

ॐ

ॐपूर्णमदः पूर्णमिदं पूर्णति पूर्णमुदच्यते ।  
पूर्णस्व पूर्णमादाय पूर्णमेवावशिष्यते ॥ १ ॥

1. OM. Whole is that (Brahman), whole also is this (world).  
From whole comes the whole; take whole from whole; (yet)  
whole remains.

ॐईशावाम्यमिदं सर्वं यत् किं च जगत्यां जगत् ।  
तेन त्यक्तेन भज्जीया मा गृधः कस्य स्विद्धनम् ॥ २ ॥

2. OM. Whatever exists in this world is to be enveloped  
by God (the Ruler). By renouncing it (the world) thou mayst  
enjoy. Do not covet the riches of any one.

मूकं करोति वाचालं पङ्गु लंघयते गिरिम् ।  
यत्कृपा तमहं वन्दे परमानन्दमाधवम् ॥ ३ ॥

3. I bow down to Madhava, the Bliss Eternal; to Him whose  
grace enables the dumb to speak (and) the lame to go across  
a mountain.

ॐप्रणो देवी सरस्वती वाजेभिर्वाजिनीवती  
धीनामवित्र्यवतु ।

ॐचोदयित्री सूनृतानां चेतन्ती सुमतीनाम् ।  
यज्ञं दधे सरस्वती ॥ ४ ॥

4. OM. May Sarasvati, the Divine, protect us by her  
strength-giving favours, she who is rich in strength-giving

favours, the protector of our thoughts, Sarasvati, who inspires  
hymns and promotes pious thoughts, brings about our  
sacrifice.

ॐअसतो मा सदं गमय । तमसो मा ज्योतिर्गमय ।  
मृत्योर्माऽमृतं गमय ॥ ५ ॥

5. OM. From the unreal lead me to the real. From darkness  
lead me to light. From death lead me to immortality.

ॐसह नावतु सह नौ भुनक्तु सहवीर्यं करवावहै ।  
तेजस्विनावधीतमस्तु, मा विद्विषावहै ॥ ६ ॥

6. OM. May God protect us both at the same time; at the  
same time support us both; May both of us at the same  
time apply (our) strength. May our learning be illustrious.  
May there be no hatred (between us).

सर्वेऽन्न सुखिनः सन्तु सर्वे सन्तु निरामयाः  
सर्वे भद्राणि पश्यन्तु मा कश्चिद् दुःखमाप्नुयात् ॥ ७ ॥  
पूर्णस्व पूर्णमादाय पूर्णमेवावशिष्यते ॥ १ ॥

7. May all here be happy. May all be free from disease.  
May all see well-being. May nobody experience misery.

ॐशान्तिः । शान्तिः । शान्तिः ॥  
OM. Peace, Peace, Peace !



## A Message from the Founder

My dear young Students,

Welcome to you to the Institutions of the Vidyavihar !

Your finest hour is here. The future belongs to you. Let us all zealously work together and dedicate ourselves to build India of our dreams.

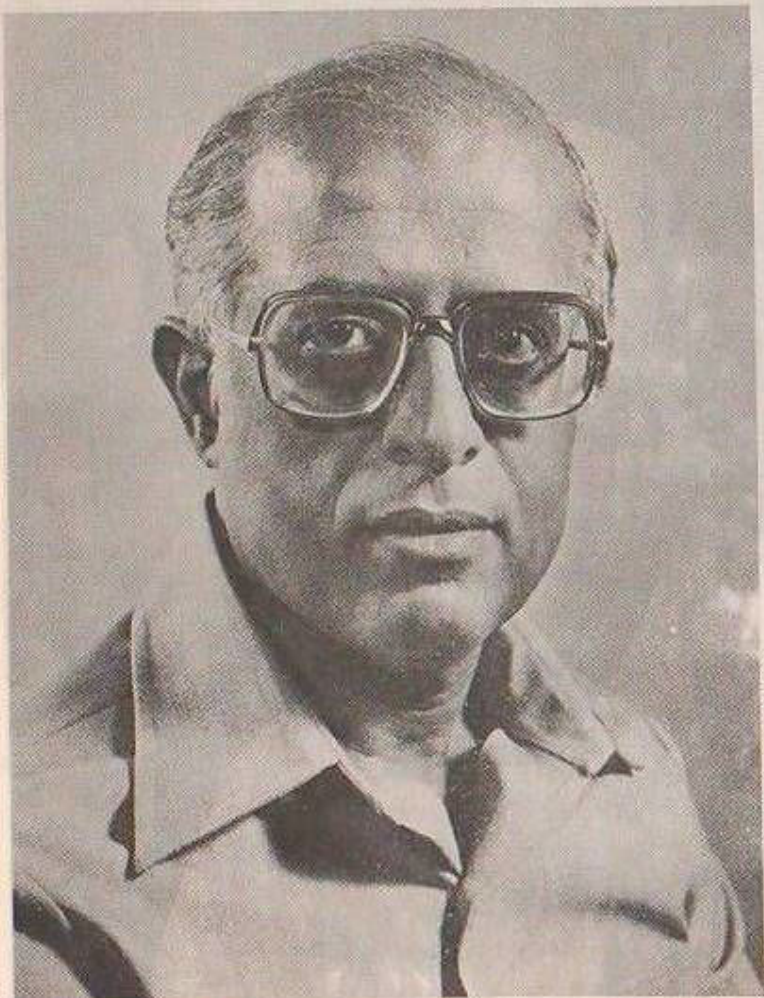
Remember, nothing was ever achieved without Hard Work. Be bold but be not bowled over. Let Truth and Duty be your watch-words. Never despair in the face of setbacks. Keep Courage and continue to work with Fortitude. Have Faith in yourselves and in the Almighty.

Strive for your Goals and the Future is yours !

Karamshi J. Somaiya



With deep sense of gratitude and humble dedication to our Founder  
**SHRI KARAMSHIBHAI J. SOMAIYA (CHAIRMAN)**



**DR. SHANTILAL K. SOMAIYA**  
**VICE-PRESIDENT**



**SHRI P.M. KAVADIA**  
**Jt. Hon. General Sec.**



**SHRI JAMSAHEB MUKADAM**  
**Jt. Hon. General Sec.**

... FIRST, THERE WAS ADAM .

THEN, THERE WAS EVE .

(Libbers, relax! Put away those knives. We'll have Eve first if you like.)

THEN, there were lots of other people.

In fact, at the last count, there were so many that everybody decided that something had to be done about it; so be prepared for sacrifices, everyone.

To resume, among these 'lots of people' was - is a handsome, platinum-hearted, conscientious (Flattery? Me? Don't be ridiculous Ghate, I'm just telling it like it is.) young man called Narendra Ghate who, as Magazine Secretary, thinks it is his duty to provide his trusting readers with a good magazine, and who is currently harrasing me to keep it short. I tried and tried to reason with him, I said, "Ghate, be sensible; why should we bother about these philistines who probably think 'George Bernard Shaw' is the name of some new software marketed by Apple or Orange or whatever". But, at this Ghate turned a deep shade of purple and began to sing 'Smoke on the ... no, I've confused him with the group.

What happened was, Ghate turned a deep shade of purple and screamed, "MY COLLEGE is not full of philistines.

MY COLLEGE is full of thinking, intelligent people - Hang on a sec, where do I fit in?..."

And we respect Ghate, you know; we at the Editorial bench. We have to, he hired us. So we decided that, this year, instead of the usual hash of scientific articles, computer-based poems, half-wit transistor jokes and cheerful sci-fi articles telling us how the machines are going to take over and rule us; we would have a hash of non-scientific articles, human-based poems, half-wit human jokes...

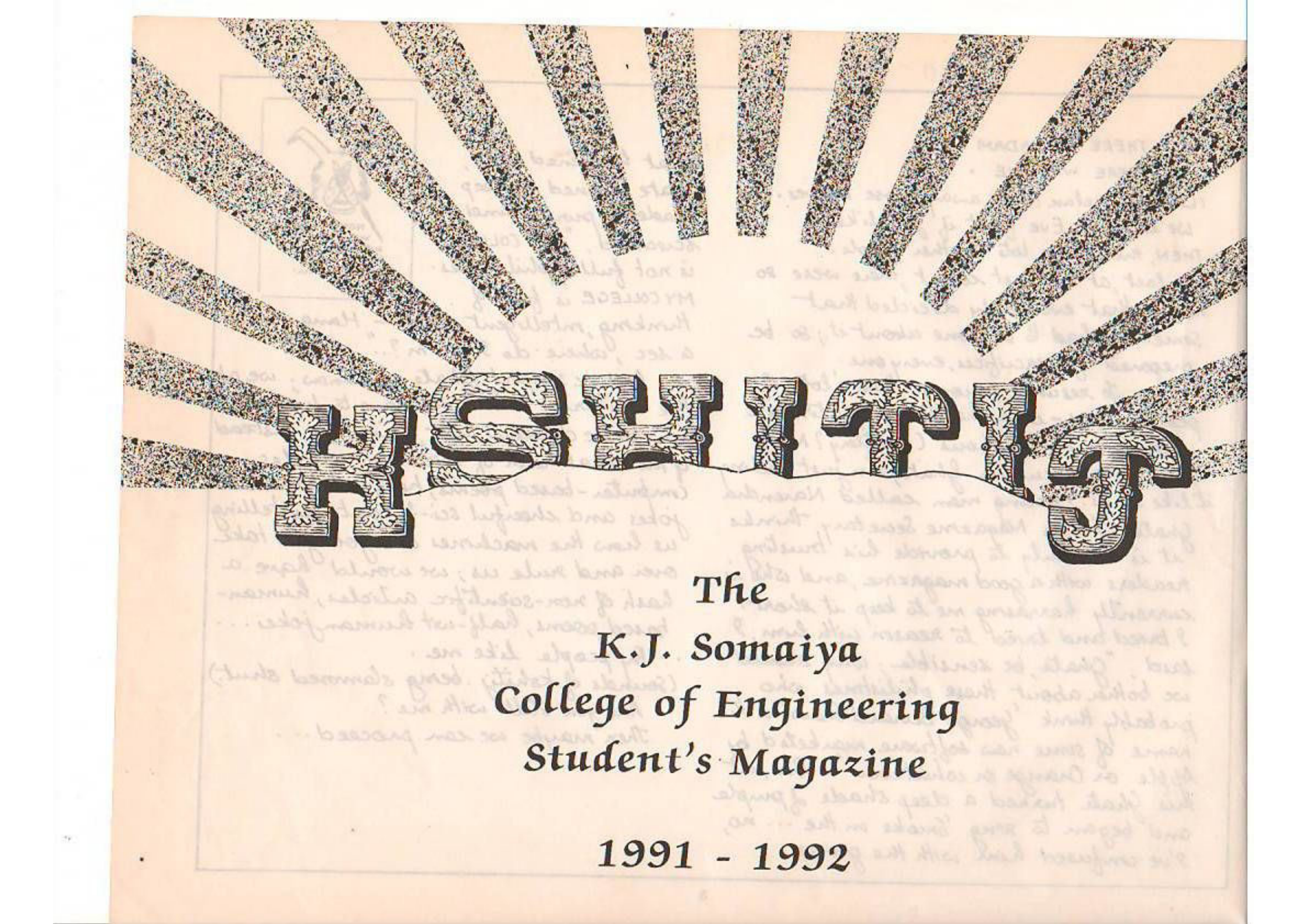
... By people like me.

(Sounds of kshitiy being slammed shut.)

Are you still with me?

Then maybe we can proceed...





# HSWTITG

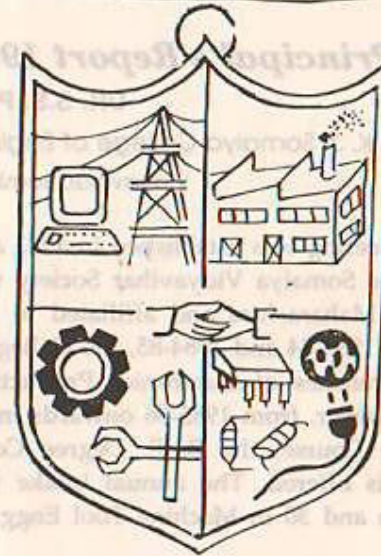
The  
K.J. Somaiya  
College of Engineering  
Student's Magazine

1991 - 1992

## REPORTS

Page No.

Dr. S.S. Padhye (Principal)	6
Prof. G. K. Sashte (Vice-Principal)	9
Sameer Modi (Gen. Sec.)	11
Rajesh Gangakhedkar (Gen. Sec.)	13
E.E.S.A.	14
A.M.T.E.S.	15
A.P.E.S.	16
ACHIEVER'S PAGES	17,18,19
FUNTIME	20
TECHNICAL SECTION	35
ADDRESSES	67



## LITERARY SECTION

ENGLISH	21
MARATHI	44
HINDI	55
GUJARATI	63



## **Principal's Report 1991-92**

**DR. S.S. PADHYE**

K. J. Somaiya College of Engineering  
Vidyavihar, Bombay - 77.

The College of Engineering was established in 1983 as a non grant-in-aid institution by the Somaiya Vidyavihar Society with the Sanction of Government of Maharashtra and affiliated to Bombay University. During the years 1983-84 and 1984-85, the College ran B. E. Degree Course in the branches of Electronics Production and Mechanical Engineering. However, from 1985-86 onwards instead of the Mechanical Engineering Course, the B. E. Degree Course in Machine Tool Engineering is offered. The annual intake is 90 in Electronics, 60 in Production and 30 in Machine Tool Engg.

### **Infrastructure - Building :**

The Building of the College consist of the Main building of ground plus 3 floors and a workshop building. The workshop building with Machine Shop, Carpentry, Fitting, Welding Shops and Heat Engines and Hydraulics Laboratories having a total area of 18000 sq. ft. was completed in 1986. Plans of the main building with its modern and unique architectural features were finalised after holding an Arch Design competition among a number of Architects. The ground floor of the building contains all the common facilities like Library, Computer Centre, Recreation Hall, Boy's and Girl's common rooms, Medical Centre, Badminton Hall, Canteen and an Auditorium. Keeping in view the interdisciplinary nature of the Engineering subjects and

also to prevent tendency towards compartmentalisation, all laboratories have been provided in one side of the building and the Lecture and Drawing Halls on the other side. There are 16 lecture halls, 19 Laboratories, 4 Drawing Halls and One Seminar Hall spread over the first, second and third floors of the building. The library is provided with a Mezzanine floor and a Cellar with provisions for Loan Sections, Reference Section, Newspapers & Magazines Section, Accession Room, Binding and Reprographic Section. The total carpet area of the building is about 12500 sq. m. The first & Second floors have already been occupied.

### **Computer Centre :**

The College has a good Computer Centre with PC/AC, PC/XT and PCs (totalling 6 nos.) operating as a Local Area Network System. In addition, the College has access to other extensive computer facilities in the Vidyavihar Campus in the Management Institute, K. J. Somaiya Polytechnics, SITTAR etc. Similarly the other institutions also make use of the College Computer facilities.

### **Faculty :**

The College has already recruited more than (65) qualified full time teachers in the various fields, but in order to provide the students with the benefit of Industrial, teaching and research experience highly qualified visiting faculty from the Industries and teaching Institutions is also employed, especially in the senior classes.

The performance of the students in the University Examinations has been commendable and the students who passed out from the College, many secured high ranks. Others details are given in the following text.





**Equipment :**

The College has adequate facilities for training of the students and the laboratories are provided with equipment as required under the AICTE approved model list. However, there is continuous effort to further procure modern laboratory equipment to give training to the students on a par with other established institutions. Total equipment worth Rs.90 lakhs is already available and further order of Rs.60 lakhs are being processed.

**Library :**

The College Library at present contains more than 8000 books for lending and relevance. Subscription is being made to 45 reputed foreign and Indian Journals.

**Placement :**

Every effort is made to arrange Campus and outside interviews for students for placement and training. Most of the students undergo practical training during their course. In the final year of the degree Course the students take up projects of relative to Industry and solve many live problems of the industry.

**Future Scenerio**

Along with the development in the whole Vidyavihar Campus, the K. J. Somaiya College of Engineering has plans to expand its activities in the area of continuing Education, extension of Degree Courses to other branches like Computer Engineering, Mechanical Engineering & Architecture and also to establish post-graduate course in Engineering.

The first year class started in July 1991 with the address by Shri Jamsaheb Mukadam, Hon. Jt. Secretary, Somaiya Vidyavihar. In his address to the students, Shri Jamsaheb insisted on the hard work and discipline necessary for the Engineering students and suggested that there is no limit for excellency.

The year the admission position was as follows :

July 1991-92

Marks out of 300

Courses	Seats	Maximum (0)	Minimum (0)	Marks out of 300	
				Maximum (SC/ST/DT/NT)	Minimum (SC/ST/DT/NT)
Electronics	90	284	275	210	164
Production	60	279	269	156	146
Machine Tools	30	274	267	154	142

The teaching staff position was also improved considerably as on 31.03.1992.

Department	Prof.	Asst		Instructors		Lab.		Registrar	
		Prof.	Lect.	Lab. Assl.	Foreman	Attds.	Hamal	O.S/Jr. & Sr. Clerks & Others	
Electronics	02	04	21	07	06	---	---	---	---
Prod/M. Tool	1 + 1	4 + 4	10 + 8	14	09	---	---	---	---
H. S. S.	---	---	08	02	01	---	---	---	---
Administration	---	---	---	---	20	---	---	---	19



Every efforts is made to fill up the vacant posts.

Our Final year Results have been encouragingly good in May/ July 91.

*Electronics* : 94% with 1st and 7th position in the University examinations out of 600 students

*M. Tool* 93.5% out of 60 students appeared

Finally I would like to thank all the members of the staff, without whose help thing would not have take shape as they are to-day.

The total number of students during 1991-92

Electronics :	453
Production :	271
M. Tools :	154
<b>Total</b>	<b>878</b>

The students associations namely EESA, APES, AMTES had started on time their activities and have also planned technical lectures, quiz contests and personality development programmes. Some industrial visits and tour were arranged. The Marathi Vangmaya Mandal presented a beautiful Marathi Programme.

The annual Social gathering was celebrated in the College Auditorium and Prize distribution for academic excellance was held in the Prayer Hall with Dr. S. K. Somaiya as Chief Guest and for all

other activities it was held in Seminar Hall with Shri D. R. Pradhan, Vice-President, Premier Automobile, Kurla, was the Chief Guest.

Even with busy schedule and round the clock time tables, submission and examination, I am very happy to note that all types of talents were shown in various programmes. Shri Dasgupta won the best Instrumental & Vocal Championship in Inter-University Competition. A lot of interest was shown in athletic and drama activities also.

This enthusiasm and encouragement was marred by the strike by Non-teaching staff for Bonus. However, it lasted for four days with a final settlement with the management.

It is said that behind every organisation there is a Man. Rightly so, behind Somaiya Vidyavihar's origin and growth was saintly Shriman K. J. Somaiya, the founder with the foresight and vision and the dynamic of Dr. S. K. Somaiya, the Vice-President of Somaiya Vidyavihar.

I Must also acknowledge the untiring efforts of Shri P. M. Kavadia and Shri Jamsaheb Mukadam, Hon. Jt. Secretaries of Somaiya Vidyavihar, whose untiring guidance has been a constant source of inspiration. These people really behave in true spirit of friend-Philosopher and guide. I really feel fortunate enough to have been associated with the group - a family.

I will be failing in my duty, if I do not thank the Teaching, Non-Teaching & Administrative staff for their sincere efforts and kind help in running the day-to-day affairs of the College. And, finally the student community in this college for maintaining the total disciplines in studies and also in social life.



## Report

PROF. G. K. SASHTE

The academic year started in the month of July 1991 with many new faculty members joining the department to strengthen the existing team. Prof. S. D. Joshi, Prof. Halbe & Prof. U. P. Chhatre joined as Assistant Professors in the department. Also Mrs. Phadke, Mrs. Degaonkar, Mr. Marathe, Mrs. Nair, Mrs. Prabhu, Mr. U. B. Joshi, Miss. S. P. Kulkarni, Mrs. R. D. Deshpande, Mr. S. S. Sahare joined as Lecturers.

A major step was taken towards the lab development programme during the current year. The 'Project Lab' was established to facilitate in house development of projects for the Final Year Engineering students. A step was also taken in the direction of the preconceived power Electronics lab by offering Power Electronics as an elective for Final Year students. The Computer Centre is expected to be full fledged by the introduction of 24 PC's/XT/AT and necessary peripherals, enabling about 30 students to enjoy the facility of one student per terminal.

In continuing with our tradition of encouraging faculty members to improve their qualification, Mr. S. S. Thakur & Mr.P.Y. Nageshkar were sponsored for undergoing M.E. (Electronics)

programme. Also as a part of 'continuing education programme' for our college, few staff members were sponsored for various seminars. Prof. A. S. Thosar, attended a one day seminar on 'Training for self-employment' at V.J.T.I. Mrs. R.D. Deshpande, Mr. S. Sheth & Mr. U. B. Joshi attended the seminar on TEACHING WITH CHARISHMA

Our students also enhanced the reputation of the college by giving a very good result. In May 1990 exams 68 passed and 43 bagged First Class. Mr. Manoj Soman topped the University with Mr. Manish Vyas ranking 7th in the University. The overall result of 94% is indeed very encouraging.

The E.E.S.A. along with other students utility activities conducted an industrial tour at Nasik for acquainting the students with the industry.

Our target for the future comprises mainly of developing an inhouse PCB fabrication Lab, Audio-visual Lab for supplementing the lectures with educational films. It is also proposed to conduct a seminar on 'COMPUTER AIDED DESIGN' to acquaint the faculty with the state of the art technology in this growing field. A target of expanding the computer facilities to conduct the practicals for 75 students interacting individually with the computer is on the cards.



Tact is a knack of making a point without making an enemy.

# Student Council 1990-91



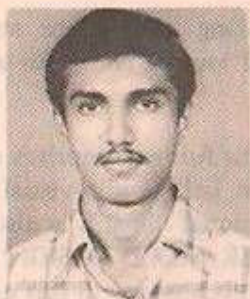
Sameer Modi  
General Sec.



Rajesh Gangakhedkar  
Cultural Sec.



Mahendra Mahajan  
Cricket Sec.



Sunil Akerkar  
Minor Games Sec.



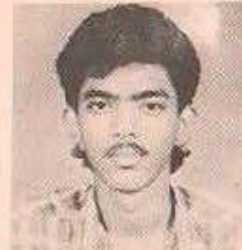
Melvin Pais  
Outdoor Games Sec.



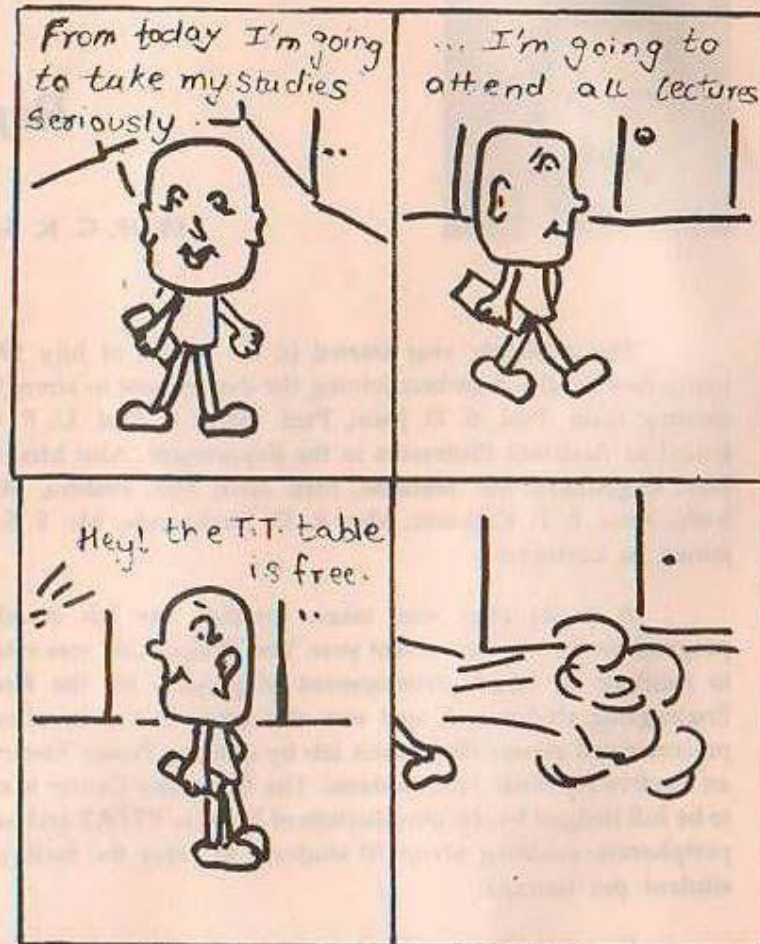
Sarthak Dasgupta  
Elocution & Debate Sec.



Meenal Kamat  
Ladies Rep.



Kshitij Keote  
Mag & Wall Paper Sec.



Early risers are conceited in the morning  
and fired in the afternoon.



## Students Council Report 1990-91

The academic year '90-'91 will go down as one of the most eventful years in the history of our college. The year started on a bad note, since the budget of the Student's Association was slashed to half as that of the previous years. However, due to their determined and persistent efforts, the Students Council members were successful against all odds.

The Association's activities started with the 'Freshee's Eve'. The active response of the first year students was an indication of their bubbling enthusiasm. This was followed by the Tie and Saree Day and the Rose Day. The persistent and long standing drinking water and canteen facility problems were resolved with the installation of the water cooler and a canteen in our college premises.

The Cricket Secy - Mahendra Mahajan, Outdoor Games Secy - Melvin Pais and Minor Games Secy - Sunil Akerkar organised cricket, football and table-tennis competitions at both, the intra and inter collegiate levels, all of which evoked enthusiastic responses. Our students also earned accolades for themselves, and the institution, by winning prizes at the Elocution Competition organised at the Tata Memorial Hospital, and also at the various inter-collegiate youth festivals which include Malhar (St. Xavier's), Mood Indigo (I.I.T., Bombay) and Horizon (R.A.I.T.).

Although due to lack of funds, a college magazine could not be published, the Magazine Secy - Kshitij Keote and the Elocution and Debate Secy-Sarthak Dasgupta, were very active. They conducted a story-writing, debating and Hindi and English elocution competitions. We also conducted a one day 'Personality Development Program jointly with the Rotract Club of Chembur, at our institution. All these events evoked an encouraging response.

The active participation of the girls in the various events was due to the sincere efforts of our Ladies Representative - Minal Kamat.

The K.J.S.C.E. opened its doors to all the other professional colleges by organising 'Symphony'- the Medico Engg. Youth Festival, which was the first of its kind in Bombay. This was possible due to the guidance and determined efforts of our Principal, our Chairperson, the teaching and non-teaching staff members and a very hard working and dynamic group of students. I wish to extend my heartfelt thanks to all the staff members and also to Vipul Shah<sup>2</sup>(Etx), Ajit Warriar, Ashutosh Bhale (both Production), Sachin Nirgudkar, P. Ramesh, Nilesh Shah and R. Kumaresh (all Machine Tools), along with all the unnamed students who worked with all the secretaries. Without their unflinching support, this dream would have never become a reality. On the occasion, the A.M.T.E.S. instituted a rolling trophy which was won by the Shah and Anchor College of Engg.

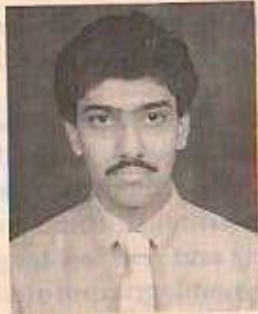
The spectacular College Annual Day was organised soon after, by our Cultural Secy-Rajesh Gangakhedkar and Jt. Cultural Secy - Altaf Khoja. We concluded the year's activities, by giving a Farewell Party to our final year students.

I express my sincere thanks to our Principals - Dr. S. S. Padhye, Prof. G. K. Sashte, the Chairperson of the Students Council - Mrs. N. M. Kumthekar, the Jt. Chairman - Dr. A. K. Choudhary, Mrs. L. R. Vyas and all the Staff Members, especially Mr. Shetty, Mr. Binny, Mr. Ashok and also to Mr. Safooskar and Mr. Mahadik, for their guidance and co-operation throughout the year. Also, a very special thanks to all the students, for their enthusiastic and active participation due to which this year has been one of the most memorable one for all of us.

SAMEER MODI



## Student Council 1991-92



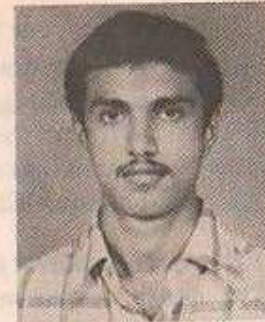
Rajesh Gangakhedkar  
General Sec.



Walter Menezes  
Cultural Sec.



Amogh Ranadive  
University Rep.



Sunil Akerkar  
Indoor Games Sec.



Vinay Samant  
Outdoor Games Sec.



Manoj Seth  
Minor Games Sec.



Anita Kembhavi  
Ladies Rep.



Sandeep Kale  
Cricket Sec.



Prashant Peres  
Elocution & Debate Sec.



