Pradeep

FIRST ANNUAL NUMBER

PRADEEP

Presented to Alumni Association by Prof. C.S. Swamy chemistry (1961-96)

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FIRST ANNUAL NUMBER

(Pblished on the occasion of the Second Alumni Dy,
2nd April, 1965)

CONTENTS

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DIRECTOR

INDIAN INSTITUTE OF
TECHNOLOGY, MADRAS
I. I. T. P.O., MADRAS-36

Dated 23—2—1965

On the happy birthday of " Pradeep ", our Alumni Annual, it is my fervent hope that it should light up the paths of those who leave the Institute portals for the wide world that greets them not only with the warmth of welcome but also the call of Challenge.

In the midst of all the turmoil, trials and tribulations that beset our country, let the Alumni remind themselves of their solemn pledge:

Sahanavavatu Sahanau Bhunaktu
Saha Veeryam Karavavahai
Tejeswinavadhitamastu

Let the Alumni and the Alma Mater come closer, Let us all pull together as success comes with a smile only to those who are united by the fraternity in life, thought and action.

B. SENGUPTO

PRADEEP

FIRST ANNUAL NUMBER] [APRIL 2, 1965

When the idea of publishing this magazine was first mooted, one of the questions that arose was whether this magazine would be just one more to the list of already existing I. I. T. publications viz. the Annual magazine, the Convocation brochure and the Campastimes. At the outset we wish to emphasize that this magazine does not aim to enter the field of general literature. It is not a competitor to any existing publication. The *Pradeep* tries to bring the graduates of I.I.T. Madras into closer contact with their Alma Mater through its pages. It is chiefly designed to be a brochure for circulation among graduates informing them of events happening at I. I. T., and of what is going on in the outside world which is of concern to the welfare of I-I.T. It will carry contributions from alumni as well as from the staff members here, In short, these pages will contain the story of I.I.T., which is absorbing because it deals not only with the past but also with the present and future - - those who are here now and those who are yet to come. This is the story which we are privileged to relate in the pages of *Pradeep*.

Almost every one has his own idea of what a publication like this should contain. We invite suggestions as to how this magazine should be run. Any suggestions on what material to include and in what form would be welcome. We hope that many of the alumni would write to us as to what they want and what they can do without.

Department of Chemistry,
Indian Institute of Technology,
Madras-36.

Dear Alumni,

It delights me immensely to greet you with this first issue of your own magazine—the PRADEEP. Pradeep—what a lovely name. Guess who suggested it: Our beloved Patron, Professor Sengupto, of course.

PRADEEP stands for the beautiful lamp that's in the Institute's emblem. By carrying the some motif into the emblem of the Alumni Association, we reinforce the thought you, the Alumni, are still a part of the Insititue and that the kindly light that illumined your minds, guided your labours and lifted your thoughts when you were at the Institute, is still with you to shed lustre on your further pursuits.

As the presiding member of the Editorial Committee it is not for me to express an opinion on this, our first issue of PRADEEP, or to pay tributes to the people who were mainly responsible for bringing it out on schedule. What is more important is what you think about. If you think that it could have been better, I would entirely agree with you, for I can sense your ego that makes you expect the very best in every thing that comes from your Alma Mater. You have a right to feel that way. Let me assure you that we shall certainly bear that in mind and do better in our next effort, for which we shall need your cooperation too.

सहवीर्यं करवावहै ।

(Saha Viryam Karavavahi)

—that's the motto given by our Patron to the Alumni. So let us strive together—to make PRADEEP reflect more fully the lustrous glory of our Alma Mater.

