmers without spending much budget on travelling
- ✓ It can further help government to create awareness amongst farmers to make them active participant in development process resulting effective nation building exercise
- ✓ It can be used by private companies to reach specific audience for targeted marketing

DVAR Unit Overview

- ✓ It has various easily operable controls

- ✓ Three 3 Buttons : Green to start DVAR , Red to stop and submit video recording, Yellow to take and submit sample photographs

- ✓ Numeric keypad : To enter Receipt number to get answers from scientists

- ✓ Photo Chamber: To put any type of sample, leaf, pest, even small plant, soil sample etc.

- ✓ Printer : Provides fast and quick thermal printout with receipt number

- ✓ External TV : For educational videos, awareness videos, advertisements etc.

DVAR concept overview

Summary

DVAR is a technological innovation to promote ONE FARMER AT A TIME concept, each farmer will get personalized attention, and solutions to their problems. DVAR technology does not expect farmer to know computer or know how to access Internet for their information. DVAR technology let backend stack holders to do that work for them. DVAR can use existing resources like video libraries, training and awareness videos to motivate and educate farmers.

TIFRAC – A 55 Year Old Indian Computing Initiative

Xitij U. Shukla, (Assistant Prof.)

As a layman one might guess the footprints of India in the field of Information Technology not more than two decades, i.e. that of introduction of liberalization, privatization and globalization in the country. However, this guess misleads us that of the visible peak of an iceberg. In fact, the country has proven its incredible excellence in computing for more than five decades.

The neo-independent nation was facing grassroots challenges in almost all the areas viz. post-partition resettlement, establishment, food-crises, education, power generation, poverty etc. Within all these, there was a team of select young physicists lead by Dr. R. Narasimhan at TIFR (Tata Institute of Fundamental Research), Mumbai day-dreamt of sailing the boat (*an indigenous computer*) in the uncharted waters of computing science.

After initial pilot efforts, the TIFR team succeeded in commissioning the first digital computer of India assembled in the dimensions of 18' x 2.5' x 8' in 1960 which was named as TIFRAC (**T**ata **I**nstitute of **F**undamental **R**esearch **A**utomatic **C**omputer) by Shri Jawaharlal Nehru. TIFRAC was made from 2,700 vacuum tubes, 1,700 germanium diodes and 12,500 resistors and required a huge 20KW of electrical supply to run!

Shri Jawaharlal Nehru with Dr. Homi Bhabha inaugurating TIFRAC.- Photo Courtesy: TIFR

Some fast facts of the TIFRAC are listed as under.

Component	Technology
Memory	1024 words of 40 bit each Ferrite-Core
I/O	Manual Typewritten Console with Punch-card and Paper-tape support
Auxiliary Output	Primitive CRT Display

Apart from bringing computer revolution in India TIFRAC contributed in computing facility in the intricate computations for the scientists in the fields of Physics and Mathematics.

A letter from a girl to JRD Tata in 1974

THE GIRL WRITING AS HERSELF…

It was probably the April of 1974. Bangalore was getting warm and gulmohars were blooming at the IISc campus. I was the only girl in my postgraduate department and was staying at the ladies' hostel. Other girls were pursuing research in different departments of Science. I was looking forward to going abroad to complete a doctorate in computer science. I had been offered scholarships from Universities in the US. I had not thought of taking up a job in India.

One day, while on the way to my hostel from our lecture-hall complex, I saw an advertisement on the notice board. It was a standard job-requirement notice from the famous automobile company Telco (now Tata Motors). It stated that the company required young, bright engineers, hardworking and with an excellent academic background, etc. At the bottom was a small line**:** *'Lady Candidates need not apply.'* I read it and was very upset. For the first time in my life I was up against gender discrimination. Though I was not keen on taking up the job, I saw it as a challenge. I had done extremely well in academics, better than most of my male peers. Little did I know then that in real life academic excellence is not enough to be successful?