Rahul Palkar  
Athletics & Aquatics Sec.



Amod Thatte  
Youth Festival Sec.



Narendra Ghate  
Mag. & Wall Paper Sec.



### Overview - College Report

Slowly, but surely Sunny managed, to penetrate the unwilling and reluctant monsoon clouds to shed his early morning light on earth. Majestically, as always, he prepared to set out on his cosmic path, when he took a cursory look below. He stopped dead in his track and his seven horses turned their heads backward angrily, at having been brought to halt so abruptly. But Sunny had no time for them. He turned to the Moon who was cozily placed in deep interstellar space.

"Hey Moonie!" he called out "Could you tell me what's going on down there?"

"Where?" Moonie asked, "You mean in the building under construction with a wall coming up in front of its staircase?"

"That's right", Sunny bellowed "KJSCE isn't it?"

"Yes," Moonie replied, "This much I can tell you Sunny, you have missed a lot of fun while you slept through the night. What you see down there... those banners et al, with so many people walking up and down the corridors, speaking in so many classrooms, shouting all sorts of slogans and pasting the walls with posters. is called ELECTIONS!"

"Elections? It looks more like Hellections to me," replied Sunny.

"For those standing for the various posts, it sure is. But can't you see the amount of fun the others are getting out of it?"

Sunny agreed. "Well then, let's make a deal. You stay just there. Then I'll be able to stay here and see the fun without being blinded by your brilliance. Done? "Done!" And so it came to pass that both the sun and the Moon stayed overhead and watched the elections. But it does not end there because activities follow activities and if somaiyies were kept agog and active by them, so were the heavenly bodies.

#### Grand Welcome

As soon as the elections got over, the first objective was to recognize the abilities and talents of the freshers - the real wealth of an educational institution and to provide the proper atmosphere so that the latent talents

are tapped. A blood donation camp was organised under the guidance of chairperson Mrs. N. M. Kumthekar. Over 100 bottles were collected. (Some of it is mine! - Ed.) Carrom and Chess and interclass cricket tournaments were also completed in the odd semester alongwith the Rose Day, Ribbon day, Eclair day.

#### The Even Semester

..... brought with it many promises. The campus interviews started with a boom with printed bio-data's for 1st time in college history. The inter branch cricket tournament was won by Production team with Electronics runners up with all die-hard departmentalists fighting in the right spirit. The Traditional day saw participants for the 'Best Dressed' Male and Female packing out in the quadrangle which was a welcome change from the seminar hall followed by a grand musical orchestra by Marathi Vangmaya Mandal. The inter-Engg. cricket tournament was played at Shivaji Park with Fr.C.R.C.E. emerging victorious & MGM finishing second. Certificates were handed over to both teams right after the finals.

In continuing with our tradition, our college too actively participated in various intercollegiate youth festivals and competitions and won prizes. The prominent among them are

MALHAR - organised by St. Xaviers.

AARAMBH organised by T. N. M. C.

SPACE organised by S. P. C. E.

HORIZON organised by R. A. I. T.

And finally we had THE SOCIAL which featured a play, 3 dances, a special item instrumental performances and so odd singers well supported by the Orchestra Creators by Kedar Bhagat. (One interesting & encouraging fact was the presence of Principal Dr. Padhye throughout the Social Programmes from start to finish. We thank him for his valuable championship of social activities three cheers!)

**Rajesh Gangakhedkar**



## E.E.S.A.

### About us

## Report

The Electronic Engineering Student's Association (E.E.S.A.) was founded in 1987 & it's objectives are :

- ☐ To make it's members aware of the changing scenario in the field of Electronics & it's allied industries.
- ☐ To generate interest among the students towards the subject.

E.E.S.A. has always strived towards activities that have the essence of knowledge and information.

In order to enable students to be familiar with the industry and it's working, E.E.S.A. had organised an industrial visit to Nasik, during which the students visited ten units, including Crompton Greaves.

The Association had also organised classes for it's member in 'UNIX AND C' which has proved to be very beneficial.

The E.E.S.A. magazine 'Periscope' has proved to be a very effective medium for students to communicate their ideas to each other. The magazine, introduced with the main aim of acting as a practical supplement to the student's academic knowledge, has proved to be an excellent medium for students to display their creative talent and at the same time help them to keep abreast of the latest developments in technology.

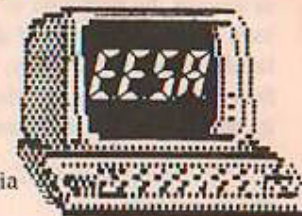
The E.E.S.A. had also organised it's annual festival 'ELECTRO FIESTA', the first of it's kind in the college for the past two years. This festival, which aims at bringing out the hidden creative talents of the students, received an overwhelming response, from the students and was a grand success. Besides, the 'Group Discussions organised by E.E.S.A. has also evoked a very positive response from the students.

Our organisation E.E.S.A. has been making great progress under the chairmanship of Prof. G.K. Shaste whose vast experience and continued guidance have served

as a light house to us. Our special thanks also goes out to Prof. Halbe and Mr. Rajesh Patkar for their support and guidance during the I.T.

The office bearers of EESA stand as below A

Dr. S. S. Padhye	-	President
Prof. G. K. Shaste	-	Chairman
Additional Jt. Sec.	-	Kunal Shah
		Hemant Mandavia
		Prerak Mehta
		Meenal Kamat
		Nandita Patkar



The organisation has grand plans for the years to come. We look forward to your suggestions, criticism and whole hearted co-operation as we march forward

*Toward Higher Logic Levels.*

*Walter Menezes*



**Navin Parmar**  
Joint Secretary



**Walter Menezes**  
Treasurer



**Ravindra Mundhe**  
Joint Secretary



**Sonitkumar B. Jain**  
Joint Secretary



## A. M. T. E. S.

(Association of Machine Tools Engineering Students)



Sachin B. Nirgudkar  
(Joint Secretary)



Nilesh N. Shah  
(Joint Secretary)



Ramesh Padmanabhan  
(Joint Secretary)



Rajeev Menon  
(Treasurer)

An association of the students, for the students and by the students-that A.M.T.E.S. for you.

The idea of forming the association was conceived about two and half years ago, with an objective of pooling in the thoughts of all the machine tool engineering students and forming a common platform for the blossoming of this relative new field.

A.M.T.E.S. has been constantly striving hard to obtain its goal, 'of overall development' of each student, in the academic field as well as in extra-curricular activities. Machine tool is a relative new and fast progressing branch, hence we have tried to expose the students to the various practical realities, by arranging industrial

visits and tours.

The association's first endeavour was a film show on 'drawing fundamentals' and production processes'. After this morale booster, A.M.T.E.S. took a giant leap forward by organising a one day seminar on 'Entrepreneurship', on 7th Oct.'90 and was formally inaugurated by the finance minister Mr. Ramrao Adik. The speakers included Mr. Dandekar from Camlin, Prof. Chandram from Somaiya Management Inst. and Mr. Mehta from N.M.I.M.S. A lecture on the prospects of Machine Tool Engineering in India was delivered by Dr. Ramakrishna of I.I.T. (Powai), which was of special interest to the first year's as it cleared any doubts they had about their

future in Machine Tools.

The wall paper of A.M.T.E.S., 'Edges', has been a constant source of information about the latest trends and developments in various fields. It also incorporates non-technical articles like puzzles, queries, riddles and sketches.

A.M.T.E.S. organised an industrial tour for the T.E.'s from the 25th to 28th Oct. '91. They visited many large scale industries like Bajaj Auto Ltd., Telco, Mahindra Sintered, Atlas Copco etc.

Recently, on the 6th March '92 a 'Spot Debate' was organised, which received a tremendous response. One more feather was added to the A.M.T.E.S. cap, when the youth festival, 'Fest-O-

Mania was organised along with A.P.E.S. and held in our newly constructed auditorium. It was formally inaugurated by our principal Dr. S. S. Padhye, our H. O. D. Dr. S. Munshi and others also encouraged us with short speeches. There was enthusiastic participation in all events and the winners were awarded attractive prizes.

After the stupendous success of Festo-O-Mania we are planning to hold a lecture on post graduate courses, personality development, computer familiarisation and interaction with industries.

We look forward to your suggestions and whole hearted co-operation as we march forward towards higher goals.



**Joint Secretaries**



**Oliver Miranda**



**Ajit Warriar**



**Shashank Kotwal,**



**Samir Vakilna**  
(Treasurer)

**T**he Association of Production Engineering Students was founded on 2nd Sept. 1986 with the aim of making a better production engineer out of each student.

Objectives were set as :

- to create a common platform for prospective Production Engineers, so as to achieve greater co-ordination between them and to expose them to the various facets of practical life in the industry.
- to provide a common forum to its members to exchange their ideas and views.
- to create opportunities for Engineers to develop their personality and character.

In this aim, the association organises various activities like industrial visits, Film shows, Technical sessions, Personality development programmes, Contests etc.

What stood out were the visits to diverse and renowned companies like L & T, Mukand & G. K. W. in Bombay and Kirloskar & CO in Pune.

Also, seminars like the one on 'Computers in Industry' organised in 1988 & the one on 'Entrepreneurship' in 1990 were well received.

The A.P.E.S. Bulletin has been brought out from time to time so as to enable the members to exchange ideas with their colleagues.

The A.P.E.S. notice board has been the focus of much attention from the members due to the informative & interesting articles put up in it. We invite continued contributions for the same.

Of particular interest has been the Quiz and Whats the Better Word, Conducted by A.P.E.S. The recent organisation of Fest-O-Mania along with A.M.T.E.S. was intended to give all the students of our college a chance to develop and display their skills in the extra-curricular field.

We hope that the future members and Joint Secretaries would build up the Organisation to greater levels of glory. We would like to express our sincere appreciation for the efforts put in by our ex-executive member as well as former G. S., Samir Modi, To our H. O. D. & Chairman Dr. Munshi, Prof. Ramaswami and Mr. Binny from the office.

The activities planned by A.P.E.S. depend on active participation, suggestions and criticism from you. We look forward to your whole hearted co-operation as we march forward.....

IN SEARCH OF EXCELLENCE

By the Executive Members of A.P.E.S.





### Sarthak Dasgupta

So what if I didn't top the F. E. Exams? At least I know Sarthak Dasgupta.

..... Ans that, believe me is something. Born 22nd March, 1971, Sarthak was lead to K. J. S. C. E. by fate or by The Bombay University or perhaps, both; but this wasn't the greatest achievement in his life. Not by a long shot.

Remember, we are talking about a person who won his first singing competition at the tender age of six (at Rabigectika, 1977; where he was placed first). For 'Rabindrasangeet' when most of us were learning to croon 'Jack and Jill'. Since then, he has won 66 music contests (as far as I know, unless he's won a few since I began to write this - you never know) in all possible styles Rabindrasangeet, light classical, classical, sugamsangeet, Bhajan, you name it! As a student of our college, he has won 32 contests including Mood Indigo (89-II), Malhar ('89, '90, '91 - I), All India Late Kishore Kumar Memorial Intercollegiate Music Comp, Bombay University ('90, '91 - I), Sangeet Research Academy ('91 - I), and he actually represented Bombay University in the National Youth Festival held in Nagpur in 1991 and in Benarus in 1992 - and won both! and these are just a few of his victories in the classical style. Plus infinite prizes in light classical at contests organised by big organisations such as the Rotoracts, A.I.R., and more colleges than you'd think we had in Bombay.

This prodigy, pride of our college was - is trained by Pandit Pradeep Chatterji. He must be a pretty happy man. Most people who hear Sarthak sing usually are.

He's leaving this year and many of us probably won't hear him sing again, unless it's on T.V. (He has been on T.V. incidentally at the age

of 10) But I suppose his voice will always linger.....

### Manoj Soman :

And some one else who has been whistling one of Sarthak's tunes on his way to get the Bombay University Results (and how many of us can really do that?) is Manoj Soman who has topped the exam results in a phenomenal style.

Starting from year 1 when he walked off with the 1st rank in Bombay University and that too with a total 50 majestic, I am sure the next years papers were assessed in a more tougher fashion. This personality (read percent-ality) maintained a unbeaten track record of laurels and achievements which ultimately terminates with his being crowned the unopposed topper of the B.E. in the final year exams. He has also struck gold in the GATE exams and has come 7th in the Western region.

Hats off then to this genius who has by his achievements brought price and prestige to the past, present and future of this college

"Oh! What a Manoj"

### Rahul Palkar :

An unbeatable enthusiast who has made a place for himself in the university water polo team and who has been instrumental in organising the athletics meet this year (besides studying in S.E. (M.T.) is Rahul Palkar.

Add to this the fact that he has won a medal in a national meet and has also been a regular face in all the extra curricular events organised so far.

This is indeed a achievement that deserves compliments from all of us.



## List of Achievers

Achievers	Events	Rank	Achievers	Events	Rank		
Prashant Peres	Sky's the limit (Symphony - 91)	1st	Atul S.	Builder's Association	3rd		
	Builder's Association (E.C.)	2nd		(E.C.)			
	Press Conference (Aarambh 91)	2nd	Atul S.	M. C. Chagga Elocution	2nd		
	Hash Clue-Em (Horizon)	1st					
Gaurishankar	Instrumental (University) (Taal Vadya)	3rd	Atul S.	Mahatma Education Society Elocution	1st Consolation		
Dilip Pai	} Quiz (Rait)	1st	Atul S.	A. D. Shroff (E.C.)	Consolation		
Suresh P.							
Makarand P.							
Prashant P.	} Connections (Rait)	1st	Meenal K.	A. D. Shroff (E.C.)	3rd Prize		
Walter M.							
Vikrant	} Collage (Rait)	2nd	Meenal K.	Vivekananda Youth Forum (E.C.)	3rd Prize		
Manish							
Shankar G.	Musical Collage (Rait)	2nd	Meenal K.	Tata Memorial Blood Bank	2nd Prize (E.C.)		
Milind W.	} Hash (Rait)	1st	Pradeep	} Visual Impact	1st Prize		
Dilip P.						Nalin	
Kundan S.						Anantha	
Prashant P.						Vibhisha	
Hatim M.						Geeta	
Walter M.						Walter	
						Mohnish	
		Jeetendra					
Kundan S. (Best Speaker)	} Debate (Rait)	2nd	Archana	} Vegetable Painting	2nd Prize		
Atul S.						Arvind	
			Ganesh				
Kundan S.	English Extempore	2nd					
Atul S.	Tata Memorial Centre	2nd	Venkatesh	Debate (Aarambh '91)	2nd Prize		



# TOPPERS

1990 :

*etx*

1. *Rajesh Patkar*
2. *Salil Joshi*
3. *Khore Mukesh*



Rajesh Patkar

*prod*

1. *Kacholio Ashish R.*
2. *Kochhar Parambir S.*



Salil Joshi

*m/t*

1. *Mesina Omez S.*
2. *Pai Ashok Ganesh*

1991:

*etx*

1. *Soman Manoj*
2. *Vyas Manish*



Manoj Soman

*prod*

1. *Ravi Ganesh*
2. *Iyer Sriram*



Ravi Ganesh

*m/t*

1. *Thakkar Hitendra*

A honeymoon is a vacation a man takes before starting to work for a new boss.

# FUNTIME

M	A	G	N	E	T	E	C	O	D	E	B	Y	T	E	P	O	W	E	R
D	A	T	A	B	A	S	E	P	L	A	I	I		N	D	P	R	W	O
V	M	G	U	N	N	D	I	O	D	E	T	G	A	G	I	C	I	A	B
M	U	T	N	E	T	W	O	R	K		D	T	R	I	A	C		V	O
M	D	T	L	A	N	P	N	A	T	O	M	W	C	N	C	I	A	E	P
F	E	L	E	C	T	R	O	N		U	J	T	P	E	R	R	I	G	E
B	I	A	S	G	T	R	I	O	D	E	B	A	S	I	C	C	P	U	N
E	S	T		S	D	I	O	D	E	C	R	O	M	B	N	U	N	I	T
E	T	H	M	O	T	I	O	N		L	V	D	T	R	J	I	P	D	O
P	A	E	A	P	A	S	C	A	L	O	D	B	A	S	E	T	F	E	D
E	R	S	S	P	A	C	E	T	V	A	T	A	D	C	C	I	I	D	E
R	T	T	S	C	A	M	E	R	A	D	A	R	A	U	H	I	L	P	P
O	E	A	O		V	M	F	A	M	T	I		C	V	O	L	T	S	R
T	R	T	N	L	D	R	O	N	P	A	R	I	T	Y	H	A	E	C	O
O	S	O	I	A	R	B	R	S	L	I	N	E	A	R	M	G	R	R	L
R	I	R	C	S		C	T	I	I	M	E	M	O	R	Y	K	U	M	O
L	G	E	L	E	A	D	R	S	F	A	O	A	D	A		F	S	K	G
I	N	M	D	R	A	M	A	T	I	G	R	I	D	D	R	E	L	A	Y
S	A	F	O	C	U	S	N	E	E	E	P	R	O	M		T	L	U	
P	L	C		Z	E	N	E	R	R	A	M	O	T	O	R	U	N	I	

FIND THE TECHNICAL WORDS & SHORT FORMS.  
HIDDEN IN ABOVE SQUARES. (NO. OF WORDS - 99)

- |            |            |         |
|------------|------------|---------|
| MAGNATRON  | CGS        | LED     |
| ELECTRON   | MKS        | TWT     |
| LATHE      | LINEAR     | ATOM    |
| TRIODE     | PLA        | LAG     |
| DIODE      | CRO        | IIL     |
| MOTION     | PASCAL     | BEEPER  |
| MASS       | FORTRAN    | LEAD    |
| SPACE      | BASIC      | IMAGE   |
| SCANNER    | ADA        | MAGNET  |
| NMR        | AMPLIFIER  | ENGINE  |
| LDR        | MMF        | ION     |
| VDR        | BJT        | RAM     |
| GUNN DIODE | UJT        | EEPROM  |
| NETWORK    | BCD        | PROM    |
| LAN        | MTI        | ROM     |
| TTL        | ECHO       | VOLTS   |
| DTL        | AI         | MEMORY  |
| ECL        | PROLOG     | SCR     |
| DATA       | LISP       | BIAS    |
| DATA BASE  | EDP        | RELAY   |
| YIG        | FOCUS      | LOAD    |
| BYTE       | EMF        | PARITY  |
| BIT        | GRID       | CNC     |
| DVM        | AC         | ARC     |
| LVDT       | DAC        | TRIAC   |
| RVDT       | ADC        | STARTER |
| PNP        | CIRCUIT    | STATOR  |
| NPN        | TV         | PC      |
| DBASE      | TRANSISTOR | PPI     |
| RADAR      | PLC        | MOTOR   |
| ROM        | FET        | ROTOR   |
| CRC        | PIN        | FILTER  |
| ROBO       | UNIT       | ZENER   |

OFFICIAL MAGAZINE  
↓ COMMITTEE MEETING  
SPOT

↓ AM 04 P. SAT HERE!

and you thought walls were straight?

everything  
i do

ANOTHER  
BRICK  
IN THE WALL?

the lunatic  
the lunatic

conserve energy. eat more  
is in the lab  
got no class - MW

6:15, MW

GOD IS DEAD!

I WAS HERE

STICK NO B

NIETSCHE IS DEAD

6:15

7:30

NIETSCHE IS DEAD  
GOD

I ♥ KJSCE

where's the  
psychiatrist?



so certified by Bombay Civil Supply  
I don't know what to do  
to feel that warm thrill  
FLOYD

ELVIS

POOJA BEDI FOR  
PRESIDENT

SHOOT THE  
POETS

Yes sir! we want  
some strong birth  
control measures.

**ARTICLE****WRITER****PG. NO.****PROSE**

ZORTON NORTON'S INCREDIBLE ESCAPE  
SOMAIYAITES AREN'T CRAZY  
GHASTLY COLLEGE MURDER  
CALANGUTE CHIMERA  
LAW'S OF PROJECT COMPLETION  
THE ROOF OF THE WORLD

DILIP PAI 21,22, 23  
NANDITA PATKAR 23  
LYNDON CEREJO 24  
KAVAN MUKHTYAR 25,26  
RAVINDRA MUNDE 27  
PRASHANT PERES 28

**POETRY**

LIFE  
YOUTH V.S. MIDDLE AGE  
IS THIS LIFE ?  
DEATH  
TODAY IS ANOTHER DAY  
THE STRUGGLE  
FEAR  
ELEGY ON THE DEATH OF THE CANINE FRIEND  
THE LEGEND OF THE LIZARD KING

PROF. R.G. KARANDIKAR 29  
RAJESH JAGASIA 29  
ANANTHA 30  
KAVAN MUKHTYAR 30  
ATUL SETHI 31  
BHAGWAT K. B 31  
DILIP PAI 32  
YOGESH ANVEKAR 33  
VASEEM SHAIKH 34

**TECHNO SECTION**

TAGUCHI METHODS FOR QUALITY CONTROL  
DELEGATION : KEY TO MANAGING MANAGEMENT  
THE INTELLIGENT MACHINE  
AUTOMOBILE AERODYNAMICS & FUEL CONSERVATION  
1991-92 : THE ACADEMIC YEAR THAT (NEVER) WAS

CHANDAN GOKHALE 35  
SACHIN NIRGUDKAR 35,36  
NEELESH RANGNEKAR 37, 38, 39, 40  
PRASAD WAGLE 41  
DILIP PAI 42, 43



Life!



"I want fire-proof sarees for my daughter. I am not giving her any dowry!"



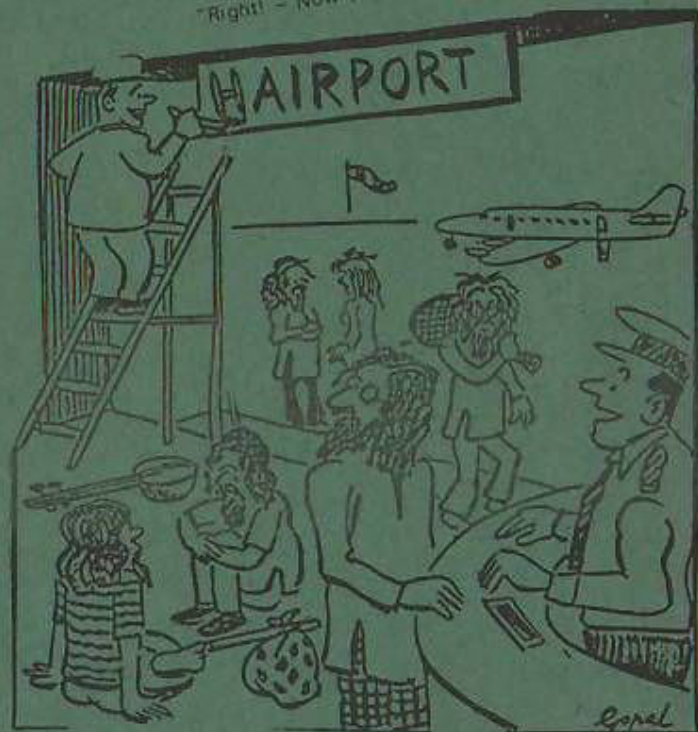
"They've been striking me for years!"



"Right! - Now empty the other pocket"



"Dammit! - You're overloading again, Fudwell!"



मराठी

लेख	लेखन/संकलन	पान क्र.
१) आपले वाङ्मय नदळ	विनायक वागळ	४४
२) वादळ	महेश जोगळेकर	४५
३) गंमत-जमत ओळखा पाहू	अमोल दळवी	४६
४) वात्रटिका	प्रा. र. गो. करदीकर	४६
५) भारतीय-संघाशी राष्ट्रीय व आंतरराष्ट्रीय संबंध	अमोघ पाटणकर	४६
६) याला जीवन ऐसे नाव	उमेश लाडिवे	४७
७) उत्पातुबंध	अमित चावरे	४७
८) कुर्यात सदा दिगलम्	जफर पटेल	४८
९) चार ओळी	पराग पत्की	४८
१०) आजची वैश्वशिक स्थिती	महेश लिमये	४९, ५०
११) हस्तू	मयुरेश नागकर	५०
१२) माझ आवडता कवी	विनय खरे	५१
१३) यमदूत	मंगेश प्रोक्वशी	५२
१४) वात्रटिका	अमोघ पाटणकर	५२
१५) अबर ही कविता	मिलिंद काळे	५३
१६) इच्छा	जफर पटेल	५३
१७) हुडाबळी	मिलिंद काळे	५३
१८) मुसाफिर	प्रा. संगीता कुलकर्णी	५४
१९) निवडणूकायन	प्रा. र. गो. करदीकर	५४

हिंदी

१) कित्से महान कहे?	शिवमणी त्रिपाठी	५५
२) हंसना मना है	शिवमणि त्रिपाठी	५६, ५८, ५९, ६२
३) नाभिकीय केमरा	शिवमणि त्रिपाठी	५६
४) संग्रह	सारिका मिश्रा	५७
५) दित एक TRANSISTOR	शिवमणि त्रिपाठी	५८
६) ड्रूम, आतंक और ज्ञान	शिवमणि त्रिपाठी	५९
७) तुझे कसम है	अशोक कुमार शर्मा	६०
८) फूल और काटे	राजेश बगेशिया	६०

गुजराती

भुवचल	मनोहर डोडादी	६३
अहर्षो	भंडिम शाह	६३
छवन्मंत्र	नरपदीप पाठक	६४
प्रेमनु तर्पण	प्रेरक भडता	६५
बाईबेरीमां ओक वटार..	नरपदीप पाठक	६६



Zorton Norton's Incredible Escape....  
 .... From The Clutches of the Jolly,  
 Green Monster.

It was a warm summer day, with temperatures touching 150°C in the shade, provided, of course, you could find any. Zorton was pacing, but not very happily, the floor of the trench he had been ordered to guard. It was three weeks since that stupid old lady had got hysterical in the military head-quarters, babbling about some stupid U.F.O. she had seen landing in the canal. Stupid old hag. I mean, didn't everybody know that that stupid green planet was too close to the sun to possibly rear any kind of life-form? Any intelligent kind of life-form, at any rate. But no! Marshall didn't want to listen to Zorton, Marshall didn't care. Nobody cared. Nobody gave a damn but Zorton, because Zorton was the one who had to look out for the stupid U.F.O., which he didn't believe in in the first place.

His thoughts were interrupted-which was rather good, because all that (justifiable) anger could surely not be very good for a Martian with a heart condition like his-partly because he had inadvertently stumbled into a ditch, and partly because he had heard a rather loud noise, though it was nothing compared to those made by the hard-rock band his son had founded.

"Stupid kids", he thought grumpily, rubbing his knee; "... and of course they had to pick my house to practise in." His rather meandering thought stream was cut off for the second time in five minutes, this time, by a tap on his shoulder followed by an "ahem, excuse me..." Zorton swung his massive body around after a short delay in which he pondered copiously how best to perform that motion; just in time to see a man dressed completely in white taking

off his head.

At that instant, the sun set on Mars, for a brief instant bathing the land in such glorious light as to make you wish that you had brought along your camera or paintbrush, or toilet paper, or whatever, depending on the effect sunsets have on you, but it was all wasted on Zorton because, for the first time in his life (if you don't count the first time he heard Priest - that was his son's band-playing), he fainted.

That is precisely why the Pentagon had pleaded with Ronald Reagan to not go on the Mars-space mission.

\* \* \* \* \*

Back home, the Americans gloated over their find. Well, as Bush said, "All that the Russians got from Mars was soil samples. And look what we got...". The Russians who had already met the Martians sniggered away quietly behind the Iron curtain.

In the Whitehouse, a pleasant, homely scene met the eye of any observer. Quite useless, in fact, for there weren't any. Except the F. B. I. And the C. I. A. and the K. G. B. and .... " .... and they actually greet each other by falling flat upon their backs!" an excited Ronnie told a not-so-excited-anymore Nancy for the seventeenth time. In fact there was no Earthly, or even Martian (snigger!) reason why he shouldn't say it again, he reflected; so he did.

The Whitehouse staff reported a lot of clattering of dishes and screaming sounds from the President's bedroom.

Edgar Rover was feeling extremely distressed. If there was a God, and if He had a bit of spare time for him, Edgar Rover could He answer his, Edgar Rover's one humble little question? :!@#%^&\*!?!".



I mean, why did it always have to be him? There he was, star agent for the C. I. A. And double agent for the K. G. B. And triple agent for the Circus. Didn't he work harder than Reagan, Gorbys, Thatcher and Iacocca (who's there only to lift the average to some decent level) put together? And what do they give him for that? The job of guarding some loony Martian that Ronnie had picked up somewhere, where exactly he couldn't recollect at present; and who probably couldn't even speak English, anyway. Well, neither could Ronnie, but Rover didn't have to guard him all day. Just like Zorton, earlier on in this narrative (seems like ages, doesn't it?), Rover's thoughts were interrupted, though for far less startling reasons. There would be a time when Ronald Reagan would favour Rover with that smile which made Zorton faint so alarmingly, but this was not the time. "Where am I", Zorton demanded in perfect English (English is an alien language, don't you know?). He stretched and yawned while glancing around the shabby room, wincing as his eyes fell on a Japanese papier mache 'Buddha' that Rover had bought, surprisingly enough, in Japan and which, not so surprisingly, told you the meaning of life if you cut the infra-red beam emitted by its eyes.