Most sincerely yours,
M. V. C. Sastri.
President
Alumni Association

EDITORIAL BOARD

THE FIRST ALUMNI DAY

By the end of 1963 the idea of forming an association to represent the interests of the alumni of the Institute had been dormant in the minds of many of the then-final year B. Tech. students and staff members These ideas took a concrete shape in the formation of the Alumni Association of the Indian Institute of Technology. The Association was formally inaugurated by Prof. B. Sengupto, Director of the Institute on the 10th July, 1964. Dr. D. Venkateswarlu took the responsibility of being the convenor and interim President. In the first meeting on 10th July, 1964 the following office-bearers were elected for the year 1964—65 :—

Shri B. S. Sudhir Chandra, B. Tech. 1964,	*Vice-President.*
Shri A. T. Santhanam, B. Tech. 1964.	*Secretary.*
Shri R. Sridar, M.Sc., (Maths), 1964.	*Joint Secretary.*
Shri S. Nageswar, B. Tech 1964.	*Member.*
Shri Ishwar Chandra, B. Tech. 1964.	*Member.*

Dr. D. Venkateswarlu, speaking on the occasion, said that the advantage of forming an Association of this type was two-fold in that it helps the alma mater to know about and be proud of the performances of the alumni in the outside world and in that the alumni might like to come back to the I. I. T. to work in highly specialised fields. Dr. Venkateswarlu also envisaged the possibility that in the distant future, the Association, like the well-established Associations elswhere, may publish periodical journals dealing with campus news and trends and developments in the various fields of learning. The Association may conduct seminars and short term courses for the benefit of the Alumni, open local sections at important industrial centres for helping new graduates and so on.

Prof. R. Krishnamurthy in his talk exhorted the graduands to keep in touch with the alma mater through letters and whenever possible through personal visits. He said that the main aim of the Alumni Association is to serve as the social link which connects an alumnus with his alma mater. It was through the Alumni Association that exchange of information among the alumni as well as between the alumni and the Institute could best take place.

The Director speaking on the occasion granted Rs. 1,000/- as a starting point for the infant Association to grow into a great organisation. It is appropriate on the occasion to recall the Director's keen interest in student welfare activities. He has instituted a large number of prizes and rolling trophies for distinction in Academic and extra-curricular fields.

The vote of thanks was proposed by Shri S. Nageswar.

In the evening a dinner was arranged by the Association in the open space between the Mechanical Sciences Block & the Electrical Sciences Block. The invitees included all the students of the Institute, the staff members and special guests including many of the Senate members. Shri R. A. Vaswani, Fourth Year student proposed a toast to the continued well-being of the out-going graduands. In replying to the toast, Sri S. Gopalakrishnan, outgoing student, said that the quality of the tradition with which a student has undergone educational instruction is reflected by his performance in the outside world when he is no longer guarded in the cocoon of the Institute. In that sense it was very important for the outgoing students to try their best to maintain the reputation of the Institute.

The Alumni Day function came to a close with an entertaining dance performance by Kumari Hema Malini in the Open Air Theatre, which was witnessed by a large gathering,

THE FIRST CONVOCATION—11th July 1964

The first Convocation of the Institute was held at 4-30 p.m. on Saturday, the 11th July, 1964 at the Open Air Theatre of the Institute. Dr. A. L. Mudaliar, Chairman of the Board of Governors presided over the Convocation. Dr. S. Radhakrishnan, President of India and Visitor of the Institute, was invited to be the Chief Speaker and to deliver the Convocation address. Among those present were His Excellency Mr. Duckwitz, German Ambassador to India and Shri Jaya Chamaraja Wadiyar, the Governor of Madras.

Welcoming the President and other distinguished guests on the occasion with characteristic warmth, Dr. Mudaliar traced the history of the Institute from its very inception upto the present time. He took the opportunity to refer to the generous assistance received from the Federal Republic of Germany by way of specialised technical equipments. For the phenomenal growth of this Institute during the last six years Dr. A. L. Mudaliar paid a glowing tribute to "the unfailing and untiring energy devoted by the Director and the staff, to their good work and to the remarkable manner in which the students—both undergraduate and post-graduate—have conducted themselves here."

The number of candidates on whom the Degrees were conferred in person and in absentia are as follows:

	In person	*In absentia*	*Total*
M.Sc. Degree			
Mathematics.	5	—	5
Physics	9	1	10
B.Tech. Degree			
Chemical Engineering	10	1	11
Civil Engineering	13	3	16
Electrical Engineering	16	8	24
Mechanical Engineering	18	10	28
Metallurgy	9	4	13
Total	80	27	107

The President's Prize for the best student of the B. Tech.. Degree course was awarded to Shri S. R. Thangavelu of the Mechanical Engineering Branch. The Governor's Prize for all-round proficiency in B. Tech. Degree course went to Shri S. Gopalakrishnan of the Mechanical Engineering Branch. Institute Merit Prizes were also awarded to the best student in each Discipline.

