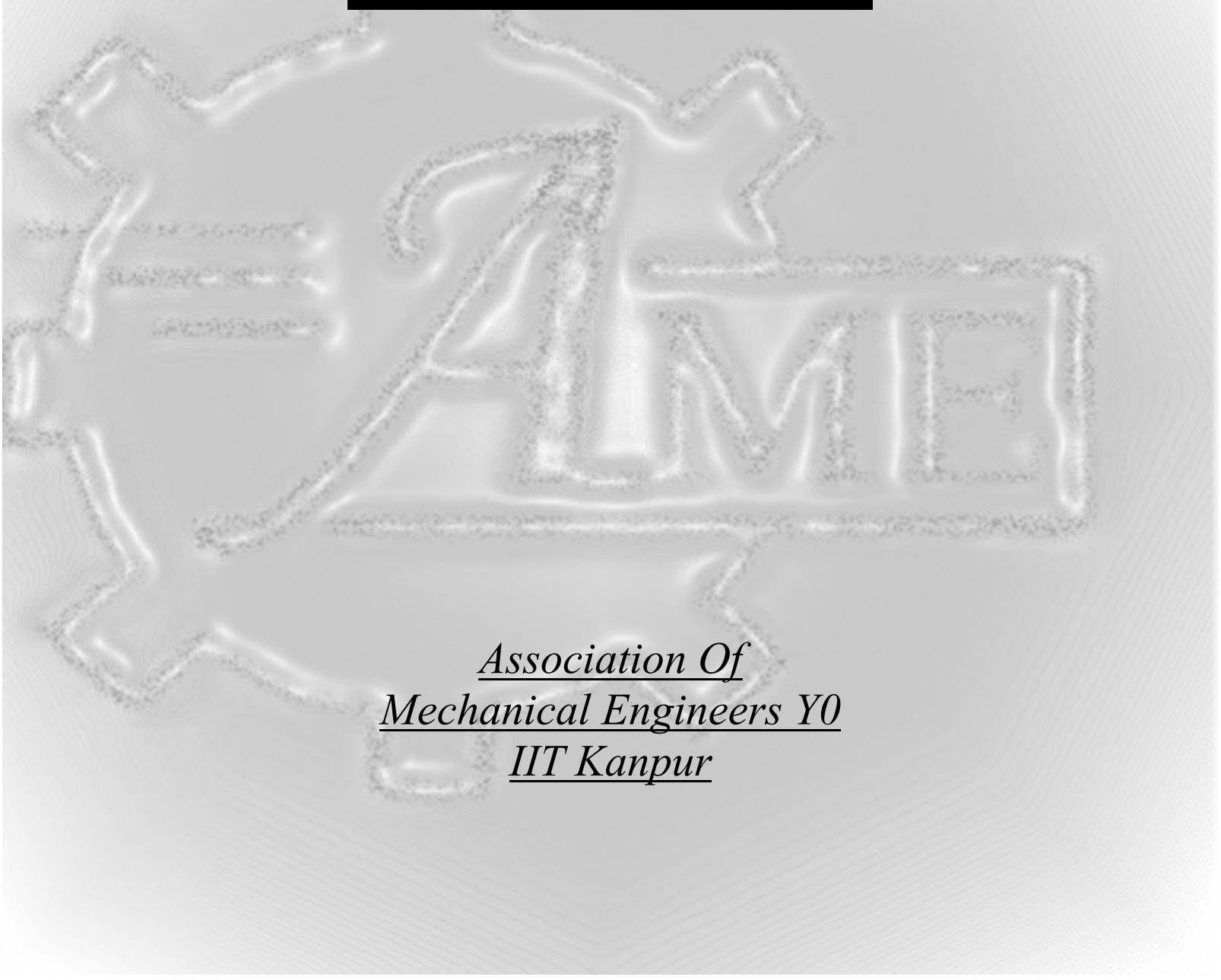
MECHZINE



Association Of
Mechanical Engineers Y0
IIT Kanpur

Inside

From the editor's desk

As the web editor of AME magazine it is my immense pleasure to welcome you all to the AME magazine. It's really an unforgotteble experience to work with the AME team. This is one of the other steps which was promised in the begining of 2002-Ist semester to make available the AME magazine online for the members as well as for outsiders to access it.

The longest journey begin but with the single first step. Thus,the only way to get started is to start by this most important first step.Our AME council has started the journey under the guidance of "Dr. Anupam Saxena".We at the first step have put some goals and these days working hard to fulfill these but still have miles to go.

As a start, we have organised the Fresher's Welcome.The response from the first year students was amazing.They have performed in the events(musicals,skit etc) with so much enthusiasm.Special thanks to Music Club who have performed at our request.Many of the faculty members have come to encourage the participants.

After the success of this event we had started working for the industrial tour which was in December.Although IIT have good labs but they can't give you

the taste of industry. These tours play important role in understanding the various theoretical concepts. Not only getting the understanding of our academics but also we are getting acquainted with the culture of these industrial cities. Life in such cities is not very easy. By visiting such cities you also learn how to cope up there, afterall you are going to land up there after completing your B-Tech/M-Tech. I feel that our training is not complete until we are exposed to practical applications. Furthermore, the visit will also help us to realise what to expect after we receive our degrees. This time we have visited various industries in Bombay, Pune and Goa and also enjoyed the fast life of Bombay with nice beaches of Goa.

In the current semester we are planning to organise some Personality Development Workshops, some Creative Writing Contests and also some more tours and trips to Kanpur itself(LML, Field Gun Factory, HALetc), with the hope of lot and lots of participation.

Editor-in-chief
Vikas Verma

Do you know...

- History of IIT Kanpur
- Nanotechnology could save ozone layer
- Compass in your eye
- DNA Fingerprinting

Kanpur Indo-American Programme (KIAP)

Soon after independence, in the wake of new hopes and new aspirations, the fledgling Government of India of Pandit Jawaharlal Nehru realized that if the omnipresent gap between expectation and achievement were to be minimized it would be necessary, especially in the fields of science and education, to collaborate closely with the advanced nations of the world. This realization took the form, at the hands of Shri Humayun Kabir, the then Minister of State for Scientific Research, of international collaboration for a rapid tempo of development of higher education in the Indian Institutes of Technology. At his instance, and that of the Government of India, a team of six American educators, put together by the American Society for Engineering Education, visited India in 1958, and after studying the pattern of education here, submitted a four volume report (the ASEE report) concerning the future Indian Institute of Technology Kanpur for further discussion between the Ministry of Scientific research and Cultural Affairs and the United States Agency for International Development (USAID). Subsequently a team of three professors of MIT led by Professor N C Dahl visited India in 1961 January- February in order to conduct an in-depth survey of engineering institutions of higher learning. This visit was

financed by the Ford Foundation and the purpose was to see how far MIT alone could undertake to assist the newly established IIT Kanpur. The group assessed the task to be formidable for a single institution and reported accordingly to President Julius A Stratton of MIT. USAID having agreed to the suggestion of the Dahl group that a consortium of universities/institutions be formed to establish assistance to IIT Kanpur over a period of ten years, President Stratton invited representatives of several institutions of USA to a meeting on 1961 May 26. The blueprint for USAID-GOI collaboration suggested by this meeting formed the basis of the eventual operation. On 1961 August 8 USAID entered into an agreement with the Education Development Centre, Newton, Massachusetts, for the corporate management of the project.

In the months of August and September Dr P K Kelkar, the Director of IIT Kanpur, and Mr. G K Chandiramani, Joint Educational Adviser in the Union Ministry of Scientific Research and Cultural Affairs, visited USA. They had meetings with the US Steering Committee first at MIT, Cambridge, and a month later, after visits to all consortium institutions, at the University of California, Berkeley. In the first week of 1961 November members of a sub-committee, again led by Professor Dahl, visited IIT Kanpur and had meetings with Dr Kelkar and the faculty (of twenty or so). They also visited the land where construction work had begun. Later they had a series of meetings in Delhi with officials of some Ministries and Departments of the Government of India and with USAID officials.

This visit became a springboard for further developments in the working relationships of the four parties concerned: IIT Kanpur, the Consortium, USAID and the Government of India. The local US organization came to be known as the Kanpur Indo-American Programme (KIAP), a name and an acronym formed by Chandiramani.

Over the next ten years (1962-1972) the KIAP activity had three major components: (1) Consortium staff working in Kanpur under the stewardship of a Programme Leader, (2) Some IIT Kanpur faculty members receiving on-the-job experience in the Consortium institutions, and (3) the procurement of equipments, books and journals not available in India. Purdue University alone donated more than 40,000 technical books and journals.
The number of Consortium staff at any one time, was not large, but had specialized faculty, who brought a broad spectrum of ideas and intellectual resources from these nine institutions. The first batch of nine participants including a programme leader arrived in Kanpur in March 1962. In December 1965 the participant strength reached a peak of 28 which decreased to 24 by December 1967 and by December 1971, that is just before the termination of the programme in June 1972, it reduced to 8. The KIAP programme leaders were:

Prof Norman C Dahl, MIT 1962-1964
Prof Robert S Green, OSU 1964-1966
Prof Robert L Halfman, MIT 1966-68

Mr Gilbert Oakley Jr, EDC 1968-1971

Prof J G Fox, CMU 1971-1972

The US participants served a total of 200 man-years at Kanpur. Under the KIAP agreement 50 faculty members and technicians of IIT Kanpur were provided with special training at various Consortium institutions. Five faculty members obtained their PhD degrees and one obtained an MS degree under this scheme. Excepting these, all of the others spent a year or less in the Institutes of the Consortium. In September 1963 the Ford Foundation gave a grant of US$ 20,000 to provide for the relocation from abroad of Indians appointed to the faculty of IIT Kanpur, for travel prior December 31 that year. Eleven members recruited in 1963 returned to India under this grant. Subsequently, between 1964 February and 1971 July, ninety-eight prospective IIT Kanpur faculty members and their families traveled to India under KIAP's own provision for relocation, with the condition that each would remain at IIT Kanpur for a minimum of two years.