Zorton, who was still quite groggy almost fainted again on seeing Rover (wrongly) under the impression that it was Reagan. Rover hastily pushed a glass of Brandy into his hand. Zorton immediately gulped it down, burned his throat, and gave out a blood-curling scream making Rover jump out of his skin. Well, almost.

"Why'd you do that?", Rover snapped. Zorton, in the meantime, was rolling his eyes, clutching his throat and hopping around the couch on one foot. After a while, he realised that it was tiring him, his feet hurt and his throat wasn't burning anymore, anyway; so he sat down primly on one edge of the couch. Rover, who had been watching these antics with some disgust, rolled his eyes Heavenward

in a last appeal. He closed his eyes, hoping fervently that when he reopened them, this stupid little squirt (quite a bad description of Zorton, by the way; he was built closer to a musk-ox) would be gone. When he did open them a few seconds later, Zorton was, in fact, gone. And so was the Brandy.

Having escaped from that grumpy monster, Zorton ran in the direction he thought most likely to lead to Mars. More often, though, it led to the cemetery through a rather complicated process involving black-jacks, muggers and ambulance drivers who can't wait for you to shout for help, so they can practise their low-altitude flying, which is all that they really want from life; by using your body as a take-off ramp.

Zorton ran straight into an alley and stopped. He had to think, you see, and to a Martian, running and thinking are entirely different processes and not combinable at all. When he was thus engaged, an alley-cat (of the two-legged kind), surprised that anyone should venture so far into his territory, affronted him with a broken bottle; the hallmark of the Washington mugger. It hurt his finer feelings to see someone so sickened with life; but business is business, so with a sigh, he brought the bottle crashing down on Zorton's head. It must be said at this juncture that Zorton made remarkable use of his head; as the broken pieces of glass plainly showed. Quickly intuiting that this was the Earthman's way of greeting him, he reciprocated by smashing his bottle on his new friend's head. However, to his great dismay, the chap seemed to have taken offence; for he just lay quiet and refused to say another word. So Zorton gave up and resumed his endeavour to get back to Mars.

The rest of the story is legend: About how a Delta Airlines flight running between Washington and New York was just about to



### CALANGUTE CHIMERA

The F. E. exams were just over and the nightmarish thoughts about the results had just begun. So one evening, as we sat chatting at a friend's place, Digant, Hemant and I decided to go to Goa to shift our minds from engineering curves to more natural ones.

Calangute ! A vacationer's paradise ! But little did we know that a nightmare awaited us here too.

One evening we were returning to the hotel after a stroll on the beach, when we ran into one of our classmates, D and his friends P, M and some others. They too were staying at the same hotel so we decided to have dinner together. It was at the dinner table that the nightmare actually began. As we talked nineteen to the dozen, Digant and D had a heated discussion on 'The Spirits of the Dead' and whether we could communicate with them. While D and P were staunch believers, Digant was sceptical and scoffed. So to prove their point, D and P decided that they would perform a 'Planchette'.

It was a dark windy 'Amavasya' night, perfect atmosphere for a communion with the world of the dead. As the nine of us entered our room, it was almost midnight. Following D's instructions we closed all the windows and drew all the curtains

to eliminate disturbances from the Human World. We all sat around the dial in a circle and three of us put our index fingers lightly on the coin. Suddenly a soft, almost whispering voice arose in the room. 'Oh ! Good Spirits from the seventh heaven please come to this coin.' It was D with firmly closed eyes, trying to concentrate hard. All the lights were switched off and a small torch in my hand was the only source of light. All of us listened quietly, but apprehensively. Even the rustling of the curtains and the whispering of the sea breeze far away tensed us up.

It was quite accidentally that I moved the torch around me as we sat concentrating hard. My heart jumped up to my throat as I saw P's face. He was sweating profusely and his expression was one of intense pain. M who sat next to me also seemed restless and was lying down on the bed on which we were seated. At first I was a little confused about what was happening and tried to calm myself and to think rationally. But what happened next was beyond all rationalities. The coin on which I had my index finger suddenly started moving on the dial and with it P started shivering and making funny noises. As the coin moved faster, M started screaming and slashing out with his hands. Both were totally uncontrollable. The room 206 which moments ago was calm and quiet was now filled with shrill and eerie cries of a mysterious nature. We were terribly

## Prose



confused about what was happening to the two boys. For a moment M's face seemed full of boils and his eyes red in the dim light of the torch. It seemed like he was a totally different person, or perhaps not a person at all any longer. I even expected his voice to change into that of the dreadful spirit that had entered his body. The rest of us were terribly scared and watched the horrifying sight helplessly. Suddenly someone started reciting the 'Gayatri Mantra' and we all joined in making desperate attempts to get rid of the evil spirits that had attacked our friends. After five minutes P and M cooled down. We switched on the lights and saw that they were both quite normal now. However both complained of severe headaches and were totally unaware of what had happened to them. We all dispersed without much conversation.

It was about a quarter past midnight when the three of us, Digant, Hemant and I lay down on our beds in room 206 trying to get some sleep. But after such a nightmarish experience who could be expected to relax? Digant quietly recited the 'Hanuman Chalisa' which is supposed to drive away all evil spirits, but it didn't seem to be working too well. The three of us held hands tightly, none willing to speak what he has thinking. I, for one was swearing by God a millions times that I would never perform a 'Planchette' again in my life. Suddenly the calm of the night was shattered by a piercing sound which echoed

through the quiet of the room. It took us some time to realise that it was the doorbell. Still lying on the bed, with my heart thumping at full speed I asked aloud who it was but got no reply. We switched on the lights and gathering strength the three of us went to the door and opened it. A lone figure with a wide grin from ear to ear looked at us from without. D doesn't look sane even with his customary frown, so I thought there must have been more trouble, but he was laughing and told us that the spirits had gone to bed and we could come out of hiding! At first, I was confused but watching all his friends coming into our room I realised that our 'nightmare' wasn't a nightmare at all, just a well performed practical joke. Joke, yes; but surely for people with strong hearts !

(Ho ! Ho ! Ho ! Ha ! Ha ! Ha ! He ! He ! He ! - Ed.)

.Kavan Mukhtyar  
S.E.M/T

*One of the best hearing aids a man can have is an attentive wife.*



### LAWS OF PROJECT COMPLETION

Every Engineer is bound by UNIVERSITY RULES to submit, in detail, what he did for time-pass during the last year in College. This memoir is given the pompous name of 'PROJECT REPORT'. This is my humble attempt to misguide and confuse all the students who haven't any idea about it. [and would be better off without-Ed.]

1. On completion of your project, the only knowledge you will gain is that whatever you successfully crammed during the last 4 years is by now thoroughly outdated and of no use to anyone. [it never was! - Ed.]
2. On completion, the chances of your being accepted by that company, are absolutely NIL ; as they know thoroughly well what kind of a bloke you are.
3. On completion of the project, INVARIABLY, an Electronics Engineer will know more about Mechanics than any Mechanical Engineer and less about electronics than the latter.
4. The Final project will in, NO WAY, under ANY CIRCUMSTANCES match with that stated in the synopsis, will definitely be more costly and of course INCOMPLETE.
5. Even if you build a communication satellite, the examiner will still remain unimpressed, so better build a car-reverse horn.
6. GOLDEN RULE : A carelessly planned project usually takes twice as long to complete than expected, while a carefully planned project will take only thrice as long.

7. The actual project starts but two months before the end of term.
8. The yardsticks used by Project Examiners to judge your projects are summarised below : More marks are given :
  - A. If your Guide was more hardworking & sincere than you.
  - B. If you have included NOTES of all the subjects studied during the last 4 years to give necessary weight to the Project Report.
  - C. If your report seems familiar (why not, since you lifted the material straight from previous year's reports).
  - D. If the project does not have any real-life application.
  - E. Depending on the complexity of the project, (i.e. Amount of work done by you in making a relatively easy job complex !)
9. The only thing worse about completing the project is that you still get lesser marks than the guy who didn't.
10. EXPENSES are not hard to meet - you will meet them everywhere!! [Yes-Oh-Yes-Oh-Yes ! With arms outstretched !! - Ed.]

Ravindra G. Mundhe  
T. E. Etx.



## The Roof of the World

A man clings to a precarious hold, high on the sheer face of a mountain. Slowly, straining every muscle he inches upwards - one slip and he could plummet thousands of feet to the rocks below. Yet the joy and intense pleasure he derives from this struggle can never be explained, it has to be experienced.

In the olden days, climbs were made merely to gratify royal whims and rather unwillingly, since most people then believed that the mountain tops were the dwelling places of demons and dragons.

The Renaissance writers of Europe and years later a Swiss Scientist Horace de Saussure, opened men's eyes to the joys of mountaineering. On 7th August 1786, sponsored by de Saussure, the highest Alpine Peak, Mt. Blanc (15718 ft.) was scaled, and a year later, he decided to climb it himself, but in style. He took 18 guides and his personal valet, plenty of equipment and a basket of wine to celebrate on the summit. He spent four hours on the summit conducting experiments, until the others, who weren't exactly enjoying themselves forced him down. (I suppose the wine made their descent a rather 'zig-zag' one) clearly the Alps weren't challenging enough for enthusiastic mountaineers who soon turned their attention to other mountain ranges.

The majestic, serene and lofty Himalayaas (which in Sanskrit means House of Snow) are truly incomparable to any other mountain range. They remained unexplored till the early 1700's and it was as late as 1852 that the Indian Trigonometrical Survey (headed by Surveyor General Sir George Everest) announced the discovery of the world's highest mountain, Everest at 29028 ft. To the Tibetan people however, the Everest was known as Chomolungma, Goddess Mother of the snows.

In 1921, Capt. Noel led an expedition an expedition to the Everest through Tibet, as the ruler of Nepal refused to permit the expedition and this was the first of several unsuccessful attempts to scale the peak. Structurally, Everest is an immense pyramid having 3 massive ridges which soar up to the summit. When Nepal relaxed its policy, attempts were made from the southern side which proved to be a practical route.

In 1953, Colonel John Hunt led a British expedition of teachers, sci-

entists and even a professional bee-keeper (Edmund Hillary). The team set up a camp at a point called South Col (26000 ft.) and two final assault parties were chosen.

The first pair set out on May 26, but returned due to insufficient supplies of Oxygen. The Second pair of Edmund Hillary and Tensing Norgay waited till May 28th for the weather to clear and climbed to 27900 ft. where they set up a tent pitched on a narrow ledge, hacked in a steep slope. The next morning they inched their way along a sheer ice-wall of the ridge and at one point the oxygen in their cylinders froze up. After managing to restart the supply, they had to struggle through a narrow gap, past a 40 foot pinnack of rock. They then foot their final steps towards the summit.

There, they heartily congratulated each other, took photographs and rested briefly. They also dug a hole in the snow where they placed a cross and a packet of chocolates (brought by Tensing as a gift to the Bhuddist Gods). Their stay hardly lasted 15 minutes before they returned to the camp with the wonderful news.

A lot of people wished to know who reached the summit first and in a true spirit of camaraderie the pair signed a statement in Kathmandu which said "we reached the summit almost together". Later on through, Tensing in his autobiography explained how it was Hillary who first stepped on the summit.

Mountaineering in its various forms is now a popular adventure sport and after two centuries of exploration and conquest the mountains may have lost much of their mystique but no matter how often they are climbed, they will always remain as untamed and dangerous as they are beautiful.

**PRASHANT PERES**  
(S.E.Prod)



# Poetry

GOD made ENGINEERS.

GOD made DOCTORS.

In some flash of inspiration,

GOD made JYOTI MIRANI.

... and then he went and spoiled it all  
by making poets. You readers are lucky,  
you can skip this section. Even Prashant  
read it without his spectacles on. But me?  
Only i know what i suffered. i think i'll  
write a poem about it someday ...

**LIFE** :- prof R.G. Karandikar. etx - dept

Life in childhood :

enjoy it like anything !

Life as a youth :

work hard to build foundation .

Life in your middle - age :

work hard , not for self , but for family .

Life in old age :

be relaxed .and comfortable .

Everyone gets life in a fraction of seconds ,

Everyone loses life in a fraction of seconds ;

the only thing that remains behind

is one's good-will and hard work .

YOUTH



V.S.



MIDDLE AGE

Rajesh Jagasia, F.e etx .

You know you are young  
when the boss praises you for your hard work ;

You know you are middle-aged

when he says . " Don't make an ass of yourself " .

You know you are young when she smiles back ;

You know you are middle - aged when all she  
says is . " Wipe that silly grin of your face " .

You know you are young when you adjust  
your hair to the existing hair style ;

You know you are middle - aged when you  
adjust your hair style to the existing hair

You are young when the boys say . " Hi! Punk ! " ;

You're definitely middle-aged when they say , " Hello Unc " .

You are young when she says indulgently ,

" Always lounging on the sofa " ;

But you're middle - aged when she screams ,

" Get your filthy feet of my furniture ! " .

After a party , there used to be lipstick marks  
on your cheeks ,

now all that remains is Fingerprints .

# IS THIS LIFE ?

# POETRY

# DEATH

ANANTHA S.E.(PROD)

KAVAN MUKHTYAR , S.E.(MT)

The cock crows and the sun rises :  
thus begin a new day ;  
bringing hopes of renewed vigour ,  
love , labour and some pain

But little does man know  
what the day has in store for him :  
the same old drab routine  
to be traversed all over again

The same old suffering and pangs  
some times of hunger , sometimes of pain ,  
tormenting him inside out  
till he begins to disclaim

Then the thoughts flow into his mind ,  
"Is this all that life has to offer ?".  
Neverending pains and troubles  
with the added flavour of abuses to suffer

With these questions ringing in his mind ,  
he retires off to sleep ;  
hoping that the next day will be different  
and bring him some relief .

His face was smiling  
His days were waning  
He was dying  
So we were crying

Taken a toll , had the disease of his body ,  
yet his soul and spirits were still real naughty .  
He was dying he knew it ; but the smile on his face  
wouldn't even let science prove it .

Every minute of life was a minute of pain ,  
but he knew not tears and he remained sane  
Life to him was for happiness to gain ;  
climbing the mountains and bathing in the rain .  
It certainly was his last outing :

He was dying  
and so we sat there crying

The final day came to him not too soon ,  
many people would think that to be a boon ;  
but believe me friends , I am not a fool :  
death did him good to free him of life's spool .

- End of all pain
- End of all pleasure
- End of life

That's death

He had cried , we all sat there and cried .

# POETRY

## THE STRUGGLE

BHAGWAT K.B. T-R (BTX)

Today is another day

ATUL SETHI, T-E (BTX)

Yesterday, alone, I found myself  
at the mercy of cruel fate;  
amidst the company of those  
who could perhaps only love to hate.  
Oh! How I was clinging desperately  
to my own sorrows bait,  
hoping that could at least death  
try and be my constant mate?

But,  
now I can feel the soul trying  
to keep life's personal sorrows at bay  
and someone, somewhere seems to be wishing  
that life shall again be all happy and gay.  
For, almost all this darkness extending,  
there seems to be hidden a thin silver ray;  
and, if for nothing else the things shall change  
Today, at least is then another day.

'Whether ...' or 'Will I ...' or ...  
will never be the question;  
the heart will be quenched

by the struggle,  
and the burning flame will continue  
to conquer impossibility!

The desire to fight,  
the will to struggle,  
the wish to endure  
will go on and on  
and can the sky limit?

'Whether ...' or not?

'Will I ...' or not?

'reach the zenith?'

will never be the question

For the soul will be proud  
of its struggle, of its fight:  
will it end?

'Whether ...' or 'Will I ...'

'Can I reach the target?'  
will never bother me

For I know my target -

I have started my run

I am bruised:

The wounds are terrific,  
the pain, tremendous,  
the mountains are high, no doubt;  
the way crooked, I know,  
I know they are narrow  
as are the minds between,  
but I am sure

because struggle satisfies

this soul of mine

I have the will to

fight, fight, fight!

to struggle my way

to the target

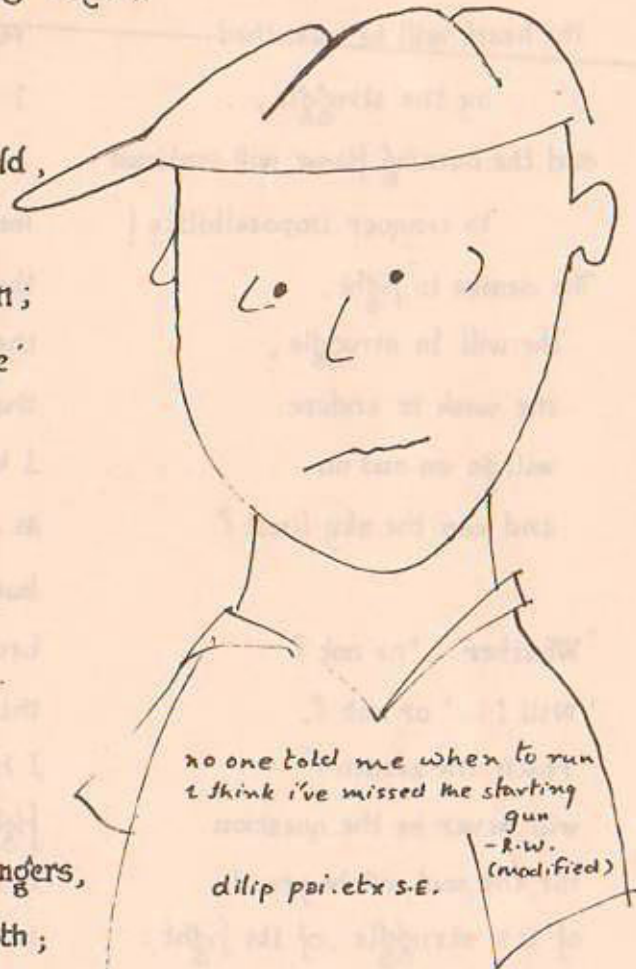
Will it end?

What more can one want?

FEAR

On the edge of the the world,  
On the fringe of his life  
On the verge of dissolution;  
in between 'Here' and 'There'  
and 'Now' and 'Then'  
stood the boy:  
Every day, Every hour  
sinking more into the myre  
of the great 'Nothingness'.  
and the great 'Nooneness'.

Everyday we meet new strangers,  
Everyday we pledge our troth;



but i, who have led a sheltered life,  
am lost in this universal broth.

There is no one around;  
all alone,  
always, and lonely  
i miss  
but who knows what?

i miss  
for i'm lonely  
and i'm afraid  
and everything i do or be  
is to cover me

Elegy on the death of a canine friend :-

YOGESH ANVEKAR S.E. (PROD)

Death came to him in silent steps.  
I spent that night in sorrowful naps  
Faithful was he to his utmost best,  
yet ungrateful were we at his time of rest.

He died alone, a lonely death.  
He died, though we were watching with ignored eyes.

It was with pity we watched, and not love;  
but we felt the sorrow of death.

He was thirsty for love and tried  
to find it in our eyes.

We gave him as much as we could, though it was hardly  
what he gave us.

A fearful disease took his toll and we waited  
in anguish, for his death.

As he died, tears began to rise



A rabid dog bit him, the wound aggravated  
and rabies caught him in its fatal grasp.  
He could not eat nor drink, neither could he gasp.  
gasp for a painless breath of air;  
his throat was swollen and his strength failing  
we could not see him bear the pain of death.

Though in his last hours, he grew rabid,  
he did not bite nor growl.  
we put him away out of fear, he went away  
in sadness, and the humanity grew foul.

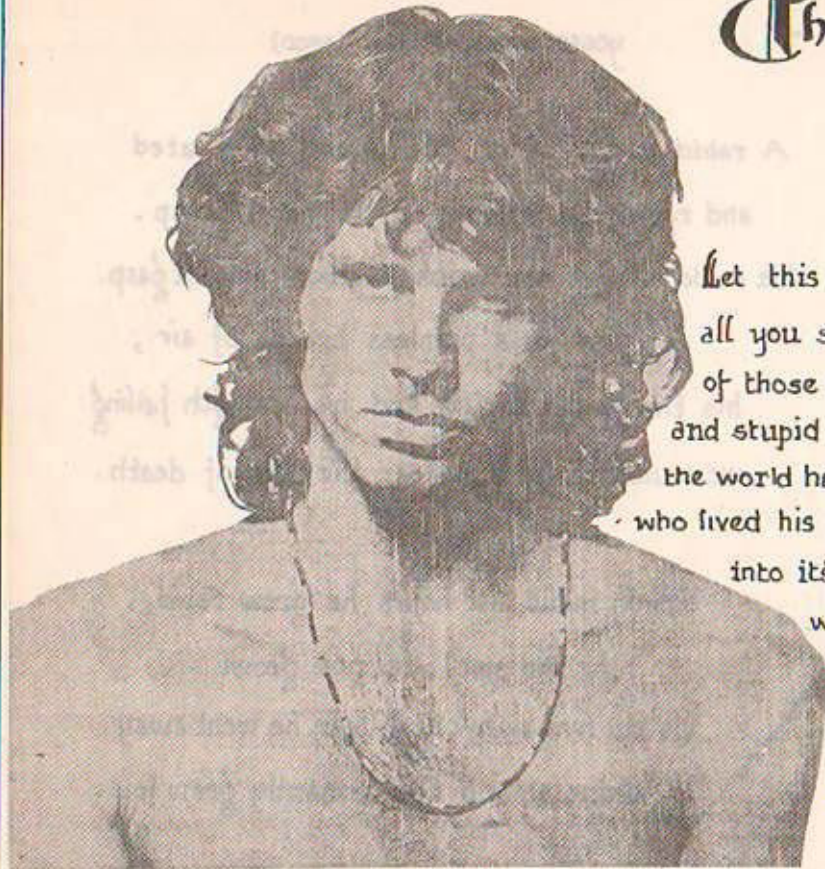
So he died and we closed the door ...  
He lay there, unclaimed, unmourned decaying.  
In the morning, the sweeper would

throw him away  
and clean the place; yet we cannot clean  
his face from our mind and inner self.

# Doerby

## The legend of the Lizard King :-

VASEEM SHAIKH, S.E (ETX)



Let this be known  
all you stinking champions  
of those rigid timetables  
and stupid conventions :  
the world has had a Morrison  
who lived his dreams  
into its rival realms  
who tested  
and pushed all bounds of reality  
who was no petty part  
but he,  
he himself was society  
who feared no god  
and revered no prophet  
for don't you know ,  
He himself was the almighty.

and you ?  
you tell me that he perished  
and believe those essers  
who tell you that he died  
why don't you see  
how ?  
how could he ?  
when his requiem  
was merrier  
than that worn birthday melody ;  
the silence in his soul  
livelier  
than the murth of every breathing body  
and rock 'n' roll  
was the closest thing to an elegy .  
and you ?  
you tell me that he died  
he couldn't  
he never did  
he just broke through  
to the other side .



### TAGUCHI METHODS FOR QUALITY CONTROL

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#### Abstract :

Uniqueness of Taguchi methods for Quality Control is that they are applied at pre-production stages, like design and development. Thus, they help to 'build' the quality into the product, rather than inspect it afterwards. It works on the principle of trying to attain the design value, called as 'Target Value', than to work within some specified tolerable limits. For every other value of the quality characteristic, a loss function is defined to predict the degradation in quality. To minimise these quality losses, the variations about the 'target values' have to be controlled. For this, the best combination of factors that gives minimum variations, has to be found out experimentally. Taguchi methods employ a practical quantitative technique called as 'Orthogonal array method', to reduce the minimum number of trials required to find such a combination.

### DELEGATION : KEY TO MANAGING MANAGEMENT TIME

Delegation is the executive's greatest need as well as his greatest privilege. Effective leaders must learn what and how to delegate. Failure to delegate probably is the single most serious failure of many senior executives. People spend far too much time on unimportant things or activities they ought to leave to others. This leads to their working harder and harder, causing neglect of health and family, ultimately becoming unhappy, unproductive and committing career suicide. The consequence of not delegating and long hours of work for a long period of time only leads to health problem.

Therefore, as one climbs higher and higher up in one's career, he must learn the art of delegation in order to cope up with the obvious added responsibilities. Only then can one get more out of one's time and life; and add life to one's years.

"Delegation essentially is giving people things to do. Managing is defined broadly as getting things done through people. A manager who does not delegate is not managing".

At this point three questions arise :-

- (1) What personal attributes must a manager have to be a successful delegator and thereby get the most out of his people?
- (2) What are the dangers inherent in the process of delegation?
- (3) What are the normal benefits to be expected from delegation?

Answers to questions 1 and 2 are that a manager who is a good delegator is not having any kinds of fear complex; particularly the fear that his subordinates will do the job better than him and that he will soon take his job. Another fear is that the delegates will make mistakes, take longer time and start disobeying him. One other fear is that of losing job satisfaction since one is not really handling the technicalities of the



project but managing the people doing actual work.

However one has to come to terms with these fears to delegate well. The benefits, and that is the answer to question 3, are there to be reaped. Delegation gives 4 benefits to a manager delegating his work to others to do it (work) on his behalf.

- (1) Extends results from what a man can do to what he can control.
- (2) Releases time for important work.
- (3) Develops subordinates initiative, skills, knowledge and competence.
- (4) Maintains decision level - This means that others have to do their homework and put up their decision as to how they are going to tackle the job so as to take a final decision.

Managers often fail to delegate mainly for the following reasons :-

- 1) The decision is too important : So they think. This need not always be true.
- 2) The manger is reluctant to shear his power : The problem in this case is that the reluctant manager, by retaining power, may simultaneously be ensuring a dead end for his career. In so doing, they fail to develop successors and thereby limit their own advancement.
- 3) The manger is perfectionist : There is nothing wrong in this; except that in an imperfect world one has to tolerate certain amount of flaws.
- 4) Subordinates are capable but do not desire added responsibility : This at times is true. But even those subordinates who have no interest in advancement often don't mind taking on for a time added responsibility if they are persuaded.

5) Liking for a particular job : Delegation is the entrustment of responsibilities and authority to another and creation of accountability for performance. Responsibility, authority and accountability are three elements of delegation.

Delegation should not be considered as a process of abdication. The manager who delegates work is still accountable to the boss for his area of responsibility. He just can't wash his hands and say that he doesn't know a thing about certain aspect of the work that was originally assigned to him, because he had delegated those aspects to an assistant.

Delegating the more routine or predictable part of your job is only the first step. Giving people power to make decisions and to act in your place within a given sphere is the next one. That is not always easy. It requires courage, judgement and faith in others because you remain accountable for what you do.

Exceptional tasks - those which are absolutely vital and which only you can be sure will be done in time and the required standards shouldn't be delegated nor should those where confidentiality or particular sensitivity is essential.

You should delegate some of your position and power to your subordinate matching the task you have given him. Make sure you increase his knowledge and develop his confidence.

Delegation in a wise way is a great motivator, it enriches jobs, improves performance and raises morale.

Empowerment makes you able to get more out of your time and life.

Sachin Nirgudkar

(B.E. Machine Tools)





### The Intelligent Machine

*This is an introductory article to the exciting world of artificial intelligence and its future aspects.*

Neelesh Rangnekar (B.E.Etx.).

Computers playing chess ! Robots doing all the work ! Artificial experts guiding you ! This is the world of Artificial intelligence. Lets explore it. The day is not far-off when computers will dominate strategic, decision-making activities of corporate offices. Since the early '50s, scientists have been attempting to impart intelligence to computers and these efforts are now yielding rich dividends. Artificial intelligence (AI) is a widely pursued field of research both in India and abroad. So to cope with all these recent developments it becomes essential for everyone to know about AI.

#### What Is "Intelligence" ?

The dictionary meaning of the word intelligence is the faculty of understanding and that to understand something means to comprehend or to recognise its significance. And a truly intelligent machine is expected to understand things in the same sense as we do. However it becomes very difficult to define pure intelligence. Some people say that intelligence is nothing more than a complex series of rules for decisions. But we find that in many instances we don't follow all the subsequent steps to reach the decision, but we jump to the decision rather intuitively and we know how to do that. In many instances understanding is synonymous with knowledge.... there is no useful distinction between knowing how to tie a shoe lace and understanding the same. But still we cannot agree with the general idea that knowing more than other people justifies the claim to be more intelligent. Till now we were using IQ tests for measuring a person's worth or suitability for a job, but it has become extremely controversial as some people have criticized the procedure of IQ tests to be mechanical and what we hear today

from most of the critics is that "if IQ tests measure anything, its capability to do IQ tests !"

Now intelligence is not a quality that's innate and invariable. A person is not, as argued by critics, allotted a predetermined "ration" of intelligence at birth by Nature, instead, intelligence is a potential which people realize to differing degrees according to their Nurture. Thus intelligence is the capacity of understanding things in everyday life, thinking over it and improving the knowledge base to behave more intelligently through the "implementation" of the knowledge.