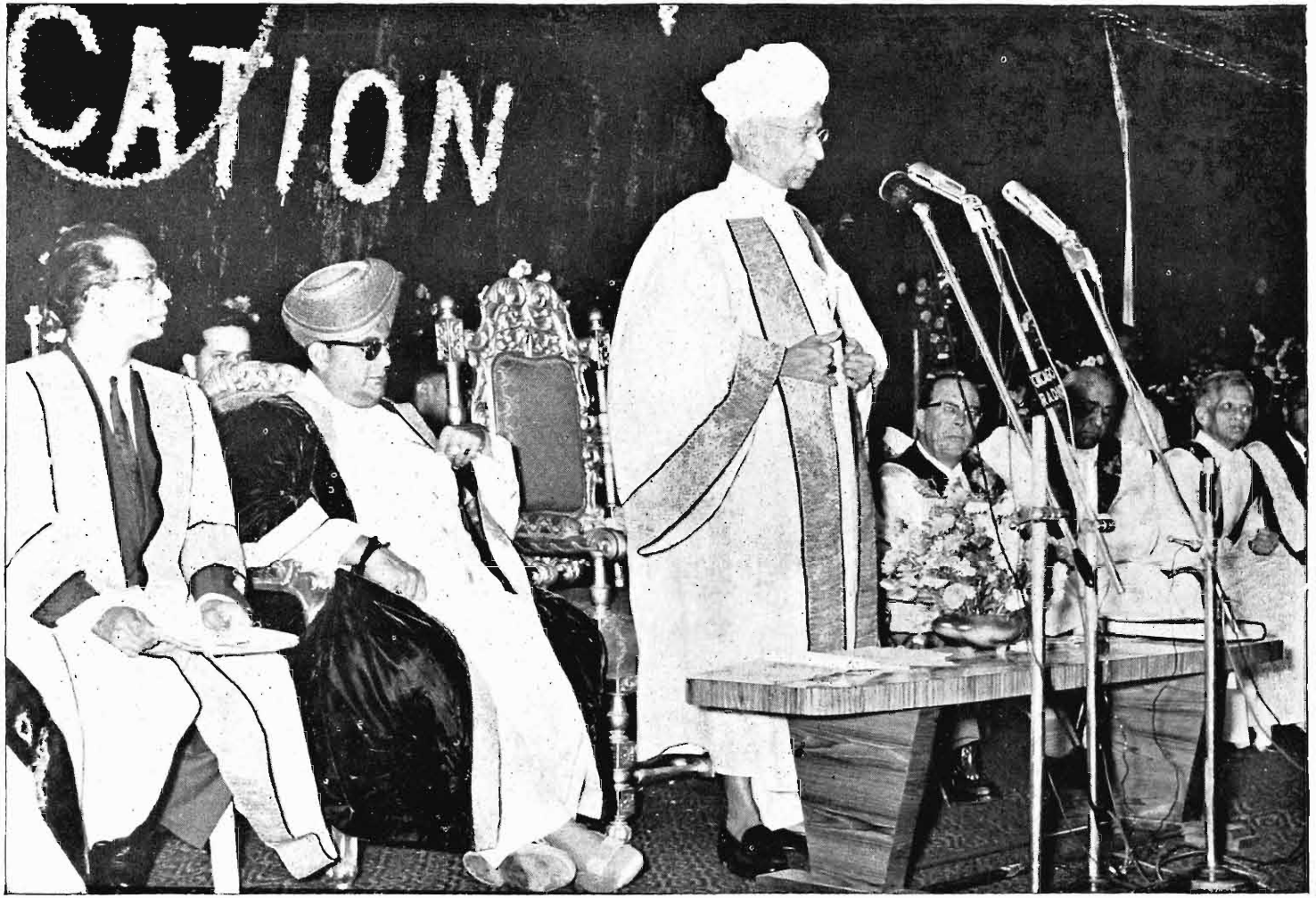
After the distribution of prizes the new graduates took the following pledge, which was read out by Shri S. R. Thangavelu, winner of the President's Prize.