Under the KIAP, as of June 1971, an amount of US$ 7.5 million was spent on procuring equipment for the various departments and central facilities. Two departments obtained equipment worth a million dollars each. Books and back volumes of journals purchased for the library, under the Purdue University Library Collaboration Project, numbered about 40,000 and were worth US$ 720,000. The task of procuring this material and assisting in the organization of the library was entrusted mainly to Purdue university; however, MIT

also provided assistance in the form of a visiting expert. The acquisition of special reports such as those of NASA or Bell Telephone Laboratories which were/are not easily available in India was particularly useful under the KIAP.

Collaborative research conducted at IIT Kanpur has led to significant original contributions and have been widely cited. A large number of students trained under KIAP pursued advanced degrees in USA. Many of them have grown to become international authorities in critical areas of science and technology. The contribution of IITK graduates to the American economy is now an acknowledged fact.

The IITK-KIAP collaboration has been one of those ventures which encourage us to pursue international cooperation. For the sake of a correct historical perspective it must be recorded that the programme became successful due, at least in part, to the rapport between the first Director and the first Programme Leader, a rapport characterized not so much by an identity of views and need for mutual benefit as by mutual understanding and a desire to accept challenges - this, after all, are the essence of international cooperation.

Nanotechnology could save ozone layer

WHILST EXPERIMENTING with nanospheres and perfluorodecalin, a liquid used in the production of synthetic blood, researchers at Germany's University of Ulm have stumbled across a phenomenon that could ultimately help remove ozone-harming chemicals from the atmosphere. The perfluorodecalin, against all expectations, was taken up by a water-based suspension of 60 nm diameter polystyrene particles.The scientists believe that this occurred because the nanoscopic perfluorodecalin droplets became encapsulated by self-assembled polystyrene nanospheres.

Perfluorodecalin has very similar properties to chlorofluorocarbons (CFCs), the inert liquids that are known to destroy the Earth's protective ozone layer. And the Ulm team reckons that aerosol particle-carrying water droplets or ice crystals in clouds may be able to collect up chlorofluorocarbons in the same way, eventually returning them harmlessly to Earth as rain, hail or snow.
"I realized that I had developed a useful model system for the simulation of microphysical processes in the stratosphere," said Andrei Sommer of the University of Ulm.

"In particular, for (simulating) the very complicated interplay between cloud droplets, nanoscopic aerosols emitted by man-made and natural sources, and chlorofluorocarbons - the principal ozone killers." The solid aerosols that arise from urban and industrial sources, for example petrol and diesel particles, are roughly the same size as the polystyrene nanospheres used in this experiment.

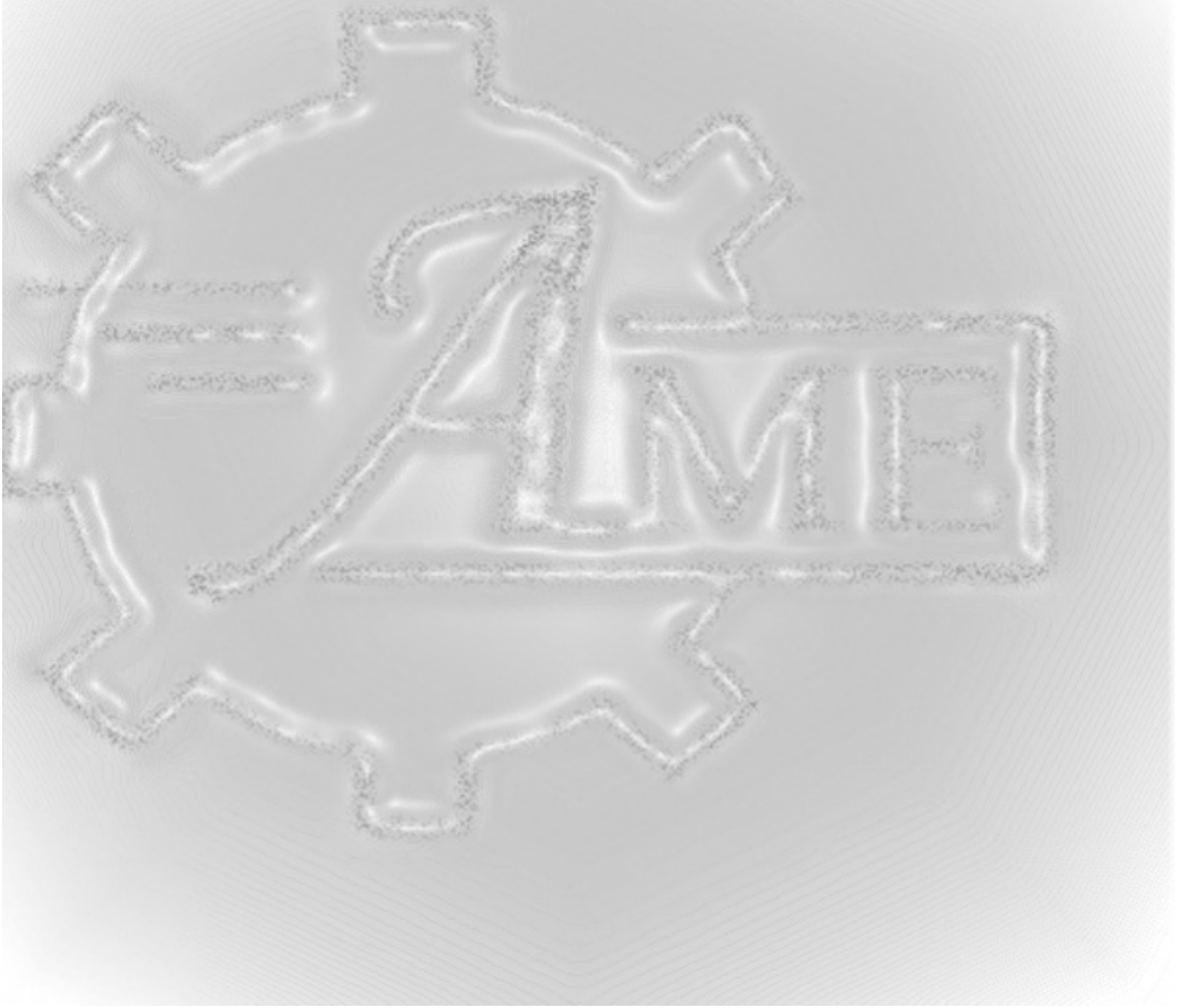
"Nanoscale aerosols - which are also accused of suppressing rain and reducing the amount of sun reaching the Earth's surface - could in fact be helpful in reducing the stratospheric concentrations of ozone killers," added Sommer.

Sommer says that if tests confirm the predictions from the simple model system, the result could be a practical strategy to stop, or possibly even repair, one of the two potentially most destructive global problems caused by mankind. He reckons scientists could use space technology to carry large amounts of specially designed non-toxic nanoscale particles into the heart of the ozone hole.

In the short term, Sommer says it's worth optimising the properties of such nanoscale particles - for example, aerosol size, chemical composition and solubility - while reducing the cost. Then it's a case of encouraging international space agencies to begin airborne experiments.

Back on Earth, meanwhile, the perfluorodecalin-based nanosphere suspension research could also have applications in nanopatterning

and biofunctionalization techniques for biomaterials. The scientists reported their work in Nano Letters.



Compass in your eye

PEOPLE CAN see the Earth's magnetic field, albeit unconsciously. The effect is too small to be noticeable, but other animals may use their eyes in this way to get their bearings, says a report in New Scientist.

The Earth's magnetic field lines vary depending where you are. They always run south to north, but are horizontal only at the equator, dipping in at a steeper angle the greater the latitude.

Birds and some other migrating animals seem to use these angles to help them navigate, and one theory is that they do so using light-sensitive cells.

German researchers investigated whether people's eyes are sensitive to these field lines .

They measured the lowest level of light that people could detect in a small spot straight ahead of them. They had people face south, west and south south-west, and used a magnetic coil to create a horizontal north-facing field.

They then repeated the experiment with the Earth's natural magnetic field, which in Germany is angled 70 degrees downwards towards the north.

When the field lines coincided with the direction of the spot, which

only occurred when people faced south in a horizontal field, the threshold of brightness at which their eyes first detected a very dim light went up.

The effect was small but significant, say the researchers. Although we are not conscious of it, the same probably happens when photoreceptors in the eye are aligned with the Earth's magnetic field.

American researchers studying newts say the light compass in them probably use specialized photoreceptors to detect the magnetic field lines.

Magnetic fields interact with spinning electrons, and could theoretically influence photoreceptor chemicals at the quantum level, altering their efficiency.

DNA fingerprinting

LEICESTER UNIVERSITY, England, 1984: Alec Jeffreys, Professor of Genetics, moves an X-ray film from a developing tank and experiences a Eureka moment. He has discovered how to isolate `stuttered' regions on a deoxyribonucleic acid (DNA) molecule where a nitrogenous base sequence is repeated a number of times.

These regions vary between people, hence they are a means of identification more powerful than fingerprinting. Needed was a chemical probe that could "latch onto this chemical motif shared between the different stuttered regions in a person's DNA — called minisatellites" thereby developing markers for genetic analysis. That Monday morning, Sir Jeffreys saw minisatellite patterns on the film. He now knew that `DNA Fingerprinting' could be used for forensic identification, paternity testing, evolutionary biology and archaeology — the list was endless.