Now we go on to the Intelligent Machine. It may be defined as a machine that's able to do things which if done by people would be judged to require intelligence. However the people who distrust AI say that once intelligent machine is built and it has been shown that the machine can do something, the task is entirely mechanical. If we can explain the behaviour of the machine then we have explained away its apparent intelligence. But the same things applies to us. While justifying our intelligence, we are more concerned with our intelligent behaviour than what goes on inside our mind. A behaviourist.... one who deals with behaviourism as fundamental aspect of psychology.... would accept that if a machine is able to duplicate intelligent behaviour then there can be no possible ground for refusing to acknowledge its intelligence. In that case we must consider the possibility that a machine might merely simulate the appearance of the intelligence without actually being intelligent. then we can think that our own intelligence may also be in some fashion illusory .... perhaps we only think that we are intelligent. This supports what the behaviourists say - that human intelligence is an explanation that cannot itself be explained since its only invoke to account for behaviour which would otherwise be inexplicable.

However, though machines can simulate intelligent behaviour, they don't possess intentionality that is knowing what one is talking or thinking about. We understand what's meant by a man is hungry because the word hungry evokes the image or emotions which relate to our own experience. Thus our intelligence depends upon our ability to construct



internal representations of the external world. Our understanding of reality, and thus our ability to think and talk about it ultimately depends upon the facts that we have experienced through the medium of our senses. Here we find the need for providing the machines with different kinds of sensors that will allow them to experience reality at first hand. It might seem that intelligence which operates on deductive principles employing formed and explicit rules (eg. a computer linked to a ballistic missile warning system) must be superior to one which relies on vague and informal rules of thumb (eg. a child catching a ball without knowing ballistic trajectory principle) derived from experience by means of induction. However it is the later part over which we rely the most in our everyday life. We never think of ballistic trajectory principles when we run for a difficult catch. But the computer has to think in a reasonable way when it controls a ballistic warning system. How can it think? What are the different ways of thinking and reasoning? Can it understand our natural language? What are the different aspects of machine intelligence and how to implement this intelligence? All these questions will be answered as we go into more details about AI & its different aspects.

### Expert Systems

This most important and rapidly developing area of AI is expert systems. It refers to the systems which are perceived as acting both intelligently and as though they had expertise in some area of knowledge. It assumes that systems are supposed to explain how they reached their intelligent conclusion by producing a reasoned argument incorporating both the data and knowledge which they used to reach that conclusion. How do these systems work?

We know that our conventional programs include conditional tests used to determine the action of the program. Intelligent systems include large number of rules which govern their operation. When the rules are separated from the rest of the program, the collection of rules is known as the rule base. Most of the expert systems store their expert knowledge in the form of rules in a rule base which is often known as knowledge based system from which the term Intelligent Knowledge Based Systems (IKBS) is derived.

When the rules are separated from the program the remainder of the system using the rules is called an 'Inference Engine'. A program operating on a rule base but supplied without any rules, (analogous to a conventional software package which its user 'tunes' by giving values to control parameters) is known as Shell. Shells often come with tool sets to help build up a rule base. Sometimes related knowledge is stored in blocks for conventional handling.

### ROBOTICS

The second field we can think of is Robotics. The study of robotics is wide ranging but broadly speaking, the intelligence of robots can be described as very limited. Either a robot can only do what exactly it has been programmed to do, with no deviation or variation, such as the robot workers on assembly lines which exactly mimic human actions which they have been programmed to copy or where their environment they are not able to carry out very important or sophisticated actions. In other words the more useful the robot, the less intelligent it tends to be in practical terms. But then this is also true in the case of human beings. Understanding robots involves a great deal of knowledge of control systems and much less of AI.

### Pattern Recognition

In order to carry out any kind of operation a robot has to know what it is acting on and in this respect some robots have quite complex sensory apparatus for recognising patterns. They can follow infrared signals or search for light sources or recognise complex shapes when deciding whether the object is to be manipulated or not. In particular it is important for an intelligent system, whether it carries out control activities or simply provides a friendly interface for a conventional program, to be able to recognise patterns of action in the world around it. The activities we call perception don't simply involve the passive reception of signals but active interpretation even at the most basic level.

Next we think of creativity. It is possessed by all human beings in



greater or lesser degree. For eg. we can create new ideas, new objects, new words and make numerous sentences. An intelligent machine is expected to do so. However for many people, artistic creativity in particular, is something that machines will never be able to capture.

The next important aspect is problem solving and design making, semantic networks etcetera. These have been successfully implemented in the so called expert systems. The ability to recognise or define a problem, to examine it until one or several solutions are found, to make a decision concerning the best possible solution and to act upon it seems to be a fundamental feature of intelligence. The machines are reaching this goal more precisely as research is going on. However, as is seen 'human beings are better at creating problems rather than solving them'. In this respect machines are no different.

Learning is an aspect which is related to almost all the above activities, in particular problem solving. It is of little use being able to solve a problem if the next time a similar problem comes along we have to start from scratch to solve that one as well. It is much more efficient if the previous solution is recalled or even better if that strategy is followed again (since problem-solving strategies are more general than the individual solution.) To this end an intelligent being must learn which are the best approaches to a particular kind of problem. Learning machines of one kind or another do exist, but as with most aspects of AI they can only learn within very strict parameters. Hence, in a sense they can only learn what the parameter can offer, which in turn implies that they can only learn what the programmed it to start with. Is it possible to make the learning machines self-dependant? Is it intelligent enough to let the machines become self-dependant ?

### Natural language processing

It is one of the most interesting aspect of AI. Language is one of those features which distinguish humans from other animals. We can communicate in a system of signs which bears no relation to the things they

stand for. Computers communicate through their own characteristic languages. These languages have certain rules and syntax and are called formal languages. Natural languages are not like formal languages, they do have rules, usually hundreds of them, but the rules are sometimes unclear and ambiguous, they can be changed, they vary from speaker to speaker & situation to situation and no natural language can be fully written down because it is always changing. There are different methods of speech synthesis and passing the identification of the structural relations between the words in sentences being developed day by day.

Nowadays, a new area of personality theory is also covered under AI studies. If machines are to become more like humans they must acquire some of the characteristics of human beings. It is rather easier to model types of human intelligence than pure intelligence because different types of personalities may actually process and use information in significantly different ways. Even if this is not the case, if a micro is to have goal directed behaviour than it must have its own particular goals, and this means that it has its own performances, its own desires and consequently its own character. It seems to be true to say that advances can only be made in getting machines to understand human procedures. But it is also important to have machines that understand the personalities of their users if they are to act as doctors, consultants and educators.

These are all different areas which are concerned with AI. The research in these areas have no bounds because there are a lot many things to know about human intelligence and working of human brain and as long as these things are not known completely, AI research will go on continuing. As well as know, AI research too is a digital computer having a close resemblance with the human brain. Modern AI research with it complex programs is impossible without sophisticated hardwares. It is now possible to install AI programming languages on home computers and business microcomputers and to learn the rudiments of these languages on such a machine.



However micros are not suitable for writing and running large scale programs. Another development is that of special machines on which AI programs run more efficiently, enabling larger projects to be undertaken. LISP (LIS Processing) machines are specially designed to run the programming language LISP. Many of the features of LISP are reflected in the hardware of these machines. There is no need to have programs for converting commands in LISP into statements that the machine understands directly. Most of the LISP machines are spin-offs from the MIT MACLISP project, which has always emphasised speed the efficiently.

Now, LISP is a programming language invented by MaCarthy in 1958 which has become the most important AI language, atleast in the U.S.A. In UK the language POP-2 was developed as an alternative to LISP. In later versions it is known as POP-11 (Barrett, Ramsay & Sloman 1985). POP-11 has all the advantages of LISP except that it sacrifices the simplicity of syntax for readability. Unlike LISP, POP-11 programs are not lists. Another language that is now popular for some AI applications is PROLOG (Programming LOGIC, Closin & Melish, 1981). It is based on a subset of the logical language "predicate calculus", and is sometimes referred to as logic programming in which a program is a set of logical formulae and the result of running the program is a deductive consequence of those formulae. It has features like depth-first search and backtracking. With backtracking, if a line of reasoning is found to be inappropriate, the system can trace the reasoning backward until an alternative is found. PROLOG provides only an approximation to true logic programming. However, considerable attention has been focussed on this language since the announcement that the Japanese intended to write IKBS in PROLOG as part of their 5th generation project.

So that is all what can be said about AI in short. If we go in more details about each aspect of AI we will find more interesting theories about human intelligence, perception, reasoning, personality and many more psychological aspects and their implementation in achieving an intelligent robot, the ultimate goal of AI research.

But then, can you think of a machine whose intelligence is comparable

to your intelligence ! Will you be able to accept the intelligence of a so called "intelligent machine" with that good sportsman's spirit ? But then do you really accept and respect the intelligence of other people around you with that good sportsman's spirit ? If yes, then preserve that spirit because probably that will be the lone human quality that a machine would never be able to simulate.

#### AI in India

Not wanting to be left behind in this important field, India launched a 5th generation project of its own in 1985 with aid from the UNDP.

A number of institutions in India including TIFR, Bombay; NCST (National Center for Software Technology), Bombay; IIT, Madras; IISc, Bangalore; and ISI Calcutta are already involved in the various field of AI. They also offer undergraduate courses.

Each institution has been given specific work. IISc was expected to concentrate on computer architecture and IIT Madras on expert systems. NCST was expected to look at functional languages, knowledge representation and inference engines. ISI would co-ordinate with IISc, ISRO and National Remote Sensing Agency (NRSA) in its work on pattern recognition, image processing, computer vision. TIFR's role is to work on speech and natural language processing and language translation in association with IISc, CEERI and IIT Madras.

However, the state of AI technology today is very generalised and rudimentary. There are very few LISP machines available around the country and there is also a tremendous shortage of trained personnel.

An optimistic estimate is that India should have its AI foundations ready by the end of 1991, and a system prototype should be ready thereafter. Better late than never !



### Automobile Aerodynamics & Fuel Conservation

Study of "Effect of Air on a moving body" is called Aerodynamics & Reduction in Air Resistance of a Vehicle makes it "Aerodynamic". So, how are Aerodynamics & Fuel Conservation related ?

It is found that at speeds greater than 60 km/hr, more than 75% of the total power of a vehicle is consumed by Air Resistance. Thus, it is obvious that for a given speed, lesser power would be required for a vehicle if its air resistance is decreased. Lesser power would mean a smaller engine, which in turn would consume lesser amount of fuel. But before going into the details of the impact of Aerodynamics on Fuel Consumption, a look at the details of calculation of Air Resistance.

As a matter of fact, no such formula can be derived for calculating the air resistance. However, General Motors, one of the leading car manufacturers in the world, after extensive "Wind-tunnel" tests have arrived at an empirical formula to calculate Air-resistance. It is found that

$$\text{Air Resistance} \propto A.V^2$$

$$\therefore \text{Air Resistance} = k AV^2 \text{ in Newtons}$$

where, A = Projected Frontal Area of the Vehicle in  $m^2$

V = Speed in Km/hr.

K is a constant whose value depends on the type of vehicle

K = 0.023 for Stream lined Cars

K = 0.0314 for Ordinary Cars

K = 0.045 for Trucks & Buses.

Thus, we find the Air Resistance can be decreased by lowering the velocity or decreasing the area. Area can be reduced by increasing the inclination of the windscreen with the vertical & by making the corners curved instead of flat. Also, the Windscreen, Windows etc. use curved glass instead of flat glass. Thus, the vehicle is made somewhat rounded from all sides. It is a known fact that a sphere offers least resistance to motion in a fluid.

Now for the impact of Aerodynamics on Fuel Consumption & the extent to which fuel efficiency is increased by reducing the Air Resistance. It is found that when air resistance of a vehicle is reduced by about 17%, fuel consumption drops by about 5%. Now how far is it true? The air resistance can be expressed in terms at a drag coefficient. Lower the coefficient, lower is the air resistance. In India itself, when the Maruti (800 cc) was launched in 1983, it had a fuel efficiency of 26 km/lt. as tested, & a drag coefficient of 0.44. However, when the new model of the same car was launched in 1986, it had a drag-coeff. of 0.36 & the fuel-efficiency was found to have increased by 5% (as tested). Thus, a reduction of drag coeff. by 18% had increased fuel-efficiency of a German Car, "Opel Vectra" which has a drag coefficient of only 0.26 !!

Need we say more to conclude that a vehicle equipped with good aerodynamics would help greatly in fuel-conservation ?

Prasad Wagle  
(T.E. - Prod - A.P.E.S.)



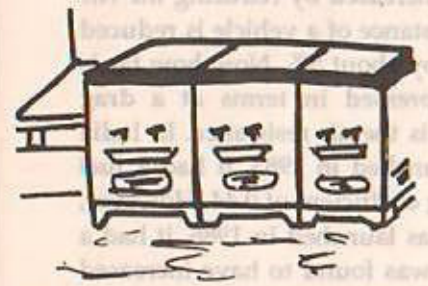
Principal



### 1991-92 : The Academic Year That (Never) Was

- August 15, 1991** : Bombay University declares I year results. K.J.S.C.E. holds a function to felicitate students who have passed. All three of them.
- Aug. 16** : Angry students demonstrate outside the examination-house, but are quickly dispersed by indifferent clerks firing rubber 'coldstares'.
- Sep. 5** : In honour of 'Teacher's Day,' K. J. S. C. E. students decide to attend lectures for a change.... and find that they aren't even students of the college in the first place.
- Oct. 31** : Staff meeting ends in pandemonium as opposing sides argue voilently .... on the menu for the next meeting.
- Nov. 14** : In a major breakthrough in staff-unification, members in opposite groups agree to wear matching shoes.
- Dec. 10** : In cricket, India losses narrowly to a primary school in Perth, Australia. In a post-match interview, Azhar says, "It was a tough game. We played well. If we hadn't dropped that three-year old 1620 times, the game could have gone either way". Indian supporters cheer wildly.
- Dec. 30** : Students return from I. I. T. after an enriching 'Live-Wire'. demand for hearing aids goes up 300%.
- January 1, 1992** : Amidst lustly cheering, the management announces that the college building should be completed by the turn of the century. At least the ground floor.

... will you find so many things getting robbed



that even the 'coolers' are afraid to be alone!

Prasad Wagle  
(T.E.-Prod-A.P.E.S.)



- Jan 4** : The Hospital fills up with students who have encountered the coercion squad which is going around handing out receipts and broken arms to fellow students.
- Jan. 30** : Amogh Patankar, randomly going through the money - has collected, finds that he has enough to set up his own factory. Everybody cheers as he promises jobs for all.
- Feb.** : I slept through the whole of February. Prashant assures me I didn't miss much.
- March 7** : Students began to prepare for their exams in dead earnest..... by covering their books. They also watch more educational films.
- April 9** : Magazine Editors send out circulars informing students how to avoid being trampled to death when they're collecting their copies of 'Kshitij' which is due on the 31 st.
- April 30** : Heavy security arranged around Somaiya to avoid stampedes during distribution of 'Kshitij'.
- April 31** : D-Day ! Admist much excitement, 'Kshitij' released and distributed to students waiting in a long like .... comprising of five editors and one magazine secretary.
- May 1** : College announces availability of Indian Maplito Paper in large amounts. Come and get it, it's cheap. Please flush well after use.

1991-92 : Look back with great trepidation. Or if you can help it, don't look back at all.  
 (Based on the original article 1987 : Look back in horror' by Dave Barry)

LAST WORDS

*My pen is shut,  
 the day is done,  
 but only for now;  
 for i have miles to go  
 before i  
 reach the nearest place  
 to relieve myself*

*As i stand here, i see  
 tons and tons of graffiti.  
 i cringe with shame,  
 head hung low, i know  
 that this is the stuff  
 that beat the readership  
 of 'Kshitij' to first place.*

*I. I. I. Pai*



## आपलं मराठी वाङ्मय मंडळ

विनायक वगळ - अमोघ पाटणकर

कनिष्ठ महाविद्यालयाचा उंबरठा ओलांडून महाविद्यालयात प्रवेश केला की विज्ञान शाखेच्या विद्यार्थ्यांचा भाषेच्या अभ्यासाच्या निगडीत असलेल्या गोष्टींशी संबंध जरा कमीच येतो. अभियांत्रिकी शाखेचा विद्यार्थी यंत्र आणि तत्सम गोष्टीत गुरफटला जातो अन् त्याला वाटू लागते की ह्या विश्वातून बाहेर पडून जरा मोकळा श्वास घ्यावा. सुगंधी साहित्याची झुळूक त्याच्या मनाला स्पर्शून जाते.

ह्याच एका ध्यासाने सोमय्या अभियांत्रिकी महाविद्यालयात मराठी वाङ्मय मंडळाची स्थापना व उद्घाटन प्रसिद्ध समाजसेवक व जागतिक किर्तीचे क्रिकेटियर श्री. विजय मर्चंट ह्यांच्या हस्ते १९८४ मध्ये झाले अन् मग ह्या रोपट्याचा हळू हळू विकास होऊन ते आता चांगलेच फोफावले आहे. नावांत मराठीपण असले तरी हे मंडळ केवळ मराठी भाषिक विद्यार्थ्यांसाठीच आहे असा गैरसमज नसावा. कुणीही विद्यार्थी ह्या आपल्या मंडळाचा सभासद वा कार्यकर्ता होऊ शकतो. मंडळाच्या कार्यक्रमा प्रित्यर्थ होणाऱ्या खर्चात विद्यार्थी, प्राध्यापक व कॉलेज कर्मचारी वर्ग ह्यांचा सहभाग असतो.

आजपर्यंत मराठी वाङ्मय मंडळाचे व्यासपीठ अनेक मान्यवर मंडळींनी भूषविले आहे. शिरीष कणेकर ह्यांची 'फिल्लम बाजी', श्री. व. पू. काळे व श्री. शं. ना. नवरे ह्यांचे कथाकथन, नटसम्राट श्री. यशवंत दत्त ह्यांच्या गप्पागोष्टी इत्यादींनी सर्वांचे मनोरंजन झाले. त्यात प्रा. बापट ह्यांचे 'असे प्राध्यापक असे विद्यार्थी', श्री. रंगनाथ कुलकर्णींनी सादर केलेले 'गरीब बिच्चारे पुरुष', रामदास फुटाणेकृत 'भारत कधी कधी माझा देश आहे' ह्यांचाही समावेश आहे.

ह्यावर्षी अष्टगंधनिर्मित 'मेंदीच्या पानावर' ह्या वाचवृंदाने सर्वांची मने

जिंकून घेतली. एवढ्या मोठ्या प्रमाणावर झालेल्या ह्या कार्यक्रमाने जणू दाखवून दिले की ह्या रोपट्याचे आता वटवृक्षात रुपांतर झाले आहे. आजपर्यंतचा आमचा अनुभव सांगतोय की मराठी वाङ्मय मंडळाचे कार्यक्रम यशस्वी करण्यात कॉलेजमधील प्रत्येक व्यक्तीचा हातभार आहे. म्हणूनच ह्यापुढील यशस्वी वाटचालीत आम्ही आपले सहकार्य अपेक्षीत आहोत.

लोभ आहेच तो वृद्धीगत व्हावा हीच विनंती.

### कार्यकारी मंडळ

अध्यक्ष - प्राचार्य स. श्री. पाध्ये

उपाध्यक्ष - प्रा. र. गो. करंदीकर

कार्यवाह - अमोघ पाटणकर

सहकार्यवाह - संदिप कुलकर्णी

खजीनदार - योगेश खानोलकर

उपखजीनदार - उमेश रणदिवे

भितीपत्रक समिती

अमोघ वाघ, सुनिल जगदाळे





## वादळ

महेश जोगळेकर, द्वितीय वर्ष (इलेक्ट्रॉनिक्स)

तो आज एकटाच समुद्रकाठी बसला होता. विशाल समुद्राच्या महाकाय लाटा दगडांवर आपटून जणू त्यांना आव्हान देत होत्या. वादळी वारा सुटला होता.

तो बाहेरून शांत वाटत होता. पण त्याच्या मनात एक तूफानी वादळ उठले होते. त्याच्या डोक्यात विचारांचे काहून माजले होते. त्याच्या पूर्व जीवनाचे दिवस त्याच्या समोर जणू 'फ्लॅशबॅक'च्या रूपाने येत होते.

पहिली आठवण होती ती तो सहा वर्षांचा असतानाची. आई, वडिल व तो असा सुखी संसार होता. तेव्हा मे महिन्याच्या सुट्टीत त्यांनी गोव्याला जायचा बेत आखला. कोकणाची खरी शान दिसावी म्हणून त्यांनी बोटीने जायचे ठरविले. तो आनंदाने बागडत होता. प्रत्यक्ष प्रवास सुरु व्हायच्या दिवशी तर त्याचा आनंद गगनात मावेना.

सकाळी सगळे भाऊच्या घक्क्यावर पोहोचले. समुद्र शांत होता व मंद गार वारा अंगाला गुदगुल्या करून सुखद अनुभव देत होता. बोट निघाली. हळुहळू दूपार झाली. संध्याकाळ झाली. दूरवर दिसणारी सुरुंची बने, नारळाची व सुपारीची झाडे त्याचे मन मोहावून टाकत होती. कारण मुंबईत राहिल्याने हे सगळे त्याला नवीन होते.

रात्र झाली व समुद्राने रूप पालटले. शांत, धीरगंभीर वाटणाऱ्या समुद्राने अचानक रूप बदलले व रुद्रावतार धारण केला. प्रचंड लाटा सगळ्या बाजूंनी बोटीवर धडकत होत्या. अचानक एक भयानक महाकाय लाट आली व बोट उलटली पूढे काय झाले ते त्याला कळलेच नाही.

शुद्धीवर आला तेव्हा तो बिछान्यावर होता. एका कोळ्याने त्याला वाचवले होते. पण त्याचे आई-वडील मात्र त्या समुद्रात कुठे वाहून गेले त्याचा पत्ताच नाही.

त्यानंतर त्याला त्याच्या मामाने घरी नेले. परंतु मामीला हे पसंत नव्हते. ती त्याचा खूप छळ करायची. दिवसभर मामी सांगेल ते सगळे काम व रात्री अभ्यास असे करून तो बारावी झाला, नंतर बी. एस्सी. झाला व एम्. एस्सी. ला प्रवेश मिळवला.

एम्. एस्सी. च्या दसऱ्या वर्षात असताना त्याची भेट गौरीशी झाली. ती त्याच्या वर्गात होती व त्याची प्रॅक्टिकलला पार्टनर होती. परंतु समाजाच्या दृष्टीने त्यांचा वर्ग एक नव्हता. ती श्रीमंत होती व तो गरीब हीच त्यांच्यातील मोठी तफावत होती.

परंतु म्हणतात ना, प्रेम वेडे असते, त्यांचे सूर जमू लागले व ते एकमेकांच्या प्रेमात पडले.

परंतु तिच्या वडिलांना हे पसंत कसे पडावे ? त्यांनी तिच्यासाठी नाशकाच्या सावकार देशमुख यांचे स्थळ बघितले होते. कसे कोण जाणे. ती सुद्धा वडिलांच्या बोलण्यात तथ्य मानू लागली. तिने त्याचा विश्वासघात केला. तिच्या दोन माफीच्या शब्दांनी तो गेलेले दिवस विसरणे शक्य नव्हता.

तो पुन्हा एकदा एकटा पडला होता. परंतु त्याचे सर्व काही वाहून गेले होते. पण यावेळी कुणी कोळीसुद्धा त्याला वाचवू शकत नव्हता.

या सर्व विचारात दोन तास कसे उलटले ते त्याला कळलेच नाही. तो भानावर आला तेव्हा आहोटी सुरु होत होती. वादळ मंदावले होते. परंतु त्याच्या मनातल्या वादळांचे काय ? ते पूर्वीइतकेच जोरात वाहत होते, वाहणार होते. कधीही न शमणारे वादळ.... त्याला आतल्याआत पोखरून टाकणारे वादळ..... असे वादळ ज्यामुळे तो खचून गेला होता. असे वादळ ज्यामुळे त्याचा स्वतःवरचा विश्वास पार उडाला होता..... त्याच्या आयुष्यातले दुसरे वादळ .....

## गंमत जंमत ओळखा पाहू ?

अमोल दळवी, प्रथम वर्ष (उत्पादन)

- १) दोन भिंती चिडल्यावर एकमेकींना काय म्हणतील ?
- २) जपानी शाळेत कोणती गोष्ट शिकवतात ?
- ३) तीन गुडघे असलेल्या माणसाचे नाव ?
- ४) सहा गुडघे असलेल्या माणसाचे नाव ?
- ५) जपानी माणसाने भारतात काढलेले हॉटेल ?
- ६) एक रशियन नेहमी वेतागून ओरडतो त्याचे नांव ?
- ७) सत्यजीत रे यांच्या वडिलांचे नाव काय ?
- ८) समुद्राची आई कोण ?
- ९) एल. आय. सी. ची नवीन योजना ?
- १०) जवाहरलाल नेहरू, इंदिरा गांधी, राजीव गांधी ह्यांच्यावर काढलेला चित्रपट
- ११) मन्नाडे ला रविवारी मुलगा झाला त्याचे नाव ?
- १२) कधीकधी बंद न पडणारी कंपनी ?

उत्तरे - १) कोपन्यात भेटू, २) हिताची, ३) नितीन, ४) सहानी, ५) ताकाशी भातखा, ६) वसकन् ओरडलास्की, ७) बाप रे, ८) सीमा, ९) मस्कर पॉलिशी, १०) वंश, ११) सन् डे, १२) नोसिल

## वात्रटिका

प्रा. र.गो. करंदीकर

क्रांतिकारकांनी ठेवलेला बॉम्ब,  
पारतंत्र्यातील सूडाची बुद्धी  
आता, अतिरेक्यांनी ठेवलेला बॉम्ब,  
स्वातंत्र्यातील विनाशाकडे विपरीत बुद्धी !

## १९९१ सालच्या आंतरराष्ट्रीय व राष्ट्रीय घडामोडींचा भारतीय सणांशी असलेला संबंध

अमोघ पाटणकर (उत्पादन)

- \* आखाती युद्धामुळे जगावर संक्रांत कोसळली  
- संक्रांत (जानेवारी)
- \* शंकराचे नृत्य 'तांडव' अतिरेक्यांनी काश्मीर, पंजाब व आसाम मध्ये वठवले  
- महाशिवरात्री (फेब्रुवारी)
- \* पंतप्रधान चंद्रशेखर यांनी आपल्या सरकारची होळी केली  
- होळी (मार्च)
- \* निवडणुकीच्या तारखा जाहीर करून राष्ट्रपतींनी राजकीय युद्धाची गुढी उभारली  
- गुढीपाडवा (एप्रिल)
- \* सरकारने अर्थसंकल्परूपी महागाईचा नारळ वाहीला, जनसागराला  
- नारळी पौर्णिमा (ऑगस्ट)
- \* मुख्यमंत्रीपदाच्या चढाओढीत सुधाकरावांनी फोडली दहीहंडी  
- गोकुळ अष्टमी (ऑगस्ट)
- \* भूखंडाचे श्रीखंड खाणाऱ्यांनी केंद्रीय मंत्रीपदाचे मोदक खाल्ले  
- गणेश चतुर्थी (ऑगस्ट)
- \* रशियात झालेल्या उठावात अखेर कम्युनिझमचे विसर्जन झाले  
- अनंत चतुर्दशी (सप्टेंबर)
- \* रावणाच्या लंकेत वाघांनी (तामीळी) व सिंहांनी (सिंहली सैन्य) दांडीया नृत्य (युद्ध) साजरे केले  
- नवरात्र (ऑक्टोबर)
- \* परदेशी बँकेला सोने देऊन अर्थमंत्र्यांनी खऱ्या अर्थाने दसरा साजरा केला  
- विजया दशमी (ऑक्टोबर)
- \* रुपयाच्या अवमूल्यनाने अर्थव्यवस्थेचे व देशाचे दिवाळे निघाले  
- दिवाळी (नोव्हेंबर)

## याला जीवन ऐसे नाव

संकलन - उमेश रणदिवे, द्वितीय वर्ष (उत्पादन)

गलबत शिडं उभारुन सातासमुद्रात मुशाफिरी  
करायला बाहेर पडतं. हे समुद्र असतात व्यवहाराचे,  
कलेचे, ध्येयाचे, प्रेमाचे आणि द्वेषाचेही. या  
दर्यात शिरावं, दूरवरचे किनारे पहावे, वादळवाऱ्याशी  
मुकाबला करावा, चंद्रचांदण्यांशी सोयरीक करावी,  
संतप्त लाटांची मस्ती अंगावर घ्यावी. जगणं असं  
असावं की पावलापावलावर मरणाशी मुलाखत व्हावी,  
परंतु हे सारे उद्रेक अंगावर घेताना गलबत  
पाहत असतं आपल्या बंदराकडे, पराभवाच्या जखमा  
किंवा विजयाचे झेंडे घेऊन ते पुन्हा बंदरात येतं  
आणि तेथील हिरव्या, निळ्या प्रकाशात, प्रशांत पाण्याच्या गालिच्यावर  
विश्रांत होतं. गलबताच्या पराक्रमाच्या उदय बंदरात होतो, पराजयाचं  
सांत्वनही त्याला बंदरातच मिळतं.

(नटसम्राट - वि. वि. शिरवाडकर)

## ऋणानुबंध

अमित चाबरे (इलेक्ट्रॉनिक्स)

म्हटलं, जाऊन बघावं तरी एकदा,  
एका छोट्याशा खेड्यात,  
बघावा एकदा अनुभव घेऊन !