"We, the graduates and post-graduates
of the Indidn Institute of Technology,
Madras, hereby pledge
that we will, in thought and deed,
ever endeavour to be scrupulously
honest in the discharge of our
duties as engineers, technologists
and scientists:
that we shall ever endeavour to
utilise our knowledge of science,
engineering and technology for the
service of our country and honour
of our Institute; and
that in all circumstances we will
uphold the dignity and integrity
of the profess on."

सहनाववतु । सह नौ भुनक्तु ।
सहवीर्यं करवावहै । तेजस्विनावधीतमस्तु ।
मा विद्विषावहै । ओं शान्तिः शान्तिः शान्तिः ॥

The texts of the Address delivered by the President and the inspiring speech made by Dr. Duckwitz are published in the following pages.

Shri S. R. Thangavelu of the Mechanical Engineering branch receiving the President's Gold Medal.



The President, Dr. S. Radhakrishnan, who is also our Visitor, addressed the First Convocation on 11th July, 1964.

Text of Dr. S. Radhakrishnan's Speech at the first Convocation of the Indian Institute of Technology, Madras Held on 11th July 1964

Friends,

I am very happy to be here, this afternoon, to see the work of this Institute of Technology and meet the first batch of students going out of this Institute. I was present on similar occasions at Kharagpur and Bombay. It gives me a special pleasure to be here and watch the growth of this Institute. I am also pleased that this work is due to the collaboration of the Indian and the German Governments. Prof. Leubke, the President of the German Republic sent us a gracious letter to-day. He was recently re-elected President of the Federal Republic of West Germany and we are all extremely pleased that his Government and his country and this Institute will all have the benefit of his guidance and leadership for another five years. By that time, I hope this Institute will establish itself, so as to make for enduring friendship between the two nations—the German and the Indian. Both your Chairman and the German Ambassador referred to the history of this Institute beginning with a visit which the late Prime Minister paid to Germany in 1956.

Our country has been passing through a series of very rapid changes in recent times. We have had religious reforms initiated, in our times, by Ram Mohan Roy, Ramakrishna, Vivekananda and Tagore. We have had social reform movements started also by the same agencies. Gandhiji gave us the political revolution. He asked us to shed off the shame of subjection, become independent, and stand erect on our feet and not always walk on our knees. In 1947, when we attained independence, Jawaharlal Nehru thought it was time for starting an industrial revolution. Poverty is the greatest problem facing the country and the only way in which we can tackle the problem of poverty, is by increasing production-agricultural and industrial and the way to do it, is by the application of science and technology. If today, in different parts of our country, we see dotted Institutes like this, laboratories, dams, atomic reactors and irrigation systems, all these

things are due, to no small extent, to the urge which Jawaharlal Nehru gave to our country. In recent times, therefore, we have had a spiritual revolution, a social revolution, a political revolution and an industrial revolution. It is the Industrial revolution through which we are passing. Now, this has the benefit of the cooperation of the German Government. This country during its great days, was never isolated: It was a part of the stream of world history If you turn to the ancient systems of Mathematics, Medicine etc. you will find there, the great influence of the Greek, of the Roman, of the West Asian and other systems. If you turn to the European world, you will find that the great advances of science were due to the co-operation of people, like the Englishman Newton, the German Kepler, Copernicus the Pole and Galileo, the Italian. All of them collaborated and brought about the scientific revolution of the modern world. So also, we were collaborating with other nations in our great days. When we fell into subjection, when we were cut off from other sources, we became isolated, our lives became constricted and we were not able to carry on the torch as we used to.

After political independence was gained, we have again, come back into the mainstream of world history and our scientists go to different parts of the world and win laurels for themselves, making no small contribution to the advance of knowledge. They are known to-day, in all parts of the world, where science is pursued; and, therefore, it is a matter of great significance, that we have staged a come back and this particular Institute, where you have the collaboration between Germany and India, is an illustration of the ancient truth that all countries contribute to the furtherence of knowledge and that we must seek knowledge wherever it is found. That was the gospel which we adopted and which we practised for a large number of years. We forgot it; we were cut off from it; and we have come back to it to-day, and therefore we must try, to-day, to regain our lost initiative, and try to do our very best.

