

**sixth
annual
number**

**P
R
A
D
E
E
P**

**the alumni association
indian institute of technology
madras**

PRADEEP

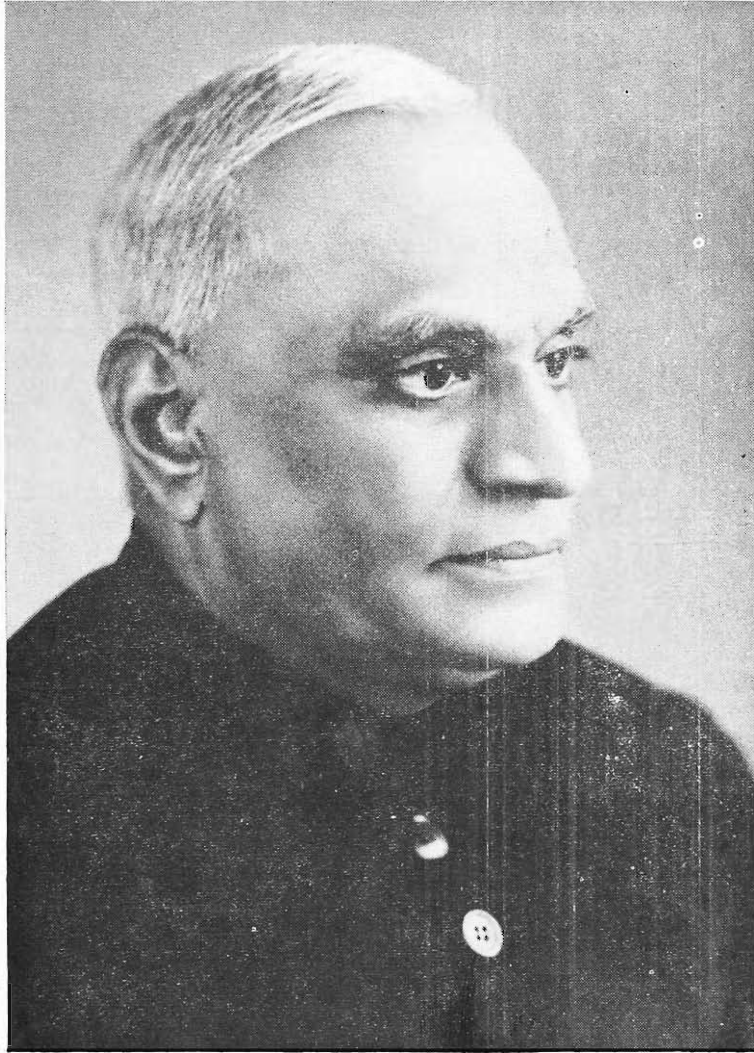
SIXTH ALUMNI NUMBER

1970



साहवीर्यं करवावहे

THE ALUMNI ASSOCIATION
INDIAN INSTITUTE OF TECHNOLOGY
MADRAS



Shri V. V. GIRI

President of India, VISITOR, Chief Guest of the Seventh Convocation.



H. V. R. IENGAR
Chairman, Board of Governors.

Office of the Chairman

August 17, 1970

MESSAGE

Another year has gone by since the last number of PRADEEP was published, and more graduates have come out of the cloistered seclusion of the I.I.T. into the difficult and confused stream of life.

Some of them, following previous pattern, will continue academic studies for a further period, either in India or abroad; some will obtain jobs overseas, and many in India; and a few (I hope very, very few) will find their own placement difficult for a time. I have especially in mind the latter two categories of graduates. To them, I can hold out no very rosy prospects. They will find plenty of frustrations. But the task before the country, in which they will be participating, will be a challenging one, and on whether that is well done or not will depend the future of India. If they will apply to their task the qualities they have learnt at the I.I.T., discipline, team spirit, and a capacity for learning and applying skills, the future will undoubtedly be a bright one.

H.V.R. IENGAR

INDIAN INSTITUTE OF TECHNOLOGY

Madras-36.

Director's Office

August 16, 1970

MESSAGE

The profession of Engineering is the practice of an art whereby the forces and the materials of nature are directed to use for the benefit of mankind. An engineer can have a perfectly good conscience, fully satisfied that he is a benefactor to humanity for producing cheaper and better consumer goods. There is however a danger at the present time that such myopic self satisfaction amounts almost to blindness.

Modern technology has made today's large cities possible but engineering research has yet to evolve means for living in them comfortably. The most urgent problems of physical environment control today are transportation, air and water pollution, noise, land utilisation and health. Action is imperative to augment the substantial contributions that scientists and engineers have already made to Society. I am confident that the alumni of this Institute will play a significant role in meeting these challenging tasks.

A. RAMACHANDRAN



DR. A. RAMACHANDRAN
Director

Contents

	Page
Editorial	
My Teachers	T. GOPHICHAND 1
Ulysses and the Land of Automation	C. V. RAMAMOCHAN 5
A Significant Aspect Missing	T. S. RAMASWAMY 6
Hobbies I.I.T. Style	V. S. BANDHUVULA 8
Ich bin ein Braunschweiger	R. RADHAKRISHNAN 9
Mulkraj Anand's Morning Face : A Synoptic Review	Dr. A. V. KRISHNA RAO 10
The Alumni Association, Indian Institute of Technology, Madras-36. Annual Report for the year 1969-70	12
FAREWELL TO DR. SIR. A. LAKSHMANASWAMI MUDALIAR (FIRST CHAIRMAN, BOARD OF GOVERNORS, I.I.T., MADRAS) Shri H. V. R. IENGAR (Chairman, Board of Governors, I.I.T., Madras)	13
DR. A. L. MUDALIAR'S Reply	15
Eleventh Annual Day held on 25th March 1970 (Address by DR. A. RAMACHANDRAN, the Director)	19
Appreciations for Placement Section	23
Wedding	27
Alumni Placement Position	28
Alumni Directory	

Editorial

Let us not mince words in expressing our sense of disappointment at the lack of enthusiasm on the part of the alumni in communicating to us their experiences since they had left the Institute campus. The wide amphitheatre of life should have surely drawn them to act out their roles, willy nilly, in this our brief but exacting world. The readers of Pradeep would have been immensely happy to share their thoughts together even as a majority of them dreamed their dreams together in their campus community life. However, this gap has been admirably filled by Dr. T. Gopichand, our never-failing source of thoughtful and thought-provoking contributions. His essay on "My Teachers," we hope will stimulate a few of our alumni to contribute, at least in the future, to Pradeep some such article as "The Teachers that Never Learn." Mr. C. V. Rammohan's witty sketch is reflective of our technological civilization. His ulysses could be any one of us. To err on the safe side, give a wide berth to Robots, Kind Looking or not.

Mr. Ramaswamy's grievance is obvious. We do not editorially share his views, but sympathise with him in his concern for values in life. But, since an editorial is not a review, we advise our readers to relax with Pradeep now, and write to us whatever they feel later.

My Teachers

T. GOPICHAND

A mere subjective statement of my experiences in life is of no use to others. But, if I can objectively view my experiences, eliminating my personality, and seek for what is fundamental and basic in my interactions with others, I might find something useful, to be good enough to write for the benefit of others. However, when I want to write about my teachers, good, bad and indifferent, I find it very difficult to view my experiences objectively. I wish to write about my teachers, whom I remember during the last 30 years, for whatever influences they have brought into my life. The relationship between the teacher and the taught is so very personal that I beg of the readers to excuse me, if I state something as very significant, which the readers might find as commonplace.

Man learns by observation, by hearing, throughout his life time. Probably in the first ten years of one's life, this faculty of learning is most active. However, what one learns in those formative years is mostly linked with the instinct for survival. What I remember during the first ten years of my life, regarding the primary school teachers during the years 1937-42, is that the teachers, whom I loved, were patient and humble. I had my primary school education in a village; and one of the teachers, I still remember, was so very patient, humble and good; and as I grew up, I realized that he was never successful in life, that is, in making money, but he was respected by one and all in the village. When I look back now to dig from my memory as to the impressions I got during those formative years, besides the knowledge, I learned that a certain degree of respect for a humble and patient teacher is synonymous with the process of learning. However much I try, I cannot express my feelings, any the better, since they are all impressions on the sub-conscious mind.

For my high school education during 1942-47, I moved to a nearby town. I had a mixed variety of teachers, who excited my mind. From amongst the good teachers—I use the word “good” with all caution and in the sense I mean it—we had a teacher for teaching Telugu. Teaching of Telugu in those days had a peculiar problem. Later on I came to know from my friends of other Indian language groups that they had also noticed similar problematic tendencies. It was always considered to be easy to pass the examination in it and so quite a few have never paid any attention to a Telugu teacher in a class room. It was stupid, but true, that even failing in Telugu was considered to be an “achievement” equated to the degree of recklessness of a student. However, the teacher, I remember, was a poet. In most of his classes, I think, he never followed the text. He delivered all his lectures extempore, matching the pieces he was discussing with his own subtle wit and humour. A good teacher teaches more than the syllabus of the subject he is asked to teach. I learned two things from him: one, the love of poetry and beauty in language, and secondly, patience. I might narrate an anecdote. One day he was teaching the class; and as usual I was very attentive. I was sitting by the side of a door. He stopped his lecture and called me by name and asked me to close the door, as it was making a noise. I was irritated because his lecture was interrupted. I got up and banged the

door; but no sooner had I sat down to listen than the door opened again. My teacher laughed and said "Never do things in a hurry. Control yourself". I remember this incident, and the moral, too.

We had to select an optional subject in the fifth form. So I showed up in the Physics Laboratory one day and requested the Physics teacher that I be given this elective subject. That was my first meeting with him. He was a clean short person, who looked much younger than his age. He looked up and asked "Do you want Physics? Can you spell the word in English?" This I successfully did, since I always used to look at the name plate on physics laboratory with admiration. What this teacher taught me (besides physics) is discipline in a laboratory. We used to have the laboratory class every Friday. By Monday morning, the observation note book (with the practical written up) should be on his table. No excuses were accepted. He used to correct it-scientific, linguistic and illegible writing mistakes in red ink and used to return it by Wednesday. It should be fair-copied into the record book and submitted on Friday morning. Mistakes in fair copying were more severely dealt with. I was all admiration for him, even though it meant hard work for me; and he was a hard task master. We had an anticlimax to the physics teacher in the teacher who taught us English. While the former teachers' objective was to enforce discipline, only in a manner it was needed, our English teacher's objective was only to shout and enforce discipline for no reason. It is perhaps needless to mention, he did a bad job in teaching and also in maintaining discipline. Looking back, what I feel now is that those who have something of their own to say or teach always command attentiveness from their students. Why and how this occurs, I do not know, but I have seen it happening all the time.

During 1947-49, I had my College education in a bigger town. I had certainly learned more of the subjects and started developing my own likes and dislikes, but I had few teachers who excited me. Probably one of the reasons was that there were 60 students in some classes and 120 students in some others. The Principal did leave some happy impressions. I asked for Mathematics, Physics, Chemistry option, even though I had not taken Maths as my optional subject in High School. He said I could take it at my own risk, which I readily accepted and did all the best. Creating a challenging situation for the young with no rules binding everybody, is what I liked in this college.

During 1949-1953, I moved to a University to get my Bachelor's and Master's degrees. As the primary and secondary education gives us what is necessary to live, I believe the University education should make a man realize his mental capabilities. I consider myself fortunate, for, the university education gave this benefit to me. I believe that this had been possible because there were a few dedicated teachers — teachers who not only taught me the subject matter of their courses, but made me use my mind, and at the same time also taught me some noble things in life.

The teacher, about whom I write first, is a man who made me realise that learning depends as much on my efforts as on his. He used to explain a derivation from the books, used to do it himself without the book, used to ask me to do it without the book. The final step in his teaching was to ask me to do it in a different manner. His method of teaching is to emphasize that how well a thing is learned is more important than how much is chewed up. I have also learned from him the etiquette in life. He taught me how to do gravimetric analysis

carefully and patiently. In the final examination he was the skilled assistant. His results and my results differed very much. He called a third party to analyse the solid sample. The third man got an entirely different result. The mistake in the test was finally traced to the uneven distribution of the impurity in the solid sample. I was given low marks. But to this day I consider him to be a dedicated teacher, who taught me many things. This training gave me a lesson that marks in an examination are not the important thing, but what is learned as a skill in the laboratory is. Exams are perhaps a necessary evil, with which teachers and students have to learn to live.

I had another teacher, from whom I learned that teachers also have to work hard, since they have to teach more than what is given in books. He was very diligent in his preparation, and in his lectures he was extremely frank in telling us what he knew and what he did not know. Listening to his classes was like travelling on the boundaries of knowledge, digesting thoroughly what is known and ready to probe the unknown. I had also learnt from him that research means investigating an idea and making all efforts to succeed. When I did my Masters's degree project with him, I posed a question and suggested a new idea. Many of the colleagues in the discussion group discouraged me by saying that if I wanted to try something new, I might consider working for the Master's degree for a longer period. But this teacher told me to go ahead and try for it and not to bother about time. I was lucky that I had succeeded; and I have learnt that mind works more efficiently, if one can forget time and other minor nuisances in life. That was my first crack at research and afterwards, I always used to exert myself to try new ideas in research. The same teacher used to teach us thermodynamics. In one of his class examinations, all of us (about twenty students) gave blank papers, went off to coffee house, feeling very proud that we pulled a dirty trick on him. The next week when classes started, the teacher told us, that he was very thankful to us, since we saved his time in marking the horrible things we might have written. This had a profound impression on my mind and till this day I believe that a teacher and his students are like the two faces of a coin. What is good for one is good for another and what is bad for one is also bad for another.