सकाळी जाग आली तीच मुळी पक्ष्यांच्या मधुर किलबिलाटाने  
पण चुकल्याचुकल्यासारखे वाटले कारण,  
त्या आवाजाला नव्हती गिरणीच्या भोग्याची सर !

सकाळच्या कामांना झाली सुरुवात  
गावकरी एकत्र जमून जाऊ लागले शेतावर  
आम्हाला मात्र एकट्यानेच धावायचे माहित  
आठ सतराची गाडी पकडायला !  
शेतावर असते म्हणे शुद्ध स्वच्छ हवा  
पण आम्हाला नाही मानवत बुवा !  
आम्हाला आवश्यकच असते प्रदुषित हवा

संध्याकाळी म्हणे पारावर बसून गप्पा मारायच्या  
एकमेकांच्या सुखदुःखात सहभागी व्हायचे  
आम्हाला तर माहीतच नसते  
शहरात आमच्या शेजारी कोण राहते  
कारण आम्ही असतो आमच्याच विश्वात  
सर्वांपासून दूर दूर .....

रात्री म्हणे निद्रादेवीच्या आधीन व्हायचे  
नीरव शांततेत

घरतीच्या बिछान्यावर अन्  
आकाशाची निळी चादर पांघरून  
पण जर नाहीच गाड्यांचा धडधडाट  
तर कुठली लागतेय झोप ?

एवढ्या कालावधीचा हा शहराचा ऋणानुबंध  
तो काय असा सहजासहजी तुटतो होय ?

## कुर्यात सदा टिंगलम्

जफर पटेल, तृतीय वर्ष (इलेक्ट्रॉनिक्स)

॥ श्री इंजिनिअरींग प्रसन्न ॥

कुप्रेम नमस्कारला विशेष चमत्कार

आमचे येथे 'श्री इलेक्ट्रॉनिक्स कृपेवरून आमचे

चि. उत्तर पेपर (रफ कागदा सकट)

(सोमय्या महाविद्यालय, यांचे कोरे व फाटके फुटके चिरंजीव)

आणि

चि.सौ.प्रश्नपत्रिका (न फुटलेली)

(मुंबई विद्यापीठ अभियांत्रिकी यांची सर्वात कठिण कन्या)

यांचा शुभविवाह

प्रिय विद्यार्थी जन हो

पुढे ढकलणारी तारीख' देऊनी कळवितो

विसरु नका येण्यासी

तुमच्यासारखे लाच देऊ विद्यार्थी न मिळती त्रिभुवनी शक्य असते

तर दिले असते कोंपी करुनी

परंतु काय विद्यापीठाची करणी

तुमचे दुर्भाग्य आले उजळोनी

म्हणुन ही घटीका येते वर्षांतुन एकदा तरी

या कुमंगल समयी यावे सर्वांनी जावे

एटीकेटी चा आहेर घेऊनी

अशी प्राचार्य करतात आग्रहाची विनंती

या दोन परीवारांचा 'अतिभयंकर सोहळा' आयोजित करण्यात आला

आहे. तरी सर्व विद्यार्थी ज्यांचे सत्र नामंजूर झाले आहे व विद्यालयाची

फी बाकी आहे अशा सर्वांनी न चालणारी पेन व कॅलक्युलेटर आणि

त्यांच्या फेल झालेल्या मित्रपरिवारासह पळत पळत यावे अशी कंपलसरी विनंती सर्वांनी मान्य करावी.

आपले नम्र शत्रु

पै. से. खाऊ

टीप :

\* लग्न वेळेवर लावले जाईल, वेळेवर न आल्यास हकलले जाईल.

\* सर्वांनी फोटो नसलेला आपल्या वडिलांचे ओळख पत्र आणावे

\* गरम गरम पिण्याच्या पाण्याची व्यवस्था कुलर मध्ये आहे.

ठिकाण :

सोमय्या महाविद्यालय

विद्याविहार, स्मशानाच्या बाजुला,

बेंचखाली.

## चार ओळी

पराग पत्की, तृतीय वर्ष (इलेक्ट्रॉनिक्स)

चारही ठिकणी मीच होतो

माझ्या प्रियेला खांदा देत होतो

जखम ओली घेऊनी भाळी

अश्वत्थामा होत होतो...

पूर्वी आकाश दिसायचे

वीज गेल्यावर छपरांच्या कडांतून

आता तारे पाठ झालेत

तू गेल्यापासून

## आजची शैक्षणिक स्थिती

महेश लिमये, तृतीय वर्ष (उत्पादन)

पहिले सत्र सुरु होऊन लेक्चर्स, प्रॅक्टिकल्स सबमिशनस असं होत होत परीक्षा येते. परीक्षा संपते थोड्या दिवसांनी दुसरे सत्र सुरु होते व पुन्हा त्याच क्रमाने हेही सत्र संपते. एक एक करत अशी वर्ष संपत जातात. नवीन येतात. काही पूर्ण पास होतात, तर काही ए.टी.के.टी. घेत पुढच्या वर्गात प्रवेशतात. हे रहाटगाडगं चालू राहते आणि एकदाचे गंगेत घोडं न्हायल्याच्या थाटात विद्यार्थ्यांचं शिक्षण एकदाचं पूर्ण होतं. कधी या संपूर्ण कालावधीत काही अडचणी येतात पण प्रत्येक विद्यार्थी त्या स्वतःच्या परीने दूर करतो. (पण हे सर्व होत असताना माझ्या शिक्षणात काही अडचणी येत नाहीत ना असा स्वतःपुरता विचार करून बाकी आजूबाजूला दुर्लक्ष करतो)

अर्थात विद्यार्थ्यांच्या या मानसिक वृत्तीला १०० टक्के दोष देण्यातही काही अर्थ नाही कारण आजची एकंदरीतच सामाजिक परिस्थिती विद्यार्थ्यांचा दृष्टीकोण नकळत पणे स्वार्थी बनविले आहे. कारण जीवनाच्या सर्वच क्षेत्रात चालणारी चढाओढ सर्वातच भेडसावणारी पोटाची चिंता यातून स्वतःपुरत बघण्याची वृत्ती वाढते. हे असं असतानाही आज गरज आहे ती प्रत्येक विद्यार्थ्यांने आजच्या शैक्षणिक स्थितीचा विचार करण्याची.

शैक्षणिक स्थितीचा विचार करताना सर्वप्रथम विचार येतो तो विद्यार्थ्यांचा. आजचा विद्यार्थी हा विद्यार्थी न राहता परीक्षार्थी बनतो आहे. विद्यार्जनापेक्षा परीक्षा पास होणे हे विद्यार्थी प्रमुख उद्दीष्ट मानतो आहे. वर्षभर अभ्यासाकडे दुर्लक्ष करून ऐन परीक्षेच्या वेळेस हमखास उत्तीर्ण होण्याची शाश्वती देणारी मार्गदर्शके वापरणे यावर विद्यार्थ्यांचा भर दिसतो. त्यातूनही अभ्यास झालाच नाही. कॉपी सारखा सोपा मार्ग आहेच. प्रत्येक विद्यार्थ्यांने आपल्या मनाशी विचार करून पाहवा

की कॉपी करून पास होण्यात काय अर्थ आहे ? कॉपी केल्याने खरा हुशार विद्यार्थी (खऱ्या अर्थाने विद्यार्थी) मागे पडतो आणि विद्यार्थ्यांचे मूल्यमापन अयोग्य ठरते. कॉपी प्रवृत्तीतूनच गुडगिरीची वाढ होते.

अर्थात विद्यार्थ्यांची प्रकृती परीक्षार्थी बनत आहे असे म्हणतानाच ती तशी बसविण्यास कारणीभूत ठरणान्या घटकांचाही विचार केला पाहिजे. शिक्षक जो एकेकानी ईश्वरासमान गुरुस्थानी मानला जाई तो विद्यार्थ्यांला स्वतःच्या गल्लाभरू प्रवृत्तीतून विद्यार्थ्यांला यासाठी एकप्रकारे उत्तेजन देत असतो. खाजगी शिकवणीतून हमखास खात्री देणारा शिक्षक महाविद्यालयात मात्र शिकवण्याबद्दल निरुत्साही दिसतो. एखादा शिक्षक तर शिकवण्यापेक्षा प्रश्नपत्रिकेबद्दल पूर्वसूचना देणे अधिक पसंत करतो.

दुसरा महत्त्वाचा घटक म्हणजे आजची शिक्षणपद्धती Practical Knowledge पेक्षा Theoretical Knowledge ला अधिक महत्त्व देणारी आजची शिक्षणपद्धती चांगल्या गुणांनी उत्तीर्ण होणाऱ्या विद्यार्थ्यांला खऱ्या अर्थाने अज्ञानीच ठेवत असते. तर Objective Type परीक्षापद्धती विद्यार्थ्यांमध्ये झटपट गुण मिळविण्याची प्रवृत्ती आपसूकच निर्माण करते ज्यातून कॉपीचे प्रमाण वाढते.

तिसरा महत्त्वाचा घटक म्हणजे विद्यापीठाचा कारभार विद्यापीठ म्हणजे गोंघळ हे समीकरण विद्यार्थ्यांच्या मनात पूर्णपणे रुजले आहे, कारण काहीतरी गोंघळ केल्याशिवाय कोणतेच काम होत नाही हे विद्यापीठाने वेळोवेळी सिद्ध केले आहे. कधी परीक्षा वेळेवर होत नाहीत तर कधी निकाल वेळेवर लागत नाहीत. लागलेल्या निकालात इतके प्रचंड गोंघळ असतात की या निकालात अनुत्तीर्ण होणारा विद्यार्थी गुणांच्या फेरतपासणीत प्रथम क्रमांकही मिळवतो. या ओंगळ कारभारामुळे विद्यार्थी जास्तीत जास्त दैववादी बनत जातो. तसेच विद्यादानाची केंद्रे भ्रष्टाचाराचे आगार बनतात.

आजचा विद्यार्थी व त्याच्यावर परिणाम करणारे प्रमुख घटक यांचा विचार करताना एकंदरीत समाजातील शैक्षणिक स्थितीवर एक दृष्टीक्षेप टाकणे आवश्यक आहे. आज जगातील सर्वात मोठ्या

निरक्षर देशांमध्ये भारताचे नाव गणले जाते. याला मुख्य कारण आहे ते शासनाचे दुर्लक्ष. दरवर्षी आम्ही शिक्षणावर जास्तीत जास्त भर देणार असे म्हणणारे शासन साक्षरतेच्या टक्केवारीत काही विशेष बदल घडवू शकलेले नाही. कारण लोकसंख्येची अफाट वाढ रोखणेच शासनाच्या मर्यादेबाहेर जात आहे मग साक्षरता तर पुढचा टप्पा आहे. स्वातंत्र्यानंतरच्या ४५ वर्षांच्या कालावधीत अंगठेबहादूर लेखणी हातात धरत आहेत असे चित्र फरसे वाढलेले नाही. आजही आपल्या देशात अशी कित्येक खेडी आहेत जिथे साधी प्राथमिक शिक्षणाचाही सोय नाही. आहेत त्या शाळांना इमारती नाहीत. एकच शिक्षक अनेक वर्ग एका वेळेला सांभाळताना दिसले आहे.

अशा परिस्थितीवर मात करत एखादा सिंधुदूर्ग जिल्हा संपूर्ण साक्षर होतो आहे. आपल्याला असे वाटत नाही का की ज्याप्रमाणे आपण शिकतो आहे त्याप्रमाणेच इतर समाजाने सुशिक्षित व्हावे ? जर आपल्याला तसे वाटत नसेल तर आपले राष्ट्र कधीच प्रगती करणार नाही कारण साक्षरता हाच कोठल्याही राष्ट्राच्या प्रगतीचा भक्कम पाया आहे. म्हणून मला असे वाटते की आपल्या राष्ट्राच्या पुनरुत्थानासाठी आपण सर्व विद्यार्थ्यांनी एक होऊन अशी एक ताकद निर्माण केली पाहिजे जी शिक्षणक्षेत्रातील भ्रष्टाचार व अन्याय निपटून काढेल. तसेच साक्षरतेसाठी महत्वपूर्ण योगदान देईल.

## हसू

मयुरेश नगरकर, तृतीय वर्ष (इलेक्ट्रॉनिक्स)

हसण्या दिघला मनुजा जन्म । हसण्याचे त्या मुख्य कर्म ॥  
काढू नये दुसऱ्याचे वर्म । हास्य सुखाचे हेचि मर्म ॥

आला आला हा पावसू । आणि संगे त्याच्या हसू ॥  
नसे दुःखाचा मागमूस । किती आनंदी हा पाऊस ॥

आता फुटे पाण्याचे पेव । जलधारा या घेती धाव ॥  
धरतीचा तप्त हा जीव । तिज वाटे सुखी या न्हावं ॥

हसे मग ही धरती माई । मग आनंदा सीमा नाही ॥  
नीलघन जे तिजला देई । देई हसू ते आम्हालाही ॥

आता घ्यावे पोटभर हसून । जाती चिंता वितळून ॥  
वितळता या साऱ्या चिंता । मग सुटे प्रश्नांचा गुंता ॥

नको लागू दुःखाच्या पाठी । दुःख नसे आपुल्यासाठी ॥  
भर हास्यानेच तुझी वाटी । मग सदाच मिळेल तूपरोटी ॥

हसू बांधोनिया कनवटी । सोड चिंता क्लेष परतटी ॥  
हसू तारेल या दुःखधी । इथे नसे तराया अवधी ॥

दुःखाचे मूळ हे मन । मन करी द्वेष उत्पन्न ॥  
तरी ठेवसी ते प्रसन्न । हसू हेच असे रामबाण ॥

चेहरा असे आरसा । मनाचा त्यात कवडसा ॥  
कवडशांची असे ही दुनिया । दुनिया हास्याची किमया ॥

पाण्याचं थुईथुई कारंज । त्यात नानापरीचे रंग ॥  
रंगात होता दंग । मिळे हास्यानंदाचा संग ॥

विसरुनी भांडण अन् तंटा । पुसुनी डोळ्यातले आसू ॥  
सांगे मयुरेश सर्वा आता । सारे मिळूनी हसू...हसू ॥

## माझा आवडता कवी

विनय सुधाकर खरे, प्रथम वर्ष (उत्पादन)

ईश्वरी प्रतिभासृष्टीचा चमत्कार मानावा अशी उत्तुंग वाङ्मयीन कर्तृत्वशिखा फारच थोड्यांच्या वाट्याला येते. आपली सुवर्णमुद्रा आपल्या कलेवर सतत उमटवीत रहाणे हे काम काही सोपे नाही. त्यासाठी ईश्वरी शक्तीचे सामर्थ्य अंकित असावे लागते. १९८७ चा ज्ञानपीठ पुरस्कार मिळवणारे मराठीतील ज्येष्ठ व श्रेष्ठ साहित्यिक वि. वा शिरवाडकर उर्फ कुसुमाग्रज हे त्या प्रतिभेचेच नव्हेत तर त्या विलक्षण गगनाचे रहिवासी आहेत.

शब्दांचा आकाशातला ८० वर्षे पूर्ण केलेला 'कुसुमाग्रज' नावाचा हा महाकवी सातत्याने कविता लिहितो आहे, नाटक लिहितो आहे, कादंबऱ्या लिहितो आहे, ललितलेख लिहितो आहे, कथा लिहितो आहे एवढेच नव्हे तर परदेशी श्रेष्ठ साहित्याचे अनुवादही करतो आहे. मराठी साहित्यातीलच नव्हे तर सर्वच धरातल्या पुरस्कारांनी रांगेत उभे राहून वाट पहावी असाच हा महान महंत!

सध्याच्या तरुण पिढीवरचे एवढेच नव्हे तर त्या आधीच्यासुद्धा पिढीचे भावविश्व कुसुमाग्रजांच्या साहित्यकृतीवर पुष्ट झाले आहे. प्रतिभाशाली साहित्यिक म्हणून तात्यासाहेब श्रेष्ठ आहेतच पण तितकेच त्यांचे व्यक्तिमत्वही सुसंस्कृत व सोज्ज्वळ आहे. म्हणूनच 'ज्ञानपीठ' पुरस्कार मिळताच त्यांच्यावर प्रेम करणाऱ्या रसिकांची मने उजळली आणि महाराष्ट्रात चैतन्याचे वातावरण निर्माण झाले.

तेजस्वी आशयाची कविता लिहिणाऱ्या तात्यासाहेबांची 'जीवन लहरी', 'विशाखां' 'हिमरेषा', 'वादळवेल' इ. सारखे कवितासंग्रह प्रकाशित झाले आहेत, काही प्रसिद्धीची वाट पहाताहेत (पाथेय). 'दूरचे दिवे', 'ययाती देवयानी' 'वीज म्हणाली धरणीला', 'नटसम्राट' अशासारखी १४ स्वतंत्र नाटके त्यांनी लिहिली जी या शतकातला

चमत्कार ठरावीत. त्यांचे हे सगळे साहित्य आबालवृद्धाना आवडणारं आहे व म्हणूनच तात्यासाहेब महाराष्ट्राचे 'सांस्कृतिक कुलदैवत' झाले आहेत. त्यांच्या साहित्याचे एकेक तुकडे म्हणजे दैदिप्यवान हिरेमाणकेच जणू ! रसिकांनी त्यावर तुटून पडावं. मग कोणाला 'पृथ्वीचे प्रेमगीत' वेडात मराठे वीर-दौडले सात', 'अहिनकुल' सारख्या कविता आठवतील तर कुणाला 'नटसम्राट' मधील 'घर देता का घर ?' सारखे स्वगत आठवेल. कुणाला 'वैष्णव'सारखी कादंबरी आठवेल तर कुणाला बाबा आमटेवर लिहिलेली 'संत' कविता आठवेल. कुणाला प्रेम कुणावर करावं ?' ही कविता आठवेल तर कुणाला 'क्रांतीचा जयजयकार' आठवेल.

खरं तर त्यांचे सगळे साहित्यच अवीट गोडीचे आहे. माझ्या मनात तर त्यांच्या कवितेचं वादळ सतत घोंघावतच असतं कारण शब्दांच्या आशयाच्या अगदी पलीकडच्या प्रदेशातत आपल्याला ते नेऊन सोडते. त्यांचे साहित्य वाचताना ते आपल्याला मित्रासारखे वाटतात, तत्त्वज्ञ वाटतात, हितचिंतक वाटतात, सल्लागार वाटतात त्यामुळे मनात चाललेल्या अंतर्गत लयीशी आपण रेंगाळतोच रेंगाळतो म्हणून मला वाटते-

तात्यासाहेब म्हणजे एक आनंदलोकच आहेत. त्यांच्या साहित्यात पूर्ण समाधान व प्रेम वाटण्याची अक्षय ताकद आहे. रसिकांच्या रसिकतेची व साहित्यविषयक जाणिवेची नाळ कुसुमाग्रज नावाच्या अफाट प्रतिभेशी जोडली जाते ती म्हणूनच. त्यांच्याविषयी किती लिहू ? बलराम जाखड यांनी कविता, नाटक, कादंबरी, कथा इ. विविध साहित्यप्रांतात नवे विचार नवी मूल्ये, नवनव्या भावना, कल्पना यांचा सातत्याने शोध घेणारे कवि 'कुसुमाग्रज' हे साहित्यिक कोलंबस आहेत असा हार्दिक गौरव केला आहे तो यथायोग्यच वाटतो.

तात्यासाहेबांच्या कवितेतच सांगायचे झाले तर मी असे म्हणेन-

काही बोलायचं आहे पण बोलणार नाही  
देऊळाच्या दारामध्ये भक्ती तोलणार नाही

## यमदूत

मंगेश श्री. मोकाशी, तृतीय वर्ष (इलेक्ट्रॉनिक्स)

उठल्यावर सकाळी मोडक्या छपरात मला तो दिसला,  
जाताना रस्त्याने वाहनांच्या चाकात मला तो दिसला,  
गाडीत दाराबाहेर लोंबकळणारच्या गर्दीत मला तो दिसला,  
मला पाहून तो हसत होता, हळूच मला खुणावत होता,  
जणु मी सावज आणि तो शिकारी होता,  
भयांची लहर थंड, सर्वांग शहारून गेली,  
जाणिवेने मरणाच्या, जगायाची इच्छा तीव्र झाली,  
तेवढ्यात कानावर एका भिकाऱ्याची आर्त हाक आली,  
नेहमी पुढे जाणारी पावले तेव्हा मात्र धबकली,  
आशेचा निर्दय किरण मनात माझ्या चमकला  
नवीन सावजाचा पत्ता त्यास मी दाखविला  
भिकाऱ्याचे खपाटीला गेलेले पोट पाहून तोही आनंदला होता  
कमी कष्टात काम होणार म्हणून फारच सुखावला होता  
दुसऱ्याच क्षणी भिकाऱ्याच्या निष्प्राण डोळ्यात तो विसावला होता  
पण मी मात्र मृत्यूवर विजय मिळवला होता  
मृत्यूवर विजय मिळवला होता.

## वात्रटिका

अमोघ पाटणकर, तृतीय वर्ष (उत्पादन)

लोकशाही शासन पद्धतीचे फायदेच फायदे

परदेशी कंपन्यांशी

करायचे वायदे

'बोफोर्स' फेअरफॅक्स करून

फुगवायची स्विस बँकेतील खाती

करवंटी घायची मात्र

जनतेच्या हाती

पुर्वी गाद्या गिरद्यांवर लोळायचे सुख

होते राजे महाराजांच्या नशीबी

हल्ली ते सुख मिळवायचे असेल तर

व्हावे लागते मंत्री, नाहीतर स्मगलर तरी

एकदा एक प्रेमवीर म्हणाला एका तरुणीला

कधी भेटशील गं मला ?

न थांबता म्हणाली ती त्याला

ये ना उद्या भाऊबीजेच्या ओवाळणीला

कुणाच्या खांद्यावर कुणाचे ओझे

शाळकरी मुलांवर असते

दप्तराचे ओझे

जनतेच्या डोक्यावर असते

करांचे ओझे

अभियांत्रिकी विद्यार्थ्यांवर मात्र असते

'असाईनमेंट' व केटीचे ओझे



## अबब ही कविता !

मिलिंद काळे, तृतीय वर्ष (उत्पादन)

एकदा माझ्या मनात आले कविता आपण लिहावी  
जमतील तेवढे शब्द जुळवून यमक लिहून पहावी ॥ १ ॥  
विचार करत होतो विषयावर कोणत्या लिहावे ?  
अनेक विषय मनात होते कशावर लिहून पहावे ? ॥ २ ॥  
विषय निवडीतच बराच वेळ गेला  
तोंडास मी लावला थंड पाण्याचा पेला ॥ ३ ॥  
एवढा वेळ धालवून मला चारच शब्द जमले  
काय सांगू विचार करून डोकेही माझे दमले ॥ ४ ॥  
वाटले तितके सोपे नव्हते हो कविता वगैरे करणे  
कवितेपेक्षाही सोपे होते जीव देऊन मरणे ॥ ५ ॥  
कविता कसली जमते मला मी मनात म्हटले  
कवि म्हणजे काय 'चीज' आहे ते आजच मला पटले ॥ ६ ॥  
कविता येत नाही म्हणून कोणी कशाला हो रडावे ?  
आपला जो प्रांतच नाही त्याच्या फंदातच कशाला पडावे ? ॥ ७ ॥  
आजही जरी मला विचारले 'का हो तुम्हास कविता जमते ?'  
कविता असे नुसते ऐकताच माझी मात्र बोबडी वळते ॥ ८ ॥

## इच्छा

जफर पटेल, (इलेक्ट्रॉनिक्स)

तिच्या आकर्षक लोचनांना पहायचे होते  
घडघडत्या अंतःकरणाने सामोरे जायचे होते  
धरधरणान्या ओठांनी काहीतरी सांगायचे होते  
कंप पावणाऱ्या हातांनी मनाला भारवेल असं  
काहीतरी घ्यायच होतं  
प्रभावित शब्दांनी खेचून घ्यायच होतं  
प्रेमाच्या अलंकरणाने तिला सजवायच होतं  
तिची सुंदर प्रतिमा मनात छपायची होती  
प्रत्येक क्षणी ती आठवायची होती  
तिच्या सहवासात क्षणभर तरी रहायच होतं  
तिला जिवाच्या पलिकडे जपायच होतं

प्रेमाच्या प्रितीला अनुभवायचं होतं  
तिला न आवडेल अस काही करायचं नव्हतं  
पण जिच्यासाठी हे करायचं होतं.....  
..... तिला अजून हो म्हणायचं होतं

## हुंडाबळी

मिलिंद काळे, तृतीय वर्ष (उत्पादन)

अहो तुम्ही ऐकलं का ?  
तुम्हाला काही कळलं का ?  
समोरच्या घरातून येतोय धूर  
भांडणांचा तर आलाय पूर ॥ १ ॥  
भांडण चाललंय कशावरून ?  
न मिळालेल्या हुंड्यावरून ॥ २ ॥  
सासू सुनेला मारते काय ?  
सून सासूचे धरते पाय ॥ ३ ॥  
जा हो कोणी त्यांच्या घरी  
सोडवा तिला आता तरी ॥ ४ ॥  
जळेल हो नाहीतर अणखीन एक सून  
सासू करेल तिचा निर्धुण खून ॥ ५ ॥  
देवा तूच शिक्षा कर या लोभ्यांना  
पैशासाठी जिवंत जाळतायत निष्पाप सुनांना ॥ ६ ॥  
अशाच काहो सुना जळत राहणार ?  
पोलीस नेहमीसारखे पैसे खाणार ? ॥ ७ ॥  
त्या नवऱ्यालाही काही आहे का लाज ?  
फुकटच्या हुंड्यामुळे वाढलाय माज ॥ ८ ॥  
हे असे किती दिवस चालायचे ?  
आपण काय नुसतेच बघायचे ? ॥ ९ ॥  
चला सगळ्यांनी करुया यांना शिक्षा  
मागायला लावू अशा लोकांना भिक्षा ॥ १० ॥  
या सगळ्यांनी हालचाल कर  
अशा सासवांना जोड्याने मारू ॥ ११ ॥  
सुनांनो बसू नका आता अश्रू गाळीत  
या लोभी लोकांना टाकू आपण वाळीत ॥ १२ ॥

## मुसाफिर

प्रो. संगीता कुलकर्णी

जा मुसाफिरा असाच पुढे ईर्षने  
क्षितीजाच्या पुढती अमरत्वाचे लेणे  
देईल चांदवा शीतल तुज वर्षाव  
मरुभूमीतही गा शांतीसुखाचे गीत  
देईल उकाडा तुज गारवा नित्य नवा  
घालतील कोसळत्या धारा सुखस्नान तुजला  
हा सोसाट्याचा वारा चुंबित तव तनुला  
दाखवील दिशा अन् नेईल नव्या स्थानाला  
ही रात्र काळोखी पण काय भय तुज त्याचे  
वाटे जणू लक्ष लक्ष दीप उजळले  
ही अवस, ही पौर्णिमा  
तुजला एक समान  
मग जा, असे अश्रु बिंदू कां उभे डोळ्यात !  
संसाराचे बंध कुणा कां सुटले  
हे मायपाश सतत बांधियले  
तोडून त्यांना घे तू उंच भरारी  
मग ज कोण तुला थांबवी ?