It is necessary that we attack the problems which our country faces—poverty, malnutrition, disease, defective water supply etc. things which must make us feel ashamed of ourselves. It is necessary for us to care for the poor. Attention to the poor is the supreme test by which any Government is Judged. If we are to be.

judged as a civilised Government, our first interest must be—what we are doing for the thousands of people who are suffering from undreamt of evils, people who are the victims of all sorts of epidemics and die on the pavements of our country or in rural areas. If we want to tackle these problems, it is essential for us to develop science and technology. We must adopt a scientific outlook. Every one of us must be endowed with a scientific spirit and obscurantism superstition and such other things as have weighed us down for centuries must be removed and human beings must feel they are rational beings endowed with dignity and with a sense of responsibility—responsibility not merely for what they do, but for the poor who are entrusted to their particular care. Again and again remarks are made—a special lecture was delivered the other day at Cambridge saying that a scientific culture and an academic or literary culture were two different things and one has little to do with the other. We produce either seers or technicians. we produce men of intuition, of imagination or produce men with mechanical skill, with practical ability; but we do not produce men who are, at the same time, both seers and technicians; people able to develop their imagination and, at the same time, develop their scientific skill. This whole concept of our cultures being divided, of their being two, is something, to my mind, which is unfounded. Truth is indivisible—whether it is historical truth, literary truth or scientific truth—the approaches may be different. But, ultimately what we do is exactly the same. It is the imagination that is roused in us by the study of literature. It is imagination again that makes the scientist go forward with his hypothesis, makes him re-mould his environment and makes him bring out the deepest secrets of nature. It is this spirit in man that sits in judgment over the facts of nature and enables him to re-shape his environment. We should re-shape not merely our outer environment, but our inward environment also. Our inward forces, the internal power that we have—even that has to be remoulded.

I listened, with great interest, to the pledge which your graduates have just taken—that "I will not use my knowledge for unworthy ends". It is easy to say that. We have all said that at convocation ceremonies. But, we, generally, forget these things when we enter life. Not only do we forget these things but our leaders also forget it, leaders who are, otherwise great as states-

men, or men who have developed astounding powers over Nature, or have developed a spectacular capacity to destroy humanity as well as to save it.

If we are threatened, to-day, by the very forces which we have created, it is not due to these forces, but due to our lack of control over them. It is not weapons that destroy us, but it is the lack of wisdom, it is the inhuman being who destroys the rest of humanity If we are to refine ourselves then science will have to be a positive instrument for the development of the human race, for improvement of its quality. That is what we should aim at. It, therefore, gives me great pleasure to know that in your institution, you are studying not merely technological subjects, but, also the fundamental Sciences and Humanities. These are subjects that have a great bearing on the refinement of the human soul. These are the things that remould your nature—ATHMA SAMASKRITHINVAVA SILPANI—All the technical disciplines which yon have are there only for the purpose of refining the human spirit. ATHMA SAMSKRITI—the development of human nature. The refinement of the human spirit, is the only supreme aim which we have to put before ourselves. Most of us think that we are scientists. Why? because if we press a button, the light comes up; we press another button and the telephone rings; we press a third button and get a motor car parked outside. But we do not know how these things function. What is the knowledge which is enshrined in these instruments? We know only how to press a button and get something done—we live only on the surface of human life. We do not know what these things indicate and stand for. If we will never say that Science is a discipline different from others like literature or history, we must study science not from surface but its very depths. We must try to understand how the human mind has been able to penetrate into all these mysteries of matter and how it has brought about a new, transformed world? It is not necessary for us to be technologically or mechanically uniform. If we have the human spirit cultivated, we will not become mere, mechanically-minded robots. The very transformation which science has brought about will make you raise the question of the meaning of existenee That is a part of the quest for knowledge. You have to know, why knowledge is what it is, what is the knowledge which science contributes, what is its relation to the knowledge which other disci-

plines give. All the branches of discipline have the same end—SARVA SASTRA PRAYOJANAM—ATHMA DARSANAM, Insight into reality is the end of all kinds of discipline, whether they are scientific or humanities or technological—It is my earnest hope that you will not fall victims to the tendency to view science and humanity as two diversified disciplines and feel that you are engaged in two different and unrelated pursuits.