After reading the notice I went fuming to my room. I decided to inform the topmost person in Telco's management about the injustice the company was perpetrating. I got a postcard and started to write, but there was a problem, I did not know who headed Telco. I thought it must be one of the Tatas. I knew JRD Tata was the head of the Tata Group; I had seen his pictures in newspapers (actually, Sumant Moolgaokar was the company's chairman then) I took the card, addressed it to JRD and started writing. To this day I remember clearly what I wrote. "The great Tatas have always been pioneers. They are the people who started the basic infrastructure industries in India, such as iron and steel, chemicals, textiles and locomotives they have cared for higher education in India since 1900 and they were responsible for the establishment of the Indian Institute of Science. Fortunately, I study there. But I am surprised how a company such as Telco is discriminating on the basis of gender."

I posted the letter and forgot about it. Less than 10 days later, I received a telegram stating that I had to appear for an interview at Telco's Pune facility at the company's expense. I was taken aback by the telegram. My hostel mate told me I should use the opportunity to go to Pune free of cost and buy them the famous Pune saris for cheap! I collected Rs.30 each from everyone who wanted a sari when I look back, I feel like laughing at the reasons for my going, but back then they seemed good enough to make the trip.

It was my first visit to Pune and I immediately fell in love with the city. To this day it remains dear to me. I feel as much at home in Pune as I do in Hubli, my hometown. The place changed my life in so many ways. As directed, I went to Telco's Pimpri office for the interview. There were six people on the panel and I realized then that this was serious business. "This is the girl who wrote to JRD", I heard somebody whisper as soon as I entered the room. By then I knew for sure that I would not get the job. The realization abolished all fear from my mind, so I was rather cool while the interview was being conducted. Even before the interview

started, I reckoned the panel was biased, so I told them, rather impolitely, "I hope this is only a technical interview".They were taken aback by my rudeness, and even today I am ashamed about my attitude. The panel asked me technical questions and I answered all of them. Then an elderly gentleman with an affectionate voice told me, "Do you know why we said lady candidates need not apply? The reason is that we have never employed any ladies on the shop floor. This is not a co-ed college; this is a factory. When it comes to academics, you are a first ranker throughout. We appreciate that, but people like you should work in research laboratories". I was a young girl from small-town Hubli. My world had been a limited place. I did not know the ways of large corporate houses and their difficulties, so I answered, "but you must start somewhere, otherwise no woman will ever be able to work in your factories."

Finally, after a long interview, I was told I had been successful. So this was what the future had in store for me. Never had I thought I would take up a job in Pune. I met a shy young man from Karnataka there, we became good friends and we got married. It was only after joining Telco that I realized who JRD was; the uncrowned king of Indian industry. Now I was scared, but I did not get to meet him till I was transferred to Bombay. One day I had to show some reports to Mr Moolgaokar, our chairman, who we all knew as SM. I was in his office on the first floor of Bombay House (the Tata headquarters) when, suddenly JRD walked in. That was the first time I saw "appno JRD". Appno means 'our' in Gujarati. This was the affectionate term by which people at Bombay House called him. I was feeling very nervous, remembering my postcard episode. SM introduced me nicely, "Jeh (that's what his close associates called him), this young woman is an engineer and that too a postgraduate. She is the first woman to work on the Telco shop floor." JRD looked at me. I was praying he would not ask me any questions about my interview (or the postcard that preceded it).

Thankfully, he didn't. Instead, he remarked. "It is nice that girls are getting into engineering in our country. By the way, what is your name?" "When I joined Telco I was Sudha Kulkarni, Sir," I replied. "Now I am Sudha Murthy." He smiled and kindly smile and started a discussion with SM. As for me, I almost ran out of the room. After that I used to see JRD on and off. He was the Tata Group chairman and I was merely an engineer. There was nothing that we had in common. I was in awe of him.

One day I was waiting for Murthy, my husband, to pick me up after office hours. To my surprise I saw JRD standing next to me. I did not know how to react. Yet again I started worrying about that postcard. Looking back, I realize JRD had forgotten about it. It must have been a small incident for him, but not so for me. "Young lady, why are you here?" he asked. "Office time is over" I said, "Sir, I'm waiting for my husband to come and pick me up." JRD said, "It is getting dark and there's no one in the corridor. I'll wait with you till your husband comes." I was quite used to waiting for Murthy, but having JRD waiting alongside made me extremely uncomfortable. I was nervous. Out of the corner of my eye I looked at him. He wore a simple white pant and shirt. He was old, yet his face was glowing. There wasn't any air of superiority about him. I was thinking, 'Look at this person. He is a chairman, a well-respected man in our country and he is waiting for the sake of an ordinary employee.' Then I saw Murthy and I rushed out. JRD called and said, "Young lady, tell your husband never to make his wife wait again."