## निवडणुकायान

प्रा. र. गो. करंदीकर

आता निवडणुके देवे । एक मागणे ऐकावे ।  
निवडूनी मज द्यावे । लोकसभेत ॥ १ ॥  
विरोधकांची खांडोळी होवो । त्यांच्यात एकजूट न होवो ।  
परस्परांशी ते भांडो । विरोधक कट्टर ते ॥ २ ॥  
दुरितांचे तिमिर जावो । विश्वशांती होवो ।  
जो जो बेकार त्यास काम मिळो । हेच आश्वासन ॥ ३ ॥  
आम्ही सकल मंडळी । पक्ष श्रेष्ठींची आज्ञा पाळी ।  
दिल्लीकरांची मर्जी । सतत सांभाळायची ॥ ४ ॥  
चला देशाला नेऊया । एकवीसाव्या शतकाकडे ।  
प्रगतिचे सारे मार्ग । आपण अवलंबूया ॥ ५ ॥  
दिल्लीला लोकसभेला । तुमचे प्रश्न मी मांडेन ।  
मतदारांचे करणे भले । हाच माझा हेतु ॥ ६ ॥



## किसे महान कहे ?

शिवमणि त्रिपाठी, तृतीय वर्ष (इलेक्ट्रॉनिक्स)

बंबई वी.टी. से छूटी महानगरी एक्सप्रेस रात के अंधेरे को चीरती सरपट भागी जा रही थी। वातानुकूलित यान पूरी तरह खाली था। सिर्फ एक भीमकाय पुरुष तन पर कंबल लपेटे शांत मुद्रा में बैठा हुआ था। चेहरे पर पड़े हुये चेचक के दाग चेहरे को डरावना बना रहे थे। आंखों में क्रूरता भरी थी किंतु वेशभूषा से वह कोई लक्ष्मीपुत्र जान पड़ रहा था। एक कीमती लगनेवाला छोटा बैग ही उसकी एकमात्र अमानत जान पड़ रही थी जिसे उसने संभालकर रखा हुआ था।

डिब्बे के अंदर रोशनी अठखेलियाँ कर रही थी तो बाहर घना अंधेरा अपना साम्राज्य फैलाए हुये था। पर इन सब की परवाह किये बिना वह वेगों की रानी हवा से बातें कर रही थी कि अचानक बीच में पड़नेवाले स्टेशन ने उसका मार्ग अवरुद्ध कर दिया। मजबूरन उसे रुकना पड़ा।

डिब्बे में एक युवती ने प्रवेश किया। यौवन की मदिरा छलकाती उस तरुणी के पदार्पण से डिब्बे में सप्तरंगी

प्रकाश फैल गया। उसके तन ने ऐसा आभाष दिया कि जैसे तरुणाई से अभी अभी उसका मिलाप हुआ है। पहनावे से वह किसी सभ्य घराने की, सुशील एवं सुसंस्कृत कन्या जान पड़ रही थी। खैर सीटी बजी व रेलगाड़ी समाज के गंदे माहौल से दूर भागने की कोशिश करने लगी।

उस भद्र पुरुष ने कन्या का मुस्करा कर स्वागत किया! कुछ समय के पश्चात जैसे भूचाल आया और अब उस मृगनयनी के हाथों में लहराता हुआ बड़ा सा चाकू था। इशारा साफ था, गजब की फूर्ती के साथ उसने पुरुष का बैग अपने कब्जे में किया और उसी मुद्रा में आनेवाले स्टेशन की प्रतीक्षा करने लगी।

इंतजार समाप्त हुआ किंतु अब चार सशास्त्र पुलिस कर्मियों ने डिब्बे में प्रवेश किया। इन्हें देख वह कन्या कांप उठी। भविष्य की कल्पना मात्र से उसके रोंगटे खड़े हो गये। कुछ ही पल में गाड़ी फिर चलने लगी।

ज्यों ही उस भद्र पुरुष ने पुलिस से सहायता मागने की मुद्रा अपनायी युवतीने नया जाल फेका। चाकू को डिब्बे के नीचे फेक बालों को बिखरा लिया व कपड़े फाड़ कर जोर जोर से वही पुराने शब्द दुहराने लगी। एक अबला की इतनी करुण पुकार सुन कानून के सजग प्रहरी दौड़ पड़े और पल भर में ही उस पुरुष को अधमरा कर जेल की सलाखों के पीछे ढकेल दिया। किंतु वह कंबल अपने स्वामी के तन से टस से मस न हुआ।

राष्ट्रपिता बापू के सामने स्वतंत्र भारत की न्यायसभा विराजमान थी। न्यायविदों के तन पर लटकते काले कोट न्याय के प्रकाश में कालिमा लाने का प्रयास कर रहे थे। अपनी आत्मा को धन के हाथों गिरवी रख भारत माता की आत्मा का सौदा कर रहे थे।

खैर भारत माता के पुत्रों का प्रयास सफल हुआ। न्यायाधीश महोदय ने एक अबला की इज्जत लूटने का प्रयास करने के आरोप में पुरुष को तीन साल कैद व पाच हजार रुपये जुर्माने की सजा सुनायी। यह सुनते ही स्त्री की महानता के सारे दावे खोखले प्रतीत होने लगे व न्यायदेवी की सिसकारियाँ सुन मन घोर निराशा व वेदना से भर उठा।

किंतु यह क्या उस पुरुष के चेहरे पर शिकन भी न आयी किंतु वह कंबल जो अब तक अपने स्वामी के तन को ढके हुये था अपने आपको संभाल न सका व अपनी तकदीर पर रोने के लिए स्वामी के चरणों में गिर पड़ा। सामने प्रस्तुत दृश्य को देख सारा न्यायालय भौंचक्का रह गया। उस व्यक्ति के दोनों हाथ पहले ही किसी दुर्घटना में कट चुके थे।

न्यायालय की ईंटे एक दूसरे से पूछने लगी।

वीरान खेतों में हल की मूठ थामें,

खड़ी हमारी न्यायव्यवस्था,

किंतु, बादल कहा है ?

हंसना मना है।

१) कन्या का पिता दामाद से - अच्छा हुआ, तुम दोनों का विवाह हो गया। मेरे सिर से एक बड़ा बोझ हट गया। दामाद - जी हाँ, वह आपके सिर से उतर कर मेरे सिर चढ़ गया है।

२) एक दोस्त - ऐसी क्या चीज है जो भुलकड़ पत्नियों को भी याद रहती है।

दूसरा दोस्त - पति की तनख्वाह और मिलने की तारीख।

### नाभिकीय कैमरा

(यह कैमरा पदार्थ का अधिक उपयोग चित्र न्युट्रान किरणों का उपयोग करते हुए खींचता है। ऐसे चित्र कुद् मौकों पर एक्सरे द्वारा लिये गये चित्रों की अपेक्षा अधिक उपयोगी होता है।

चूंकि न्युट्रान पदार्थ के अणुकेंद्र से प्रतिक्रिया करता है जबकि एक्सरे इलेक्ट्रॉन्स से जो कि केंद्रक के बाहर होते हैं, नाभिकीय कैमरे द्वारा दी गयी जानकारी अधिक आयुक्त होती है।

\* \* \*

## संग्रह

सारिका मिश्रा, प्रथम वर्ष (इलेक्ट्रॉनिक्स)

### अ) अजूबे

१) अमरीका में किये गये अध्ययन के मुताबिक छह महिने का गर्भस्थ शिशु साफ सुनने लगता और अपनी माँ की आवाज पर प्रतिक्रिया व्यक्त करता है।

२) दुनियाँ का हर पांचवा व्यक्ति डाइबिटीज (मधुमेह) के रोग से पीड़ित है। दुनिया के आम रोगों में इस रोग का तीसरा स्थान है।

३) क्रिस्टोफर कोलम्बस की चौथी समुद्री यात्रा के नाविक रात के अंधेरे में ही भोजन करते थे ताकि खाने की सामग्री में रेंगते कीड़े उन्हें नजर न आये।

४) दुनिया को सबसे पहले रेशम चीन ने दिया और आज भी वह दुनिया का आधे से ज्यादा रेशम पैदा करता है।

५) एक काम ऐसा जो शिशु कर सकते हैं बड़े नहीं। शिशु सास लेना व निगलना एक साथ कर सकते हैं।

६) हिसाब लगाकर देखा गया है कि ब्रिटिश पालतू जानवरों के खाने पीने पर अपने बच्चों की तुलना में दोगुना ज्यादा खर्च करते हैं।

७) दक्षिण अफ्रीका की 'ब्लुट्रेन' जो केपटाउन से जोहान्सबर्ग के बीच चलती है। दुनिया की सबसे ज्यादा

वैभव पूर्ण ट्रेन है, यहां तक कि उसकी खिड़कियों पर शुद्ध सोने का रंग किया हुआ है।

### ब) बताओं तो जाने ?

- १) प्रथम विश्व कप के प्रथम गेंदबाज का नाम ?
- २) मेरे बाप के एकमात्र बेटे की बेटा का भाई मेरा कौन है?
- ३) 'एमनेस्टी इंटरनेशनल' क्या है ?
- ४) 'इंकुला' का रचयिता कौन था ?
- ५) अगर बीते हुये कल का आनेवाला कल मंगलवार था तो आनेवाला कल का बीता हुआ कल कौन सा दिन होगा ?
- ६) महाराष्ट्र राज्य हिंदी अकादमी के वर्तमान अध्यक्ष ?
- ७) अमरिका में डालर, मैक्सिको में पीसो और जम्बिया में ?
- ८) एक दोस्त को दो बार सिनेमा दिखाना सस्ता होगा या दो दोस्तों को एक बार ?
- ९) प्रथम श्रेणी के क्रिकेट में किस खिलाड़ी ने एक ही पारी में अधिकतम छक्के लगाये हैं ?

जवाब पेज नं. पर

### उत्तर

- १) मदनलाल २) मेरा बेटा ३) यह लंदन में स्थित एक अंतर्राष्ट्रीय संगठन है। जिसका उद्देश्य है सिद्धांतवादी कैदियों को मुक्त कराना। ४) ब्राम स्टोकर ५) मंगलवार ६) राममनोहर त्रिपाठी ७) क्वाचा ८) दो दोस्तों को एक बार ९) न्युजीलैंड के भूतपूर्व कप्तान जान रीड ने १५ छक्के अपने २९६ रनों की पारी में लगाये हैं।

## दिल एक TRANSISTOR

शिवमणि त्रिपाठी, तृतीय वर्ष (इलेक्ट्रानिक्स)

क्या बतलाएं तुमको प्रियवर, दिल मेरा है एक Transistor ।  
चलता नहीं दौड़ता है यह, तुमसे ही Vcc पाकर ॥

देख तुम्हारे कमल नयन,

जाता हो इसका Saturation ।

तेज करंट बहने लगती,

बढ़ जाती इसकी घड़कन ॥

एक दिवस जो दिखो न आप,

हो जाता यह तुरंत cut off ।

High impedance यह दिखलाता,

सुनता नहीं मेरी यह बात ॥

यह रह सकता Active region में,

जो आप मिलो हर season में ।

Curve linear हो जाता,

जो आप पधारो इस मधुवन में ॥

क्या बतलाएं तुमको प्रियवर, दिल मेरा है एक Transistor ।

चलता नहीं दौड़ता है यह, तुमसे ही Vcc पाकर ॥

पापा ने बहु समझाया बेटा,

पार न कर limitations इस Transistor के ।

यह Vcc नहीं Regulated,

खतरे बहु इसके Fluctuation के ॥

कभी कभी इसका Q point,

Drift बहुत हो जाता है ।

B.E. की क्या बात है बेटा,

T.E. भी भारी पड़ जाता है ॥

उनके उपदेश नहीं सुनता,

Signals तुम्हारे Amplify कर जाता है ।

जूते, चप्पल के Noise Signals खाकर भी,

यह शुद्ध Output दे जाता है ॥

क्या बतलाएं तुमको प्रियवर, दिल मेरा है एक Transistor ।

चलता नहीं दौड़ता है यह, तुमसे ही Vcc पाकर ॥

## हंसना मना है ।

१) पत्नी - शादी के पहले तुम बहुत प्यारी प्यारी बातें करते थे।  
कहते कि मैं तुम्हारे लिए अपनी जान भी दे सकता हूँ। अब  
क्या हुआ ?

पात - मुझे क्या पता था कि तुम सचमुच लेने के लिए तैयार  
हो जाओगी।

२) राम - श्याम, तू तो रोमा से प्यार करता था, फिर सगाई  
क्यों तोड़ दी?

श्याम - यार, वह सगाई के बाद भी शादी करना चाहती थी।

## ड्रग्स, आतंक और ज्ञान

शिवमणि त्रिपाठी, (तृतीय वर्ष इलेक्ट्रानिक्स)

विशाल भारत वर्ष के सपूत मेरे साथियों ।  
नादां उमर के बालकों, हिंद की ओ लड़कियों ॥  
कैफीन और कोकीन की, बहती हवाएं रोक दो ।  
ड्रग्स के कलंक को, माथे से माँ के पोछ दो ॥  
इसका मोह किया तूने तो,  
जीवन भर पछताएगा ।  
दिलो-दिमाग की बदहाली,  
अभिषिप्त इंद्रियाँ पाएगा ।  
अरे ! इसको हाथ लगा मत ओ पागल,  
यह तन, एक नरक बन जाएगा ।  
अफीम और हशीश के, नाश की कमर कसो ।  
ड्रग्स के मायाजाल में, दोस्तों यूं ना फसो ॥  
तरुणाई भरे दोस्तों, देश के उद्धारकों ।  
आनेवाली पीढ़ियों, हिंद के ओ रक्षकों ॥  
एक नाद फूक दो,  
आतंकियों का सीना चीर दो ।  
खंजरो से फाड़कर,  
कर की लकीरें काट दो ॥  
स्वदेश को शांति दो,  
निज चरित्र का अभिमान दो ।  
कन्या से कश्मीर तक,  
समृद्धि का वरदान दो ॥

उग्रवाद, भ्रष्टाचार के, विनाश की कमर कसो ।

धन के मायाजाल में, दोस्तों यूं ना फसो ॥

पढ़नेवाले दोस्तों, कालेज के प्रबंधकों ।

आनेवाले परीक्षकों सोमैया के ओ शिक्षकों ॥

बढ़ रहे तिमिर में तुम,

ज्ञान का प्रकाश दो ।

अधूरी खड़ी इमारत को

आडोटोरियम का सिंगार दो ॥

संबंध और प्रबंध के,

सारे तार जोड़ दो ।

अबकी 'मेरिट लिस्ट' में,

KJSCE की छाप छोड़ दो ॥

## हंसना मना है ।

1) टकनू - सर, प्लीज आज आप मेरे टर्म वर्क पर सही कर दीजिए । कभी जरूरत पड़ी तो मेरे पिताजी भी आपकी मदद कर देंगे ।

प्रोफेसर - वे क्या क्रम करते हैं ।

टकनू - सर, पागलखाने में पागलों के एडमिशन कार्ड पर सही करते हैं ।

2) प्रोफेसर - टकनू यदि वेतन मिलने पर मैं अपनी पत्नी को साड़ी न भेट करू तो क्या होगा ?

टकनू - होगा क्या सर ? वही होगा जो मंजुरे खुदा होगा । उनके बेलन व आपके टकले का फिर विवाह होगा ।

प्रोफेसर - चुप ! ऐसा कदापी नहीं होगा । अब उनकी साड़ी का अविलंब इंतजाम होगा ।

॥ तुझे कसम है !

अशोककुमार शर्मा, (प्रथम वर्ष इलेक्ट्रानिक्स)

तोड़ रिश्ते सभी, छोड़ कर काफिला ।

दास्ता में न जाने की कोशिश करो ॥

हिंद वालो तुम्हे हिन्द की है कसम ।

हिन्द अपना बचाने की कोशिश करो ॥

अपनी आजादी का क्या यही अंत है ।

फिर निगलने चला हमको आतंक है ॥

जर्-जर् से आती दुःखो की सदा ।

उस सदा को मिटाने की कोशिश करो ॥

सिख, हिन्दू, ये मुस्लिम इसाई रही ।

भाई-भाई में कैसी लड़ाई रही ॥

देश भारत मेरा, हम सभी भारती ।

जाति - बा में न जाने की कोशिश करो ॥

भर रहा दम है आबरुये वतन ।

क्यों मिटाने चले रहे हो इसे बेरहम ॥

देकर अपना लहु जो सवारा इसे ।

जान उसकी बचाने की कोशिश करो ॥

आज पंजाब, कश्मीर, रोता तमिल ।

जान किसकी गयी, किसका टूटा है दिल ॥

कौन है जो ये मैसूर में देहशत दिया ।

खाक उसकी उड़ाने की कोशिश करो ॥

मुझको मजूर हरगिज नहीं हीनता ।

जाने देंगे न अपनी ये स्वाधीनता ।

टिमटिमाती शमाँ बुझ न जाये कहीं ।

दीप ऐसा जलाने की कोशिश करो ॥

फूल और कांटे

राजेश जगेशिया, (प्रथम वर्ष इलेक्ट्रानिक्स)

फूलों को तो सब है चाहते,  
आओ कांटो से भी प्यार करें ।

सुख की चाहत हर कोई करता,  
दुख को भी स्वीकार करें ॥

जीवन में अगर दुख ना आये,  
सुख क्या पहचान हमें ।

खुशी के आंसू और गम के आंसू,  
का भी न हो ज्ञान हमें ॥

रात के बाद दिन है आता,  
फिर इसका क्यों इंतजार करें ।

फूलों की तो सब है चाहते,  
आओ कांटो से भी प्यार करें ॥

मुकद्दर में सभी के,  
वही होती है बहारें ।

इन्सान तो वही है जो मेहनत से,  
अपना जीवन सवारे ॥

दीन दुखी जो मिले राहों में,  
उसको भी हम प्यार करें ।

फूलों को तो सब है चाहते,  
आओ कांटो से भी प्यार करें ॥



## विज्ञान समाचार

शिवमणि त्रिपाठी, तृतीय वर्ष (इलेक्ट्रॉनिक्स)

### क) नाभिकीय कैमरा -

भाभा अणुसंघान केंद्र के वैज्ञानिक द्वारा निर्मित नाभिकीय कैमरा धातु विज्ञान, अंतरिक्ष, जीव विज्ञान व युद्ध के क्षेत्रों में विविध प्रकार से उपयोगी है। यह कैमरा न्यूट्रान किरणों का उपयोग करता है। न्यूट्रान किरणें उत्पन्न करने वाली लघु मशीन कैमरे के साथ होती है।

### घ) दृश्य-प्रकाश सिलिकान इडों से

प्रकाश निक्षेपक डायोड्स (LEDs) में दृश्य प्रकाश का निक्षेप अब तक केवल यौगिक अर्धचालकों जैसे की GaAS या Inp द्वारा ही संभव था जो कि महंगे व संभालने में कठिन होते हैं ! इसका हल सरंध सिलिकान द्वारा दिया जा सकता है।

ये सरंध सिलिकान एक विद्युत-रसायन खरोच प्रकिया द्वारा तैयार किये जा सकते हैं। यह क्रिया सिलिकान को इडों का रूप प्रदान करती है। इड के आयाम को बदलकर निक्षेपित प्रकाश की तरंगदैर्घ्य (wavelength) बदली जा सकती है, जो कि प्रमात्रा यांत्रिक प्रभाव (quantum mechanical effect) के कारण होनेवाले निक्षेप को सिद्ध करता है।

यह परिणाम आशा प्रदान करता है कि सिलिकान का उपयोग प्रकाशिकी इलेक्ट्रॉनिक्स में न केवल प्रकाश-गृहीता के रूप में बल्कि प्रकाश उत्सर्जक के रूप में भी किया जा सकता है।

च) डिजल + नमक = मिट्टी का तेल एक लिटर जाय तो मिट्टी

का तेल बनता है। डिजल को मिट्टी का तेल बनता है। डिजल को मिट्टी के तेल में बदलने का यह विचित्र तरीका कलकत्ता में अनेक हल्का भोजन तैयार करनेवाली होटलो में लोकप्रिय हो रहा है क्योंकि किल्लत के दिनों में इन्हें पर्याप्त मिट्टीक तेल प्राप्त होता। तथा अनेक पेट्रोलियम डीलर भी ईंधन की कमी ने दिनों में डिजल की काला बाजारी करने के काम में लिप्त हो गये हैं।

जब पदार्थ बहुत हल्केया बहुत भारी अणुओं का बना हो या उसमें किसी तत्व के समस्थानिक निहित हों, जिन्हे पहचानना हो तो ऐसे स्थानों पर एक्सरे किरणें उपयोगी नहीं होती किंतु नाभिकीय कैमरा आवश्यक जानकारी आसानी से उपलब्ध कराता है।

### ख) घर-घर को विद्युत सूर्य से -

अब भारत के दूर दराज के गांवों की छतों पर सूर्योन्मुख नयी प्रणाली का एंटीना उग रहा है। तथा हजारों भारतीयों को विद्युत का प्रथम दर्शन दिला रहा है।

१५ करोड किलोमीटर दूर तथा ५ करोड वर्ष तक समाप्त न होने वाले स्रोत से उर्जा प्राप्त करनेवाले ये एंटीना प्रकाशीय उर्जा को जमीन पर विद्युतीय उर्जा में रूपांतरित करनेवाले तंत्र के अंग है। यह कार्य अब तक विद्युतीय जाली से संभव न था।

इस विद्युत से कम से कम ४०,००० घर व सड़कें प्रकाशित हो रही हैं। सैकड़ों रेलवे सिग्नल, ५० लघु उद्योग काम कर रहे हैं। इस प्रकार लगभग ७ करोड ५० लाख भारतीय लाभान्वित हो रहे हैं।

भारतके लगभग १०,००० गांवों ने अबतक विद्युत नहीं देखी है। किंतु, पहाड़ों पर, घने जंगलो में या रेगिस्तान में स्थित लगभग ५० गांव स्वयं के इन सौर्य यंत्रों पर गर्व कर रहे हैं।

ग) देश का सबसे ऊँचा टीवी टावर  
 देश का सबसे ऊँचा टीवी टावर भारत-पाकिस्तान सीमा पर जैसलमेर जिले के रामगढ़ गाँव में निर्माणाधीन है। इस विलक्षण टावर की ऊँचाई ३०० मीटर जो एक विस्तृत क्षेत्र दूरदर्शन की गिरफ्त में देगा।

यह २५५ मीटर तक कंक्रीट व शेष ४५ मीटर तक स्टील का बना होगा। यह दिल्ली के टावर से ६५ मीटर अधिक ऊंचा होगा।

घ) दृश्य प्रकाश सिलिकोन छड़ों से -

प्रकाश निक्षेपक डायोड्स में दृश्य प्रकाश का निक्षेप अब तक केवल यौगिक अर्ध चालकों जैसे की GaAs या Inp द्वारा संभव था जो कि महंगे व संभालने में कठिन होते हैं। इसका हल संरघ सिलिकान द्वारा दिया जा सकता है।

ये संरघ सिलिकान एक विद्युत रसायन खरोच प्रक्रिया द्वारा तैयार किये जा सकते हैं। यह क्रिया सिलिकान के छड़ों का रूप प्रदान करती है। छड़ के आयाम के बदलकर निक्षेपित प्रकाश की तरंगदैर्घ्य (wavelength) बदली जा सकती है, जो कि प्रमात्रा यांत्रिक प्रभाव (quantum mechanical effect) के कारण होनेवाले निक्षेप को सिद्ध करता है।

या परिणाम आशा प्रदान करता है कि सिलिकान का उपयोग प्रकाशिकी इलेक्ट्रानिक्स में न केवल प्रकाश गृहिता के रूप में बल्कि प्रकाश उत्सार्जक के रूप में भी किया जा सकता है।

च) डिजल + नमक = मिट्टी का तेल

एक लीटर डिजल में यदि सौ ग्राम नमक मिलाया जाय तो

मिट्टी का तेल बनता है। डिजल को मिट्टी के तेल में बदलने का यह विचित्र तरीका कलकत्ता में अनेक हल्का भोजान तैयार करनेवाली होटलों में लोकप्रिय हो रहा है क्योंकि किल्लत के दिनों में इन्हें पर्याप्त मिट्टीका तेल प्राप्त नहीं होता। तथा अनेक पेट्रोलियम डिलर भी ईंधन कमी के दिनों में डिजल की कालाबाजार करने के काम में लिप्त हो गये हैं।

घ) अंत में -

वित्तमंत्री मनमोहन सिंह के २२ नंबर १९९१ के वक्तव्य के अनुसार अब हर भारतीय के ऊपर १५०० रु. का विदेशी कर्ज चढ़ गया है।

हंसना मना है।

१) नेताजी की पत्नी : आप साठ साल के हो गये और इस उम्र में जुड़ो कराटे सीख रहे हैं ?

नेताजी : क्या करूं ? लोकसभा में किये के गुंडे ले जाने पर पाबंदी है।

२) नेताजी भाषण देते हुये : देश की जनसंख्या बढ़ती जा रही है, इसे देख क्या मेरे जैसे नेता खुश हो सकते हैं ?

भीड़ में से एक श्रोता : हां, हो सकते हैं यदि यह बढ़ोतरी आपके वोट बैंक में बढ़ोतरी करे।

## “મૃગજળ”

મનોજ કોહારી

— ક્ષિતિય વર્ષ (પ્રોડક્શન)

રવિયામણાં રણમાં  
મનોહર મૃગજળ  
અને હું  
સાવ એકલો  
અટૂલો  
અશ્વત્થામા સમાન  
દૂર ક્ષિતિજ સમક્ષ અમિષ નજરે  
તાકી રહું છું  
આશામાં કે તમે આવશો અને  
નિઃશ્વાસનું ઉલ્લાસમાં રૂપાંતર કરશો  
પરંતુ  
મૃગજળ કદી ઝાકળ બન્યું છે? !!....



## અજંપો

બંકિમ શાહ

— તૃતીય વર્ષ (ઇલેક્ટ્રોનિક્સ)

ફત્તેહની લાલસાઓ વસે શ્વાસોશ્વાસ,  
અજંપાનો દરિયો આંબે ઉણપનું આકાશ.

ઇચ્છાની ભરતીઓને શિકસ્તની ઓટ,  
મંજિલોની ભૂલભૂલામણીમાં છેતરામણી દોટ.

એકના કિનારે બીજી રજળપાટ,  
ફૂલથી ફૂલ સુધી ભમરાની વાટ.

મિત્રોની મધૂરપ છે, મીઠી તેને અધૂરપ છે,  
ક્ષિતિજેના ઝાંઝવાની ઘડકનને ધરપત છે.

ક્યાંક કિનારો સિદ્ધિ છે, ક્યાંક વેગતણો ઉત્સવ છે,  
શાંત સમુંદરમાં ગતિ એ જ ગૌરવ છે.

## જીવન મંત્ર

જયદીપ પાઠક

-તૃતીય વર્ષ  
(ઇલેક્ટ્રોનિક્સ)

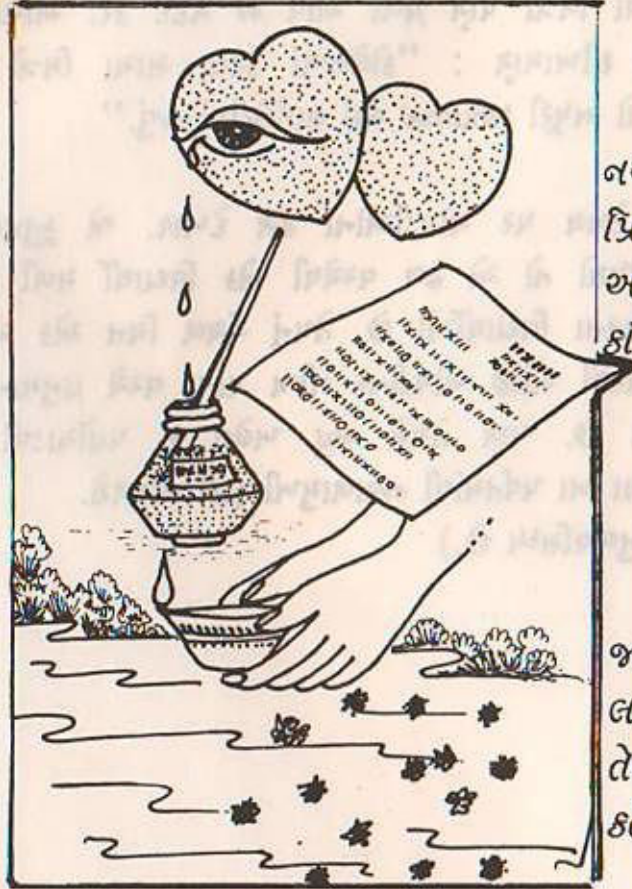


જીવન એ મુએલાનું કામ નહીં  
એ તો જોશીલાનું સમરાંગણ છે,  
દિલમાં હોય જો જોશ  
તો દુનિયાનો દરેક છેડો ઘરનું આંગણ છે.  
અરે આમ ન ભાગ રણ છોડી ને  
ઘણી લડાઈ બાકી છે,  
તળેટીથી શરૂઆત કર  
તો પર્વત પર ચડાઈ પાકી છે.  
ભૂલી જ પેલા ભૂતકાળને  
એ તો વહીં ગયો છે,  
અહીં તો એ જ સફળ થાય  
જે સમયના મારને સહીં ગયો છે.  
નિરાશાના પાંજરે પુરાઈ ન રહે  
આશા તો આકાશે ઉડવાની પાંખ છે,  
છેક અર્જુનના સમયથી બધા સફળ થાય છે  
જો લક્ષ્ય નિશાનની આંખ છે.  
જીવનને માણવા હૃદયમાં જોઈએ ઝિંદાદિલી...!!  
એ વાત સારી સદા છે,  
જીવનનો આ મંત્ર યાદ રાખ કે  
હિંમતે મહીં તો જ મદદે ખુદા છે.

# પ્રેમનું તર્પણ

પ્રેરક મહેતા

— તૃતીય વર્ષ  
(ઇલેક્ટ્રોનિક્સ)



યાદ ન કર વીતી ગયેલી એ પળ,  
સ્મરણ શાનું હવે, ભૂલી જ એ સ્થળ!

કહેશો ના સજા કરવાનું મુજને,  
કે દોષ છે મારો પ્રેમમાં પડવાનો,  
અને સજા કરું તો કોને  
આજ મુજ અને મારામાં ફરક ઘણો પડવાનો.

નથી માનતો છું કે હશે કુદરતનો આવો કરુણ ક્રમ  
પ્રિયજન ન મળવાનો શું એનેય કદી નહીં હોય ગમ!  
આજ સમજાય ગયો છું સનમ,  
કાં તો એ હતી તારી રમત કે પછી મારો ભ્રમ.

હતી ઇચ્છા મારી  
તારી કબરની બાજુમાં સજાવીશ કબર મારી,  
હવે એ જ છે જેને સજાવી શકીશ છું,  
જિંદગી મારી કોરી રાખીને ચાલી ગઈ છે તું.

જ્યારે રંગીન રજનીમાં ધાય છે તારું સ્મરણ,  
લાગે છે કે કરી દઉં સર્વસ્વ મારું તને સમર્પણ,  
તેથી જ પ્રિયે આ કાવ્ય તને કરું છું અર્પણ,  
કહે, શું આ જ નથી મારા પ્રેમનું તર્પણ!!!