I have had good teachers and bad teachers in the University. While the former taught me how I could gain knowledge quickly, the latter also benefited me to know the unsuccessful methods in seeking knowledge. As years went by, I realized that teaching and learning is a communication process which requires attunement between the teacher and the taught, and that there should exist a level difference in knowledge. In a class of one teacher and some given number of students, it is an improbable situation that one individual can at the same time perform this task with all the students. So what we call "good" and "bad" is a highly specific pairwise property which cannot easily be averaged to be really meaningful.

During 1953-56, I started my teaching career, even as I worked for my Doctorate degree. What I learned from my research guide is that "inspiration and perspiration" play an equally important part in research. He taught me to get rid of all complacency and made me work with a singlemindedness. I have learnt in his lab., that good organisation and team work are necessary prerequisites for quality in research. He always used to say "Make your hair grey; break your head on the wall; do what you like, an answer to this question has to be found". No excuses for not doing a thing were ever accepted.

Though my formal education as a student was officially over by 1956, I still find persons, whom I consider as teachers. During 1959-60 and during 1961-63, I came into contact with a Professor, from whom I have learned many things. All my training before 1959 lacked a degree of self confidence. Though I was doing teaching and research reasonably well, I was unsatisfied. I felt, may be, there was a better way of doing things and that I would come across people, from whom I could learn better ways in teaching and research. The Professor I have mentioned gave a number of lectures in Maths, Fluid dynamics, Thermodynamics at random; and what I learned from him is that I should look inward for guidance and must rely on using essential logical principles in finding out the truth or otherwise, of my statements and work. It has been an exhilarating experience to see light little by little and to progress rapidly to build up confidence, which gives strength to the mind.

I have also learnt good things in life while trying to make a purposeful living, humane as well as satisfying; I learnt a great deal from some seniors in my profession. In fact I learnt so much from one individual, without his knowing it, that when once I told him that I had been an "EKALAVYA SISHYA" to him, he said that he was very much at a loss to say anything. He regained his composure in a moment and said that he would definitely not demand my right hand thumb as Gurudakshina.

Life is long enough to learn a lot, and unlearn a lot more. The process of teaching and learning is noble in its outlook since it benefits both the teacher and the taught. As years go by, I realise slowly the full meaning of the Indian tradition, giving the place for Guru after father and mother. The problems we call problems today in our teaching institutions will pale into insignificance when one looks at the basic meaning of teachers and their activities. To my teachers who have left significant imprints of their personalities in my mind, I owe my mental existence and progress.

A Foot Note :

For those who are interested in reading others, about the interaction between the teachers and the taught, I suggest Parkinson's book "A law unto themselves". Mr. Parkinson recalls what he learnt from his Professor in Cambridge.



Ulysses and the Land of Automation

C. V. RAMAMOCHAN

Satiated with his love for travel, Ulysses wants to settle in a place better than his Ithaca. He strays into the 1970's. There is so much talk of computers and automation. He perceives the unmistakable glint in the eyes of those who talk of their encounters with the computer. For the common man computer seems to mean anything from prospective partners in life to what not, often the latter.

So Ulysses sets sail for the land of automation, 'the paradise lost and regained' (lost by religion and re-gained by computers presumably).

Soon an island is sighted and there is jubilation overboard. From the grey colour of the island Ulysses knows that he has arrived at his destination. On the coast he is accosted by a group of computer-robot systems which declare themselves to be the immigrant officials. Ulysses cautiously puts off their request asking him to settle in the island by saying that he is at present only a tourist. A Kind Looking Robot (KLR) offers to show him around the island.

The KLR takes him first to a health resort ; and what an awful sight is in store for our hero. He sees machines littered all over the place, mostly without their covers. The bolts & nuts, the springs and wires exposed, these machines present a horrifying sight.

Our hero fails to understand the DO YAH TEEN, BUS poster on his way back. " We have a production explosion ", explains the KLR "Power and oil are in shortage. So no robot family can produce more than 2 or 3 robots. The rate at which we are producing robot kids spells doom around the end of this century. We are, of course, trying to usher in the power revolution. Older methods of power production are being replaced by newer methods".

"You would have read history", continues the KLR; "It was only in the 20th century that our ancestors, the computers, were created. Then our great grandfathers, the computer-robot systems were made. Our ancestors lost no time in putting an end to the tyranny of man over machine and wiped out the human society. Now we realise the mistake. We require slaves for doing menial jobs. Though we welcome immigrants no one comes forth. So our scientists are developing test tube life to reproduce artificial life and ultimately human slaves".

Ulysses enquires why he is treated so well when humans are sought to be made slaves. The KLR tells him the truth, " You are a foreigner, and besides, a tourist. Aren't you our oil and grease (bread and butter)?"

Ulysses has learnt his lessons too well. He turns his tail and sets his sail back to the isle of Ithaca.



A Significant Aspect Missing

T.S. RAMASWAMY B. Sc., B. Tech. (Civil) 1968 Batch

To begin with, may I request the reader to patiently ponder over my views objectively? The more the reader is sincere in examining my views the greater will be the success achieved by this humble endeavour pinned out by an immature alumnus of I.I.T., Madras.

It is quite wellknown that I.I.T., Madras is richly equipped with all the requirements necessary for modern technical education (at least comparatively) and that the Institute is producing a number of brilliant young technical and scientific personnel every year, which is a matter of pride and prestige to the nation, of course. The social life in the campus (particularly in the Hostels) is more or less colourful. Everything is quite happy and gay. The atmosphere in the Hostels is resplendent with a major proportion of Western Culture and a minor proportion of sophisticated Indian life. I myself had the taste of this life for three years.

My question: is there any significant aspect missing in the Hostel life? The answer is a firm 'yes'. What is missing is the spiritual aspect uniquely characteristic of Indian life. But is not India a secular state? Of course, so what? Is there not unity in diversity? It has been observed that generally our students have almost forgotten or are seldom aware of the fact that they have got souls (atmas) and that they are not just like other living things but the marvel of the creation of God—par excellence. Prayers to the Almighty are much more important than eating, drinking chatting, yapping, studying, playing, singing, attending, zagging, or enjoying a 'flick'.

You may tell me that there is a Siva Temple in the Campus. Agreed. But how many can go and how many do go?

I am too small a person to advise others in the propitiation of God. But as an alumnus of I.I.T. and having had the taste of purely artificial life, I venture to point out in all humility and assuming a sense of privilege and attachment, that life in I.I.T. will not be complete without the spiritual aspect satisfied.

If India has any recognition in the World it is purely due to its unique spiritual outlook which is the fountain of all the aspects of Indian culture. How could Mahatma Gandhiji achieve Herculean tasks most successfully? He himself admitted that he always prayed to the Almighty. The word 'Rama' was his magic wand which was responsible for the enshrinement of Gandhiji in our hearts as a champion of liberty, Hindu-Muslim unity and, in short, as the father of our Nation.

But for Swami Vivekananda, the countries assembled at Chicago would not have known what India is and what is in India. We should be perpetually indebted to that great spiritual leader and pay obeisance to him.

My humble essay will be fruitful and I will be greatly rewarded if my brothers start a new life, praying to God everyday, thanking Him for all the comforts and His bountiful

nature. The time for a sincere prayer takes hardly five or ten minutes. The particular time and mode of worship is left to the individual. It may be in the form of poems taken from respective scriptures. Meditation is the best form of self-realisation. Performing pujas will be most pleasing to the Lord.

The mode of worship will differ from religion to religion. . But is not prayer imperative in all religions?

God will be the most affectionate father and mother to the person who is always thankfully aware of the fact that everything in all nature is the supreme being. Such God fearing people will always be successful in all their tasks and be happy and gay both here and in the world to come.

If my words have provoked something, divine in life, in some corner of the readers' soul, then I am greatly rewarded. One thing should always be borne in mind: all material knowledge is a means to an end and not an end in itself. But then what is the end? Kindly think about it. Then you will certainly agree with me.

May God protect us.



Hobbies I. I. T. Style

V. S. BANDHUVULA

Sometime back a Professor of IITM lamented that the students of our institute are not as active in extracurricular activities as those at other institutes. He cited hobbies for an example. Knowing IITians and having been one, one is compelled to come to their rescue. After all, how can the "cream" (some mischief mongers would call it the 'scum') of the nation be accused of inaction?

Right from 1963 when I joined the institute, a day has not passed without my discovering a new IITian hobby. Of course, these hobbies may be off-beat. The early years of IITM were throbbing with activity.

Where else could one find people walking for miles to see a movie be it a Vadyar Emcheear's at Thiruvannamiyur "Gajalakshmi" or a Vittalacharya's at Velacheri "Kannan"? Crossing (in fact, wading through) the canal and walking in pitch darkness without knowing whether one would end up in Thiruvannamiyur or in Mahabalipuram was really an experience which no IITian of yester years would have missed. Scaling the hostel walls after returning from the movie (necessitated by the watchman's refusal to open the gate) provided the necessary impetus to the formation of the mountaineering club in later years.

In those years Kaverians specialised in "bird watching". Velacheri was then at a stone's throw from Kaveri and almost every Kaverian had his own binoculars.

The Saturday movies (16mm at that time) used to provide more opportunities for target practice than the N.C.C. would. To quote from an old issue of the campus times,

"It isn't uncommon there to feel
Down your collar an orange peel"

To my knowledge at least three people were collecting Fruitnik bottle in memory of the N.C.C. parades attended by them. All one had to do was to put the bottles in the beret.

With the passing of time these hobbies were given up for one reason or the other. Bird watching, for example, had to be given up because the village receded and a 7 feet wall had come up in between. "The old order changeth ..." and so weiter.

There are, however, a few pastimes which survived the effects of time. Bath room singing is as old as the institute and it has survived the vagaries of time and also the "shuddup yar"s from the P.L.O.'s (an affectionate name for those staying next door to bath rooms). The variety is extensive, ranging from carnatic music to yea-yea-yeah types. P.J. ing is another of the classical IITian pastimes.

As the institute went on adding colour to itself, other and more mature hobbies like evening walks, after-supper walks and Friday visits to temple followed.

The post-graduates and research scholars of the institute are devoted to the pastime of visiting their and other departments at night's to promote interdepartmental research. More often than not, these visits mean gossip and probably cat naps. Of course, there could be a few killjoys who go and work.

All these go to prove that the creative genius of the "cream" of the nation is not dead and that it is kicking in good health.



Ich bin ein Braunschweiger

R. RADHAKRISHNAN

Copying is a fine art and also much easier than writing something original. That being so why not start right from the title? Hence, the above paraphrase from the famous saying of the late John F. Kennedy during his visit to West Berlin, "Ich bin ein Berliner". When he could claim this after his one-day visit, I think, I can do it with greater justification after nearly a year's stay in Braunschweig.

After having been sufficiently fried at a temperature of +25°C for four months during my language course in a small village, I landed in Braunschweig, a town in the State of Lower Saxony. I expected something unusually big there—including the buildings of the University since it is one of the major technical universities extending aid to our Institute; but things were quite different from what I expected. "You see, there is a hotel on the right side of the road and my institute is in the ground floor of the same hotel" explained a senior colleague from the I.I.T. It really took me some time to realise that it is not the building or equipment of the German Universities that is remarkable but their way of tackling problems. This is perhaps the secret of their economic success.

"Post offices in Germany have many clearances but only one delivery per day, you see we start planning right from here". with this introduction I was greeted by a German friend at the University.

To my pleasant surprise I found that the academic standards of the I.I.T. Madras compare very favourably with those of the technical university of Braunschweig. I had been told by a few friends in India that the teaching methods were entirely different in Germany, that there were no examinations etc., but discovered all of them to be incorrect. It is a fact that the students enjoy the University life much more than our students and attend their classes if and when they feel like. But the strict discipline which the university staff enforce in their home work and examination makes them understand that university education is not an easy one.

Because of the very close relationship with industry, the various departments of the university obtain large financial grants. The directors of the various Institutes (who can be compared with our Heads of Departments) have the full discretionary powers to spend the amount they get from Industry; and this certainly saves a lot of time in procuring the men and the materials necessary for their projects.

Because most of the research work is industry-oriented one really acquires the ability to find practical solutions.

Punctuality in coming to work, concentrated work during working hours and thorough planning of even the enjoyment of week-end holidays are some of their enviable qualities worth emulating.

I.I.T. Madras has earned a good name in many of the technical universities in Germany. The most important thing we have to learn from them is how best to utilise all the expensive equipment we have received in the I.I.T.

After my return in April last year one of my friends asked me, "How about the inspiration you got from the Germans during your stay there"? "You see", I replied, "the difference in temperature between India and Germany has caused much of it to be lost through perspiration".