Sir Jeffreys was at Mumbai to commemorate the 50th anniversary of the discovery of the double helix structure of the DNA molecule. His talk covered the forensic uses of DNA, its power, limitations and his current study on gene mutations.

DNA remains stable for about 80, 000 years and its uniqueness is in its `minisatellites' or `microsatellites'. These short nitrogenous base

sequences are repeated nearly 30 times.

The exact number of repetitions is distinctive — they customise the individual and become his signature. He developed the technology to isolate one minisatellite at a time — this produces two bands on the X-ray film as each gene has one paternal and one maternal.

In forensic cases, DNA obtained from bloodstains, semen or hair follicles is usually insufficient to produce a profile on X-ray film. Using a polymerase chain reaction a micro satellite segment is separated and amplified millions of times to produce a DNA profile comparable with one from a suspect.

DNA fingerprinting has been used in immigration cases, in the infamous OJ Simpson case and is being used in India for rape and paternity cases, besides high profile cases including Rajiv Gandhi's assassination.

Sir Jeffreys also spoke about when and how mutations occur. What scientists know is that mutations occur due to a gain or loss of stuttered repeats, especially during meiotic division or gamete formation. For example, Huntington's disease is due to a major amplification of a particular nitrogenous base sequence. If there is a mutation in a child, its DNA profile will not completely match the DNA profiles of its parents.

Mutations are necessary for evolution. But when a micro satellite goes horribly unstable, there's trouble. How micro satellites mutate is

not clearly understood, the general view is that copying problems arise during DNA replication or repair. Minisatellites on the other hand, probably mutate during gamete formation and recombination. Radiation does provoke mutations, developing cancers. But evidence of heritable mutations caused by radiation is not substantial except in extreme cases of radioactive fallout like Chernobyl.

Literature.....

- The Length of Time
- Religion
- For the love of Tendulkar
- Fire Fire Everywhere...
- After Hundreds of billions of years

The Length of Time..

‘May I come in sir? “No you may not!” was the usual reply from my tutor. All my efforts of getting up early in the morning have gone waste. After all I reached the tutorial block at 8:15 a.m., pretty early by my standards. As I was coming back from the tutorial block, I tried to recall when was the last time I saw the sun rise majestically from the eastern sky. Oh! Just two weeks back, when I had the second night out of my life . before that, no way(How many times you have witnessed sunrise? I bet you can count it on your finger tips!)

Sunlight, the source of life on earth , has always been a mystery. It has fascinated & confused many a great thinkers. The confusion led to the discovery of speed of light, it’s nature& way of propogation. Maxwell formulated the laws governing the motion of electromagnetic waves(light is also an electromagnetic wave) . And of course the motion of bodies was governed by newton’s laws.

One fine day a “cool” guy like me, was struck by an amazing contradiction. If we move at the speed of light parallel to a light beam, the light beam will seem to be static in spite of it’s oscillating electric and magnetic fields. This violates maxwell’s laws. Galilean mechanics (a consequence of newton’s laws) allowed infinite increase in the speed of an object. But our cool guy was confused .

Two solid classical theories were giving contradictory results. This meant that one of them must be wrong. He put a restriction on the newton's laws. No moving object can exceed the speed of light! (There were other mathematical reasons but I hate mathematics !)

He published the paper " On the electrodynamics of moving bodies" in 1905 containing the above information. Next in line was the General Theory of Relativity(the first was Special Theory of Relativity) which emphasized the importance of gravity in determining the behavior of universe and time as the fourth coordinate. And he got the nobel prize for his work on photoelectric effect! He was ALBERT EINSTEIN

To give you an idea of how great and complex the general theory of relativity is, physicists and mathematicians are still getting insights into the various new phenomenon observed in the universe with the help of this theory. So many new entities have been found, prominent among them being black holes whose gravitational field is so strong that even light cannot escape it's surface . If you stand in it's field, you will be torn to shreds because of the gravitational field(can you imagine it?).

Friends, do not assume that Einstein did not make mistakes. His own general theory of relativity predicted that the universe must be expanding, but at that time it was widely believed that universe was static, so Einstein introduced a cosmological constant in his theory to explain the static nature of the universe. But ultimately, an astronomer called hubble proved by observation that the universe is

continuously expanding. That forced Einstein to term his introduction of the constant as the " greatest mistake of my life". The expanding nature of the universe gave rise to the Big Bang theory which tried to explain the origin of the universe . In this theory, it is has been proposed that initially, the universe initially was a hot ball of gaseous matter of infinite density & it suddenly exploded, spreading matter in all directions. The matter that spread, formed clusters over a long period of time (No, it's not 10 or 15 years it's of the order of 5 billion years !!) which we now term as galaxies. Let me stress one very important point , it is gravitational force which has till now determined the fate of this universe and will continue to do so in the future. I will discuss about the future of the universe because that strongly influences the direction of time !(be patient, everything will be revealed shortly)

Haven't you got bored with my discussing such things like galaxies and the largest of them all, the universe itself? So, why not shift focus on the behaviour of atomic and subatomic particles. Pioneering work was done in this field by Bohr, Schrodinger, Heisenberg, Pauli, Dirac, Max Planck and Einstein though he did not agree with many of the postulates of the quantum theory(A theory which tries to explain the behaviour of the atomic and subatomic particles as well as that of photons etc.) .

You all must have studied Young's double slit experiment in which a ray of light containing infinite no. of photons is forced to separate through the two slits then interfere to give you the wonderful pattern on the screen. Now think about carrying out this experiment with a

single photon. Can you tell through which slit this photon will pass? You would say that with whichever slit the photon is in line with, it will pass through it. But, Heisenberg's uncertainty principle stated that you cannot be sure of where the electron is heading!(It may go through the other slit as well !). To put it formally, the uncertainty principle states that you cannot simultaneously determine the position as well as the velocity of a particle at an instant of time; there will always be an error. This amazing principle was ridiculed by Einstein with the famous comment " God does not play dice" implying that there is no such thing as uncertainty in measurement , But now Heisenberg's uncertainty principle has been widely accepted . It's with all humbleness I would like to add that the uncertainty principle is a consequence of our inaptitude to find something other than light to measure position & velocity.(Convince yourselves that light is the best & predominant medium of measurement.).

Once Einstein raised an objection to one of the prediction of quantum theory and he was answered using his own theory of relativity! How great these thinkers were !!

Quantum theories predictions are valid at subatomic levels and general theory of relativity 's at cosmological level but it's not always true the other way round. Most of us believe that the universe behaves in an orderly fashion, obeying a set of well defined laws. Physicists are now trying to correct the contradictions of the theories mentioned above. (DO you know that black holes were first mathematically discovered with the help of theory of relativity and

their nature was explained by quantum theory!) That boils down to proposing a grand unified theory which brings all the fundamental forces under one umbrella.

All the theories that we have discussed above were not valid before the big bang(as it was a singularity*). So in spite of all our efforts, we still have not been able to find how this universe came into being. Is it that someone has put a restriction on the extent to which we can reason and understand our surroundings?

*Singularity: A point in space time at which the space time curvature becomes infinite (I know this definition does not clear the air but u can refer to any book on theory of relativity to get a better insight)

You must be wondering that whatever I have discussed till now has any bearing whatsoever to what I am actually supposed to discuss i.e. Time. So now let's begin a fascinating account of time itself.

Have you ever realized that time moves in only one direction i.e. so called "forward" direction. You never die before you are born. To express this fact in a nutshell, an effect cannot precede it's cause.(This line has played a pivotal role in the development of theory of relativity).That's how we see things occurring in our surroundings and all of this seems so natural and obvious.

According to newton's laws F= m d2x/dt2 where x is the displacement and t is of course the time. Now put –t in the above equation. Does it cause any differences? Do the same in the theory of relativity eqn. and you will find that the eqn. does not change. T & -T are obviously opposite i.e. one moving forward and the other in the opposite direction. SO the laws of physics do not differeniate

between the directions of time! If you are in a world where people die, then come to life and then become children, the laws of physics still hold. So our laws of physics do not give any explanation of the unidirectional nature of time. So how do we solve this mystery?
The second law of thermodynamics states that the overall entropy of the univers increases after a process is completed. Don't you feel that there is some analogy between the direction of time and the ever increasing entropy of the universe. In fact, the second law of thermodynamics has helped us identify that time moves in the direction of increasing entropy. Entropy is a measure of the disorder prevalent in the universe and this disorder is presently being caused by the tendency of the universe to continuously expand(I think you can feel that due to expansion the disorder is indeed increasing)Now the next question that arises is whether the universe will go on expanding forever or will the expansion stop. If the universe stops expanding, it will start contracting due to the gravitational pull of the galaxies so the overall entropy of the universe will start decreasing. Does that mean that our fantasy world will come into being if the universe starts contracting?
The big bang was so big in magnitude that it gave enormous initial velocity to all matter that flew out. But there is retarding force acting on these chunks of in the form of gravitational pull. Now it depends on the amount of matter contained in this universe whether the universe will sometime stop expanding. Let me tell you it is very difficult to estimate the amount of matter, as it is now widely believed that universe is primarily comprised of matter which we

cannot see, called the “dark matter” for e.g matter contained in black holes. Another discovery of antimatter particles adds to the difficulty. In fact, due to discovery of antimatter particles, the presence of antimatter universe is also being discussed. If a particle and it’s anti meet, they annihilate each other releasing energy. And of course, the search is on for answers. Let me assure you here that even if the universe starts contracting then also entropy will increase. I cannot explain it here as “ this is beyond the scope of this article!”
At present we stand at a juncture where there are infinitely many more questions than answers about the origin and the fate of the universe. To give you just a vague idea of how complicated things can be, the definition of time itself breaks down for the period before the big bang and so do the laws of physics. But these are the challenges, which drive us human beings to delve into the unknown and try to get an inch closer to god’s will.
But for the time being , it’s god’s will that I go back and have a good sleep which I had to break because of the tutorial. I like the way I live and the luxuries I can afford but never forget the enormous amount of human effort that has gone into making my life what it is at present.
……..END

Religion..