## લાઈબ્રેરીમાં એક લટાર....

જયદીપ પાઠક

— તૃતીય વર્ષ (ઇલેક્ટ્રોનિક્સ)

સોમેયા એન્જિનિયરીંગના ગ્રાઉન્ડ - ફ્લોર પર થતી લોકોની ચહેલ પહેલ રસપ્રદ હોય છે. કેટલાક વિદ્યાર્થીઓ પટની ક્ષુધા શાંત કરવા કેન્ટીન (!?) તરફ જતા હોય, કેટલાંક ડોકી નમાવી જુદા જુદા પોઝમાં ઊભા રહી ફૂલરમાંથી પાણી પીવાનો પ્રયત્ન કરતાં હોય. કોમ્પ્યુટર રૂમમાં આરાધ્યદેવની પૂજા કરતા હોય તેમ કેટલાક વિદ્યાર્થીઓ કોમ્પ્યુટર સામે 'નતમસ્તક' બેઠાં હોય. પરંતુ સૌથી વધુ રસપ્રદ, રહસ્યમય અને આવા અનેક વિશેષાણુથી વર્ણવી શકાય તે જગ્યા એટલે લાઈબ્રેરી.

ચાલો, લાઈબ્રેરીમાં એક લટાર મારીએ. જરા સંભાળીને ચાલવું કેમ કે બધે 'શાંતી રાખો'ની ચેતવાણીઓ દેખાય છે. છતાં તમે બે મિનિટ આંખ બંધ કરી ઊભા રહેશો તો સમજાશે કે વિદ્યાર્થીઓ શાંતિ સિવાય બધું જ રાખે છે. શાંતિથી વાંચવાને બદલે મિત્રોના જૂથ અભ્યાસની 'ચર્ચા' કરે છે. આમ, લાઈબ્રેરી આવા 'મધુર' કોલાહલથી ગુંજી ઊઠે છે.

હવે આસપાસ નજર દોડાવો, જ્યાં ખાલી ખુરશી દેખાય ત્યાં ચિત્તાની ત્વરાથી છલાંગ લગાવો. ખુરશી મળી જાય તો પાણ તેને સંભાળવાનું કાર્ય કોઈ નેતાને મુશ્કેલ પડે તેનાથી પાણ વધું અઘરું છે. જરાક ઊભા થયા નથી ત્યાં ગઈ જ સમજે.

ક્યાંક ટેબલ પર છુટ્ટી પેન્સિલ, રબ્બર, કેલક્યુલેટર વગેરે પડેલું જુઓ તો વધારે તપાસ કરતાં જાણાશે કે Noumal લખાઈ રહી છે. એક Noumal ને સરસ રીતે પૂરી કરી શકાય તેની બંધી જ સામગ્રી અહીં લાઈબ્રેરીમાં ઉપલબ્ધ હોય અને ખરેખરી ઉતાવળ હોય તો એવા મિત્રો પાણ પ્રણી આવે જે મદદ કરે. આના પરથી એક સોનેરી શીખામણ : "કોલેજમાં કેટલા સાચા મિત્રો છે તે જાણવું હોય તો અધૂરી Noumal લઈ લાઈબ્રેરીમાં જવું."

ઘણા ટેબલ પર ચોપડીઓના ઢગ દેખાય. જે કૃતુહલ થાય અને તમે શોધશો તો એ ઢગ વચ્ચેથી એક વિદ્યાર્થી મળી આવશે. આ ખાસ જાતના વિદ્યાર્થીઓ છે. તેમનું ચંચળ ચિત્ત એક ચોપડીના એક પાના પરથી બીજી ચોપડીના બીજા પાના વચ્ચે હનુમાન કુદકા લગાવતું હોય છે. પાણ તેમને બહુ ખલેલ ન પહોંચાડવી. નહીં તો ચોપડીઓના આ પર્વતમાંથી જ્વાળામુખી ફાટી નીકળશે. (આ વાત અનુભવસિધ્ધ છે.)

**RESPONSIBLE FOR THIS ISSUE OF KSHITIJ ARE :**  
**MAGAZINE SEC., NARENDRA GHATE**

("Who me ! I didn't do anything !")

**ENGLISH EDITOR, DILIP PAI**

("zzzz... huh ! What ?....")

**ENGLISH SUB-EDITOR, PRASHANT PERES**

("Don't bother me now, I've got 23 assignment to write")

**MARATHI EDITOR, AMOGH PATANKAR**

("मला काही माहीत नाही, मला तीस पान हवीच !")

**HINDI EDITORS, SHIVMANI TRIPATHI & ATUL SETHI**

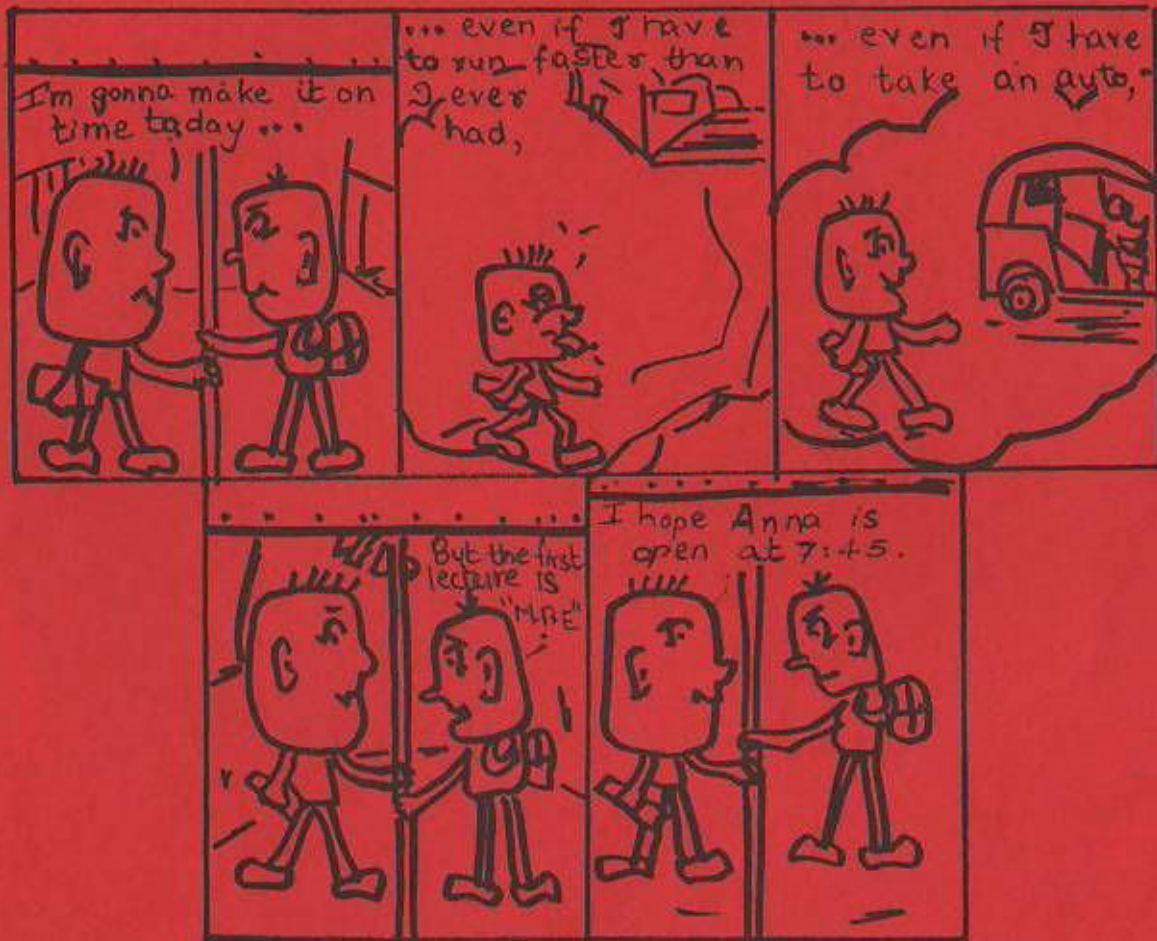
("कोई तो ARTICLES दो !" नहीं तो खुद लिखना पड़ेगा)

**GUJARATHI EDITOR, JAYDEEP PATHAK**

(कंइ काम होय तो मने कहें)

**ONE IN ALL, ALL IN ONE, RAKESH REGE**

("तू डर मत यार, मैं सब संभाल लूँगा !")







"Carry my wife's luggage?  
Heavens, is SHE here?"



"You're in Room 126 - here's your  
key and mousetrap!"



"Of course she's my wife.  
Think I'd bring her to a dump  
like this if she wasn't?"

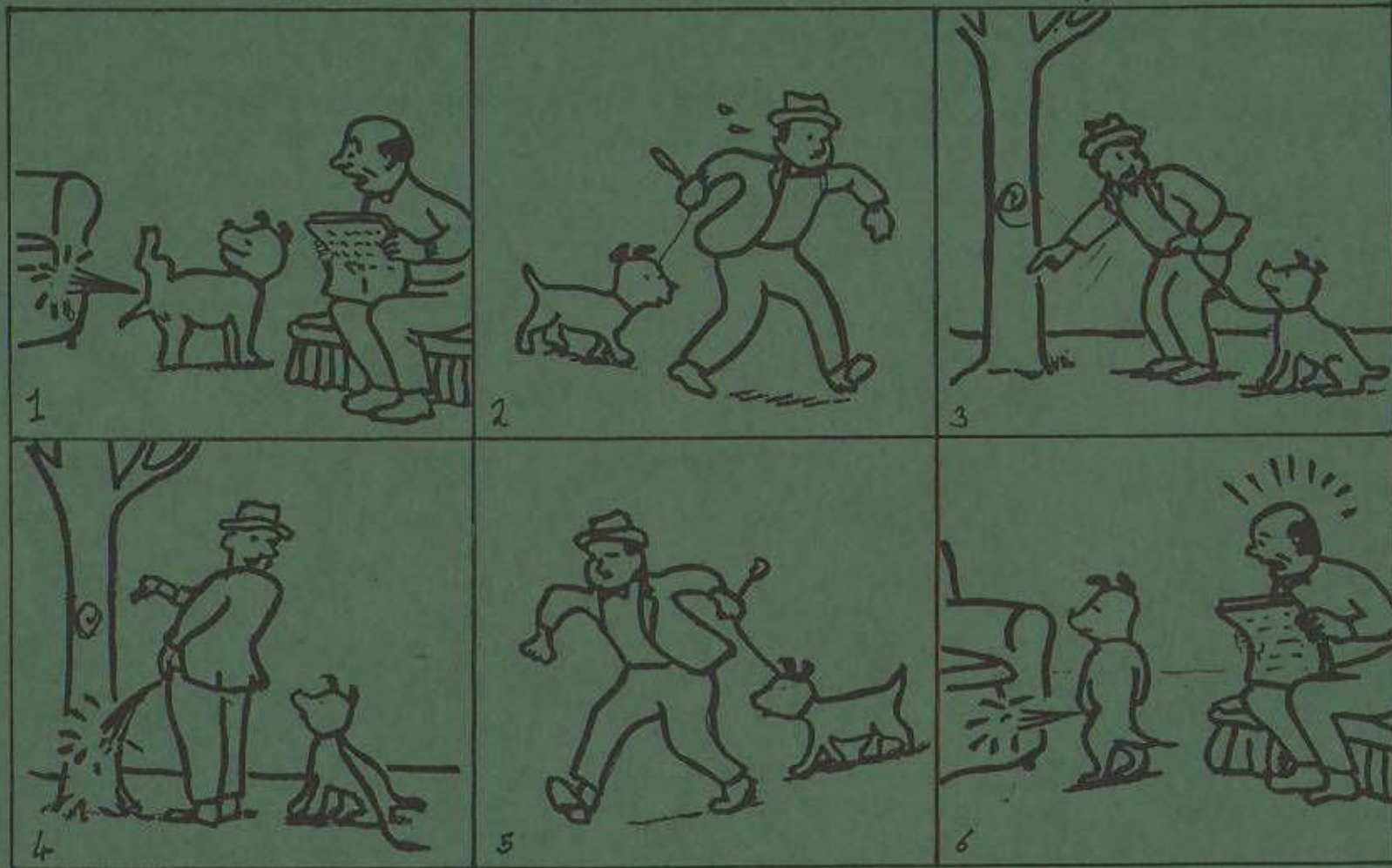


"It sounds all right in theory  
but does it actually work?"



... and this is Simpkins,  
our geography master!"

# How to HOUSEBREAK YOUR DOG.



MELVILLE FERNANDES  
SE (ETX)



## ELECTRONICS 1990-91

1. Aglave Anupama G. - D-6, Nirton, Goregaon (E), Bombay - 63.
2. Bardeshkar Madhavi A. - G-11, Pushkar CHS, Eksar Road, Borivli (W)
3. Dabholkar Sangitika A. - A/11, Suyog, Plot No. 5, Sector 10-A, Vashi.
4. Karnik Shilpa S. - 20, Meena, R. B. Mehta Marg, Ghatkopar (E) - 77
5. Kaldare Vibhava M. - 2, A/2, Puneet Nagar, Borivli (W), B'bay - 92.
6. Kumar Sangeeta R. - C-33, I.I.T., Powai, Bombay - 76.
7. Muzumdar Manisha S. - B/23, Ranjit Soc., S. N. Rd., Mulund (W) - 80.
8. Rane Netra M. - XI/3, Godrej Colony, Vikhrol (E), Bombay - 79.
9. Rathod Bhakti N. - 16, Shrinathji Bhuvan, V. B. Lane, Ghatkopar - 77.
10. Ruparel Vaishali L. - 29/449, Kannamwar Nagar, Vikhrol (E) - 83.
11. Abhyankar Sandeep V. - 1, Shiv Swami Krupa, Tejpal Rd 3, V. Parle - 57.
12. Deshpande Virendra A. - 1, Neelayam, Mithagar Rd., Mulund (E)
13. Sathe Vaishali V. - D/32, Poorva CHS, Panch Pakhadi, Thane.
14. Agarwal Ajay J. - 97, Marine Drive, 6th Floor, Flat No. 13-A, B'bay - 2
15. Ahirrao Girish S. - 44/1748, Vartaknagar, Thane - 6
16. Bajaj Yogesh V. - 403, Priyadarshini HSG. Society, Kasarali, Bhivandi
17. Bedekar Manoj R. - Seetakunj, Navinbhai Thakkar Rd., Vile Parle (E)
18. Chowdhary Jaikishan T. - Super Market, Flat No. 3, Ulhasnagar - 3
19. Coutinho Ashley C. - 11, D'silva Dell, Pitamber Lane Mahim, B'bay - 16.
20. Dave Manish D. - 8/B, Bhanu Jyoti, Niveta Road, Malad (E) - 97.
21. Deshpande Atul M. - Yeshoda Bhuvan, Rambaug, Lane 2, Kalyan.
22. Kale Anand P. - 13/B, Hari Kharude Nivas, Phule Rd, Naigaon - 14.
23. Manuja Rajesh K. - 28, Devika CHS, Chendani, Thane (E).
24. Dharia Bhavesh D. - Sapna, F. No. 244, Ridge Rd, Waikeashwar - 6.
25. Ganesh Ramamoorthy - 6/176, Siddhartha Nagar, Satyam Hsg. Soc., Goregaon
26. Gatte Vinayak M. - K-51/006, Yogi Nagar, Borivli (W) - 92.
27. Gharpure Shriram S. - 4/32, Unnat Nagar 2, Nav Jyoti C. S., Goregaon
28. Kanon Krishnan - Manuel House, Chulna Rd., Marickpur, Vasal.
29. Gupta Vikas I. - 20, Vishu Mahal, D. road, Churchgate, B'bay - 20.
30. Gupte Rajesh P. - 37, Vrindavan, Vishwakarmanagar, Mulund (W).
31. Gurjinder Singh D. Singh - 8/31, Kallash Park, Chiranagar, Ghatkopar.
32. Ingle Prafulla V. - 7/1, Sachin Society, Mithanagar Rd., Mulund - 81.
33. Jain Mukesh J. - 134/140, Cavel Street, Govardhan Niketan, Kalbadevi - 2.
34. Jagdish Nagraj - Plot No. 35, Plot No. - 4, Sindhi Society, Chembur, B'bay - 71.
35. Joshi Abhijit S. - Jai-Shreem Bldg. C-2nd Floor, Block No. 8, Rajaji Path, Dombivli
36. Joshi Prasad R. - 201, Gurupushpam, Pt. No. 24, Sector 16-A, Vashi - 705.
37. Kale Ashok D. - 11, Nanji Apartment, Kopri, Thane (E), - 603.
38. Kinare Vivek P. - 9/Dinkar CHS, Bhagaji Marg, Mahim, Bombay - 16.
39. Koppikar Devendra S. - 27/A-11, Govindnagar, Sodawala Lane, Borivli (W)
40. Kulkarni Kiran A. - 6/1, Shyam Sadan, Bhagat Singh Rd., Dombivli (E) - 421 201.
41. Lele Millind S. - 14 Kaustubh Soc., Baji Prabhu Deshpande Rd., Naupada, Thane.
42. Lokegaonkar Nitin M. - 5, Alipuria Mansion, Dr. Ambedkar Rd., Dadar, B'bay - 14.
43. Mahajan Prashant P. - 17-Revati, Mahindra Nagar, Haji Babu Road, Malad (E)
44. Mehta Bhavesh M. - 9/Ganesh Chayya, 6011 Rd., Ghatkopar (E), B'bay - 77
45. Menta Mehul M. - 2A/204, Parasnagar, S. V. Rd., Shankar Lane, Kandivli (W)
46. Nissani Anish M. - V. H. Bldg., R.N. 24, Kale Marg, B'bay - 70.
47. Nagwekar Vinay D. - A/9, Shri Sai Vishram CHS, Dahisar (W), B'bay - 68.
48. Nair Pravinkumar N. - 30, Harismruthti, Nanepada Rd., Mulund (E), B'bay - 81.
49. Nigudkar Chandan A. - 5, Sadguru Seva Sadan, Rajaji Path, Dombivli (E).
50. Pandya Piyush V. - 11, Ashutosh, Liberty Gdn. X-Rd 4, Malad (W), B'bay - 64.
51. Parameshwaran Sangameshwaran - 2/7, Damani Estate, Naupada, Thane.
52. Parekh Bharat S. - 203, Gayatri Niwas, Bhatag Singh Road, Vile Parle (W).
53. Patel Shvetal K. - 3/2, Hind CHS, N. S. Mankikar Marg, Chuna Bhatti.
54. Patil Subhod S. - Y-12/182, Govt. Colony, Bandra (E), Bombay - 51.
55. Patil Suhas P. - 1/71, Piramal Nagar, S. V. Road, Goregaon (W), Bombay - 62.
56. Potnis Suchindra S. - 11/163, Siddharth Nagar (4), Goregaon (W), B'bay - 62
57. Prashanth Ishwar - F/78, R. B. I. Staff Qtr. North Avenue, Santacruz (W),
58. Rao Nikhil B. - 113/3350, M.I.G. Colony, Pant Nagar, Ghatkopar (E) - 75.
59. Shah Mitesh K. - B104, Bhagyoday 'B' Bldg., St. Mary Road, Vile Parle (W).
60. Shah Yogen V. - 5-A, Suresh Colony, S. V. Road, Vile Parle (W), Bombay - 56.
61. Shanmukhasundaram Vaidyanathan - 2/3 Aiswarya, S. N. Hsg. Soc. Chembur.
62. Singh Ravish R. - 6, Narain Patil Chowli, Eksar Village, Borivli (W), B'bay - 103.
63. Soman Manoj S. - 3/Laxmi Sahakar Niwas, Konkari Nagar, Bhandup (W)
64. Talreja Sunil J. - Neelkamal Apts, 2nd Floor, Pt. No. 5 & 6, Ulhasnagar - 1.
65. Vinod Atul M. - 14, Vinod Niwas, Vinod Wadi, Ghanatli, Naupada, Thane.
66. Vora Bhavesh K. - 8 Bhalal Bhuvan, 72/A, L. S. Road, Andheri (W) - 58.



67. Vyas Manish A. - 391, Satyam, Gokul Nagar, Bhiwandi.
68. Wadia Shapur D. - Kalpana, 96, Marine Drive, 5th Floor, Pt. No. 17, B'bay - 2.
69. Bondekar Shallesh V. - H2/82, Bldg. No. 11, I.I.T. Powai, B'bay - 76.
70. Dhamankar Sunil G. - 302/3, Gautam Terrace, M. G. Marg, Naupada, Thane.
71. Bapat Shirish S. - Pawan, 348, Silladevi Road, Bombay - 16.
72. Desai Dharmesh N. - 11-B, Anamika, 63-B, M.V. Road, Andheri (E) - 69.
73. Grewal Bikramjeet Singh S. - 16/54, Manish Nagar, 4, Bungalows, Andheri (W)
74. Jain Prafulla M. - Bazar Peth, Bharat Jewellers, Vasal - 401 201.
75. Jasani Rajesh M. - Chandra Bhuvan, Khokhani Lane, Ghatkopar (E), B'bay - 77
76. Karulkar Shashikant A - Datta Prasad, Pt. No. 3, B. B. Society, Panvel - 410 206.
77. Naik Sanjeev M. - 10, Ben-Villa, Nariman Road, Ville Parle (E) - 57.
78. Patkar Santosh A. - 85-Brahmin Ali, Bhagyashri Bldg., Bhivandi - 421 302.
79. Pawar Mangesh B. - A15, 7th Floor, R.B.I. Staff Qtr. Tardeo, Bombay - 34.
80. Vira Vijay V. - 8, Ratan House, Dady Seth Road, Babulnath, Bombay - 7.
81. Rathod Kishor R. - 29, Govind Mistry Chawl, Dattapada Rd., Borivali (E) - 66.
82. Gidde Aradhana V. - A-1, Pushpak, Co-op. Soc., 4th Rd., SantaCruz (E) - 55.
83. Vora Kalpesh T., Khatau Apts., 4th Floor, 243, Walkeshwar Road, Bombay - 6.
84. Vora Samir P. - 3 Kalindi, Lajpatrai Road, Ville Parle (W).
85. Dharmavira K. - A/6, C.G.S. Colony, Bhandup (E), Bombay - 78.
86. Joshi Rajesh M. - 19, Shailaja, R. B. Mehta Road, Ghatkopar (E) - 77.

#### PRODUCTION 1990-91

1. Arkadi Manoj, P. - Kulkarni Bldg., Nehru Road, Dombivli (E) - 421 201.
2. Ashangi Mohan C. - C/13, Murlil Milan, Match Factory Lane, Kurla, B'bay - 70.
3. Asati Tarun R. - B/25, Anubhav Bldg., Dr. R. P. Road, Mulund (E), Bombay - 80.
4. Bhat Vivek V. - 3, Barretto Apts., L. J. Road, Mahim, Bombay - 16.
5. Chakrabarty Arindom A. - JN4-12/11, Sector 9 A, Vashi - 703.
6. Darekar Pratul M. - Ersha Sadan, R. Road, Mhatre Nagar, Dombivli (E).
7. Deshmukh Rahul R. - 11-Megh Malhar, CHS, R. Cross, Road - 4, Thane - 602
8. Deshapande Manoj R. - II B/93, Bldg. 16, Lakside Campus, I.I.T., Powai.
9. Dhonde Millind S. - A-2/6, Jeevan Nagar, Mithnagar Road, Mulund (E), B'bay - 81.
10. Doshi Bhadrash M. - 45 - Kadambrai, A.K. Road, Sentorium Lane, Andheri (E)

11. Gandhi Nilesh C. - 55-Chakla St. 2nd Floor, Bombay - 3.
12. Giri Vinod T. - 315/6979, Om Gayatri, R.N.N. Marg. Ghatkopar (E), B'bay - 77.
13. Godse Narendra Y. - 5/6, Udyan Society, Near Ght. Depot, Bombay - 78.
14. Iyer Sitram A. - 17 Varalakshmi CHS, Hanuman Road, Ville Parle (E).
15. Jain Mahendra K. - 74/B, Swami Samarth Nagar, 4th Floor, R-67, Bombay - 4.
16. Karnik Sachin J. - B-wing-13, Anupama Society, Thane (W) - 604.
17. Marathe Nilesh R. - 3rd Floor, Swastik House, Jakalwadi, L.J.Rd, Mahim, B'bay - 16.
18. Master Imtiaz M. - 64, J. B. Shah Marg, Holy View CHS, 1st Flr. R-67, B'bay - 9.
19. Modi Rajita R. - R-22, Chinar, R. A. Kidwai Road, Wadala, Bombay - 31.
20. Pal Ganesh M. - B-53, I.I.T. Powai, Bombay - 76.
21. Panchal Amit D. - Santosh Bldg., Liberty Garden, Cross Road - 3, Malad (W).
22. Patil Mahendra R. - Farming Society, Shiv Mandir Road, Ambarnath (E).
23. Ponkshe Manisha N. - 151, Shyam Nivas, A.M.P. Road, Ambarnath
24. Raghunath H. - 9, Nitynand, Off. G. Gupte Road, Vishnu Nagar, Dombivli (W)
25. Ravi V. - 922, Sector - I, C.G.S. Quarters, Antop Hill, Bombay - 37.
26. Raviganesh V. - A/7, Shankar Sadan, 1st Road, Chembur - 71.
27. Remedios Savio S. - Police Patel House, Shastri Marg, Ghatkopar, B'bay - 86.
28. Salian Rajesh M. - B-305, P & T Staff Mitra Mandal CHS, Andheri (E)
29. Salvi Sameer V. - 7, Madhumati, Gokhale Road, Naupada, Thane - 602.
30. Sehwani Nicky N. - 4/274, Sawan Sadan, 36th Road, Bandra - 50.
31. Sejpal Rajeev D. - 1/7, Ghanshyam Nivas, Opp. Tel phn. Exch. Ghatkopar (W)
32. Shenoy Santosh V. - Parkull, 1st Floor, Khandkar Marg, Tilak Nagar, Dombivli (E).
33. Sircar Soumen S. - 9, Ketan CHS, 2nd Hasnabad Land, Santacruz (W),
34. Trivedi Shalendra R. - A/3, Dertakshri Apt. Tai Pingle Chowk, Dombivli (E).
35. Udyawar Sharad L. - H-2/4 Sunder Nagar, S. V. Road, Malad (W), B'bay - 64.
36. Shah Ujjawal P. - B/13, Indralok, R. B. Mehta Marg, 60 Feet, Rd, Ghatkopar (E) - 77.
37. Vaidya Sudeep V. - A-14, Satya Bldg., Near S. E. S. High School, Thane (W).
38. Vemulakonda Saiprasad B. - 10-Champaka, 60 Feet Rd, Ghatkopar (E) - 77.
39. Pal Devidas S. - Sundaram Apt. 2nd Floor, R-18, Kalwa (W), Thane.
40. Lahiri Achihya A. - 5 Sea Queen, Juhu Tara Road, Bombay - 49.
41. Sabadra Rajesh H. - Plot - 32, Lane D, Sector 8, Vashi - 703.
42. Menon Mahesh A. - 13-B/2 Model town, Bairajeshwar Road, Mulund (W).
43. Hande Keshav H. - 161A/33, Hirji Bhojraj Chawl, R. Bhogle Marg, Bombay - 3..
44. Prasad Sidharth G. - 3/7 Green Park, 61, Relief Road, Malad (W) - 64.



45. Shitkar Ganpat T. - Varsha CHS, Sunita E/9, L.B.S. Marg, Thane - 602.
46. Odrali Ashok D. - Hazari Bhavan, 81k - 5, Dr. R. P. Road, Mulund (W).
47. Vora Kamlesh C. - 9, Shri Sati Nivas, 178, Garodia Nagar, Ghatkopar (E) - 77.
48. Sherke Arun S. - Shiv Niwas CHS, Flat - 5, S. B. Marg, Mahim, Bombay - 16.
49. Maurya Chandrakant R. - 7B/7-8, Shivashram Est. Mhatre Chl. Bhandup (W).
50. Shenoy Rajesh R. - B/2, Sanjivani Bldg. W.S.Rd., Dahisar (E), B-68.
51. Dhatrik Vijay K. - 8/3, Sachin Society, Mithagar Road, Mulund (E), B'bay - 81.
52. Ghag Manoj J. - Nityanand Nagar, Gangadeep, 7A/4 1st Floor, Bhandup.
53. Chadnani Suresh V. - New Shivaji Nagar Patil Chawl, Kalwa (W).
54. Bajji Swapna B. - 1/2, Sachin Society Mithagar Road, Mulund (E), Bombay - 81.
55. Telang Sojwala S. - 5/50, D.N. Nagar, Mig Colony, Andheri (E), Bombay - 58.
56. Chawathe Shilpa S. - A/4, Krishna Niwas, Mithanagar Rd, Mulund (E), B'bay - 81.
57. Phatak Lata V. - 3/40 Kondaji Bldg., Jeral Wadia Road, Parel, Bombay - 12.
58. Bhatia Girish S. - 35, Nutan Jaibharat CHS, Prabhadevi, Bombay - 25.
59. Kuppikar Mahesh G. - 31-A, Malhotra Bhuvan, 3rd Flr, Bldg. 8, Mahim, B'bay - 16.
60. Bhatia Vijay T. - F/11, Basant Apt., Cuffe Parade, Colaba, Bombay - 5.
61. Iyer Seshadri R. - 15/429, Pant Nagar, Ghatkopar, Bombay - 75.
62. Prabhu Amal S. - 12/A, Ameya Apt., Opp. Kirti College, Dadar, Bombay - 28.
63. Jariwala Ahish B. - 501/502, Anshuman, Barfiwala Road, Andheri (W)
64. Iyengar Shyam S. - D/12, Shivdarshan, Nahur Road, Mulund (W), Bombay - 80.
65. Jhaveri Ahish D. - C-38, Raji Society, R. B. Mehta Rd, Ghatkopar (E), Bombay - 77.