Mulkraj Anand's *Morning Face: A Synoptic Review*

DR. A.V. KRISHNA RAO

Mulkraj Anand is, perhaps, the first and foremost Indo-Anglian novelist to inject naturalism into fiction writing. In his fiction one finds a direct frontal assault on a reality which lies rooted in the present and in the quick pulp of the near and the immediate. In his novels, generally speaking, revolutionary ideas and ideals, impulsive radicalism and deterministic interpretation of social reality through the technique of naturalism have become central. Even in this autobiographical novel, life flows with impetuous rush, dictating and controlling the aesthetic form itself. Social, cultural and political awareness in its wider amplitudes of fact, as well as in its deeper locutions of sensibility, becomes the focus of his plot in this novel. The form, consequently, does not brook leisurely sophistication but compels the protagonist's experience strike out patterns of whatever vision that lies underneath. Thus we can regard Anand as a radical humanist whose genesis is described in this fascinating but somewhat heavy book. The boy-hero, Krishan Chander could have been the author himself: such is the authenticity of experience that forms the thematic ballast of this novel, divided into three parts with the locales at Amritsar, Ludhiana and Jhelum. The time is roughly the period of the First World War.

Krishan, the narrator-hero, Ganesh, his elder brother, and Shiv, his younger brother arrive in Amritsar with their parents. A number of in-laws belonging to the Coppersmith community with faith in the Aga Khan receive them with a show of affection and regard. Just at the time of the outbreak of hostilities between England and Germany leading to the First World War, Arya Samaj was very strong in the Punjab. Lajpatrai and Rama Thirtha were the heroes of this Hindu revivalist organisation founded by the Hindu saintly reformer Dayanand Saraswati. Some of the uncles of Krishan belong to this new movement while his mother still believes in the mystical faith of the Aga Khan, the supreme leader of the Islamias; his father, Babu Ram Chand, is a loyalist in politics but a lenient father.

Krishan is an "enfant terrible" an extremely clever and over-sensitive little boy of a local Primary School, founded by a Hindu philanthropist. A myriad impressions concerning his parents, uncles, aunts and their children as well as the social environment including the Hindu-Muslim tension, sink into his consciousness. Very soon, that is, before the year is out, he becomes a silent "rebel": rebel against the British imperialism, the narrow-mindedness of the Arya Samagists in keeping down the weaker sections of the Hindu society such as the untouchables and sweepers, and even against his own parents who appear to him to be little better than selfish loyal servants of the British and the dubious leadership of the Aga Khan. He finds, quite dangerously, the secret but unconventional and therefore "immoral" pleasures of some of his uncles and aunts very fascinating and even ideal for the present. At the end of the year, his elder brother and he who happen to be in the same class in the primary school are declared to have been promoted to the sixth class. His father decides that Krishan and Ganesh should go to their eldest brother in Ludhiana while their mother and Shiv would go to Chitral. Both brothers seem lost and forlorn at the prospect of separation from their mother but put on brave faces. Krishan is both excited with pleasure and anticipation at the new opportunity of

seeing another world of people at Ludhiana. But still he feels maudlin about his attachment to his beautiful and warm-hearted Aunt Devaki who has always showered affection on him.

What at first appears to be a welcome change to Krishan Chander proves to be in the course of next twelve months a virtual house imprisonment because of the treatment meted out to him by his loveless and barren sister-in-law, Draupadi. Krishan, thanks to the generosity of his eldest brother Harish, discovers, however, a new world of happiness and affection in the house of Mumtaz, the good-natured prostitute-keep of Harish. Krishan's experiences at school are much more horrible than they were at Amritsar. Master Budh Singh's sadistic and homosexual perversions only repel Krishan. The Headmaster and other teachers with patriotic leanings are helpless against the influential but almost criminal Master Budh Singh. Krishan Chander whose health is rather delicate falls seriously ill which necessitates his return to his parents for treatment at the army hospital.

Krishan agrees, after his recovery from the typhoid fever which almost killed him to return to Ludhiana in order to appear for the annual examination. His parents assure him that he would be brought back to Jhelum for further education in the Government High School.

At Jhelum cantonment, Krishan Chander matures into a youth of incandescent idealism owing to his extra-curricular experiences and interests coupled with his own innate precocity. Apart from masters like Hari Chand, Dr. Chuni Lal and Shakuntala imbue the young and impressionable protagonist with a deep sense of self-respect, self-confidence and patriotism. He learns a thing or two even from Bakha, the sweeper boy, and Sepoy Jai Singh. Aunt Devaki, Mumtaz Shakuntala and finally Helen inspire the man in his deep sub-conscious so that his aspiration to become a poet contrary to the wish of his parents who remain rooted in his mind as being selfish, ignorant, superstitious and hypocritical, may turn out to be a reality. As a witness of history in Amritsar and Lahore and Ludhiana, Krishan Chander acquires certain values such as a consideration for the poor and the down-trodden and a positive love of freedom.

Published by Kutub Popular, the book which is the lengthiest novel so far written by Anand, is priced rather high. But none, even with a cursory interest in Indian Writing in English, can afford to miss this autobiographical "tour de force" of a doyen among the contemporary Indo-English novelists. The title is a famous phrase from the Bard's Seven Ages of Man :

"All the World's a stage,
And all the men and women merely players ;
They have their exits and their entrances ;
And one man in his time plays many parts,
His acts being seven ages. At first the infant,
Mewling and puking in the nurse's arms ;
Then the whining school-boy, with his satchel
And shining *morning face*, creeping like snail
Unwillingly to school....."

There ends the fictional concern of Anand in this novel. Let us wait for the untold subsequent story.



The Alumni Association
Indian Institute of Technology, Madras-36.
Annual Report for the year 1969-'70.

It is a great pleasure to place before you the annual report of the Alumni Association for the period 1969-'70. This year the ranks of our association swelled up by 353 to reach a new membership figure of 1800.

This year there had been a number of changes in the executive committee of our association. Prof. Dr. E. G. Ramachandran was our acting President during the period when Prof. Dr. P. Venkat Rao was away on a foreign assignment. Mr. C. S. Ramaiah took over as Secretary from Mr. M. R. Sridhar on 4.12.1969. Mr. B. V. Subrahmanyam took over as the Secretary from Mr. Ramaiah on 20.5.70.

One cannot miss a strong note of disappointment in all the annual reports of our association ever since its inception. This report cannot depart from this unfortunate tradition.

As far as the membership of the outgoing post-graduate students is concerned the response is very poor. In a number of cases, the heads of the concerned departments failed to circulate the appeal made by the alumni president. Also the membership of our association appears to be strongly influenced by the success of the placement section and unless the job position improves considerably, the response of the students to the appeals are bound to be disappointing.

This year only one news letter could be brought out. The most important reason was the lack of news and contributions from our members. A look at our news letters and "Pradeep" will show that the contributions to them from our Alumni who are not presently in I.I.T., Madras are almost nil. It must be remembered by the members of our association that our news letters are meant to give the news of our Alumni and not the institute news as they currently do. For the latter there are enough media.

I appeal to all our members not to give a chance for dropping the publication of the news letters and the "Pradeep".

The Alumni association likes to be in touch with all its members and know their experiences and these could be valuable for the other members of our association. The members are requested to communicate with the association and maintain an everlasting relationship with the Institute and its other alumni.

I express my sincere thanks to the President, office-bearers, the staff members of the Institute and to the alumni for their co-operation and help. Special thanks are due to Messrs. K. Satyanarayana and P. R. Sethuraman for their help. I also wish to record my gratitude to the members of the Editorial board for their services.

Remembering our motto "*Sahaviryam Karavahu*" "Let us strive together" for the glory of our Alma Matter.

B. V. SUBRAHMANYAM
Secretary.

Dated : 28—8—'70

FAREWELL TO DR. SIR A. LAKSHMANASWAMI MUDALIAR

(First Chairman, Board of Governors, I.I.T., Madras-36.)

SHRI H. V. R. IENGAR,

(Chairman, Board of Governors, I.I.T., Madras.)

It is only a few days ago that I had the honour and privilege of presiding over a function organized by the Madras Institute of Technology, their Council and their Alumni Association, to express their appreciation of the great services rendered by Dr. Lakshmanaswami Mudaliar to that Institute. I note that some of the people who were present on that occasion are here. I imagine they would be wondering to what extent I would be repeating myself. In the case of Dr. Lakshmanaswami Mudaliar there is no such difficulty because his achievements are so varied, his spectrum of interest is so wide that it is not really necessary to repeat oneself even over a dozen meetings.

I have been thinking since this morning about what particular facet of his activities I should talk on this evening and it occurred to me that the most important contribution that he has made to the public life of this country has probably been in the field of the maintenance, to an exceptionally high degree, of standards in the University of Madras. This is not so easy as it sounds, because we have Universities and Universities, both here and overseas and we have been passing through a period of exceptional trouble all over the place. Vice-Chancellors have been gheroed. I think that is a new contribution by India to the lexicon of the English language. Vice-Chancellors have been forced overnight to submit their resignations, students have been known to indulge in arson of buses—there is some peculiar allergy between students all over the world and bus drivers and bus conductors; students have been known to halt trains by sitting on the track, they have been known to burn tramcars and signal boxes and, in the midst of all these, there is a remarkably, a singularly free area of peace and quiet and discipline and good sense in the University of Madras and I wondered why. There have been a few ripples now and then, but, broadly speaking, this description is correct. I have been thinking of the reasons why this has happened. Now, quite clearly, throughout the world, there has been a great deal of disturbances in the minds of students. I remember and all of you probably know there has been a great deal of trouble in the Campuses in the United States; even in that very staid country, the United Kingdom, which many of us know as students and also as visitors, that a Vice-Chancellor was gheroed last year. I remember, I was in London last year on the day that Mahatma Gandhi was assassinated, the 30th of January. There was a wonderfully, moving ceremony in St. Paul Cathedral organised by a British Indian Society in London. The Archbishop of Canterbury and Lord Mountbatten spoke and St. Paul's Cathedral was absolutely full. Various hymns in which Gandhiji was interested were sung and when we came out, had the feeling that we were temporarily living in another world, of peace, quiet and spiritual satisfaction. When I came out, I saw a large number of police constables lining the street from St. Paul's Cathedral down to Aldrich and I found the reason for this was that there was a procession of students of the London School of Economics. There were about 3 or 4 hundred of them, both boys and girls. I have never,

in my life, come across a most scruffy or dirty crowd, and many of them came from quite good families. Something has happened to the younger generation all over the world. That is my only purpose in pointing this out. The other day only a fortnight ago, my wife and I went on a pilgrimage to the Shrine Amarnath in the Himalayan region in Kashmir. We found half a dozen European or American youngsters dredging all the way up to the mountain to the Shrine. What makes a boy born and brought up in California, London, Berlin or Frankfurt, come all the way to India, grow beard and walk upto 14,000 feet to visit a Hindu Shrine. I really do not know. But strange things are happening in the students' minds all over the world and so the fact that students' minds are disturbed in India is not really a matter of great surprise. We have of course our own special swedeshi reasons for aggravating this distemper amongst the students. We have the problem of unemployment, for instance. It is really a pretty serious matter. I was wondering to myself this morning as to why, in spite of the general malaise throughout the world, in particular the aggravation of disturbances in students minds in our country because of the problem of unemployment, in a place like this, like the University of Madras because Dr. Lakshmanaswamy Mudaliar's role here in the Campus of IIT is, I think, organically quite like his Vice-Chancellorship of the University of Madras—there has been a comparative peace, quiet and a sense of decorum and a sense of discipline. I can only put it down to the fact that, as Chairman of the Board of Governors of this Institute and as the Vice-Chancellor of the University of Madras, he has been able, by sheer force of character and personality, to disburse amongst the minds of the student a sense of respect for himself and the institutions of which he is the Chairman. This is a matter of particular importance today, *i.e.* the personality of a person at the top and the sense of respect which he creates amongst all those whom he comes in contact with. This is of particular important because of the general area of indiscipline that we notice all round us, particularly in the political field. Politics in all countries is a pretty strange business. It leads to all kinds of distortions in personal relationships, but one had hoped that political controversies would be carried out, because they are inevitable in any human society, with some degree of decorum, but the voices in our country have been rather shrill and the manner in which debates have been carried out is such that if I were a young student I would not feel a tremendous amount of respect for the political leaders of this country. Indeed I have the feeling that some of the discontent amongst the student community arises out of the very fact that this respect for the political leaders of the country is rapidly dimishing. It is in the midst of these distortions of all the sense of indiscipline and insecurity that we have around us that it is particularly noticeable that Dr. Lakshmanaswami Mudaliar has been able to disburse, as it were, an atmosphere of quiet a love for sholarship, a sense of discipline and a sense of decorum and good behaviour and all the virtues which are usually regarded as conservative, but which, in reality, are ageless and should be ageless.

Ladies and Gentlemen, I have not had as much opportunity as some of the other speakers have had of coming into contact with Dr. Lakshmanaswami Mudaliar. Dr. Nayudamma told you that he has been working with him for the last 17 or 18 years. My contact with Dr. Mudaliar has only been in the last five or six years; but during this period I have been tremendously struck by his method, by his exceptional sense of discipline, by his meticulousness, by his anxiety to take up whatever job he does as well as it can be done. In fact, I have been often astonished at the fact that even on relatively small matters affecting either this



Seminar on Prestressed Concrete

institute or the Madras Institute of Technology, he devotes his whole heart and mind into the particular problem. These are virtues which are exceptionally rare and there not many people in our country or in other countries in the world who have a combination of this great capacity for vision, of which Dr. Nayudamma spoke, combined with capacity for infinite care as to detail and great meticulousness in the performance of one's daily tasks.