In 1982 I had to resign from my job at Telco. I was reluctant to go, but I really did not have a choice. I was coming down the steps of Bombay House after wrapping up my final settlement when I saw JRD coming up. He was absorbed in thought. I wanted to say goodbye to him, so I stopped. He saw me and paused. Gently, he said, "So what are you doing, Mrs. Kulkarni?" (That was the way he always addressed me.) "Sir, I am leaving Telco." "Where are you going?" he asked. "Pune, Sir. My husband is starting a company called Infosys and I'm shifting to Pune."

"Oh! And what will you do when you are successful."

"Sir, I don't know whether we will be successful."

"Never start with diffidence", he advised me "Always start with confidence. When you are successful you must give back to society. Society gives us so much; we must reciprocate. Wish you all the best." Then JRD continued walking up the stairs. I stood there for what seemed like a millennium. That was the last time I saw him alive.

Many years later I met Ratan Tata in the same Bombay House, occupying the chair JRD once did. I told him of my many sweet memories of working with Telco. Later, he wrote to me, 'It was nice hearing about Jeh from you. The sad part is that he's not alive to see you today.' I consider JRD a great man because, despite being an extremely busy person, he valued one postcard written by a young girl seeking justice. He must have received thousands of letters every day. He could have thrown mine away, but he didn't do that. He respected the intentions of that unknown girl, who had neither influence nor money, and gave her an opportunity in his company. He did not merely give her a job; he changed her life and mindset forever. Close to 50 per cent of the students in today's engineering colleges are girls. And there are women on the shop floor in many industry segments. I see these changes and I think of JRD. If at all time stops and asks me what I want from life, I would say I wish JRD were alive today to see how the company we started has grown. He would have enjoyed it wholeheartedly.

My love and respect for the House of Tata remains undiminished by the passage of time. I always looked up to JRD. I saw him as a role model for his simplicity, his generosity, his kindness and the care he took of his employees. Those blue eyes always reminded me of the sky; they had the same vastness and magnificence.

(Sudha Murthy is a widely published writer and chairperson of the Infosys Foundation involved in a number of social development initiatives. Infosys chairman Narayana Murthy is her husband.

Article sourced from: Lasting Legacies (Tata Review- Special Commemorative Issue 2004), brought out by the house of Tatas to commemorate the 100th birth anniversary of JRD Tata on July 29, 2004.)

Collected by:

- Amit Parashar, 6th Semester

Favouritism and Casteism affects one's nature and as a whole to democracy
- By Prof. M. P. Raj

Qualities of Successful People

Successful People:

- Are optimistic (and carry an attitude of gratitude)
- Are persistent and persevering
- Step out of their comfort zone (take calculated risks)
- Adjust their action to reality
- Enjoy their work (are passionate about it)
- Are visionaries with patience
- Focus themselves (and set goals)
- Are quick, but accurate decision – makers
- Are able to handle criticism / rejection / frustration
- Take responsibility for their actions and lives
- Are self-aware (carry internal-anchor)
- Have a strong self-belief; self starters and self motivated
- Believe in action as well as in prayer (Prayatna + Prathana)
- Don't major in minor things
- Discipline themselves first, (then others) ; have good life styles
- Are enthusiastic
- Are serious readers and note-takers
- Manage their stress and tension
- Are adaptable and improvise
- Manage time well and set and mange priorities
- Are good listeners
- Are good communicators
- Commit mistakes, but learn from them
- Are comfortable with people
- Have the ability to identify and use their moods and emotions

-Jigna D Patel, 3rd Year

How To Be Good in Studies

➢ Know the importance of studies / academics.

➢ Distribute the studies throughout the year. Don't waste the initial months and start studies when exams come closer.

➢ While studying, write down the key points or underline them.

➢ After you study a topic or theme, close your eyes and visualize the details.

➢ Write Mind Maps.

➢ Attend school / college. Maintain good attendance.

➢ Study to understand the subject, not only to score marks (don't mug up or by heart).

➢ Go through the previous few years' question papers. Study the pattern of question papers. Give a little more importance to these questions.