Why is it so that religion is necessary for our existence? Is one religion not enough for our existence? If religion were not there, there would not have been the existence of God. Why should we have the existence of god at all?

The fear of the unknown is omnipresent in everyone's mind. When we feel that things are getting out of control, we panic. We always want things to be predictable. Nothing should surprise us (if it does then it should be a pleasant one). Astrologers thrive on this human tendency.

Going back to those days when religion was in its formative stages, there was no set of rules to follow. We were more animals than humans. But there were certain intellectuals who thought that the chaotic nature of their lives must end. For that, it was needed that they lead a disciplined life. It is very easy to make rules, but very difficult to implement it on others as well as on yourself. Rules impose limitation and boundaries, which the human mind always tries to break (that animal in us is still there).

There has to be a way of living for every one, a disciplined way, thought those intellectuals. And thus entered RELIGION, a way of living. It was meant to be restrictive but in turn ensured that everyone lived happily. If someone commits a mistake, he should be punished. That punishment deters people from doing things, which offend others.

Spelling out the rules was pretty easy, but difficult to implement.

Even If we punish most of the offenders many are left scot-free. So, GOD entered the scene. GOD was defined as a divine (supreme) power who always did the right thing and punished those who did something wrong. Though God was defined but no one had seen God. God was something unknown. The fear of the unknown, which is inherent in us, was gradually taken advantage of by the intellectuals. Tragedies like storms and earthquakes were termed as the wrath of this unknown quantity called God. People at that time did not know the reasons behind this. So they accepted whatever the intellectuals told them. And God made a permanent home in the minds of the people (along with fear & respect as you respect mostly because you fear but that is not rue respect!)

Wasn't this fear necessary? I think it was to make people disciplined. Every living being fears death, so do the humans. This fear of getting punished by something unknown and omnipotent had it's desired effects. But religion was not only about this. It also talked about salvation, when you devote your life in the service of God and do not do anything wrong, then you attain salvation . You are freed from this life full of pain and pleasure and become one with the omnipotent and omnipresent God. So doing good things had its incentives.

Thus, I think the foundation of religion took place . But it's definition constantly changed. The clerics and the religious leaders interpreted it in their own way. Many of them did that to serve their own ends . And in this way, unwanted things crept into religion.

Isn't it true that God never comes and tells us (he is the custodian of

religion) what to do and what not to do. It's up to us to decide how to lead our life. And for a common man, the opinion of these leaders counted the most as they were the representatives of God.

Presently, there are so many religions. The main reason for this is that initially humans lived in different regions. Their historical and geographical backgrounds were different and so the thought process was different So the properties of religion in different regions was defined differently.

Isn't it marvelous that in spite of the variety of religions we have, every religion believes in the existence of God. It is similar to schoolchildren coming from different households via different roads to the same school. Religion is basically this road that leads to God This path depends on the location of your household i.e. the environment in which you live and how you have been influenced by it.

Imagine a class where there are only students and no teacher. There will be huge amount chaos; the children would be throwing paper airplanes, shouting, fighting and what not. As soon as the teacher enters, order is restored. Isn't it that we live an orderly life? Initially we were animals(probably apes) but now we are "humans" . Everything happens in this world in an orderly fashion. Let this world be without a "teacher" and there will be chaos. So there we have God who is the guiding force of our lives. It is his presence, which makes us act the right way. You may call it fear but I call it respect because he also rewards you by making you God, if you are on the right track.

It is very important at this point of time, when the world is going through such a disturbing phase, to discover our selves. The rules and regulations that our society follows, our religion follows are made for us. These basic rules have stood the test of time. It's our duty to see to it that we follow the rules which are pertinent to our time and not blindly follow what has been passed on to us by our ancestors. It is this reasoning power of the human beings that has led to our development and the moment we stop it, we will start declining (probably we are at present). Someone rightly said, " there is nothing so permanent as change" but this change should be for the betterment of the human race.

…….END

by M.M. Tiwari

For the love of TENDULKAR.

My wife tells me I am not romantic.

I tell her at our stage who is?

She says anil, fazal , arun, jack, john…..

You want me to carry on?

She said there was a time when I said all the right things,

And do I remember sending her a tennis ball and writing ,“the ball is on your court now”.

I say that was 23 years ago.

She said you once sent me a sock, which said sock it to me, now that was something.

I say I was courting you then now we are married.

She said you used to write poetry remember, you always opened the car door for me

You never do that now….you were so gallant then. I thought of you

as prince charming With wit and a certain style.

I am pretty princely, I say, even now.

And there is nothing wrong with my charm or wit, the thrust and repost are still there.

She says, no no you are just boring and predictable and you never say anything nice.

There was a time when you had Zing.

Now it's the same dreary routine.

There has to be something more than this. We are stale and you are no fun.

So I say, OKAY lets put some zing into it. Lets go spend a weekend at a beach resort.

Lets walk in the moonlight and play in the sand and recapture the romance, I shall even serenade you.

Rash promises made in rash moments of blood rush and the next thing you know,

The two of us are at this resort in this room overlooking the sea and she says isn't it marvellous?

Just look at the view!

Except India is playing South Africa and Ganguly has just flicked one down the leg side,

I say that's four down and she says you aren't watching TV are you?

I say no, just the cricket, dash it we could lose this game.

I thought we came here to get away from it all and rediscover ourselves, she says.

Can't that wait till stumps? This is cricket.

She says, no, now we are going on the beach.

But Tendulkar has just come in.

I lose.

That night we sit at this table for two and the waiter lights this candle.

I say put it out, it goes straight in my eyes, which is the wrong thing to say because

I can see this sulk coming on. I figure a change of subject is necessary so I ask the waiter

If he knew what the final score was and my wife flings a napkin on the table and slams a glass.

What's wrong I say, don't you like the place? I thought you wanted

to do this.

She makes some sort of a strangled sound.

I say, we did this once, remember in 1980, we went on baga beach and ate prawns in their shells.

She looked all misty eyed and nostalgic. How time has flown, I say. The kids, grown up, you and me

Against the whole world, couples as well as best friends.

She sighs, in the way girls sigh when they go through that spasm of finding you half tolerable.

I ask the band to play, Those were the days. We look each other in the eye and feel togetherness sloshing about.

She clasps my hand and we walk on the shoreline, two people rekindling love. Away from the humdrum of daily routine.

The moon shines down and we have what is known as companionable silence.

What are you thinking, she whispers, resting her head on my shoulder, share your thoughts with me.

Oh nothing, I say.

No no no you have that far away look in your eyes, tell me what's on

your mind.

It’s going so well and then I go and spoil it by saying something stupid.

I don’t know I say, but we have to get an opening pair and a better attack and we can’t keep depending on Tendulkar,

ONCE HE IS OUT THE WHOLE TEAM FALLS APART.

BACK

Fire fire everywhere

The world is burning bright

Yet unmoved and uncared

We all just watch the plight

The present world is a world of turbulence. A world of misery and a world where the inhumane sense dominates the human within. The humanity bleeds so much near our eyes, yet we prefer to ignore it. How many times have you thought of your responsibilities as human? Have you ever lent a keener look to society? Of which we are all a part of and the misery it holds?

The misery is not as far as you may think. Remove the veils from your eyes and you'll find it so close to you. Have you not seen those barely dressed children on our way, or do you choose to ignore the group of beggars that you frequently find on railway platforms? Don't you feel uncomfortable with the behavior of ours to those kids on the mechanic's shop? Have you ever introspected your own

behavior to so called lower class of our society?

You alone are not the one who who prefers to keep this heart silent over this plight of humanity, and yet without the mass recognition of these effects the situation cant change.

We, as student body at IIT Kanpur, dream of a future of equality, Joy and freedom from misery. Ours is a dream of a society free from hatred and fanaticism, where the rule of love prevails. A society where everyone can enjoy and no one has to bear his life. A society, where the humans are humane.

These are but dreams. And no single group can bring such a change in situation, standing alone. This is therefore an appeal, an appeal to all those whose heart still feels and eyes still dream. We are the youth, the nation of tomorrow. And the youth are the force that can change this world. It is us who inherit the responsibility to change this world. To change it for the better.

We here at IIT Kanpur have experimented with the same. Starting with the primary theme of providing education, meaningful education and an enjoyable education for the deprived, we propose to expand it to other domains that require attention. The experiences have been both joyous and educative.