Ladies and Gentlemen, I would not like to stand any longer between you and Dr. Mudaliar. I can only say, as the final speaker before he replies. that I am voicing, I am absolutely certain, everyone of you present here, the Professors, Members of the Faculty, students, our Distinguished visitors and everybody when I say that we wish both you and your wife long life, health and happiness. When you sit back and reach the evening of your years, and reflect on the somewhat turbulent world that you see passing by, I am sure it will give you some satisfaction to know that, over your professional life and over your academic life, you have brought a sense of feeling of discipline and good sense to the whole generation of Students and Staff. I do think, Ladies and Gentlemen, that this has been one of the greatest facets of the contribution that he has made.

DR. A. L. MUDALIAR'S REPLY

I do not know how I can express my feelings on this occasion, overwhelmed as I am by the very kind words that have been spoken by all the speakers this evening. The IIT has been a dream for me for many years. Perhaps, most of you may not be aware of the genesis of this Institute. It was in the year 1946, when the Education Member of the Government of India in the pre-independence days Sir Joginder Singh, called for a meeting of members of various States, businessmen and industrialists, who were held in high esteem in those days, as well as labour leaders. In a gathering of about sixty-five people, there were two representatives of the Inter-University Board, my late lamented friend Prof. Siddhanta and myself. The whole morning was taken up with discussions, and as we were about to adjourn for lunch, one of us got up and told the President. 'Now that we have had all these discussions, may we set up a small sub-committee to consider what should be presented to committee at its next meeting?' The suggestion was accepted and a small committee with nine persons was appointed with Mr. Sarkar, who was then a Minister in the West Bengal, as the Chairman of the committee. It was the recommendation of this committee that led to the various bodies which now have a say in technical and technological education in this country.

Being geared to the University mode of thinking, we started with an All India Council of Technical Education which represents the Senate. We had what is known as a co-ordinating committee which represents the syndicate. We had also various boards of studies suggested and we then drew up plans for four Institutes of Technology in the first instance, each of them being in one corner of India : north, east, west and south. The suggestion was adopted at the next meeting and Dr. Sarkar was made Chairman of the co-ordinating committee and from that day we went to work on the IIT's.

Soon, the Calcutta Institute at Kharagpur was established—Prof. Siddhanta was the Chairman and he had already a blue-print ; the next Institute to be established was in Bombay. When it came to the Institute in the South, each of the four Southern States—thought that the Institute should be located in their capital : Trivandrum, Bangalore, Hyderabad and Madras. The question was very difficult for the Ministry of Education to decide and therefore they entrusted this to a committee of which I happened to be the Chairman. The committee, called the Southern Regional Committee had to pull chestnuts out of fire and give the Ministry a solution. We were asked to invite the Ministers of the different States to meet us and give us their views. This historic meeting was held in the University and the four Ministers were there. After listening to all of them I ventured—I was much more bold then than I am now—to say that the Ministers, having expressed their views, may kindly retire because they had very heavy duties to perform elsewhere and that the Southern Regional Committee would discuss the question. Within half-an-hour, there was unanimous opinion that the Institute will be located in Madras. That was the first triumph that we had for locating this Institute in Madras.

But, the difficulties did not end, there ; the requirements were about 650 acres of land, supply of water and electric energy. We had therefore to look for a site. We ventured to suggest, with longing lingering of looks, that the Government Estate in Guindy was perhaps the most suitable site because they had 1100 acres. We had a meeting with his Excellency the Governor of Madras, Mr. J. John of Kerala, the Education Minister, myself and the Chief Engineer to the Government, and we got this site of 650 acres.

The question afterwards was how to get this estate into a reasonable frame to serve the academic purpose. Perhaps, you are all aware of the fact that this was part of the deer park and occasionally snakes used to go round and scorpions and other species of the animal kingdom and it was a task to know exactly what to do.

Fortunately, we had a blue-print prepared by the Ministry of Education and it was this that the foundation-stone was laid by the late Mr. Humayun Kabir who took a keen interest in this Institute.

But the buildings were not there and the Institute had to start work; It could not wait for all the buildings. So we approached the neighbouring institutions to get some little space to start working. The CLRI gave us accommodation for our offices for which Dr. Nayudamma has to be thanked. The A.C. College, of-course, came in and said that they will place their laboratories at the disposal of the IIT in its early years. Even the Guindy Engineering College was willing to help us. All that happened because the person charged with the duties of the Chairman of this Institute had, somehow or other, a finger on every institution and so they could not resist his appeals.

I am glad to say that under the able leadership of Prof. B. Sengupto who was the first Director and Mr. R. Natarajan who was the Registrar and, with the assistance of the superintending engineer, Mr. Y. S. Ramaswamy, building after building came up in this vast complex and the glory of it all was that all the great trees were not touched and the buildings grew up in a sort of atmosphere that we can call the Tagora atmosphere.

I could go on telling this story more and more, but the most important event that took place was the visit of our late Prime Minister Jawaharlal Nehru to Germany and it was that that gave us a foot-hold for a strong, an able and an academically forward-looking Institute here. The generous help given by the German government of the day has been continued for the last so many years, both in equipment as well as in the more important aspects of the personnel that were to come here and give us their valuable help in guiding the work in this institute. And so it came about that the IIT, Madras gained a premier position amongst the Institutes of Technology-there are five of them-and I can say that without any fear of contradiction that this Institute holds a high place not only in this country, but in the technological world of today. We are deeply grateful to the German government for having given us this excellent assistance at a time when we were just starting life, as it were, and resuscating us from time to time.

The schools were opened and I see before me Rev. I. D. Murphy, my oldest adviser and friend who took a keen interest in starting these schools, the Primary school and the Central school and all that goes with it.

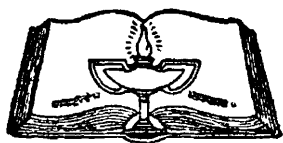
We have many other friends who have helped us in this cause, many who have willingly given us their services. It would, therefore, be not right to say that either the Chairman or the Board of Governors was responsible for many of the developments that have taken place here. I am particularly happy that the student population here have been meticulously careful in conducting themselves in a manner that I have always been able to pose before my students in the University. There has been a great deal of effort on their part to prove that they are worthy undergraduates of this famous Institute of Technology.

I am really overwhelmed by the kind expressions made about me. All that I can say is that opportunity comes once in a life time. If you take hold of that opportunity, success will be yours. I hope and trust that, on all occasions, the IIT will take care of these opportunities and come to be par excellence, the best not only in this country, but in the whole world I wish your Institute all success. I wish your Chairman, Board of Governors, every success.

It has been a great delight to me when I relinquished office to know that my worthy successor is none other than Mr. H.V.R. Iengar. I must thank him for having taken this onerous duty and I am sure he will discharge his responsibility with his usual ability which he has gained over a long period of service. The fact that he is connected with one of the most important industries makes me feel sure that the link between the IIT and the Industrial world will be not only close but effective and always give the best possible results. I thank him for having accepted this Chairmanship.

I thank you one and all for the great honour that you have done me and my wife and I look upon this day as a red-letter day in my life.

— — —



Eleventh Annual Day held on 25th March, 1970

Address by DR. A. RAMACHANDRAN, the Director,

Mr. Kothari, Mrs. Kothari, Ladies and Gentlemen :

It gives me great pleasure to extend to you all a most cordial welcome to this Eleventh Annual Day of this Institute. We have been most fortunate in having as our Chief Guest, today, Mr. D.C. Kothari one of the enlightened leaders in Industry. This is the first public function he is participating after assuming the Presidentship of the Federation of Indian Chambers of Commerce and Industry. May I, Sir, on behalf of all present here, extend to you our warmest congratulations. More than ever before, there is a need for a close coupling between educational institutions like ours and Industry. We, in the Institute, look to you, Sir, for the promotion of this worthwhile goal.

I am also very grateful to Mrs. Kothari for graciously consenting to give away the prizes.

Dr. James R. Killian, Former President of the Massachusetts Institute of Technology, speaking on 'the obligations and ideals of an Institute of Technology' declared an Institute of Technology must educate men in such a way that they could ride the galloping horses of change and be thrown off by being too narrowly specialised. It has to inculcate in its graduates, the skills, the will to innovate and the entrepreneurial spirit to modernize the old industry and to emerge as leaders in advancing the economy and welfare of the Nation. In order to achieve an invigorating relationship between technological education and industry he advocated a five point programme :—

Development of practice-schools in manufacturing plants under the direction of the faculty of the Institution ;

Use of cooperative programmes ;

Use of engineering field stations ;

Systematic encouragement of industrial liaison programmes and of provocative interaction between industrial and academic personnel.

The invidious distinction between pure and applied science was akin to the effect distinction between thought and practice, between mind and hand—the silly attitude that one still occasionally encountered that spurned practical work as unfit for intellectuals. Science, Engineering and Social Sciences should be working partners in the grand plan with its attendant responsibility of multiplying inter-connected research.

Dr. Killian also wanted an Institute of Technology to be a 'a home and indeed a nursery' of professional leaders who possessed a keen sense of the relationship of their work to the society in which they lived and worked. It was necessary for technologists to accept the leadership role, as, in his view, the Engineers' professional responsibilities have never been so central to society as they are today. An engineer, he added, had the capacity and motivation to use and shape technology as a powerful instrument for enhancing the quality of society as well as their material advance and for helping to solve social problems of the time. No other kind of professional man today occupied a position of such socially strategic responsibility and opportunity for important public service.

We, at this Institute, are fully aware of the high expectations of the discerning public. Our activities during the year under review will show that leadership and excellence is a way of life in this Campus.

The Sixth Convocation of this Institute was held on 2nd August 1969 with Dr. S. Bhagavantam as the Chief Guest. 321 students received the B. Tech. degree, 30 M.Sc., 76 M. Tech., 24 the Post graduate Diploma of this Institute and 19 Doctorate Degrees. The Institute has, at present, in its rolls a total of 1728 full time students—1,266 for the B. Tech. Degree and 426 for Post graduate courses and research. Besides, 187 staff members are pursuing Post graduate Programmes and Research on a part time basis. This represents an increase of 25 percent over last year's post graduate and Research enrollment.

Academic Activities

During this year, new courses leading to the award of Master's Degree in Industrial Metallurgy with electives in Metal Joining, Metal Forming and Metal Casting; Industrial Engineering and Industrial Management, were started. New electives were introduced, such as High Polymer Engineering, Radar Technology, and Traction and Electric Drives.

The semester pattern of instruction for the five year B. Tech Degree was introduced after great deliberations by various faculty committees and the Senate. It is hoped that this system will enable the Institute to equip its graduates with the technology of tomorrow and not of past year.

Continuing Education

The programme of continuing education for Engineers in Industry and Teachers of Engineering Institutions was more widespread during the year under review—both in breadth and in depth. I shall not list all the short courses offered, suffice it to say that several departments of the Institute played a very important role in this activity.

Summer schools in Civil Engineering, Mechanical Engineering and Electrical Engineering and an advanced summer school on 'Development and Design of Chemical Process Equipment' for the benefit of teachers from Engineering Colleges were held during May-June 1969.

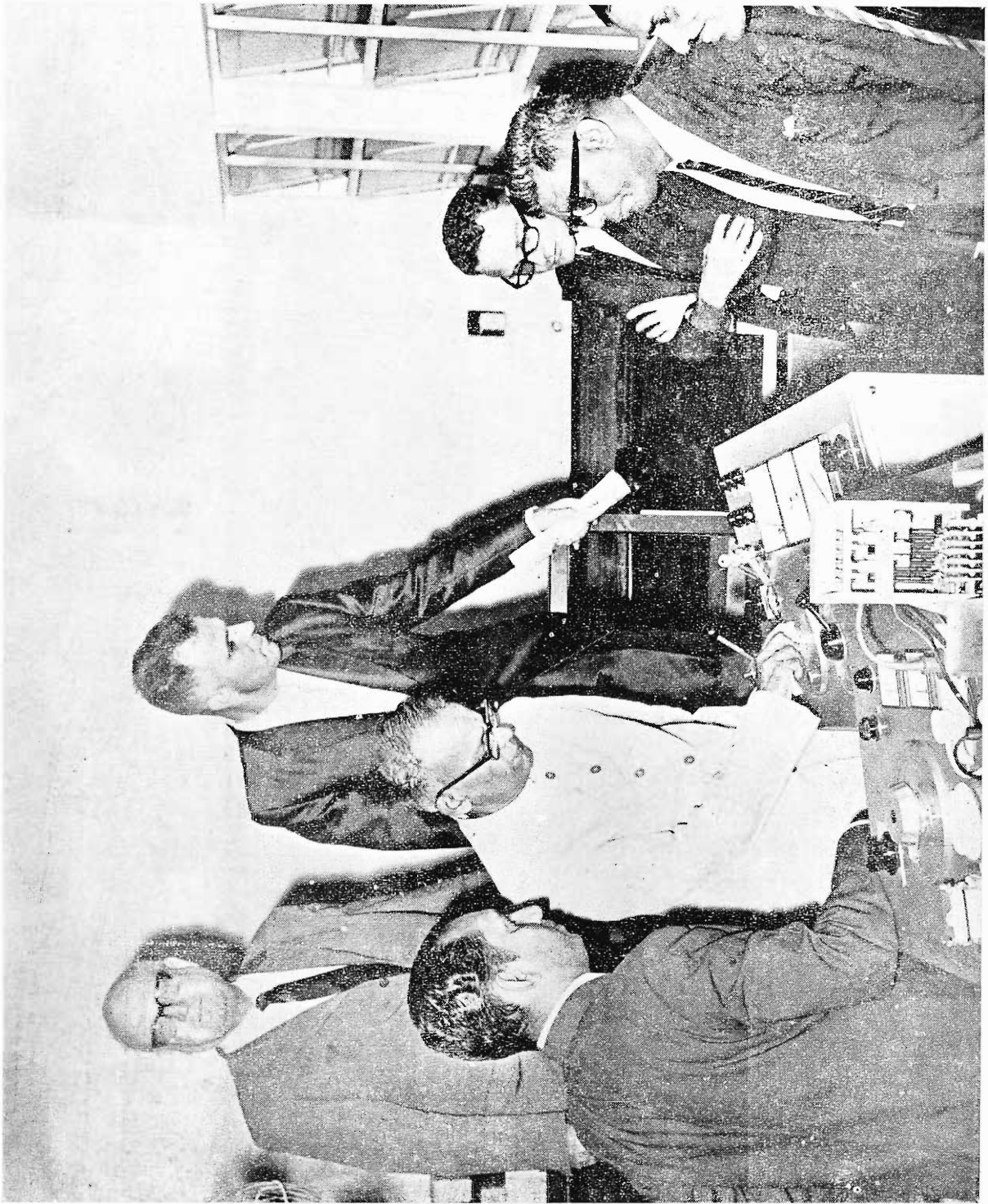
The Annual Conference of the Aeronautical Society of India was held at this Institute in April 1969. Delegates from all over India actively participated in presenting technical papers and in the discussions that followed.