➢ Do joint studies with like-minded friends.

➢ When you have spare time, close your eyes and recall the points.

➢ Collect information from books in library.

➢ Get doubts cleared from teachers ; seek their guidance.

➢ Avoid / reduce other distractions like T.V. watching , gossiping, roaming, etc.

➢ Study outdoors in open air.

➢ Seek blessings of God, teachers, parents and elders.

-Umesh Rathod, Programmer

Learn with Fun

1. What is **LUCK** ?

    L Labouring   **U** Under   **C** Correct   **K** Knowledge

Moral : If you have the correct knowledge and you put in effort (labour), you will definitely become lucky.

2. Once you develop a habit, it is very difficult to come out of it.

    From the word '**HABIT'**,

    Take out the first letter H-ABIT. **A BIT** of the habit remains.

    Take out the next letter A BIT. **BIT** still remains.

    Cancel the next letter B IT. **IT** ie. The **HABIT** still remains.

Moral : Don't develop bad habits. You get addicted to them and find it very difficult to give up the habits.

3. What is MANAGEMENT?

    MANAGE / MEN / T   Tactfully

Moral : Management is managing you men tactfully.

4. Which are the three things needed for achieving success ?

    A – Attitude   **S** – Skill   **K**- Knowledge

Moral : The three things needed for success are Attitude, Skill and Knowledge. Very rightly, Attitude (which is the first letter in the word 'Ask' is more important than the remaining two factors. (ie. Skill and knowledge)

5. Man asked God '**I want peace'**

    God told 'It's very simple! In your request:

    I - Remove the Word **'I ' (i.e. Ego)**

    Want – Remove the word **'WANT' (i.e. Your desires)**

    Peace – obviously you will be left with **'PEACE'**

    - Bhargavi C. Patel , 3ʳᵈ Year

CHANGE

When I was a young man,

I wanted to change the word.

I found it was difficult to change the world,

so I tried to change my nation.

When I found I couldn't change the nation

I began to focus on my town.

I couldn't change the town

and as an older man,

I tried to change my family.

Now, as an elderly person, I realize

the only thing I can change is myself.

And Suddenly

I realize that if, long ago, I had changed myself,

I could have made an impact on my family,

My family and I could have made

an impact on our town,

their impact could have changed the nation

And I could indeed have changed the world.

CHANGE – CAN BEGIN ONLY WITHIN AND FROM YOU

Moral : Stop changing others. Change yourself. When you start changing yourself, the world and people around you will start changing, The 'Srishti ' (creation) de-pends on your 'Drishti' (the way you look at things). The problem is not the problem. The way you look at the problem is the problem!

- Sejal Amipara, 3rd Year

PRAYER

Benefits of prayer:

- ✓ Reduce your ego.
- ✓ Helps you develop humility.
- ✓ You feel you have an anchor and a support in times of difficulty.
- ✓ Increases your courage, self confidence and inner strength.
- ✓ Takes the load and pressure off you head and makes you feel relieved.
- ✓ You feel connected to everyone and everything in the world.
- ✓ It helps you to be ethical. Moral and righteous.
- ✓ It gives peace of mind and balanced approach in life.
- ✓ It helps you to take decisions with clarity and conviction.
- ✓ It improves you gut feeling and intuition.

Moral : Prayer is an excellent psycho – emotive therapy. Offer prayers daily and see for yourself how it works wonders !

- Prof. K.P.Patel (Assistant Professor)

कॉलेज की दुनिया

याद आयेंगी मुझे मेरे कॉलेज की दुनिया ,
जहा हर पल में बनती हे लाखो कहानिया ।

सुबह में चाय की उधारी से शुरू होती,
और रात को match की शर्तों पे आके रूकती ये कहानिया ।

दोस्तों के साथ लड़ना, जगाड़ना, रूठना और फिर उन्हें मनाना ,
एसा लगता था जेसे दुकानदार के साथ bargaining करना ।

सुबह में alarm का बजना, उसको बार बार snooze करना ,
फिर कॉलेज का टाइम होते ही भागना ,
और कॉलेज जाते ही सर का बोलना " थोडुं, थोडुं भेनेज करो " ।