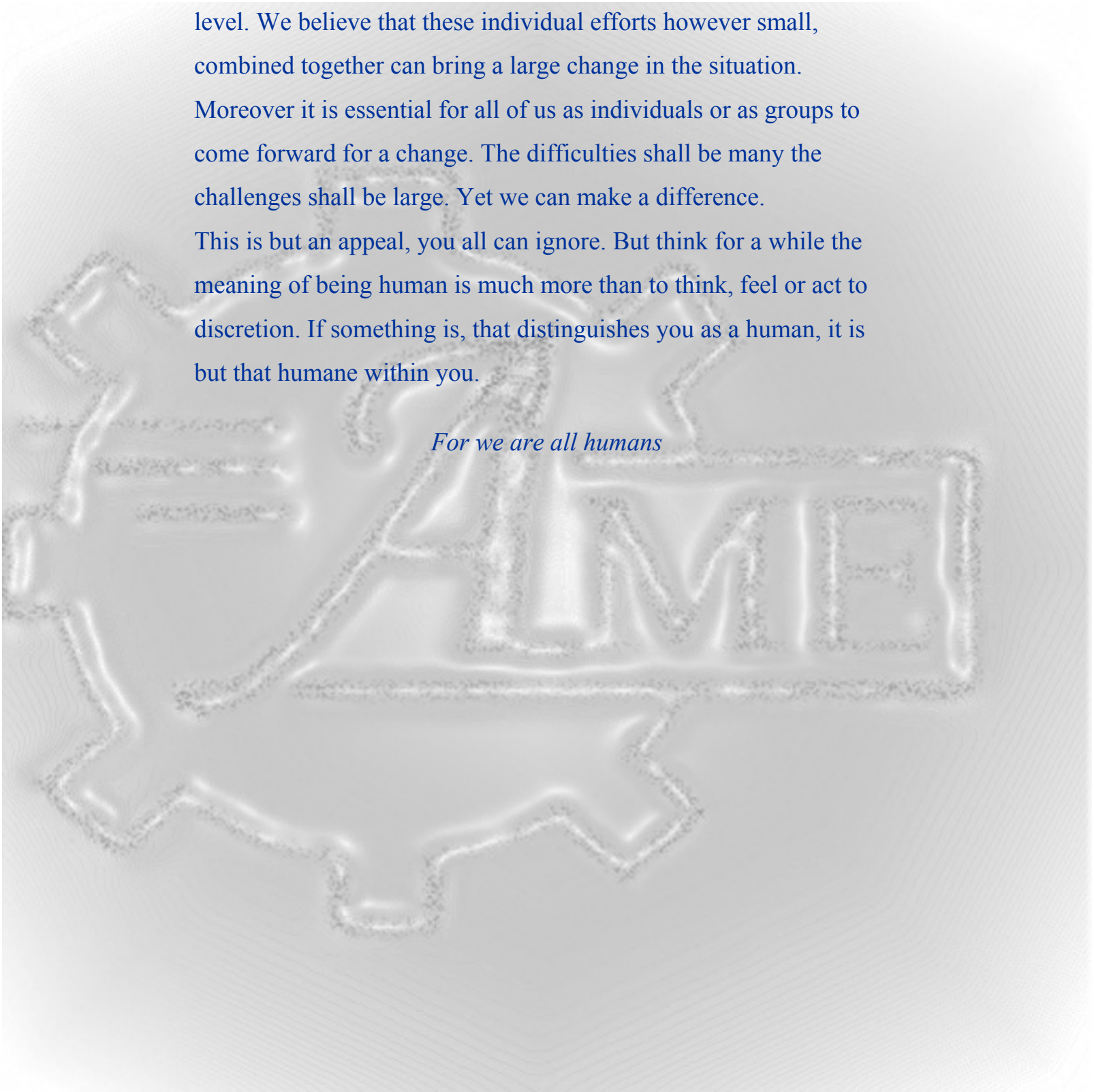
This is an appeal to all of you to share your bit of the responsibilities, to change the situation around you. The society is in crisis and there are crisis of al kinds. There are crisis in political situations, the social environment, the religious turbulences – everything. It is none but us together who can change the present.

We appeal to all of you, to come forward and start with your own

small groups at your own place, to combat the crisis at your own level. We believe that these individual efforts however small, combined together can bring a large change in the situation. Moreover it is essential for all of us as individuals or as groups to come forward for a change. The difficulties shall be many the challenges shall be large. Yet we can make a difference.

This is but an appeal, you all can ignore. But think for a while the meaning of being human is much more than to think, feel or act to discretion. If something is, that distinguishes you as a human, it is but that humane within you.

For we are all humans



After Hundreds of billions of years

After hundreds of billions of years, he suddenly thought of himself as Ames. Not the wavelength combination which, through all the universe was now the equivalent of Ames but the sound itself. A faint memory came back of the sound waves he no longer heard and no longer could hear.

The new project was sharpening his memory for so many of the old, old eons-old things. He flattened the energy vortex that made up the total of his individuality and its lines of force stretched beyond the stars. Brock's answering signal came.

Surely, Ames thought , he could tell Brock. Surely he could tell somebody. Brock's shifting pattern communed, " Aren't you coming Ames?"

"Of course."

"will you take part in the contest?"

"Yes! Ames lines of force pulsed erratically?"

"Most certainly I have thought of a whole new art-form. Some thing

really unusual."

"What a waste of effort! How can you think that a new variation can be thought of after two hundred biliion years. There can be nothing new"

For a moment Brock shifted out of phase and out of communion, so that Ames had to hurry to adjust his lines of force. He caught the drift of other thoughts as he did so, the view of the powdered galaxies against the velvet of nothingness, and the lines of force pulsing in endless multitudes of energy-life, lying between the galaxies.

Ames said, "Please absorb my thoughts Brock. Don't close out. I've thought of manipulating matter. Imagine! a symphony of matter. Why bother with energy. Of course there's nothing new in energy. How can there be. Doesn't that show that we must deal with matter?"

"Matter!"

Ames interpreted Brock's energy vibrations as those of disgust.

He said, "why not?" We were once matter ourselves back back, oh a trillion years ago anyway! Why not build up objects in a matter medium, or abstract forms or listen, Brock – why not build up an imitation of ourselves in matter. Ourselves as we used to be?"

Brock said, "I don't remember how that was. No one does."

“I do ,”said Ames with energy, “ I’ve been thinking of nothing else and I am beginning to remember. Brock, let me show you. Tell me if I am right. Tell me.”

“No this is silly, it’s repulsive.”

“Let me try Brock. We’ve been friends, we have pulsed energy together from the beginning- from the moment we became what we are. Brock Please!”

“Okay…but then quickly”

Ames hadn’t felt such a tremor along his own lines of force in well, in how long? If he tried it now for Brock and it worked, he could dare manipulate matter before the assembly energy beings who had so drearily waited over the eons for something new.

The matter was thin out there between the galaxies, but Ames gathered it, Scraping it together over the cubic light years, choosing the atoms, achieving a clayey consistency and forcing matter into an ovoid form that spread out below.

“Don’t you remember Brock?” he asked softly. “Wasn’t it something like this?”

Brocks vortex trembled in phase, “Don’t make me remember, I don’t remember.”

“That was the head, they called it the head. I remember it so clearly, I want to say it. I mean with sound.” He waited, then said, “Look do

you remember that?"

On the upper front of the Ovoid appeared HEAD.

"What is that?", asked Brock.

"That's the word for head. The symbols that meant the word in sound. Tell me you remember, Brock!"

"There was something, something in the middle a vertical bulge formed", said Brock hesitantly.

Ames said, "Nose that's it!" and NOSE appeared upon it. "And those are eyes on either sides."

Ames regarded what he had formed, his lines of force pulsing slowly. Was he sure he liked this?

"Mouth," he said, in small quiverings, "and a chin and an Adam's apple and the collar bones. How the words came back to me." They appeared on the form .

Brock said, "I haven't thought of them for hundreds of billions of years. Why have you reminded me? Why?"

Ames was momentarily lost in his thoughts, "something else. Organs to hear with, something for the sound waves. Ears! Where do they go? I don't remember where to put them?"

Brock cried out, "Leave it alone! Ears and all else! Don't

remember!”

Ames said , uncertainly, “what is wrong with remembering?”

“Because the outside wasn’t rough and cold like that but smooth and warm. Because the eyes were tender and lips of the mouth trembled and were soft on mine.” Brock’s lines of force beat and wavered, beat and wavered.

Ames said, “ I’m sorry! I’m so sorry!”

“You are reminding me that once I was a woman and knew love; that eyes do more than see and I have none to do it for me.”

With violence, she added matter to the rough-hewn head and said, “then let them do it” and turned and fled.

And Ames saw and remembered too, that once he had been a man. The force of his vortex split the head in two and he fled back across the galaxies on the energy track of Brock, back to the endless doom of life.

The eyes of the shattered head of matter still glistened with the moisture that Brock had placed there to represent tears. The head of the matter did that which the energy beings could do no more and it wept for all humanity and for the fragile beauty of the bodies they had once given up a trillion years ago.

Borrowed from Isac Asimov

Poems.....

- Memories to Cherish
- Starry Night
- Eternity
- My Death shall Bring Me to Life

Memories… to cherish…

The way you laugh
The way you walk
How would you stay up late
So we could talk

The way you kiss
And hold me tight
When we are out
On a cold night

The way you hug
Your sweet embrace
The way you always
Put a smile on my face

The way you love me
And I know you really do
How we always wanted it
Just me and you

The way you would call
After a fight
You always know how
To make things right

The way you know

That we'll be together

And how we know

It will last forever….

-Vinesh Singh Chauhan

Starry, starry night..

Starry, starry night
Paint your palette blue and gray.
Look out on a summer's day
With eyes that know the darkness in my soul.
Shadows on the hills.
Sketch the trees and the daffodils;
Catch the breeze and the winter chills
In colors on the snowy linen land.
Now I understand
What you tried to say to me,
And how you suffered for your sanity
And how you tried to set them free.
They would not listen; they did not know how.
Perhaps they'll listen now.

Starry, starry night:
Flaming flowers that brightly blaze;
Swirling clouds in violet haze
Reflect in Vincent's eyes of china blue.
Colors changing hue:
Morning fields of amber grain,
Weathered faces lined in pain
Are soothed beneath the artist's loving hand.

Now I understand
What you tried to say to me,
And how you suffered for your sanity
And how you tried to set them free.
They would not listen; they did not know how.
Perhaps they'll listen now.

For they could not love you
But still, your love was true.
And when no hope was left inside
On that starry, starry night
You took your life as lovers often do.
But I could've told you, Vincent:
This world was never meant
For one as beautiful as you.