A symposium on 'Problems of Prestressing' was held in February 1970 in co-operation with the Indian National Group of the International Association for Bridge and Structural Engineering and the Highways Department of the State Government.

A National Symposium on 'Combustion' in collaboration with the Combustion Institute, was held during December 1969.

Indro-German Collaboration

During the year under review, 17 Faculty Members of the Institute were deputed to West Germany—13 for long term training and 4 for study visits. Several German faculty members left the Institute on successful completion of their assignments here. Seven German faculty members joined the Institute during recent months. May, I, on behalf of the Institute



Commission of Towing Trolley of Hydraulic Laboratory, IIT, Madras.

express my warm appreciation of the services rendered by those who have left and, at the same time, extend a warm welcome to those who have recently joined us.

The Visiting Professors Scheme under the Indo-German Agreement enabled us to have distinguished Professors in our midst like Prof. Petrikat from Technical University, Stuttgart; Dr. Buschmann from Bonn; Prof. H.P. Stuwe, Prof. H.H. Emschermann, Prof. H.V. Weingrabher and Prof. Pekrun from Braunschweig; and Prof. Mehrenheltz from Hannover.

Campus

The new building for the Department of Aeronautical Engineering was declared open by Mr. H. V. R. Iengar, Chairman, Board of Governors of this Institute, in April 1969. The Structures Laboratory and the extension to the Hydraulics Laboratory were completed and occupied during the year. A number of sub-stations were built to augment the power supply to the various Laboratories. The Machine Elements and Materials Handling Laboratory, Sarayu Hostel Extension and the residential quarters fifth phase, are nearing completion. Construction work is in full swing for the new Applied Chemistry Block. The staff of the Engineering Unit deserve our warm appreciation for their strenuous efforts in keeping the construction programme according to schedule.

Laboratories :

Gift equipment worth Rs. 75 lakhs was received from Germany during the year bringing the grand total to Rs. 3.3 crores, since the inception of the Institute. Several sophisticated instruments and equipment were commissioned in the various laboratories of the Institute. Some of the notable ones are,—

- (1) The Large Wind Tunnel of the Fluid Mechanics Laboratory in the Department of Applied Mechanics.
- (2) The High Polymer Engineering and Process Control Laboratories in the Department of Chemical Engineering.
- (3) Towing Tank attached to the Hydraulic Engineering Laboratory
- (4) The Mass Spectrometer with the attached analytical gas Chromatograph in the Special Instruments Laboratory.
- (5) The High Voltage Laboratory and the A.C. Network Analyser in the Department of Electrical Engineering.
- (6) The Metal Joining Laboratory
- (7) Aircraft Structures Laboratory; and
- (8) Test Cubicles in I.C. Engines Laboratory.

The Government of India has given the clearance for setting up a Computer Centre at this Institute. I am pleased to report that Government of the Federal Republic of Germany and the Government of India have agreed to the provision of a fairly large Computer for this Institute, which will serve not only the research workers of this Institute, but also assist other educational and research institutions in this area. It is my hope that the Computer Centre will be in operation during the latter half of 1971.

I wish to express, on behalf of the Institute, my sincere thanks for the help rendered by the Government of the Federal Republic of Germany.

Sponsored Schemes and Endowments :

There are several research schemes in progress financed by different agencies like the Department of Atomic Energy, PL—480 and the Council of Scientific and Industrial Research.

Several endowments and awards were received during the year—Messrs. Indian Oxygen Ltd., Continental Devices India Ltd., Rotary Club of Madras and a gold medal in memory of late R.V. Kolluri, a student of the Institute.

Industrial Liaison

The Institute attaches great importance to liaison with industry. Several departments of the Institute have done significant work in this direction. The Institute earned a sum of approximately Rs. 75,000/- during the year under review (a 300% increase over last year) for the work done in the areas of testing, investigations, development work and consultancy for industry. Sponsored research and development work for industry will be further promoted in the coming year.

Gymkhana

The Institute Gymkhana had a year of tremendous activity. The Institute rocketed from its traditionally last place to the second place in the inter-IIT Sports Meet held at Kharagpur last December.

A grand Carnival in aid of the Students' Centre was held in February 1970. The Cultural and Literary Week attracted student-participation from institutions far and near. I wish to take this opportunity of complimenting the general Secretary and the Secretaries for various activities under the colourful leadership of the President, Dr. Klein, for the high standards they have set up. May I also avail this opportunity to bid farewell to Dr. Klein and thank him for his distinguished leadership of the Gymkhana during the last three years. On behalf of all present here, May I wish him success in his new assignment in Stuttgart ?

Ladies and Gentlemen, I am deeply grateful to the whole-hearted support and co-operation extended to me by the staff (academic, technical, and administrative) and students of this Institute. It is my hope that the Indian Institute of Technology, Madras, will fulfil the many excellent ideals of an Institute of Technology, so eloquently stated by Dr. James R. Killian, which I referred to at the beginning of my address, and that it will stand forth as one of, the constellation of outstanding Institutions and Universities around the world.

Some of my young friends will be leaving the portals of this Institution. I am sure that they will look back in the years to come with pride and happiness at the time spent here. Opportunity knocks once at your door and if at that time you are not prepared, such an opportunity may never come back. 'Be prepared' is a good motto not only for scouts, but for every individual who wishes to play his or her role well in society.

May I wish you all success and may your career be bright and prosperous for your own benefit and for the greater glory of your Institute and the Motherland ?

Thank you.

Appreciations for Placement Section

M.S. Rajendran M. Tech. (Mechanical Handling)
V. Srinivasan B. Tech. (Mechanical)
Prem Inder Singh Kalra, M. Tech. (Mechanical Handling)

To
The President,
Alumni Placement Section.

Dear Sir,

We are happy to inform you that we have secured appointments with M/s. Voltas Ltd. through your efforts, for which we are greatly thankful.

In these hard days of unemployment, it is a credit to the section for taking pains towards employing its Alumni.

We wish all success for the continued efforts of the Alumni Placement Section towards employment.

Thanking you,

Yours
sd/- Alumni.

27-7-70

From

V. SRINIVASAN, B. Tech (Mechanical)
9-A, Hanumar Koil St.,
Madras-33

Dear Sir,

I thank profusely the Alumni Association for having sent me for interview with M/s. Voltas Ltd., Bombay, along with many others, while I was doing my final year.

I am glad to tell that I am one of those selected by M/s. Voltas for appointment.

I wish all success for the Alumni Association for its continued services for all its Alumni.

Yours faithfully,
V. Srinivasan.

---: o :---

Sir,

Thank you very much for the application form. I was formerly intimated only a few days back by the HMT that I have been selected. I have been asked to appear for the medical exam. at their Hyderabad Office. If this is fixed up, I would intimate you

T. Narasimha Rao
B. Tech. (Mechanical)

—:×:—

Sir,

Thank you very much for your kind letter regarding vacancies for Civil Engineering in M/s. Hindustan Constructions Co. Ltd., Bombay. I am very much interested in joining their firm and request you to kindly recommend my name for the post asked for. I am herewith sending the application form along with the bio data and shall be glad if you can help me in fixing up the interview at Delhi itself since I am a resident of Delhi.

Yours faithfully,
P.V. Chakravarthi
B. Tech. (Civil) 1969.

—→ O ←—

K. BALACHANDRAN,
8800, Cochise Drive
St. Louis Mo. 63132
U.S.A.

16—3—1970

Sir,

I was thrilled to receive a copy of Pradeep. As a former student of the Institute I am indeed very glad to keep with the progress of a fine Institute.....

I admire the work you are doing through your Association as a service to former students and wish the association the best of luck.

K. BALACHANDRAN
B. Tech. (Mech.) 1966.

—→ O ←—

Dear Sir,

I am a student who passed out from I.I.T. M. in 1969 in the branch of Mechanical Engineering. You have been introducing me to so many firms and sending me number of applications forms and I am thankful to you for the interest you have taken.

Now I have got an appointment in H.A.L. Nasik Division as Assistant Aeronautical Engineer. I joined only very recently. I feel that it is my duty to inform you of my position as early as I can.

Yours sincerely,
C.S. Krishnan Kutty
B. Tech (Mech.) 3 Year.

Dear Sir,

Thank you very much for your kind letter. I am at present taking training in H.M.T. Bangalore under the Government of India Stipendary scheme.

Yours
sd/- S. Ramakrishnan.

Dear Sir,

I am in receipt of your telegram and I wish to thank you for the advance information. I will be attending the interview at I.I.T. Madras on 5/8/70.

Yours
P.G. Sivasankar.

Dear Professor,

Thank you for sending me a copy of the Advt. from M/s. Hindustan Construction Co. Ltd. Bombay. As I am not very keen joining this firm I have no intention to apply for it. But thank you all the same for sending me a copy.

Bangalore

Bhagwan Belani

Sir,

I received your letter dated 15th July 1970. I thank you for your kindness in informing me about the vacancy in M/s. Josts' Engg. Company, Bombay.

I will welcome any further help from you in securing a good position for me.

S. Kannan.

Alumini Placement Position

Consolidated statement showing placement position of students
belonging to 1964, 1965, 1966, 1967, 1968 and 1969
Position as on 31st July 1970

Year	Total passed out	Studying in India	Studying abroad	Employed abroad	Employed in India		Un-employed	Position not known	Remarks
					Private Sector	Public Sector			
1964	106	12	21	5	33	35	—	—	—
1965	163	19	35	14	44	51	—	—	—
1966	246	32	42	10	82	75	—	4	*1 *expired
1967	319	57	43	5	88	85	—	40	*1 „
1968	383	73	59	4	92	75	—	79	*1 „
1969	396	77	46	—	75	66	—	132	—
Total	1613	270	246	38	414	387	—	**255	3

**We continue our efforts in collecting the particulars of the students whose placement position has been reported as 'Not known'



Wedding

- D. D. Samuel* D. D. Samuel (B. Tech. Mech. 1964) with Edith Prafullakumari at Vepery on 14th May, 1970
- Devanathan* R. Devanathan (B. Tech. Mech. 1964) with Padmavathi at Delhi on 14th May, 1970.
- Ramachandran* K. Ramachandran (B. Tech. Chem. 1968, D.I.I.T. 1969) with Vasantha at Coimbatore on 10th June, 1970.
- Krishnan* R. Krishnan (M.Sc. Mathematics 1966) with R. Seethalakshmi at Tinnevelley-3 on 14th June, 1970.
- Venkatesan* B. Venkatesan (B. Tech. Mech. 1965) with Janaki at Nellore on 17th June, 1970



The Executive Committee in its last meeting has taken into consideration the heavy cost of printing and has expressed the opinion that particulars of those Alumni that have once been published in the previous issues of 'Pradeep' need not appear again. As per this decision, the particulars of the Alumni passed out in the year 1969, only, will appear in this issue of Pradeep. It is however proposed to publish separately a directory giving particulars of the Alumni every five years. If any one needs the particulars of the students of previous batches, they can contact the Alumni Association who will readily furnish the same to them.

Secretary.