क्लासरूम में होती थी कभी शरारते, कभी बाते ,
कभी पढाई तो कभी किसी की पिटाई ,
पर यही पर से मिलने वाली थी हमको जीवन की कमाई ।

हम तो मछलीया हे AIT के समन्दर की ,
अलग अलग जगह से आई थी और अलग अलग जगह चली जाएँगी ,
बस समन्दर की यादे साथ रह जाएंगी ।

वैसे तो 4 साल की permission दी है समन्दर ने रहने के लिए ,
पर कई लोग अपनी जिद(हठ) से 5 -6 साल भी गुजर लेते हे ।

पता नही हमारी जिन्दगी की कहानियों में कॉलेज की कहानिया क्या रंग लाएगी ,
पर इतना जरुर पता हे की यह कभी रुलाएगी तो कभी हसाएंगी ।

- **Himanshu .V. Raval, 3rd Year**

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आसान उपाय

जापान की एक प्रसिद्ध साबुन कंपनी को एक बार किसी ग्राहक की शिकायत मिली | ग्राहक का कहना था कि उसे साबुन के होलसेल पैक में से साबुन का एक डिब्बा खाली मिला था | कंपनी द्वारा अधिकारियों को इस बारे में जांच करने के निर्देश दिए गये | जांच में यह शिकायत सही पायी गयी | वास्तविकता में, असेम्बली लाइन में गड़बड़ी के कारण साबुन के कई डिब्बे खाली रह जाते थे | कंपनी के सामने अब मुश्किल सवाल था, खाली डिब्बों कि खोज | दरअसल वहां हर रोज हजारों डिब्बों की पैकिंग होती थी | ऐसे में कुछेक खाली डिब्बों को ढूंढना बहुत मुश्किल था, इसलिए कंपनी के एक कुशल इंजिनियर को डिब्बों की खोज का तरीका ढूंढने का काम सौंपा गया | इंजिनियर ने काफी मेहनत के बाद एक तरीका खोज निकाला | उसने असेम्बली लाइन में हाई रिजोल्यूशन एक्स-रे मशीन लगवाई | डिब्बे जब एक्स-रे मशीन के मॉनिटर के सामने से गुजरते तो एक आदमी मॉनिटर पर नजर रखता, ताकि कोई खाली डिब्बा बड़े बक्सों में नहीं चला जाए, लेकिन सबकुछ इतना तेजी से हो रहा था कि खाली डिब्बों का पता नहीं चल पाया | इस प्रकिया में काफी खर्च के साथ दो तीन कारीगर भी लगाने पड़े थे | फिर भी इसका कोई परिणाम नहीं निकला | इसके बाद भी कोशिशें चलती रहीं | कंपनी के अधिकारियों को इस गड़बड़ी से निपटने का कोई उपाय नहीं मिला | अनेक कुशल इंजिनियर के प्रयास भी असफल हो गए | दूसरी ओर कंपनी के अधिकारी इस तरह की शिकायतों से काफी परेशान हो चुके थे | ऐसे में एक दिन एक छोटे कारीगर ने अधिकारियों को इस समस्या से निपटने के लिए एक सलाह दी | उसने अधिकारियों से असेम्बली लाइन में एक बड़ा इंडस्ट्रिअल पंखा लगाने के लिए कहा | कारीगर की बात मानकर वहां पंखा लगा दिया गया | जब पंखे के सामने से सारे डिब्बे गुजरते तो जो भी डिब्बा खाली होता वह पंखे की तेज हवा से उड़ जाता | कंपनी के अधिकारियों को अपनी समस्या का समाधान मिल चुका था |

सीख - हर समस्या का समाधान मुश्किल तरीकों में नहीं छुपा होता | कभी-कभी आसान उपाय भी बड़ी-बड़ी मुश्किल को आसान कर सकता है |

<div align="right">- अमित पराशर, 6th सेमेस्टर</div>

जनांदोलन ?? क्या हम तय्यार है!!

जब दिल्ली में अन्ना जी का अनशन था..वहाँ हमने युवा शक्ति को पहली बार देखा था|बहुत से लोगों ने उस आंदोलन से प्रेरणा ली| सोचा की लगता है अब भारत जग गया है और अब भ्रष्टाचार की खैर नहीं|लेकिन जीवन इतना आसान नहीं है... सब चाहते हैं की आंदोलन हो...सब चाहते हैं की व्यवस्था सुधरे...पर कोई भी अपनी भागीदारी सुनिश्चित करना नहीं चाहता...