Starry, starry night:
Portraits hung in empty halls:
Frameless heads on nameless walls
With eyes that watch the world and can't forget;
Like the strangers that you've met:
The ragged men in ragged clothes.
The silver thorn, a bloody rose
Lie crushed and broken on the virgin snow.

Now I think I know
What you tried to say to me,

And how you suffered for your sanity

And how you tried to set them free.

They would not listen; they're not listening still.

perhaps they never will

Anonymous

BACK

Eternity..

I would wait for that day

I would wait for my dream

If I could

When the sun would be

On The brink of death

When all of humanity would

Be on the verge of extinction

When all the hydrogen would

Have burnt out

When all that would be left of our sun

be a dwarf of enormous beauty.

Incomparable to the engulfing red giant

Who would have swallowed our Earth.

Yes I would wait for eternity

To watch the cosmos have its last laugh

I would wait for that day

When I could sit with you

On an iceberg of our frozen earth.

I would wait, if I could to see with you

The beautiful starlit sky,

as our sun faces the dead hand of fate,

as we both float into space with infinity

above and beyond.

Yes I would wait on that day

For you, because the only thing

Comparable to watching the sun

Burn out would be to float into

Infinity with you

By Sandeep Urankar

BACK

My death shall bring me to life

Desolate, deserted autumns

Stretch unendingly

Through my moribund life

Directions don't worry me anymore

For I'll meet my end
Anyway I go

For the end is the last episode of a lifetime

And will occur wherever life goes

My death shall bring me to life

For my life has brought me to death

How I wish to hear your footsteps

Rustle through the leaves

Though how can I forget

The blow that took you

Away from me

You now glide in the ether

In moonlit robes

But it remains the sneering wind

Sifting through the fallen leaves

Traumatizing me with gore

My dazed eyes in the noon sun

See your dear face lit by

A bonfire of youthful spring

At night, when jackals howl

I mourn your death and etch

Your name on my forearm

When the rains fall my heart

Groans in reverberation with

The clouds and weeps for their pains too.

The sign of Virgo

In now on the zenith

In the sky

And I, in the nadir of gloom

Cursed to death by the elements.

Between us ripples the sea

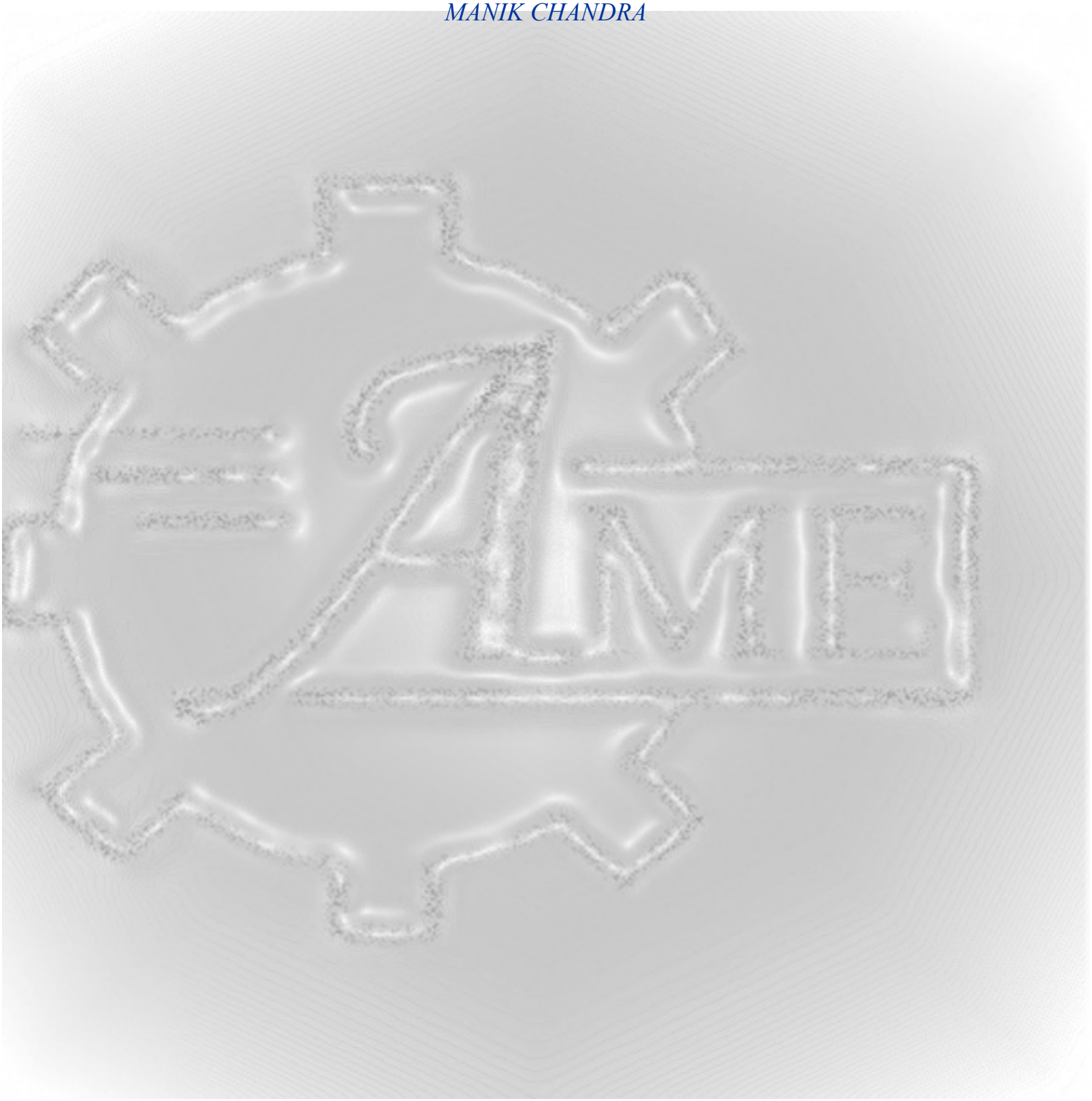
Of the two worlds

And I on the opposite shore

Will be ready to embrace

Death and swim over

To live with you once more.



Memories.....

- Industrial tour an Experience
- A Kumbh Trip

Mechanical Engineering

Industrial trip 2002

Year.....2002

Date and Month.....3rd December

Time.....11:45 am

Event.....Y0 ME students giving their fluid mechanics end semester paper

What's in their minds.....apart from the juggling Mach nos,Prandtl and Blasius....their is a storming chaos of sizzling industrial trip ahead to commence at 7 in the evening.

Back to the present...this report is being written on 1st January 2003 and you are going to experience a brief offset from your seat to a journey to Bombay, Goa and Pune with 40 odd students along with 2 faculty members.....industrial trip '02-03 of Mechanical Engineering.

Let me have the privilege of calling the mechanical engineering students of the trip in short as 'mesturips'. So it was about 7 pm when the 40 odd mesturips were on board in a bus of IITK along with two faculty personnels...Prof Ashish Dutta who is a new faculty member

at IITK and Mr Yogesh Pathak of IC Engines Lab.

With proper counting done and with first ho hullah done by mesturips, the bus shiftily had its way towards the CNB station. It was 9:40 pm when the mighty Pushpak Express took the group of intellectuals towards the city of Mumba Devi...Bombay or Mumbai. Except from few highly energetic and excited mesturips the rest soon succumbed to the berths to drain off the exaggerations of the end semester storm.

It was 8:30 pm on Wednesday (04/12/2002) that we reached Dadra.The IIT Powai bus was at our service. At IITB we were given rooms in hall 3 and GH...we had a girl among our mesturips.The next two days were declared as off days from the industrial visit due to ID .

So the mesturips were all stirred and busy in deciding their schedules to utilize these two days for touring the Bombay city. India Gate,Elephanta caves,Chaupati,Juhu beach,Essel world,Water kiingdom,Hiranandani....the blithe IITeans left their foot prints at these places and many more. It was appearing as if it is a tour from the tourist department of India but perhaps it was the next day(07/12/02) when the first visit to an industry gave the trip its first meaning.....the visit to Larsen and Toubro.

LARSEN AND T0URBO

Larsen & Toubro Limited - a construction, engineering and cement major - is among the largest and most reputed companies in India's

private sector.

Larsen & Toubro Limited is one of Asia's largest vertically integrated engineering and construction, Cement conglomerate. The Engineering core comprises Engineering & Construction Projects, Construction, Heavy Engineering and Electrical & Electronics.

We, in groups, were toured the fabrication department. There were huge pressure vessels that were been fabricated out of thick sheets. The thick sheets were rolled into circular cylinders. There were 4 huge rollers arranged offset to each other to give a circular shape to flat sheets. There were furnaces to pre heat the cylinders .We were also shown the Asia's largest Lathe machine. The heavy machineries and massive cylinders were very impressive. Our inquisitiveness was energetically answered by the engineers of L&T .We could also see the different welding technologies in extensive use.

The next industry to be visited was another big name Mahindra and Mahindra.

MAHINDRA AND MAHINDRA

Since its establishment in 1945 M&M was dealing in automobile business. In 1954 it entered into collaboration with Willys Overland Corporation to import and assemble the Willys Jeep for the Indian market. M&M began producing light commercial vehicles in 1965.In 1994 following restructuring, six business sectors were formed and automotive division became part of the automotive sector.

Ever since its inception the company has focused on developing its own manufacturing capabilities. As a result of its relentless ambition

in this direction, M&M began indigenously producing vehicles within a short span of the collaboration agreement with Willys. This was the first automobile industry that we visited. We were given a warm welcome in the conference room with tea .We were addressed by few officials of Mahindra and were asked about our experience of L&T.The business aptitude of its employees was quite explicit.M&M is actively involved in manufacture of strong vehicles for carrying goods, for rough tracks, jeeps for military purposes, tractors etc.We were shown the Armada model, Bolero, which is a diesel four wheel drive model. The shop was very clean .We could clearly see how the various machine parts were being assembled to give shape to the vehicles.