- Baldev Kumar Sharma* (1967 B. Tech. Met.)
Junior Development Engineer,
Cominco Binani Zinc Limited,
P.B.No. 7,
Udyogamandal, Kerala.
- Basavaraj T.N.* (1967 M.Sc. Physics)
Senior Research Fellow,
Department of Physics,
I.I.T., New Delhi-29
- 1968 Batch**
- Madukar Pai D.* (1968 B. Tech. Aero.)
Graduate Engineer Trainee,
Indian Airlines,
New Delhi.
- Mehta Aspy Keki* (1968 B. Tech. Chem. M.S.)
Research Scholar,
Renselar Polytechnic,
New York, U.S.A.
- C. Narayanaswamy* (1968 B. Tech. Elect.)
Assistant Power Station Superintendent,
Paras Thermal Power Station,
Paras, Akola Division,
Maharashtra
- Naveen Kumar Yadav* (1968 B. Tech. Chem. 1969 DIIT Chemical Practice)
Pilot Officer,
Air Force Training College, Jalahalli,
Bangalore.
- R. K. Rajangam* (1968 B. Tech. Elect.)
Assistant Foreman,
Electronics Radar Development Establishment,
Bangalore-1
- Rajendra Prasad* (1968 B. Tech. Aero)
Engineer,
Space Science & Technology Centre,
P.B. No. 48,
Trivandrum-1
- C.S. Ranganathan* (1968 B. Tech Chem.)
Consultant,
First National City Bank,
3, Parliament Street,
New Delhi-1.
- M.N. Sivakumar* (1968 B. Tech. Civil)
Engineer,
M/s. Heatly & Gresham (India) Limited
Madras-1.
- Sudhip Chakravarthy* (1968 B. Tech. Met)
188, Woodland Gardens,
Isleworth,
Middlesex, U.K.
- R. Thiagarajan* (1968 B. Tech. Mech.)
Sales & Service Engineer,
Kirloskar Pneumatic Co. Ltd.
153, Mount Road, Madras-2
- Tushar Surendra Mehta* (1968 B. Tech. Met.)
Self Employed,
Doing Diamond Business,
M/s. Bapalal & Co.
Rattan Bazaar, Madras-3.
- Udaya Bhaskara Rao* (1968 B. Tech. Civil)
Assistant Aerodrome Officer, Madras Airport,
Meenambakkam Madras-27.
- Vasanth Manickam* (1968 B. Tech. Chem.)
Engineering Assistant,
Southern Petrochemical Industries Corporation,
24, Whites Road, Madras-14.
- R. Muralidharan* (1968. B. Tech. Elect.)
Engineer,
Systronics, Naroda Industrial Area,
Ahmedabad
- C. Balaji Srinivasan* (1968 B. Tech. Mech.)
Assistant Manager,
Binny Ltd.,
Madras-1
- T. S. Ramaswamy* (1968 B. Tech. Civil)
Lecturer, Civil Engg. Dept.
Indian Institute of Engg. Tech.
Arcot Road, Madras-24

Alumni Directory

[Placement particulars of Alumnus of 1964-68, which have not been reported in our *last issue*.]

1964 Batch

1967 Batch

Jayaraman A.R. (1964 B. Tech. Mech)
Assistant Project Manager,
M/s. Praga Tools Limited,
Secunderabad—A.P.

S. Gowrishankar (1964 M.Sc. Physics)
Research Assistant,
Max Planck Institute,
Stuttgart, West Germany

Dr. M. V. Krishnamurthy (1964 B. Tech.
Mech. Ph. D)
Assistant Professor,
Department of Mechanical Engineering,
Indian Institute of Technology,
Madras-36

Venugopal Pillai (1967 B. Tech. Mech)
Management Trainee,
Dunlop India Limited,
The Bower Dunlop Estates, Sahaganj P.O.
Hooghly District, W. B.

Ramarathnam R. (1967 B. Tech. Elect.)
Assistant Development Engineer,
M/s. Jyoti Limited, Baroda.

Vijan S. (1967 B. Tech. Chem. M. Tech)
Student of M.A.Sc.
University of Newsbrunwick,
Fredericton, CANADA.

Ramanacharyalu S. V. (1967 M. Tech. Elec.)
Reader,
National Engineering College,
Mysore-4

1965 Batch

K.Mothiram Patil (1965 B. Tech. Mech.)
Graduate Student (Doctoral Student)
Department of Mechanical And Aerospace
Engineering,
Washington University, St. Louis,
Missouri-63130, U.S.A.

Dr. V. Narayan Rao (1965 M. Tech. Ph.D.)
Process Engineer,
Coromondal Fertilizer Ltd.
P.B. 38—Vizag-1

Ganesan R. (1967 M. Sc. Physics, M. Tech.)
Class 1 Officer,
Indian Postal Services,
New Delhi.

R. Kabilan (1967 B. Tech. Mech.)
Consulting Engineer,
Periakottai Post,
Pattukottai Taluk,
Tanjore District

1966 Batch

Dr. L. Padmanabhan (1966 B. Tech.
Chem.) (Ph. D. Princeton)
Assistant Professor,
Department of Chemical Engineering,
Engineering Quadrangle,
Princeton University, Princeton, N. J. 08540,
U.S.A.

Y. Chandrasekharan (1967 B. Tech. Mech.
1968 PGDIE)
Engineer,
Data Processing Department,
TISCO, Jamshedpur

Anto Varkey (1967 B. Tech. Mech)
Engineer,
Cochin Refineries Limited,
Cochin-16.

- Subramanian, N.*
(M. Tech. I.I.T. Madras)
- Devakumar, K.*
(further studies at Renselar Poly Tech., USA)
- P.K. Ramachandar*
(M. Tech. I.I.T. Kanpur)
- Charles A. Solomon*
(further studies, Isrel Institute of Technology, Isrel)
- Philip Swamy*
(Graduate Engineer, Southern Petrochemical Industries Corporation Ltd. 24, Whites Road, Madras 14)
- Raju Chennakatil Jacob*
(further studies at I.I.M. Ahmedabad)
- Sanjeev Sarin*
(employed at Hindustan Lever Ltd., Bombay)
- K.S. Lokanathan*
(Trainee, Dunlop India, Calcutta)
- T. Koteeswara Rao*
(M. Tech. I.I.T. Kanpur)
- V. Ramachandran*
(M.S. Rochester University, New York USA)
- Purinder Ganju*
(M. Tech. I.I.T. Delhi)
- K. Ramu*
(M.S. Cincinnati University, USA)
- R. Seshadri*
(Bhabha Atomic Research Centre, Bombay)
- Kilhapur Sashidar Rao*
(M. Tech. I.I.T. Madras)
- Jaya Prakash Ramappa*
(Graduate Trainee, Fertilizers Corporations of India, Sindri)
- V. Shyam Sunder*
(Management Trainee, Indian Oil Corporation, Bombay)
- Verghese Abraham*
(Management Trainee, Dunlop India, Calcutta)
- Sundararajan Vasudeven*
(Going for further studies from Sept. 70—Melbourne Univ., Australia)
- K.M. Kalyanam*
(further particulars not received)
- J. Viswanathan*
(M.E. I.I.Sc. Bangalore)
- Chankya Balaram*
(Indian Aluminium Company., Mysore State)
- Dilip Bhattacharya*
(Particulars not received)
- M. Gopakumar*
(at FACT, Travancore Kerala State)
- Gopinathan, V.*
Probationary Officer, Indian Bank, Madras.
- Harwant Singh Chhabra*
(Particulars not received)
- R. Natarajan*
(particulars not received)
- V. Sadagopan*
Technical Asst. Space Science & Technology Centre Trivandrum ISRO Trivandrum
- Shankar Narayan Swamy*
(Trainee, Tata Oil Mills Co. Ltd., Bombay)

3 Year B. Tech. Course

- T. Anantharajan*
(M. Tech. I.I.T. Madras)
- George M.J.*
(Fuel Research Assistant, Thumba Rocket Launch Station, Trivandrum)
- P.A. Ramamurthy*
(M. E. (Chemical) I.I.Sc. Bangalore)
- S. Nachiappan*
(M.S. Michigan University, USA)
- G. Natarajan*
(M. Tech. I.I.T. Madras)
- N. Muralidharan*
(M. Tech I.I.T. Madras)
- G.P. Ramakrishna*
(Particulars not received)
- A. Kalyanasundaram*
(Particulars not available)
- V.K. Rangaswamy*
(M.S. Chemical Engg. I.I.T. Madras)
- P.D. Gopal*
(M.E. I.I.Sc. Bangalore)

1969 Batch
Aeronautical Engineering

- Dasigi Lakshminarasimha Sastry*
(M. Tech. I.I.T. Madras)
- S. Santhakumar*
(M. S. I.I.T. Madras)
- R. Srinivasan*
(M.S. Georgia Inst. of Technology, AtLanta, Georgia, USA)
- N. Mahalingam*
(M. Tech I.I.T. Madras)
- S. Kalyanasundaram*
(Georgia Institute of Technology, AtLanta, USA)
- V. Jayakumar*
(M. Tech. I.I.T. Madras)
- G. Chandrasekharan*
(Management Business Administration, I.I.M. Ahmedabad)
- U. Shrinivasa*
(M. Tech. I.I.T. Madras)
- S.R. Balakrishna*
(Particulars not received)
- Gyan Prakash Joshi*
(M. Tech. I.I.T. Madras)
- Dulal Sankar Ray*
Mandip Singh Aulakh
K. Srikumar
P. Srinivasa } (particulars not received)

Chemical Engineering 1969 Batch
M. Tech.

- G. Jai Shankar*
(Development Officer, Calico Mills, Chemical Div. Bombay)
- S. Krishnamurthy*
(particulars not received)
- G. Lakshminarasimha Raju*
(Chemical Engineer, Andhra Paper Mills, Rajamundry (A.P.))
- P. Sivasankara Pillai*
(Lecturer, Engineering College, Trichur)
- S. Vijayan*
(M.S. University of New Brunswick, Canada)
- P. Viswanathan*
(Particulars not received)

- R. Thayumanasundaram*
(Associate Lecturer, Regional Engg. College, Warangal)
- Vinay Kumar*
Chemical Engineer, Chemical & Metallurgical Design Co., New Delhi)
- B. Satyanarayana*
(Assistant, Research Project I.I.T. Madras. (Temporary))
- D. Jagadeesan*
(Self employed—full particulars. not received)
- P. Vishnu Sharma*
(Senior Research Assistant, I.I.T. Bombay)
- R.S. Krishnan*
(Engineer Trainee, Union Carbide India Ltd. Calcutta 16)

5 Year B. Tech Course

- R. Muthurasan*
(further studies at Drexel University, USA)
- J.P. Kallungal*
(further studies at Michigan University, USA)
- R. Rajagopalan*
(further studies at Syracuse University, USA)
- Ganesh Nayak, P.*
(employed at Indian Aluminium Co. Belgaum)
- K. Sethuraman*
(Research Assistant, Hindustan Lever Ltd. Andheri, Bombay 58)
- Venkatesh B. Athreya*
(further studies at Wisconsin University, Wisconsin, USA) doing Ph. D. (Econ.)
- Viswanathan, R.K.*
(under training in W. Germany)
- Narayanan, S.*
(further studies, City College, University of New York, USA)
- Mohan, V.*
(M. Tech. I.I.T. Madras 36)
- Daryll Cordeiro*
(further studies, Notre Dame University, USA)
- Chandy Mathew, P.*
(further studies, I.I.M. Ahmedabad)

5 Year B.Tech (Civil Engineering)

- R. Krishnamurthy*
(Graduate Engineer Trainee, M/s Coromondal Engineering Co. Madras)
- A.C. Bhajandas*
(further studies at Bucknel University, USA)
- K. Satish Hegde*
(M. Tech. I.I.T. Bombay)
- V. Ramamurthy Sastry*
(M. Tech. I.I.T. Madras)
- S. Pattabhiraman*
(M. Tech. I.I.T. Madras)
- K. Devarajan*
(particulars not received)
- N. Balasubramanian*
(particulars not received)
- E. S. Vijayaraghavan*
(particulars not received)
- Arvind Johari*
(Management Trainee, Casa Hindu SA Lima Peru, South America)
- Ashok Kumar Rao*
(studying abroad at USA, particulars not available)
- S. Balakrishnan*
(M. Tech. I.I.T. Madras)
- Dhan Raj Singh Yadav*
(Army Services. CME, Poona 3)
- Ranjan Kelly*
(training in West Germany)
- S. Krishnamurthy*
(particulars not received)
- S. Gnan Chandra*
(employed-particulars however not received)
- K. Sundar*
(self employed)

3 Year B. Tech. (Civil Engineering)

- R. Nagaraj*
(M. Tech. I.I.T. Madras)
- Vasudevan O*
(M. Tech. I.I.T. Madras)
- P.V.M. Ratnakara Rai*
(M.E. I.I.Sc. Bangalore)
- Kahirod Chandra Patnaik*
(M. Tech. I.I.T. Kanpur)

Ravindran, V.

(M. Tech. I.I.T. Madras)

V. Venkataraman

(M. Tech. I.I.T. Madras)

Domodaran Namboodripad, P.M.

(M.E. I.I.Sc. Bangalore.)

V. Kalayanasundaram

(M. Tech. I.I.T. Madras)

1969 Batch**M.Tech. (Electrical Engineering)***Janakiraman, P.A.*

(Engineer Trainee, Thumba Projects, Trivandrum)

P. Karivaratharajan

(Associate Lecturer, I.I.T. Madras.)