जब आंदोलन बड़े स्तर पर होते हैं तो वहाँ मीडिया होती है,पूरे देश की नज़र होती है|

लेकिन...

जब कोई युवा राजनीति की सारी जटिलताओं को भूलकर अपनी पहलकदमी से कुछ नया करना चाहता है तो समाज के तमाम "वरिष्ठ" लोग उसे अपने अनुभव का ज्ञान बाँटने चले आते हैं..

और फिर...

फिर शुरू होता है वही सिलसिला...

"अभी नया खून है...समाज ऐसे नहीं चलता,तुम बच्चे नहीं समझते हो राजनीति.." और यहीं दब जाते हैं सारे सपने..कुछ करने के.."नादान परिंदे" अपने घोंसले में लौट आते हैं...

यह आंदोलन जो उस लड़के के मन में ही कुचल दिया गया... आज के युवा को आंदोलित करता जा रहा है... वह छटपटा कर सोचता है की आखिर कैसी राजनीति है हमारे देश की जो हम समझ नहीं सकते|क्या हमे भी इस राजनीति को समझने के लिए ६० साल का होना होगा...जब की हमारा शरीर हमे ढोने में भी सक्षम नहीं रह जाएगा...

छोटे स्तरों पर आवाज़ बुरी तरह दबा दी जाती है...बर्बरता से लाठी चार्ज की जाती है...जनसमूह में से कुछ लड़कों को महज़ खानापूर्ति के लिए जेल में बंद कर दिया जाता है...

अगले दिन अखबार में खबर आती है... *"आंदोलन समाप्त ,पुलिस ने किया शान्ति बहाल"*, पर जिस लड़के को जेल में बंद कर दिया गया उसका क्या हुआ ये कोई नहीं सोचता...

छोटे शहरों में ये काफी आम बात है... वहाँ न कोई मीडिया होती है और न ही जनसमूह...अगर इस तरह हमारे आवाज़ को दबाया जाता रहा... तो हम व्यापक स्तर पर जनांदोलन की उम्मीद कैसे कर सकते हैं?

-Swapnil Prakash,, 3rd Year

thing-to-say.com

Kal jab mile thhe….
to dil mein hua ek sound.
Aur aaj mile to kehte hain…
your file not found!!!

Jo muddat se hota aaya hai,
woh repeat kar doonga…
Tu naa mili to apni zindagi
ctrl+alt+delete kar doonga…

Shayad mere pyar ko
taste karna bhool gaye…
Dil sey aisa cut kiya
ke paste karna bhool gaye…

Laakhon honge nigaah mein
kabhi mujhe bhi pick karo…
Mere pyaar ke icon pe
kabhi to double-click karo…

Roz subha hum karte hain
pyar se unhe good morning…
Woh aise ghoor ke dekti hain
jaise 0 errors aur 5 warning…

Aisa bhi nahin hai ke
I don't like your face…
Par dil ke storage mein
No more disk space…

Ghar se jab tum nikale
pehen ke kurta brown…
Jaane kitne dilon ka
ho gaya Server down…

- Dr. K.V.Pael (Assistant Professor)

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Problem of Brain Drain in India

Brain Drain means the migration of highly qualified experts like doctors, engineers, scientist and other trained persons from the under-developed countries to advancing countries. More or less, all the backward countries are suffering from this problem. India is also suffering from this brain drain seriously at the present moment.

Thus brain drain is a direct loss, of trained experts in many fields, to the under-developed and poor countries. On the other hand, it is a net gain to the advanced countries. According to a UNO report, every year thousands of experts are migrating from backward countries to advanced countries like USA, UK, Canada, Germany etc. The under-developed countries are spending millions of rupees on the training of these experts. But the advanced countries are utilizing their services without spending a single penny on their training.

Most of the students who go abroad for higher studies do not return to India. After seeing, the affluent life of foreign countries they lose all interest in their own country. Many Indians are teaching at various US Universities and other Institutions of higher learning. Some of them are placed on quite lucrative and high posts.