It was nearly evening when we made our way back to IITB .That were the first two big names in our list of industries covered up. The mesturips made up proper arrangements to wake up early next morning… to make their way to Pune.

It was 6:15 in the morning of 08th December when we started with our trip towards Pune.

The beauty of Bombay pine route is really unforgettable. The mesturips were simply in their high moods enjoying their trip to the best. We were on our way to visit TELCO.

TELCO

We were shown the Indica model under manufacture. It was really very impressive to see the level of automation done by the company.

The sophistication of machines involved in the process was mind blowing. There was continuity in the processes with engineers very actively going along with their jobs. There was a sort of caged ceiling and different parts of cars were being carried by conveyor belts. The car body would move by fixed distances followed by robotic arms doing spot weldings.Many robots would suddenly come to life and go to their positions and do their jobs. The neatness maintained was quite impressive. We were shown forging machines that were giving shapes to flat sheets.

We were also shown the model of INDIGO that was going to be launched soon.(one can now see the adds 'spoil yourself' TATA INDIGO in newspapers and magazines).We were shown how the vehicles are tested. A truck was being run ruggedly on very rough roads that were unevenly constructed for this purpose. A military vehicle was driven on very steep slopes and in deep waters. It was as if the mesturips had entered the Indian army world and were on their way fighting for their nation. We had a mighty lunch at Telco and then were set on our way back to Bombay. By evening we reached back to IITB.The next say was set for a multidisciplinary nuclear center of India .....BARC.

BHABHA ATOMIC RESEARCH CENTRE

BARC is a premier versatile, technological and multi-disciplinary nuclear research centre of India having an infrastructure of advanced Research and Development facilities with expertise covering the entire spectrum of Nuclear Science and Engg ranging from particle

physics, nuclear engg, isotope technology, nuclear agriculture, computers, and robotics to information technology.

BARC is located about an hour out of Bombay on a large compound, with spacious, tree-lined walks, enclosing not only the technical facility but also housing and related facilities that are shared by other Department of Atomic Energy scientists.

Of all the research reactors at BARC, Dhruva at BARC represents the most significant engineering achievement. This high neutron flux reactor was designed, constructed and commissioned entirely by Indian engineers. It uses natural uranium as fuel and heavy water as moderator and coolant.

With proper checking and sincere security measures taken we were allowed to enter the premises of BARC.We were shown the entire set up for testing the mechanical motion of control rods used to absorb fast moving neutrons ejecting during nuclear fission reaction. The rods have to be accelerated when released but at the same time the final velocity has to be quite less to avoid impact loads at the end. The whole prototype was set up on actual scale. We had to go in lifts to reach different heights of entire set up. We were given lot of information by the scientist working there.

We then visited the robotics section where we were shown the Slave and Master robots. We were also shown a force and moment sensing setup. A night vision robot was shown that is used for surveillance in inaccessible areas. BARC is located quite near the shore and we could see the stretch of sea from its building. It was really very inspiring to see such a research centre.

In the evening the mesturips were all set to board the Konkan Kanya Express to Goa. The train departed at 10:50 in the night. It was 10th of December when we stepped down on Thevin station,Goa.
At 9:30 AM we were at Thevin.We moved to lodges near Calangute beach, one of the most beautiful beach among the 26 beaches in Goa. After getting fresh we were all set to visit NIO.

NIO...NATIONAL INSTITUTE OF OCEANOGRAPHY

India has seas on the three sides and a coastline of about 7500 Kms. The sea area over which we execute rights of exploration and exploitation is known as Exclusive Economic Zone (EEZ).The NIO is a constituent laboratory of Scientific and Industrial Research (CSIR) carrying out ocean research with headquarters in Goa.
The experience gained, techniques developed and expertise generated through its R&D work have been gainfully utilized by NIO to provide support to the industries and other agencies.
We were shown a film in a conference room about NIO and its contributions in ocean research.
We had our next visit to Goa shipyard limited.

GOA SHIPYARD LIMITED

The Goa Shipyard Limited, located at Vasco-da-Gama, primarily builds small and medium size Naval vessels and repair/re-fit of ships/vessels. The company has undertaken construction/re-fit of variety of vessels for the Indian Navy and the coast guard as well as

for the non-defense sector.

Goa Shipyard Ltd. has overcome many physical constraints and recession in the shipbuilding Industry and has evolved successfully by using its optimum resources in its core competency area of manufacturing ship for the Defense needs of the country.

We were shown the complex machine set up inside a ship. It was a great experience walking through narrow aisles of a ship surrounded by many tubes and machines. We were taken into interior decks where we were shown the machines that propel a ship. There were many sensors and control panels. It was engineering at its zenith.

This was our last industry to be visited. On 12th we went to two churches, including the world famous royal chapel of St. Anthony, and a temple. We boarded the Konkan Express for CST at 6:15 in the evening and reached CST at 6:30 in the morning. We boarded Pushpak Express at 8:15 am and started heading back towards Kanpur.

It was really an excellent trip and economical also. For this we 'mesturips' thank the faculty for the financial support they provided and special thanks to Prof Ashish Dutta and Mr Yogesh Pathak who accompanied us in this trip.

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. Following is the report of expenditures during our trip è

SNO. CATEGORY REMARKS AMOUNT NET(Rs)

1 Railways Kanpur - Bombay - Goa - Kanpur 42560 42560

2 Bus transport * IITB bus service 2400 18190

*Private bus(Mumbai) 8610

*Goa(bus) 6500

*Toll tax 680

3 Accomodation IITB Hostels(4 days) 4000 12316

Goa Accomodation(3 days) 8316

4 Miscellaneous Medical expense(illness of a member) 1960 3960

Draft to Mahindra and Mahindra(only company to charge) 2000

TOTAL AMOUNT 77026

Total remuneration done by department: Rs 42560

Money taken from students: Rs 500 each

Few suggestions for improvements and better planning

1. A database of the addresses of companies should be maintained so that it becomes easy to contact them.
2. It sometimes become difficult to contact faculty for important signatures. It would be nice if few AME formalities be entertained by the faculty during their meetings.
3. Issue like deciding a faculty member for the trip should be done by the faculty themselves. This cant be handled effectively by students.
4. We can have few second year students working as active members in AME. These students can prove very helpful out of their experiences when the new AME council comes to power.
5. Security is a serious concern during trips. It should be borne in mind that the world outside is not at all secure . They should remain over cautious to their items and belongings when they are outside the campus.
6. During the trip special care should be taken to maintain discipline.

The group on the trip represents IITK and the impression they create affects the entire institute. So a deep thought should be given on maintenance of decorum during the trip. Some students may be assigned by the faculty to coordinate this task.

7.We can have articles from the faculty that will be a sort of message and guidance to the students.Such a interest by faculty members can go far beyond in giving vitality to AME and can prove an excellent way to share their vast practical experiences. The articles may cover some personal experiences , some embarrassing situation , their view of students , their message to the students, how to choose any career, career guidance, any story, poetry, etc. Any posting done by faculty will definitely prove a major boost.

A KUMBH TRIP

I Just thought, I'd drop in a little travelogue about how one can experience the sights and sounds of Allahabad. If you are wondering, what the hell does he know about Allahabad, well my dear friend, I spent my last weekend there, I and another brave individual called Ajay Kiran, together went to the kumbh mela to see what it was that attracted around 2 crore humans....
Detailed here are some salient points about the trip...

Since we didn't plan the trip ahead of time, there were no train tickets so we had to get to the bus, man, that was one heck of a machine. This little contraption so willingly gifted by the UP government, serves one main purpose , that of making sure all the vital organs in your body are re-located for good (I am still to take an examination to see if my liver is , where its supposed to be :)) You couldn't get much sleep in the bus, with all its ricketing and rocketing. And the bus driver, I could have sworn, was out to destroy anything moving on the road , except his bus.

My singing companion wasn't much help anyway , he has this obsession with A.R.Rahman, and plans to replace him when the time comes. :) but somehow along the way , he didn't sing devotional songs , he was crooning out Taal Numbers , thus ensuring that even 40 winks in the bus was remote. We reached Allahabad at around 1.30 in the morning, and the place was so cold, it took us like 10

mins to get down the bus (I wont tell you that we were literally thrown out from the bus) . The Aloo Parathas that were being made in the most professional manner were very inviting, but apparently there were some party to be in the morning (these Allahabadians!) so we couldn't have them.. We asked the guy we want to go to kumbh and asked him for the most convenient form of transportation (again a mistake we regretted later on) he asked us what Kumbh? I exclaimed Ganga, My pal shouted Yamuna , the guy said Saraswathi cant be seen , lol!! then he said , when you say Kumbh , dont say it like a household name, call it the Maha Kumbh! yesh (these allahabadians!) Well we get on to a rickshaw and since there was nothing else in the body left to be displaced, the ride wasn't all that bad. Though we couldn't stop chattering our teeth :) we reached a hotel which looked pretty decent enough and asked for accommodation, but considering the morning hours and the guys lack of sleep , all we heard was words to vulgar to type down here. :) things like room your ass , shove it up @#!@$%@^%#&^%$&$%^*^*^ bla bla... so we got bak on to the rikshaw and then went out to another hotel, I will reserve my comments about the hotel , it looked like .....man what ever it looked like, gave us a very bad impression and seeing the guy out there !!! phew, for sure I thought we landed ourselves at the hands of a pimp :)

Anyway we got a room for the nite, went on to sleep. The room wasn't that bad , it came along with an attached bathroom cum toilet , which wasn't all that bad either , considering the hotel that we were

in..... At this point, I just find that my fingers ache from all the typing and my growling stomach reminds me that i haven't had breakfast so its lunch time. If there be a sun tomorrow , and if you want to hear more about the trip then ill rite to you part 2 of the trip down Ganges :)

Part 2

(Disclaimer Notice:- this guy has poured out a lot of nonsense, and we'd advise you to please shun this mail if you suffer from any sort of mental instability , for that matter , even if you are sane , don't read this ! for you will surely loose sanity!! - IITK MAIL SERVICE)

Okay here goes ppl,

Apparently , the first episode was taken well by you fellows so ill post part 2 rite now..... Yesterday was V-day , not much to do here in iit , like I told like some 100 ppl , there is (and probably never will be) something called beautiful here in iit..... so v-day was sipping coffee with my pet spider , spidey.. lizzy (my pet lizard) apparently found a date and has disappeared somewhere... what a life , lizards have dates and not me!!! but seriously though, I hope you guys had better things to do than discover how wonderful arachnid companionship is..... When i left you last it was when me and my friend retired to get our beauty sleep.....this is what happened next.....