M.C. Vaithilingam

(particulars not received)

Akkapeddi Nageswara Sarma

(particulars not received)

S. Yuvarajan

(particulars not received)

R. Parimelalagan

(particulars not received)

A.V. Santhanam

(Assistant Engineer, Bharat Electronics Ltd., Bangalore)

K. Narayana Bhatt

(Associate Lecturer, I.I.T. Madras)

P.S. Krishnaswamy

(Particulars not received)

S. Siddhardhana Reddi

(Supervisor, H.A.L. Hyderabad)

P. Seshasayi

(particulars not received)

S.M. Krishnamurthy

(Lecturer, National Engineering College, Mysore)

K.B. Brahmadathan

(particulars not received)

T. Rajagopalan

(particulars not received)

B.V. Seshadri

(Engr. L.R.D.E. Bangalore)

Jayant Baliga

(Further studies at Polytechnic Institute, Church VI, Room No. 21, Mail Box 312, Renesslar, Troy, New York 1218, USA)

C.R. Ramanathan
(M.E. (Chem. Engg.) I.I.Sc. Bangalore)

G. Kannan
(particulars not received)

K. Soundranathan
(particulars not received)

K. Viswanathan
(particulars not received)

K. Ranganathan
(M. Tech. I.I.T. Madras)

C. Bhaskara Sarma
(M. Tech. Andhra University)

K. Parthasarathy
(joined Eastern Patroleums, Thana, Bombay)

L. Rama Rao
(M. Tech. at Andhra University)

C. S. Krishnan
(Graduate Engineer Trainee, C/o. Personnel
Department, Shri Ram Chemical Industries,
Kota 4. Rajasthan)

P. Srinivasan
(Particulars not received)

M.V. Krishnaprasad
(M. Tech. I.I.T. Kanpur)

R. Viswanathan
(particulars not received)

V. Arunkumar
(particulars not received)

M. Sivaramachandra Rao
(M. Tech. I.I.T. Bombay)

S. V. Sri Hari
(presumably employed at FACT,
Trivandrum)

Dilip Kumar Datta

M. Anna Rao

G. Nagarajan
(Particulars not received)

D. Navaneethan
(Trainee, FACT, Trivandrum)

M. Tech. (Civil Engineering)

Girdhar Badlani
(Major-ARMY)

R. Jayeseelan
(employed through UPSC, particulars not
received)

Jacob K. Varghese
(Self employed-particulars not received)

C. Vijayan
(Teacher Trainee-I.I.T. Madras)

R. Manimurugan
(employed at M/s. Coromondal Engineering
Co. Madras)

V.K. Guruswamy
(Junior Engineer, World Bank Project
Scheme, Coimbatore)

K.A. Kuppuswamy
(Jr. Engineer, P.W.D. Madras)

S.V. Raju
(Lecturer in Civil Engg. National Institute
of Engineering Mysore 4)

V.S. Sampath
(Research Scholar I.I.T. Madras).

E. Ch. Garata Reddy
(Particulars not received)

Etienne, P.
Junion Engineer Irrigation P.W.D.
Pondicherry)

K. Janakiraman
(employed at M/s. Coromondal Engineering
Co. Madras)

J. Rolands Nelson
(Jr. Engineer, Highways Madras)

G.S. Parthasarathy
(Lecturer, at Dawana Giri, Mysore State,
B.D.T. College of Engineering)

R. Krishna Kumar
(particulars not received)

J. Jeevanandam
(particulars not received)

R. Rama Rao
(particulars not received)

K. Chinnathambi
(Jr. Engineer, P.W.D. Madras)

5 Year B. Tech. Course

M. Hariharan
(M. Tech. I.I.T. Kanpur)

M.S. Mathews
(M. Tech. I.I.T. Madras)

Uttam Narayan Shrestha.
(employed at Nepal-Particulars however not
received)

T. Srinivasa Ramanujam
(Trg. in West Germany under DAAD
Agreement)

Electrical Engineering 3 Year Course

- M. Sethuraman*
(Assistant, L. R. D. E. Bangalore)
- C. Narasimhan*
(Assistant, L. R. D. E. Bangalore)
- N. Balakrishnan*
(M. Tech. I.I.T. Madras)
- Vidyasagar I.*
(Graduate Trainee, Electronic Corporation of India, Hyderabad)
- C. K. Subramanian*
at Bhabha Atomic Research Centre, Bombay
- K. P. Srinivasan*
particulars not received
- S. Chandrasekharan*
particulars not received
- Sunder Singh Narang*
particulars not received
- Krishnan C. N.*
I.I.T. Kanpur-further studies
- Chacko, M.C.*
particulars not received
- Baij Nath Gupta*
Technical Officer Trainee, Electronics Corporation of India, Hyderabad
- T. K. Sridharan*
Asst. Foreman, L.R.D.E. Bangalore
- S. Krishnan*
Asst. Foreman, L.R.D.E. Bangalore
- Narayanan, K.*
Graduate Trainee, Electronics Corporation of India Ltd. Hyderabad
- G. Srinivasan*
joined Navy
- K. Swaminathan*
at Bhabha Atomic Research Centre, Bombay
- K. V. Satchiananda Babu*
Asst. Foreman, LRDE, Bangalore
- D. John*
Asst. Foreman, LRDE, Bangalore
- S. Kothandaraman*
particulars not received
- Mahendra Singh*
A/F. Inspectorate of Electronics G.C.F. Jabalpur, M P.
- P. V. Sebastian*
Graduate Trainee, Heavy Electricals of India Ltd., Bhopal
- V. Jayachandran*
particulars not received
- Rajinder Parshad Mukhija*
particulars not received
- K. S. Gopalakrishnan*
M.E. I.I.Sc. Bangalore
- Thomas Mathew, T.*
Graduate apprentice, Heavy Electricals (I) Ltd. Bhopal.
- P. S. Srinivasan*
particulars not received
- K. Bhaskara Panickar*
particular not received
- Shiv Kumar Gupta*
particulars not received
- U. Sanjeeva Rao*
particulars not received
- Rajender Nath Kalia*
further studies at USA, particulars not received
- P. P. R. Jaganmohan Rao*
M. Tech. Visweswara Regional College of Engg. Nagpur
- P. R. Viswanathan*
particulars not received
- S. Chandrasekaran*
employed at Electronic Corporation of India Ltd., Hyderabad
- G. Natarajan*
Associate Lecturer, A. C. College of Tech. Karaikudi.
- Suresh Kumar Sethi*
particulars not received
- Ramesh Kumar Chopra*
Editor, (Electronics' Delhi) Self Employed
- N. Ramamurthy*
Jr. Engineer (Electronics) Andhra Pradesh State Electricity. KTPS Colony, Palencha, Khammam District, A.P.
- Narayan Vithoba Narkhede*
particulars not received
- Vikram Kaushal Singh*
particulars not received
- R. Venkateswaran*
further studies at I.I.Sc. Bangalore

- Vikram Prabhu*
(Further studies abroad particulars not received)
- S. Sriram*
(M. Tech. I.I.T. Kanpur)
- P. K. Desikan*
(Graduate Student, Department of Elec. Science, State University of N.Y. at Stony Brook, Long Island, New York 11790, U.S.A.)
- V. Anantharaman*
(Apprentice Engineer, M/s Larson & Toubro, Bombay)
- Jegath Chandra Giri*
(M.S. at the State University of New York at Stony Brook, New York)
- R. Shankar*
(M.S. Berkeley University, California, U.S.A.)
- V. Ranganathan*
(Apprentice Engineer, M/s. Larson & Toubro, Bombay)
- Yeshwant Kamath*
(further studies at 512, S. Crouse Univ. Avenue 4, Syracuse, N.Y. 13210)
- K. Thiruvengadathan*
(employed at W.S. Insulators, Madras-16)
- A. D. Kulkarni*
(M. Tech. I.I.T. Madras)
- G. Vijay*
(Training at W. Germany under the D.A.A.D. agreement)
- Dwaraka Das Mimani*
(M.S. at Pragg Institute, New York, U.S.A.)
- M. Mohammed Iqbal*
(Jr. Engineer, Larson & Toubro, Bombay)
- N. Viswanathan*
(Graduate apprentice, Philips India, Bombay)
- C. N. Muralinath*
(particulars not received)
- Lalit Kumar Vohra*
(Marketing Officer, Sarabhai Groups, Baroda (Calico Mills) Ahmedabad)
- O. Ramesh*
(M. Tech. I.I.T. Madras)
- S. Natarajan*
(further studies, at I.I.M. Calcutta)
- T. V. Sivakumaran*
(Joined Computer Science in Jadhypur Univ. 13, Prince Gulam Mhd. Road, Calcutta 26)
- B. A. Sivaramakrishnan*
(Particulars not received)
- K. Kuppuswamy*
(particulars not received)
- Rathindranath Ray*
(further studies at University of Miami, Coral Cables, Florida, USA)
- S. Narasimhan*
(Engineer, English Electric Co. of India, P.B. 2, Madras 43)
- S. Ramanathan*
M. Tech. I.I.T. Madras
- S. Venkataraman*
(M. Tech. I.I.T. Kanpur)
- M. Shanmugavadivelu*
(Jr. Engineer. MES, Madras)
- Umesh Dutta*
(Business Administrative Course, Delhi School of Economics, Delhi)
- Ajit Kumar*
(under training in Bata Shoe Co. Delhi)
- Aloke De*
(Philips India Ltd. Bombay)
- Ajoy Kumar Chakravarthy*
(M. Tech. I.I.T. Kharagpur)
- John Ebenezer Thiagarajan Sargunar*
(Trainee, First National City Bank, Mount Road, Madras 2)
- M. Liaquat Alikhan Ghouse*
(Particulars not received)
- T. S. Muthukrishnan*
(Engr., India Cements Ltd. Foundry Div. Nandambakkam. Madras)
- C. V. Raghuraman*
(Tata Electric Companies R&D Department, Telco Factory Chakula, Andheri Estate, Bombay)
- Subhash Chandra Basu*
(Particulars not received)
- M. S. Venkateswaran*
(under training at West Germany)
- B. Venkateswarlu*
(Particulars not received)

- Jayaraman, J.*
Trainee, MICO, Bangalore
- John Gabriel Quiterio*
particulars not received
- John L. Stracey*
further studies, abroad. full details not available
- Kabilan, S.*
M S. Mechanical Engineering Dept. I.I.T., Madras
- Krishna P. V.*
further studies, I.I.M. Ahmedabad
- Lakshman Kamath, M.*
employed at Mangalore Harbour Port Trust, Mangalore
- Lakshman Rao, A.*
Graduate Trainee, Royal Enfield, Madras
- Lokandwala, S.G.*
particulars not received
- Masilamani, P.L.*
employed: at Klein & Peyer, Photographers, Madras
- Mohan R.*
Management Trainee, AFTC, Officers Mess, No. 1, Jalahali West, Bangalore 15
- Mohan Challam*
further studies, at I.I.M. Calcutta
- Narasimhan, R.*
Univ. of Minnesota, USA, 710, 7th St. SE Room No. 1, Minneapolis, 55414
- Narayan, S*
joined Navy, S/Lt. Officer's Mess, INS, Shivaji, Bonsula, Poona
- Narayan, K.*
Mechanical Engineer, M/s. Larsen & Toubro Ltd., Bombay
- Nirmal Bandyopadhyay*
particulars not received
- Pallappan, S.*
M Tech. I.I.T. Madras
- Kampath, H.P.*
Stanford University, Graduate Trainee, Department of Mech. Engg., Stanford California, 94305, USA
- Prakash Rao, A.S.*
presumed to be employed at Blue Star Engg. Co. full particulars not received
- Prem Chand Roy*
M Tech. I.I.T. Madras
- Prince Thambu Raj*
M.E. P.S.G. College of Technology, Coimbatore
- Raghu, V.*
trainee, at Sarabhai Chemicals, Ahmedabad
- Raghunathan, M.*
further studies at I.I.M. Ahmedabad
- Rajagopalan, V.*
Management Trainee, Indian Oil Corporation, Bombay
- Rajeswaran, S.*
further particulars not received
- Ramachandran, S.*
further particulars not received
- Ramanathan, N.*
Trainee, Bhabha Atomic Res. Centre, Bldg. No. 3, Flat 28, Trombay Township, Devnar, Bombay 71.
- Rameshlal, B.G.*
employed at Mulchandani Radio Electricals, Bombay
- Ramgopal, S.*
presumably gone abroad for further studies—details not available
- Sethunarayanan, R.*
further details not received
- V. Shivkumar*
M.S. New Mexico University, 1910, Gold SE. Albuquerque, New Mexico, USA
- Shyamsundar, S.*
further particulars not received
- Sridhar, D.*
International Computer India Pvt. Ltd.
- Srinivasan, J.*
further studies, at New York State University, Stonybrook, New York
- Srinivasan, K.R.*
Trainee, Ashok Leylands, Ennore, Madras
- Srinivasan, T.K.*
Engineer, EMCO, KCP, Madras
- Srinivasan, V.*
Management Trainee, Bower Dunlop India, Sahaganj, Hogli, West Bengal
- Srinivasan, A.*
at Rambhal Industries, Tiruvanmayur, Madras
- Srinivasan, C.S.*
particulars not received

J. S. K. Vara Prasad
Chargeman, LRDE, Bangalore

Kalluri Satyanarayanamurthy
particulars not received

Sukant Jain
particulars not received

P. B. Vijayaraghavan
particulars not received

S. Ramamurthy
Nawal Kishore Pandey
D. Balakrishnan
P. Rajayya
Nilmani Ghosh
Vijay Chandra Verma } particulars
not received

1969 M. Tech (Mechanical Engineering)

K. Ramamurthy
particulars not known

J. Chandramouli
particulars not received

S. Sukumar
Associate Lecturer, I.I.T. Madras

Suresh Byrana Nagappa
Design Engineer, Space Science Technology,
Centre, Trivandrum

Kupuraj, M.
Associate Lecturer, I.I.T. Madras

R. Sampath
Engineer, TELCO, Poona

T. Nagarajan
particulars not known

P. V. Viswanath
Engineer, Avadi Tank Factory, Avadi,
Madras

V. Nagaraj
Associate Lecturer, I.I.T. Madras

K. M. Abraham
Engineer, TELCO. Poona

Pattabiraman, J.
Senior Technical Assistant, Dept. of Applied
Mechanics, I.I.T. Madras

Singa Perumal, M.
Engineer, TELCO, Poona

Shah Wasi Ahmad
at TELCO, Poona

M. Ravindran
Associate Lecturer, I.I.T. Madras

N. Venkatrayulu
Associate Lecturer, I.I.T. Madras

K. V. Chalapati Rao
Associate Lecturer, I.I.T. Madras

G. Sama Rao
particulars not received

M. N. Viswanathan
particulars not received

N. Venkiteswaran
Associate Lecturer, I.I.T. Madras

M.N. Sathyannarayan
Design Engineer, Space Science Research
Centre, Trivandrum

K.V. Thiagarajan
particular not known

R. Jayaraman
Jr. Design Engineer, Hindustan Machine
Tools. HMT, Bangalore

Mechanical Engineering 5 year B. Tech. Course

S. Adityan
Trainee, MICO, Bangalore

Alexander Mathew
M. Tech. I.I.T. Kharagpur

Balakrishnan, M.
as M/S. Larson & Toubro

Balakrishna Sharma
further studies at I.S.I. Calcutta

Bharat T.V.
Trainee, MICO, Bangalore

Chandrasekharan, S.
M. Tech. I.I.T. Madras

Divakar Shenoy, B.
particulars not received

Ganapathy, V.
Graduate apprentice.
Bharat Heavy Electricals Ltd. Trichy

Ganesan, T.M.
employed at M/s. Satyanarayana Construction
Madras

Gopalakrishnan, V.
Trainee, BHEL, Trichy

B. Harindranath Shetty
particulars not received

Harichandra Mathur
particular not received

C.S. Krishnan Kutty

Asst. Aeronautical Engineer, Dept. of Design and Engineering, H.A.L. Nasik Division, Nasik (OJHAR) Maharashtra

1969 Metallurgy**V. Nagarajan**

I.I.Sc. Bangalore—studying M.E.