There are so many causes of the brain drain in India. First of all, there is the unemployment problem. Even a talented person cannot get job. India is lacking in facilities for higher research work. The top appointments are quite few in India. Thus the talented experts like to seek new pastures abroad.

There is another attraction of leading a higher standard of living in foreign countries, because the technical experts and intellectuals are giving special facilities there. In foreign countries, there is the advantage that while learning a person can also earn his own living. The stipends in foreign countries are sufficient enough. A frugal Indian Student living there can also save something to send home.

There is no doubt that India is having vast natural and man power resources. If both these resources are put to the maximum utilization astounding advancement can be achieved in all fields. These technical and other talented reasons that we lose every year, can greatly help in the development of our natural resources. The government must take speedy steps to lure back home these talented sons of India who are living abroad. These experts can surely help in making India a great power in the world.

In this connection, even the people should also come forward and cooperate with the Government in solving this problem. The parents of the students should not encourage

them to go abroad and settle there even if they are paid high salaries.

The doctors, engineers and scientists owe a duty to their motherland. Our nation is spending huge amounts of money on their training. These people should not betray their own nation by serving foreign nations. Today thousands of young Indian scientists and technicians are devoted the cause of rebuilding our nation. The country has already achieved the nuclear status as well as become a space power. There are enough opportunities for all the Indian scientists and engineers settled abroad, if they come back to India. They should play an important role in future progress of our country and share the honor of participating in this sacred task.

There is no doubt that India is bound to become one of the most industrialized and scientifically advanced countries in the world. Let every Indian scientist, engineer and technician share the privilege of participating in the noble task of building nation. Thus they can earn the gratitude of their people.

-Sugandh Chauhan, 2nd Year

Computer Science is not Digital Literacy

In a very incisive article Josie Fraser makes the very important point that Computer Science is not Digital Literacy. After discussing some definitions of digital literacy, she says:

It's dismaying then, to see in a week where we are seeing a huge move forward in the promotion of technology and a fresh look at how ICT as a subject area is designed and implemented in schools, to see digital literacy being used as an interchangeable term for computer science skills.

Not being able to code doesn't make you digitally illiterate. Not being able to participate in social, economic, cultural and political life because you lack the confidence, skills and opportunity to do so is what makes you digitally illiterate.

I'd go slightly further and say that the corollary is true also, ie that being able to code doesn't make you digitally literate. A few months ago I was asked by someone at PC Pro to give my views on the idea of a Computer Science GCSE. Here's a summary of what I said, which I think is relevant here:

- Computer studies and its main component, programming, could be an exciting new addition to the curriculum. However, we must not repeat the mistakes of the 1980s, when the subject was, at least in my experience and in my opinion, insular, highly technical, and rightly perceived by some (especially girls) as "geeky". In fairness, this wasn't the fault of the syllabus alone, or at least not directly. I inherited a Computer Studies class which seemed to have attracted several geeky and outspoken boys, and that alone had probably put a lot of the girls off taking the course. After the course had finished I switched to ICT, which attracted equal numbers of girls and boys. I also ran a computer programming club after school, and that attracted girls too. So, I don't think that the subject of computer programming itself was to blame for the low interest by girls, but the syllabus as a whole.

- The syllabus should be robust in terms of teaching procedures like coding, but also provide plenty of opportunities to explore issues to do with values, ethics, morality. For example, there is scope for working with colleagues who have a responsibility for teaching other subjects or areas of the curriculum, such as "Citizenship", or Personal Health and Social Education. For instance, consideration should be given not simply to **how** to create an application but **whether it should** be created, ie whether or not it contributes to the "common good". Other factors could be brought in too, like acceptable levels of risk vs cost etc etc.

- The syllabus should also include issues such as the ethical arguments for and against

hacking, creating and spreading viruses, internet scams, spam, cyber terrorism and the fighting of wars over metals for mobile phone components.

- It should also be highly relevant, both to the needs of the economy and the need for pupils to develop so-called "21st century skills" * such as team work. For example, ideally it will include opportunities to work with local businesses, local community centres or even other schools to create applications that have a practical value in the real world.

- That last point suggests another useful, if not essential, attribute of **any** course in my opinion: it should be **locally** relevant, not just generic (which often means bland).

- Another practical application might be the developing of new digital content for their school, given research from BESA which states that over half of all schools report being under-resourced with digital content.