#### MACHINE TOOL - 1990-91

1. Jha Anandshanker P. - G-1/12, B.E.S.T. Staff Qtr., Santacruz (W), Bombay - 54.
2. Bhat Shantharam W. - Kharanti Kiran, 86/C, 1st Floor, L.J.Rd, Mahim, Bombay - 16.
3. Chahdak Dhananjay R. - 394/O, Pranav, S. Road, Matunga, Bombay - 19.
4. Shan Kiran N. - 78/15, Jawaharnagar, Opp. Jain Temple, Goregaon (W) - 62.
5. Mehta Himanshu J. - J. Parekh Mahal, 15 Hansoli Lane, Ghatkopar (W) - 86.
6. Kamble Arvind H. - MS/RB/II/988/12 C.Rly. Qtr. Kalyan, Thane.
7. Nagarkar Ashish A. - 17, Asmani CHS, Shastri Nagar, Dombivli (W) - 421 202.
8. Chorge Rajan A. - G'kopar garden View Apt. D/13, V. B. Phadke Rd, G'kopar-86.
9. Dhivare Pavan D. - Walduni Shivaji Nagar, Kalyan, Thane.

10. Chaurey Nitin T. - Sant Mira, B/14, 1st Floor, Kopri Colony, Thane (E).
11. Pal Purushotham R. - 3, Sadhana, Deonar Baug, Deonar, Bombay - 88.
12. Arulia Ramesh S. - Afzal Bldg.-1, 1st Floor, 13A, Sayani Road, Bombay - 25.
13. Ahire Sunderlal N. - B.E.S.T. Staff Qtr., H1/16, Pantnagar, Ghatkopar (E), B'bay - 75.
14. Gurnaste Sudheendra R. - 2, Guru Vihar, Dombivli (E) - 421 201.
15. Karlekar Mahesh V. - 104/3125, Pantnagar, Ghatkopar (E), Bombay - 75.
16. Kurup Ashokkumar B. - L-13/102, Tilaknagar, Chembur, Bombay - 89.
17. Sachdev Nischal J. - 602, Kamalsagar Society, Bhandup (E), Bombay - 78.
18. Ranade Milind K. - 6, Matruchhaya, Belapur, Thane.
19. Bharambe Pankaj S. - 37, Namatra, Tendulkarwadi, Aarey Road, Goregaon.
20. K. L. Suresh - No.5, Sriram, Chedanagar, Bombay - 89.
21. Kumaran M. K. G. - 9/193, Lakshmi Niwas, Gaathan Rd. 3, Chembur, B'bay-71
22. Panchal Haresh N. - C/120, Vindya, Anu-Shaktinagar, Bombay - 94.
23. Hadavale Pradip R. - Ektq. Apt., Govardhan Nagar, L.B.S.Marg, Mulund (W)-80.
24. Thaker Hitenra P. - 4, Palacimo, 48, Indranaryn lane, Santacruz (W), B'bay - 54.
25. Gadgil Dinesh A. - B/19, Laxman Nagar, Thane - 400 602.
26. Bhagwat Sameer V. - 4/8, Chandrashekar Society, Sahar Road, Andheri (E).
27. Sinnarkar Minalkumar S. - 22, Rajeshwari, Arambaug, U. S. Road, Thane - 602.
28. Bhansal Rajeshkumar R. - 105, Himgiri B. T. H. Kataria Marg, Mahim (W), B'bay - 16.
29. Savergaonkar Rajesh S. - 25/769 Vartak Nagar, Thane (W) - 606.

#### ELECTRONICS - 1991-92

1. Godse Vaishali S. - 3/59, Datta Ramanand Sty., H. Cross Rd. 2, Vile Parle - 57.
2. Kulkarni Priya S. - 3/21, Sachin Sty, Mithanagar Rd., Mulund (E) - 81.
3. Pitale Varsha W. - Bldg. No. 30, Bik. No. 779, Nehru Ngr, Kuria (E) - 24.
4. Valdiya Shilpa A. - 20/265, Vartak Ngr, Pokhran Rd. 1, Jekegram, Thane - 606.
5. Velankar Girija V. - 101/B Parijat, SBI CHS, B. Govind Das Rd, Mahim - 16.
6. Bhagat Manoj V. - 31/2199 Abhudaya Ngr. Kala Chowki - 33.
7. Bhattacharya Ranjit S. - B-1/9, Kedarnath Dongra Park CHS, Chembur - 74.
8. Bhuta Hiten H. - A/204, Ganpatibaug, L.T.Rd., Borivali (W) - 92.
9. Bhanushali Dipak D. - 2/36, Bhaweshwar Ngr., M.G. Rd., Ghatkopar - 77



10. Dandekar Lalitkumar N. - 14/209, Kannamwar Ngr. -1, Vikhroli (E) - 83.
11. Dasgupta Rajiv T. - 105/A Sindhi Sty. Lane 4, Chembur - 71.
12. Deshpande Pushkar M. - A/12 Mahendramala Sty., Gupte Cross Rd. Dombivli
13. Deshpande Sandeep B. - Harikripa H. Sty. II, Yamuna Sdn. 1, Govandi - 88.
14. Ghorpade Shashikant G. - 4/42, Jenabai Bldg. D. S. Phalke Rd., Dadar - 14.
15. Gundewar Jayant S. - 11, Anurag Sty., Plot - 144, Four Bungalows, Andheri - 58.
16. Gilder Turnesh J. - 151, Rewa Apts., B. Desai Rd., Bombay - 26.
17. Gupte Rahul P. - 23, Jeevan Sarita, Plot No. 60, Tajpal Schemer 1, VileParle.
18. Iyengar Suresh K. - 51 Gokul, Linking Road, Khar - 52.
19. Joshi Jignesh H. - 15/B, Poonam Baug, Nariman Road, VileParle - 57.
20. Karandikar Gajanan S. - 10, Sadanand Wadi, 2nd Flr. V. P. Rd., Bombay - 4.
21. Karmarkar Nitin S. - 1, Darshan, Rammaruti Cross Rd., Ghantaru, Thane.
22. Khanna Rimik Y. - 4th Rd., Kookyvilla, 3rd Flr., Khar (W) - 52.
23. Khoja Altaf Y. - 8C Post Girgaon, Tal-Tabari, Thane - 401 606.
24. Lagu Rakesh S. - 'Samartha', Ramesh Wadi, Kulgaon, Badlapur (W).
25. Lewis D. Jawaher - 15/183, Surya Kiran, R.K.Nagar, Khar (W) - 52.
26. Mathew John - 231/9043, Kannamwar Nagar, Vikhroli - 83.
27. Mehta Kaushal N. - B1, Janak Kutir, 60 feet Rd., Ghatkopar (E) - 77.
28. Menon Ranjit P. - 14, Indrajit, 17th Road, Santacruz (W) - 54.
29. Velangi Abhijit S. - B/15, Kauslobha Soc., Vishnunagar, Naupada, Thane.
30. Merchant Sameer D. - Mooljee Nagar Bldg., C17, S.V.Rd., Botivali (W) - 92.
31. Nair Prasad A. - 5, Sunderbai Niwas, Near Balaji Nandhir, Kurla (W) - 70.
32. Nayak Mahesh M. - A/3, Damodar Kripa, Liberty Garden, Malad (W) - 64.
33. Parab Ajay Y. - 19/554, Nehru Nagar, Kurla (E), Bombay - 24.
34. Pandit Neelesh D. - 3, Abhyudaya, 12, Sudarshan Colony, Thane - 400 603.
35. Pal Sanjeev R. - 5, Datta Smriti, Nadiadwala Colony, S.V.Rd., Malad - 64.
36. Pangarkar Sujeel P. - 2/8, Jayakar Smriti, Aarey Rd., Goregaon (W) - 62.
37. Peerzado Imran M. - 276, Ambedkar Nagar, S.G.Barve Marg, Kurla - 70.
38. Prithiani Vinay D. - 5/117, New LIG Bldg., D.N.Nagar, Andheri (W) - 58.
39. Patel Manish B. - Vrindavan, 57, R.B.Mehta Rd., Ghatkopar (E) - 77.
40. Rane Ajay B. - 401, Monia II, M.V.Road, Andheri (E) - 69.
41. Sathe Vaibhav A. - 31/Saraswati Jeevan Laxmi Soc. Dr.R.P.Rd., Mulund - 80.
42. Shah Nilesh H. - B/206, Shatrughay Danhan, Love Lane, Byculla - 27.
43. Shah Rishikesh F. - B Mohalaxmi Apts., Rajkamal Studio - Parel - 12.
44. Thakkar Hitesh M. - 3rd Flr. Krishnakunj, Gandhi Nagar, L.B.S.Marg, Ghatkopar
45. Tungekar Muhammad M. - 12/18, Nagdevi Street, 2nd floor, Bombay - 3.
46. Kshirsagar Sunil K. - E-6, Anjali Soc. M. D. Marg, Naupada, Thane.
47. Bangera Manohar M. - 91/3269, Tilak Nagar, Chembur, Bombay - 89.
48. Raut Nitin N. - 4/151, Ajinkyatara CHS Ltd., S.V.Road, Dahisar (E) - 68.
49. Nagaracenkar Shashin U. - Mangesh Kripa, Ramkumar Thakur Rd., B'bay - 68.
50. Ved. Jignesh N. - 1, Mariwala Block, Rajawadi Road, Ghatkopar - 77.
51. Vaswani Sandeep D. - 51, Apsara, Dahanukar Wadi, Kandivali - 67.
52. Vora Neeraj J. - 302/303, Prem Apts. L.T. Extn. Road, Mulund (E) - 81.
53. Mangla Vipin L. - Kamal Book Sellers, Godavari Apt., Near Mangla Sch. Thane
54. Patil Prasad R. - A/513, Jeevan Nagar, Mithagar Road, Mulund - 81.
55. Gulabani Sanjay P. - C-685/1369, Netaji Road, Ulhasnagar - 4.
56. Hotchandani Rajesh K - 1173, Pawai Chowk, Ulhasnagar - 3.
57. Sarode Sandeep L. - A/14, Pushpalata Apts., Nandivli Road, Dombivli (E).
58. Kulkarni Sandeep M. - 3/27, Saraswati Baug, Jogeshwari - 60.
59. Kripalani Naresh R. - Snow White Society, Flat A18, Ulhasnagar.
60. Mahadeshwar Umesh D. - A/8, Gurukripa Soc., T.P.Rd., Bhandup - 78.
61. Deshpande Sachin S. - Bhide Chawl, Near Diwan Bavadi, Kalyan.
62. Justin John J. - 204, Sumali Apts. Saruodaya, P. Nagar, Mulund (W) - 80.
63. Vengsarkar Abhijit S. - 1, Sneha, B.W. Pathare Marg, Dadar, - 28.
64. Rao Sudhir B. - A/1 Usha Sadan, Colaba, Bombay - 5.
65. Sawant Sushant R. - A/34, Gurukripa Nagar, Nahur, Mulund - 80.
66. Lokhande Rajendra D. - 7/1314, Tilaknagar, Chembur, Bombay - 89.
67. Gangakhedkar Rajesh M. - 74/B, S.S.Nagar, Girgaum, Bombay - 4.
68. Jethwani Manoj D. - 5/89, Neo Shastri Nagar, Mulund Colony, Mulund (W).
69. Lakhan Anil B. - 16, Samadhan Co.op. Soc., L.T.Road, Mulund (E) - 81.
70. Risbud Prasanna S. - 6, Mangalya, G.V.S. Road 1, Mulund (E) - 81.
71. Dongre Anil K. - A/9, Ravikiran Soc., Mahatma Phule Rd., Mulund (E) - 81.
72. Thakkar Atul J. - 5, Mahavir Soc., Agra Road, Thane, - 400 602.
73. Shah Vipul K. - 16, Shreenathji Bhuvan, V.B.Lane, Ghatkopar (E), Bombay - 77.
74. Patil HemantKumar B. - 145/8 New Police Qtrs. St.Xaviers Rd., Parel - 12.
75. Khambhete Mdnaj M. - 23, Krishna, S.B.Colony, S.V.Marg, Naupada, Thane.
76. Shah Manish R. - 34, Bhaveshwar Niketan, Grd. Flr. 45, A.K. Marg, B'bay - 36.
77. Shetty Subhod D. - 604, Raj Kamal, 2nd Hasnabad Land, Santacruz - 34.



78. Shah Sanjay S. - 220, Khetwadi, Main Rd., Tara Mansion, Bombay - 4.
79. Kothari Nikhil S. - Summerville, 122, B.D.Road, Mahalaxmi, Bombay - 26.
80. Jain Girish J. K/83, Maker Towers, Cuffe Parade, Bombay - 5.
81. Bagaria Manish D. - 42/3, Amin Kunj, King Circle, Matunga, Bombay - 19.
82. Bhojani Sunil P. - 206/404, Neelkanth Tower, Ghatkopar - 77.
83. Soparkar Geeta B. - J-Bldg., 212, 2nd Flr. Patil wadi, Thane - 400 602.
84. Taware Archana P. - 503, Ramlith, Rammaruti Rd., Thane - 400 602.
85. Kotkar Sapna U. - 8/A, Madhuri Soc. 2nd Flr., J.P.Road, Andheri (W) - 58.
86. Desai Nanda B. - 258/2, I.A. Colony, Kalina, Santacruz (E) - 29.
87. Ramani Deepa S. - Director's Bunglow, NITIE, Bombay - 87.
88. Mirani Jyoti B. - C/21, Mirani Nagar, Thane (E) - 400 603.
89. Rathod Umang N. - 16, Sreenathi Bhuvan, V.B. Lane, Ghatkopar - 77.
90. Sathe Nilesh A. - 18, Sagar Apt., Swastik Park, Chembur - 71.
91. Ranganekar Nilesh S. - 11/B-12, Haji Ali, Govt. Colony, Bombay - 34.
92. Dasgupta Sarthak S. - 9, Linnet Soc., Santacruz - 29.
93. Keote Kshilij - 27-B, 41, Brindavan, Thane (W) - 400 601.
94. Patel Gurudas J. - 3, 4/C, Sonawala, Tardeo, Bombay - 7.
95. Nair Satish M. - 19, Sriranjani, 21/22, Pestom Sagar, Chembur - 89.
96. Phadnis Mahesh V. - 304/A, Pralibha Soc., Agarkar Road, Dombivli (E).

## PRODUCTION - 91-92

1. Kapadia Mamata J. - 389/D, Kalbadevi Road, 4th Floor, B'bay - 2
2. Salvi Neena N. - Sharad/10, Gurudatta Kripa, Wadala, B'bay - 31
3. Vasanti Sundaram - L/642, Tilak Nagar II, Chembur, B'bay - 89.
4. Adani Sanjay G. - 4, Godavari Nivas, M.G. Road, Ghatkopar (E) - B'bay 77.
5. Bhale Ashutosh K. - 6, Buty Layout, Laxmi Nagar, Nagpur - 22.
6. Butala Ashutosh A. - 4, Nitya Apts., I.I.T. Powai, B'bay - 76
7. Gokhale Chandan M. - 7/179, Ramanand Soc., Subhash Rd., Bombay - 57.
8. Gosain Rajesh R. - Vardhaman Nagar, Dr. R. D. Road, Mulund, B'bay - 80.
9. Kotwal Shashank S. - B-102, Sai Darshan, G. V. Sch. Rd. - 1, Mulund, B'bay - 81.
10. Mahajan Mahendra D. - 23, Yashodip Soc., Naupada, Thane - 400 602.
11. Manek Bhavesh J. - A-3, Tapasya Bldg., Goshala Rd., Mulund (W), B'bay - 80.

12. Miranda Oliver E. - C/402, A-Wing, Anand Park, Thane - 400 601.
13. Mehta Kaushal A. - 11, Smita, R. B. Mehta Road, Ghatkopar (E), Bombay - 77
14. Modi Samir K. - 8, Patil Nivas, 241, Walkeshwar Road, Bombay - 6.
15. Sanghavi Manish B. - 24/2, Rihhumal Mansion, 15-B, Peddar Rd., B'bay - 26.
16. Nair Sudhir B. - C-15, Gurukrupa Nagar, Nahur Road, Mulund (W), B'bay - 80.
17. Savant Jayesh M. - 229/B960, Kannamwar Nagar, Vikhroli, B'bay - 83.
18. Venkatesh Venkateswaran- A-9, Ambekrupa, Devidayal Rd, Mulund, B'B- 80
19. Warriar Ajit S. - C-11/7, LIC Colony, Borivali (W), B'bay - 103.
20. Aradkar Salil S. - 5/B, Sahyadri, Pandurangwadi, Goregaon, Bombay - 63.
21. Baria Sharukh M. - E 2/10, Godrej Hill Side, Pirojsha nagar, Vikhroli, B'bay - 79.
22. Joshi Viren S. - 56 A Gold Coin, 1/407, Tardeo Road, Bombay - 34.
23. Kamble Sadanand S. - CGS Colony, 80/A, Bhandup (E), Bombay - 78.
24. Pandit Gurudatt A. - 3/3 Dr. Mahitap Est., L. J. Road, Mahim, Bombay - 16.
25. Saharkar Rajesh R. - 5, Dhanwantary CHS, Odd, Dombivli Rd., Dombivli
26. Natesh B. - 2/26, Kannamwar Nagar, Vikhroli (E), Bombay - 83.
27. Bhagwat Prashant A - 9/5 Everest Soc., P. D. Dindayal Road, Dombivli (W).
28. Shetty Rajesh M. - 105, White House Apt, Pokhri Rd. - 1, Khopat, Thane - 1.
29. Menon Ajit A. - 6/95, Nirmal Jivan, Kopri Colony, Thane (E) - 400 603.
30. Ruparel Bhavesh A. - B-9, Vaibhav, Tilak Road, Ghatkopar (E), B'bay - 77.
31. Vagal Vinayak R. - 4/26, Namrata, Aarey Road, Goregaon (E), B'bay - 63.
32. Joshi Chetan D. - Gore Bunglow, M, Phule Road, Naupada, Thane - 2.
33. Nambiar Anil K. - 1-8/2, Majithia Nagar, S. V. Road, Kandivli (W), B'bay - 67.
34. Rakhunde Manish V. - 37/1031, Nehru Nagar, Kurla (E), B'bay - 24.
35. Ingale Millind D. - 3, Udyachal CHS, Telephone Exchange, Tilak Nagar, Dombivli.
36. Javeri Pranav P. - 64/4, Om-Chetana, Garodia Nagar, Ghatkopar (E), B'bay - 77.
37. Deshpande Vinay S. - 103/3559, Nehru Nagar, Kurla (E), Bombay - 24.
38. Osan Manmohan S. - 82/5, Malbar Hill Road, Mulund Cin, Mulund, B'bay - 82.
39. Mudallar Thirunavukkarasu C. - A/6, Shantibana CHS, MMM Rd, Mulund - 80
40. Joglekar Samir G. - 6, Makarand, Shivaji Nagar, Naupada, Thane - 2.
41. Mahajan Yogesh M. - A/1, Aparna Society, Deendayal Road, Dombivli (W).
42. Rane Sushil D. - C/93, Dharmanagar, Shivshruti, Kurla (E), Bombay - 24.
43. Kapoor Sanjeev G. - 22/D, Miniland, Tank Road, Bhandup, Bombay - 78.
44. Nayak Prakash S. - 2/A, Ram Sham Nivas, Sitaladevi Road, Mahim, B'bay - 16.
45. Iyer Satish K. - 8, Kanchan Sheila, B. P. Singh, 2nd Cross Rd., Mulund, B'bay - 80.



46. Jagtap Jiva J. - J/33, Palm Acre Society, Mulund (E), Bombay - 81.
47. Mehta Chetan I. - B-11, Kanyakumari Apartments, M.V.Rd, Andheri (E) - 69.
48. Jain Chetan A. - 25/C, Sonarika, Chandanwadi, CP Tank Road, Bombay - 4.
49. Dhillon Inderjitsingh A. - M.S.R.B. II, 98/7 CR. Colony, Kuria (E), Bombay - 24.
50. Bhatt Nikhil D. - B/2, Vikram Apt., New Maneklal Est., Ghatkopar, B'bay - 86.
51. Deshpande Rajesh G. - 756, Garden View, Parsee Colony, Dadar, B'bay - 14.
52. Shah Atul M. - D/601, Shiram Apt., S. V. Road, Kandivli (W), Bombay - 67.

#### B.E. MT - 91-92

1. Gupta Prakash - III A/26/301, RCF Colony, Chembur, B'bay - 74.
2. Bhaskar Karadkar - 'Pitru Vandana' 2nd fl., N.S. Bose Rd., Mulund (W) - 80.
3. Matte Abdulgafoor - 14/409, Pant Nagar, Ghatkopar, B'bay - 75
4. Oza Sandeep - 20, Bhola Munshi Chawl, Natwar Nagar, Jogeshwari, B'bay - 60
5. Pais Melvin - 821, Deepashree, Sahar Road, Vile Parle (E) Bombay - 99
6. R. Kumaresh Ramakrishnan - 20/107, Ganga Sadan, P.LLMarg, Chembur - 89.
7. Rai. Ramprakash M. - A-14 Shri Krishna Apts., Gavanpada, Mulund (E), B'bay-81.
8. Ramesh Padmanabhan, 82/3, Balamurli C.H.S., Chedda Nagar, Chembur - 89.
9. Shah Nilesh V. - B-7, Arianth Apts., S. V. Road, Irla, Vile Parle (W), Bombay - 56
10. Shah Piyush N. - 15, Keshar Bldg., Hingwala Lane, Ghatkopar (E), Bombay.
11. Mehta Bhavesh M. - 7, Matruchhaya, Parekh Lane, Kandivli (W), B'bay - 67.
12. Joshi Vikrant V. - 10, Amariyot, opp. Chinar Bunglow, M.P. Road, Dombivli (W)
13. Nirgudkar Sachin S. - 7 Utkarsh, Tilak Mandir Road, Vile Parle (E), Bombay - 57.
14. Parasrampuria Sanjay - 25, A/1, Ishwar Bhavan, Rani Sati Marg, Malad (E) - 97.
15. Lalan Nilinkumar T. - 64/11, Naim Manzil, Dr. B. A. Road, Parel, Bombay - 12.
16. Shah Kartik J. - 96-B, Hirak Society, Bldg. 2, S.V. Road, Irla, Bombay - 56.
17. Shah Bhavin K. - 2, Triveni Maharashtra Nagar, Borivli (W), Bombay - 92
18. Khiani Vinod P. - 37, Strand house, Opp. Strand Cinema, Colaba, B'bay - 5
19. Krishnan Narayan - 45/9 'Anoop', Slibway Road, Santacruz (W), Bombay - 54.
20. Desai Tejalukar N. - 4/B/405, Amoghsiddha, Turel Pakhadi Rd., Malad (W) - 64.
21. Karnad Ashish S. - 4-5/183, 1Sudarshan', Garodia Nagar, Ghatkopar (E) - 77
22. Gulati Harmeet Singh A. - E-2/12 Ganesh Niwas, Charal, Thane.
23. Gopali Rajesh K. - Century Rayon Colony, C-7-99, Thane.

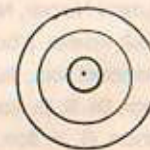
24. Aphale Amol P. - Gurukripa, Pandurangwadi, Manpada Rd., Dombivli (E).
25. Pednekar Rajaram M. - 1/8, Highland C.H.S., Mahul Rd., Chembur, B'bay - 74.
26. Metar Limesh J. - C/32, Vihang Darshan Soc., Koldangari Lane - 1, Andheri - 69.
27. Dhani Hitesh N. - 1/10, Adamber Bhaven, N. S. Road, Mulund (W), B'bay - 80.
28. Karmarkar Yogendra Suresh - 18A/10, Govind Nagar, Sodawala Lane, Borivli - 92
29. Agarkar Kedar S. - H-7, BARC Colony, Chembur, Bombay - 71.

People do not plan to be failures, they just fail to plan.

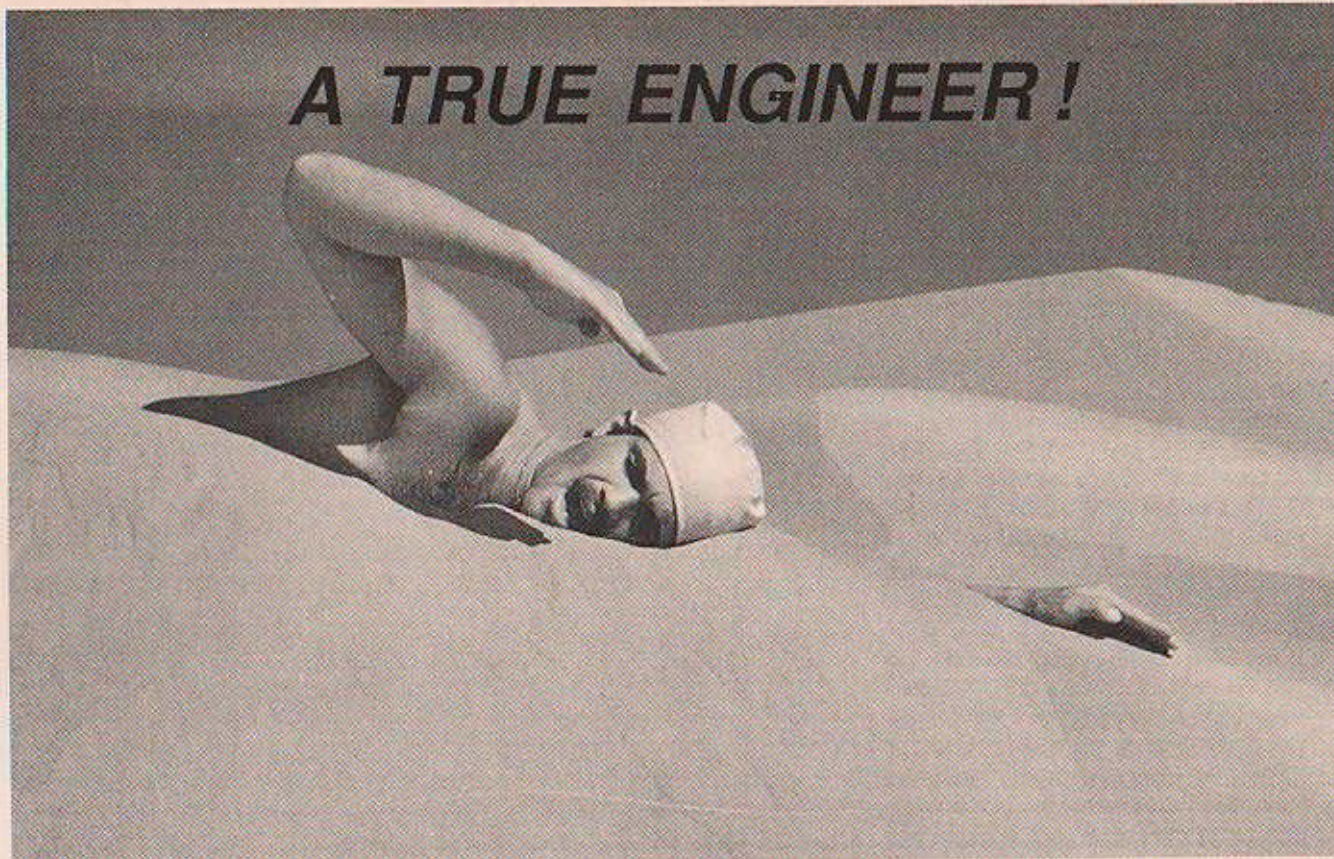
Even a mosquito doesn't get a slap on his back until he starts working.

If at first you don't recede, diet and diet again.

A bottle is a container used for bringing up babies and bringing down adults.







**A TRUE ENGINEER!**

**ACKNOWLEDGEMENTS**

*: We would like to thank the following for their contribution to 'KSHITIJ':*

DR. S.S. PADHYE. (PRINCIPAL)  
MRS. N.M. KUMTHEKAR.  
PROF. R.G. KARANDIKAR.  
PROF. N.R. GILKE.  
RAJESH GANGAKHEDKAR. (GENERAL SEC.)  
RAKESH REGE.

VINAYAK PANDHARE.  
SHRIRAM JOSHI.  
MANISH SALIAN.  
ARCHANA SANGOLI.  
SURESH KUMAR.  
YOGESH RAIKER

HA HA!

OoF!

HELP!

HEY LET ME GO!

OUCH!



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