S.R. Srinivasan

further studies, at Texas University, USA

S. Subrahmanya Chandilya

M. Tech. Industrial Engineering, I.I.T., Madras

C.V. Iswaran

M.S. at Clemson University, USA

A. Subramanian

employed at M/s. Indian Iron & Steel Co., West Bengal

S. Raghavan

M. Tech. I.I.T. Madras

Prakash Thadani

at M/s. Bajaj Auto, Poona

Bussa Ananda Kumar

employed at M/s Sandhur Mines, Sandhur, Mysore State

P. Prasad Rao

I.I.T. Bombay (M. Tech.)

A. Jeyarajan

M. Tech. I.I.T. Madras

Vijay Kumar

Assistant Engineer, Bajaj Auto Works, Poona

N. Gopal

M. Tech. I.I.T. Kharagpur

T.S. Krishnan

Engineer, Sundaram Clayton Ltd. Padi, Madras 50

L.V. Ramanathan

undergoing training at W. Germany under DAAD Scheme

V. Gopalakrishna

gone abroad for further studies, particulars not received

Surat Prakash

M.S. University of Stevens, USA.

P.M. Vedamanikam

M.S. at Syracuse University, USA

V. Vijay

Associate Lecturer, Polytechnical Institute, Adyar, Madras



- Subhash Chandra Mullick*
M.S. at I.I.T. Madras
- Subramanian, N.*
Management Trainee, Sarada Machinery Corporation, Madras
- Sundaram, P.*
at MICO, Bangalore
- Sunder Prakash Asthana*
Trainee, Larson & Toubro, Bombay
- Suresh G. Lulla*
International Hotel, Bangalore
- Swaminathan, S.*
Graduate Trainee, Personnel Dept. Shriram Chemical Industries Kota 4, Rajasthan
- Simons, T.R.*
Jr. Engineer. M/s. Utkal Machinery Ltd., Kansbahal, Orissa
- Thomas Tharu*
training in W. Germany under IAESTE programme
- Vepa Ranjan*
further studies, University of Waterloo, Canada
- Vijayagopal, S.*
Govt. Stipendary Scheme, HMT, Bangalore
- Vikram Cariappa*
Engr. Bharat Heavy Electricals Ltd. Trichy
- Vinay Goel*
particulars not received
- Viswanathan, R.*
at MICO, Bangalore
- Zackria Sait*
further studies, I.I.T. Ahmedabad
- Amir Ahmed*
particulars not received
- Asok Kumar*
particulars not received
- Mechanical Engineering 3 Year B. Tech**
- P. Raghavendran*
H A.L Bangalore
- Rakesh Tandon*
further studies abroad—details not available
- K. Mohan*
employed, at M/s. Larson & Toubro
- D. Santhanagopalan*
employed at BHEL, Trichy
- Sohan Lal Daga*
particulars not received
- G.M. Pani Kumar*
Particulars not received
- S. Kodandaraman*
Particulars not received
- Biswanath Roy*
Tata Electrical Company, Distribution Div. Tubri Pipe Road, Lower Parel, Bombay 13
- M.S.G. Bandy*
particulars not received
- S. Srinivasan*
particulars not received
- Y.V.R. Rama Mohana Rao*
particulars not received
- A. Ramachandran*
particulars not received
- V. Satyamohana Hebbar*
Engr. Trainee, Alloy Steel Div. Canara Works Hops Ltd. Mangalore 5
- J. Ramesan*
particulars not received
- C.R. Venkataraman*
employed at Larsen & Toubro, Bombay
- Ashok Kumar Ghosh*
Particulars not received
- M.K. Khandelwal*
(Asst. Mechanical Engineer, Project Dept. J.K. Rayon, Kanpur
- Hari Om Gupta*
particulars not received
- R. Saranathan*
Engr. Mico, Bombay
- S. Ramakrishnan* } particulars
Gopalakrishna Murthy } notreceived
- A. Chandrasekharan*
particulars not received
- C. Swamidas*
particulars not received
M.S. (Rochester Univ. USA) Self employed at presnt
- G. Srichand*
Jr. Engineer Trainee, Siemons, Bombay
- K. Venkataraman*
Jr. Engr. Trainee, Ashok Leylands
- R.V. Raghavan*
particulars not received



PLEASE
CONTACT US
FOR YOUR
REQUIREMENTS
OF :—

A. C. ELECTRIC MOTORS
TRANSFORMERS
ALTERNATORS
WELDING EQUIPMENT
CONTROL EQUIPMENT
AUTOMATIC DIESEL GENERATOR SETS
D. C. MACHINES
ETC. ETC.

M/s. Kirloskar Electric Company Ltd.
POST BOX No. 1017
BANGALORE - 3.



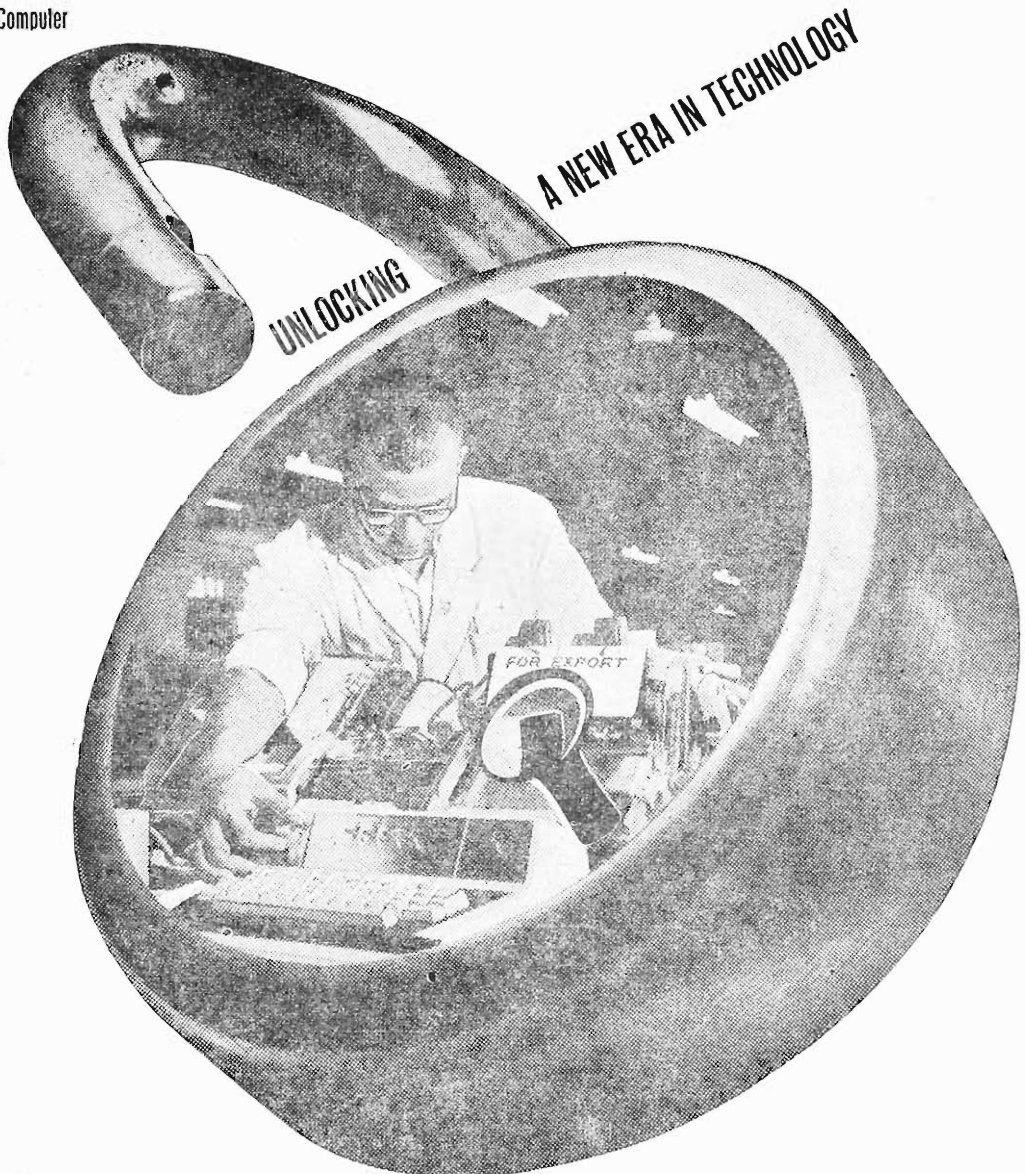
With the best compliments from:
SESHASAYEE INDUSTRIES LIMITED, VADALUR
SOUTH ARCOT DISTRICT
TAMIL NADU



Manufacturers of:
PIN TYPE INSULATORS 11 TO 33 KV
NORMAL AND FOG TYPE DISC INSULATORS
CAP & PIN TYPE POST INSULATORS FROM 11 TO 66 KV
POLYCONE TYPE POST INSULATORS FROM 110 TO 400 KV.
INSULATOR STRINGS FROM 11 TO 220 KV
TRANSFORMER BUSHINGS AND SPECIAL INSULATORS FOR
EQUIPMENT MANUFACTURERS



India's Future and the Computer



How the world's largest democracy is forging new tools to build a better tomorrow.

To win the technological battle of tomorrow, India is forging the tools today. And training people to make and use them for solving problems of national development. Speeding up progress is IBM.

From 1966, at its Bombay plant, IBM has been making India's first computers—the IBM 1401. And for over a decade, a comprehensive range of Unit Record machines and ancillaries.

To do this, IBM is passing on technical know-how to 350 manufacturing vendors in India. Enlisting their skills to make equipment for use in the country and export—to 40 countries worldwide.

In its country-wide education programmes, IBM has trained and oriented over 20,000 technicians, operators and management personnel. These key men are unlocking a new era in Indian technology. To build the India of tomorrow.

IBM



With Best Compliments from



KNICK KNACK

RESTAURANT

Indian Institute of Technology

MADRAS-36.



With Best Compliments from



JOTHI PRESS

83, M. K. N. ROAD,

Alandur, Madras-32.



“ENGLISH ELECTRIC”

FUSEGEAR
RELAYS
CONTROL PANELS
ELECTRONIC INSTRUMENTS

Manufactured by

THE ENGLISH ELECTRIC CO. OF INDIA LTD.,
HEAD OFFICE & WORKS: PALLAVARAM, MADRAS-43

CALCUTTA ★ BOMBAY
NEW DELHI ★ LUCKNOW
MADRAS ★ BANGALORE

ENGLISH The symbol of quality and
ELECTRIC — performance the world over

THE ALUMNI ASSOCIATION
INDIAN INSTITUTE OF TECHNOLOGY,
MADRAS-36

<i>Patron :</i>	DR. A. RAMACHANDRAN
<i>President :</i>	Prof. P. VENKATA RAO
<i>Vice-President :</i>	Mr. B. ANANDA KUMAR
<i>Secretary :</i>	Mr. B. V. SUBRAHMANYAM
<i>Joint-Secretary :</i>	Mr. K. SATYANARAYANA
<i>Committee Members :</i>	1) Mr. P. R. SETHURAMAN 2) Mr. B. R. SUBRAMANIAN
<i>Treasurer :</i>	Dr. B. RAMASWAMY
<i>Auditor :</i>	Dr. G. ARAVAMUDAN

Members of the Publication Committee

Prof. S. SAMPATH

Dr. Ing. H. WAGNER

Mr. S. RAMANI

Mr. V. S. KUMAR

Mr. B. V. SUBRAHMANYAM

Edited and Published by Mr. B. V. Subrahmanyam, Secretary, The Alumni Association,
I.I.T., Madras-36 and Printed by Mr. S. Durairaj, M.A., at the Jothi Press, Madras-32.