- This approach would also, I suggest, serve to encourage girls to take up the subject, as girls tend to be more attracted to subjects that involve skills like collaboration and communication. I hesitate to engage in any kind of gender stereotyping, but in my experience what I've just said does tend to be true.

When I was teaching Economics 'A' Level, I wasn't so much teaching Economics as teaching people how to think like economists. I believe the same applies here: there's no point in teaching only the **skills** that are needed to be a computer programmer or digitally literate at present, but how to **think** like a computer programmer, and how to **think** like a digitally literate person. To do so we probably need to agree on some core concepts which are essential in these contexts. I have my own ideas about what these might be, but I'd be interested in hearing what others think about that suggestion itself.

-Maitri J Chudasma, 3rd Year

Forms of corruption in India

In Indian political and social system, corruption has the following forms:

1. **Misuse of Power:**

   Nearly all political leaders, caste leaders and bureaucrats misuse their power. They try to get all government contracts, petrol pumps, gas agencies for their family members or for those who pay them money.

2. **Election Expenses:**

   Election in India is a costly process. Political parties and candidates spend big amount of money. They collect money from big industries and capitalists and distribute money, sewing machines, blankets, cycle, clothes and even wine etc. to bribe the voters. Thus, with this aim, they indulge in corrupt practices.

3. **Misuse of Government Machinery and Mass Media by the Ruling Party:**

   Almost all the political parties misuse government resources and mass-media to glorify their leaders and propagate their policies and programmes. They even put under pressure on election officers.

4. **Third party involvement**

   When the third party involve in any contract then it take a commission or money and it invite the corruption. Third-party enforcers monitor and enforce the respect of the (illegal) norms, guaranteeing the fulfillment of corruption contracts and eventually – imposing sanctions on opportunistic agents and free riders.

5. **Low Quality Materials:**

   When contracts for building, roads, bridges and flyovers are given after exchange of money, contractors use low grade material in their work. Bureaucrats also indulge incorruption to raise and maintain high standard of their living.

   In this way, corruption is doing great harm our system.

   -Himanshu.V. Raval, 3rd Year

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Great Life Skills to Have, to Use, and to Improve

It takes a lot of skills to negotiate through life. Many of them we pick up along the way, others we need to develop, and some we just need to polish a little bit. Here are a few life skills to consider getting, using, or practicing in your life...

1. Listening

2. Giving compliments

3. Accepting compliments

4. Thinking positive

5. Saying "No"

6. Laughing

7. Planning

8. Asking questions

9. Reading

10. Exercising

-Brijesh Kapadia , 3rd Year

હાં રે દીઘી દારૂણ સજા રે

તગડી સરકારે બગડી બેદરકારે ઉતાર્યાં ઉપવાસે અન્ના હજારે
હિન્દ સેવક સેનાનીને જીવતર આરે ના રે નવરાશ ના રજા રે
હાં રે દીઘી દારૂણ સજા રે

પ્રધાનો ખાતા પૈસા ખાતાં અહીં બિચારા અંજળ મૂકતાં આતા
નહીં રે સંભળાતા આ ભ્રષ્ટાચાર વિરોધી વા વંટોળિયા વાતા
ભૂખમરામહીં મરતી ભારતમાતા છે દિશાહીન તિરંગી ઘજા રે
હાં રે દીઘી દારૂણ સજા રે

ફરિયાદ ન કાન ઘરે વાદ વિવાદ જ કરે એ ગૂંગળાવે વિશ્વાસ
સેવા પેગામ નીચે નેવા હાં ગામ વેચે વિકાસ નામે રે વિનાશ
સત્તા નશે નાચે કચેરી મ્હેલાતે રાચે નાગરિક શિરે ના છજા રે
હાં રે દીઘી દારૂણ સજા રે

દેશ રોજ મનમોજી લૂંટે લાલચ વાંચે પ્રજા પીડિત પાયમાલ
જઠરાગ્નિ છે જાગ્યો, આવ્યો વારો કરવા ઘારો જન લોકપાલ
લાત દઈ લે ધૂસ જે ફોડે કારતૂસ નિર્ઝળ ઘાણ નહીં વેઠે વધારે
હાં રે દીઘી દારૂણ સજા રે

- Brijesh Kapadia, 3rd Year