My hindi isn't exactly ,very very good , but I can get through with my thoughts but it took Allahabad to let me know , that I could do with some hindi polishing.... there was this rickshaw driver that

brought us to the ahem.. hotel , last nite... so what we did was ask him to come in the morning sometime around 8.30 or something , so that we could take bath in the Ganga at around 9.00 , finish breakfast and then toggle bak home.... so much so for the planning... at bang 7.30 in the morning (midnite practically for any iitian!) there was a knock on the door , assuming room service cant be afforded in this kind of a hotel , I knew it was some nut coming to bug us.. I opened the door and there was the cleaner guy who told me that there was a rickshaw guy waiting for us to take us to the ganga. I looked to him in disbelief, looked at the watch to confirm that it wasn't midnite and then looked out to see the sun for good measure... but that was not all, in my half dizzy state , my hindi wasn't that good, I told the sweeper to dismiss the rickshaw and not disturb us for a while.. what he understood was call the rickshaw in a while....at 7.45 , 54 seconds , there was another bang bang on the door (as it having a world war 2 dream , where i was hit in the leg with holy water and capsizing some where) wasn't much of a help , then there had to be this distraction.....

Again, at the door, was our friendly neighbourhood sweeper man! He told me the rickshaw had come again as per our request... I told him to get the rickshaw out of Allahabad for all I care and not to bug us again, but he wasn't to let go of us that easily apparently he looked at the driver (who wasn't much to look at anyway) and his Instincts told him that this driver would cheat us it seems , instead of taking us to the Ganga , he could lead us somewhere else, so he asked us to lease the rickshaw (which I believe was what I was

trying to get through to him all the time!!!) and take one that was available rite near the hotel.... I told him to do whatever he wanted and to leave us alone as the journey was quite tiring.... All was well in snoozeland , when the alarm went off in the nearby room....I got up to find that time had run by and it was now close to 10.30 in the nite , er.... morning.... so I pushed my snoring companion out of his slumber and then ran to get ready..... (and to think that we had to get to the Ganga at 6.00 in the morning to watch the sunrise...) Well we had some little breakfast that we could manage and sat on another rickshaw, I wasn't sure, but this rickshaw driver was quite similar to the previous one ... they all probably look alike ;)

The journey was a little jittery , and looking down at the roads , I wondered how one could even get a set of wheels in this kind of a road.. such roads should be declared a national hazard by the government.... I searched for foreigners and couldn't find many , except one towering Italian who seemed to be at peace in looking at a cow trudging its way across the road.. Before I continue , I think it would be appropriate to let you know some facts about kumbh and why it is so famous... The Kumbh Mela is a festival held every 12 years, in celebration of the confluence of the Ganga , Yamuna and saraswathi.. To pray for prosperity and wealth (so that some one can do something about them damn roads!!). However this Kumbh Mela was the Maha Kumbh Mela , something that happens once in 150 years!!! This is supposed to do something with Lord Shiva allowing Ganga to flow on to the earth....and the peoples celebration of the Lord. So much for the facts , at this point we are still trudgin along

the road and every minute is spent thinking about when I am going to puke out the breakfast of parathas that I had.... We finally did reach the shore of the yamuna..... We paid the rickshaw and saw the beautiful expanse of the Yamuna , to tell you the truth , it was really beautiful and if the pictures came out well , I will send them to you ... my friend Ajay , looked around for any more dangerous roads , and then was assured when he saw all that was in front of us was water, water and more water.... we looked around for a boat when a very pujari looking guy approached us and told us to get on to the boat that was going to take us to the Sangam.... One more fact here The Sangam is where the Ganga and Yamuna , directly meet , you can actually see them meet!!! and then underground flows Saraswathi....Yamuna , incindentally , is the only river that does not reach the sea. We happily got on to the boat and only then realized, that this was not kumbh hospitality , we had to pay for the same !!! and what an amount , we had to shell out an initial deposit of Rs 400 for the boat , and then the fee would be "reasonable" (this word always worries me, when ever some one expecting payment uses it). So away we go on to the waters.... I started to realise , its all about money honey ! We had to pay for everything that was ever done on the boat!!! money for looking at the Ganga , money for touching the water , money for placing our bags on the bag rest , money for the seagull that was acting as captain for our boat , and probably money for looking at other boats too!! However , we did reach the Sangam , and wow , you can CLEARLY SEE the Ganga and Yamuna join together.. The Yamuna is Blue while the Ganga is sort of Brown, but

you can mark out a border between the two , again if the photos come out well , I will send them to you.... Apparently , both of us couldn't get in to the water at the same time , one had to guard the bags , while the other could swim... My friend decided to go first , while I was trying to see the scenery around me... and associate myself with the seagull... I realized 2 things

1. You have to pay for taking out your shirt.....
2 . Seagulls dont like choclate chip cookies...

My friend disappeared for a while... and then came bak saying it was superb and the Ganga is feezing cold... I realised what he meant in 10 mins, I was first asked to wear what ever i was comfortable in, and a dhoti (if I had one) which I did , so I wore it... and then was initiated in some major prayer and the only part I remember was the guru dakshina , i had to pay this guy for initiating me in his prayer , lol :) Then it was a belly dive in to the ganga , and wow , this was the most enjoyable part of the trip, the water was freezing , non salty and the current was strong , end result , half an hour of splashing around... then my friend joined me and we were fooling around for some time... it was a lot of fun and if you have the opportunity then please go check it out, if at least for the experience... All done, we changed clothing and were back on our way to shore...we got down and then had to pay an amount which could have bought us the boat itself! (why I am telling you all this , is so that if you go there ,please bargain for the boat rates as later on we realized that we spent much more than a whole family could have spent!!) On to top all of this,

there was a sadhu who came to us with all splendour and most probably expecting money too shouted : " Jai Bolo Hari Om !" I promptly replied " Hari Om " and was out of there in a flash...

Thus ended our wonderful trip to the Kumbh, and all in all , it was a fun experience , I wont trouble you with the return journey as it was pretty much the same as the going one :) I say, if you had the stamina to read thro all this... and still retain your sanity, then you my friend deserve to go to Allahabad.

Job Scenario : B-Techs...

Roll No.	Name	Placement
99007	Abhinandan Agarwal	Fluent
99011	Abhishek Chaudhary	ACC
99012	Abhishek Dwivedi	Telco
99017	Abhishek Luthra	TCS
99018	Abhishek Nigam	Mastek
99021	Abhishek Srivastav	Thermax
99039	Amarendra Kumar Singh	DRDO
99082	Anurag Singh	Infosys
99085	Arnab Kumar Bhattacharya	Vikrant Alloys
99097	Ashwani Kumar Verma	DRDO
99103	Avadhesh Pratap Singh	Telco
99181	Kaushal Kishore Mishra	Fluent
99190	Kunal Arora	Telco
99200	Manik Chandra	TCS
99209	Mansoor Ahmad	DRDO/HLL
99218	Mayank Majul Tiwari	Evaluserve
99219	Deepak Garg	GSSL
99221	Mohammad Yasir	Aditi

99230	Nakul Mandan	Infosys
99246	Nishant Raizada	GSSL
99265	Piyush Agarwal	Telco
99266	Piyush Dubey	Thermax
99273	Pranjal Jain	HLL
99314	Raman Chadha	L&T
99328	Rohit Mathur	TCS
99330	Roopam Khare	GSSL
99338	Samit Ahlawat	Yahoo
99378	Sriyansh Sunand Das	Talishma
99400	Tarun Jain	TCS
99437	Vivek Upadhyay	Telco

Job Scenario : M-Techs...

Roll No.	Name	Placement
9910528	Ramesh Kumar Singh	EACOE
Y010508	Ankur Gupta	EACOE
Y110501	Abhishek Jain	Telco
Y110504	Ashish Kumar Sharma	TCS
Y110507	Dharmendra Singh	Rotomac
Y110508	Gaurav Belwal	ISRO
Y110509	Gulshan Singh	L&T
Y110511	Jayadeep U.B.	EACOE
Y110518	Mukesh Gupta	L&T
Y110521	Pavan Pachauri	Telco
Y110523	Podtar Abhijit Ashok	EACOE
Y110525	R.Santosh Kumar Rao	TCS
Y110526	Rajiv Sharma	L&T
Y110527	Rao Arvind Kumar	EACOE
Y110531	Suman Basu	Fluent
Y110538	Yekambara Rao Allanki	Telco(Pune)
Y110543	Atanu Phukan	L&T
Y110551	Rajat Saxena	Telco(Pune)

Y110556	Suraj Kumar Behra	TCS
Y110517	Manish Kumar Sinha	Infosys
Y110529	Saurabh Naik	Telco(Pune)