All truth must be regarded as one whole—whether you practise this discipline or that. Your supreme aim must be to pursue truth. It is that which makes the human being dignified and civilised. If you are able to do it, then you become a really civilised human being. It is my earnest hope that this first set of graduates who go out from this Institute of Technology, will set an example to others in never using their knowledge to unworthy ends but using it for the betterment of humanity, for the education of the human race and for making this world a true human fellowship.

Thank you.

Text of Speech delivered by Dr. G. F. Duckwitz, Ambassador of the Federal Republic of Germany in India, on the occasion of the First Convocation of the Indian Institute of Technology, Madras, on the 11th July 1964.

Your Excellency Mr. President, Your Highness, the Hon'ble Chairman of the Board of Governors, Mr. Director and staff of the Institute, students, ladies and gentlemen.

Let me thank you for your kind invitation to attend the first Convocation of the I.I.T., Madras which I have accepted with much pleasure. This day is indeed a land-mark in the life of the Institute and a day to remember for you and me. The combined efforts of India and Germany to establish this Institute have at last borne fruit. The first batch of students have completed their education and are leaving the Institute to assume their responsibilities in the industrial development of their country.

It is only natural that our minds wander back to the day in 1959, when this first batch of 120 students entered the Institute. They had to study under very difficult conditions. Most of the buildings had not yet been completed and many of the laboratories and workshops had not been installed. The teaching had to take place in rented rooms in various other institutions in Madras. What a tremendous progress has been made since then, the progress which, in 1959, one would hardly have thought possible. The credit for the enormous construction and organisational work that has since been completed goes to the unremitting zeal and energy which, you, Mr. Sengupto, had brought to your task, as Director of this Institute. I should like to thank you and your colleagues for the whole-hearted cooperation you have given, without which, this Indo-German project would not have reached this successful stage. At the same time, I should like to thank our German Professors and Foremen, for having contributed equally to the progress of the I.I.T., for setting up workshops and laboratories and by imparting to the students, their experience and technical know-how. However, let me add that the time has not yet come

when we can sit back and satisfy ourselves with what has been achieved. Undoubtedly, a lot remains to be done. A multitude of problems have still to be tackled. New tasks lie ahead in connection with the extension of the Institute, which is at present being discussed between the Indian and the German Governments.

Nevertheless, I firmly believe that all problems can be solved if we continue to cooperate with goodwill, patience and understanding for each other's problems. I am confident that we will all do our best and succeed in making this Institute what it was intended to be when the assistance for this project was offered to the late Prime Minister, Mr. Nehru in 1956 That this Institute is of reputed high standard, is beyond doubt. To the students, it imparts not only theoretical text-book knowledge, but also practical workshop experience.

In conclusion, let me say to you, the first batch of young Indian engineers, that it is a proud and happy day for me to be here to-day in your midst, to watch you receive your diplomas and take the opportunity to wish you a bright and successful future.

I cannot stress enough the important role you have to play in the onward march of your country, a role to which you have to devote the same enthusiasm and fervour that you brought to your academic studies. For any country to progress, it is necessary to have a strong, intelligent, educated and dedicated group of young people, who are fully equipped to undertake the great tasks that lie ahead. I am confident that you are also equipped and wish you good luck and godspeed.

May I add to my few words, a message I just have received, Mr. President, from the President of the Federal Republic of Germany?

" It gives me great pleasure to congratulate the Professors and students of the I.I.T., Madras most cordially on the occasion of their first Convocation. Ever since my visit in December 1962, I have been closely connected with this Institute. It is our common desire that this day further strengthen the tradition of scientific co-operation, so beneficial to India and Germany. I specially send my best regards to President Radhakrishnan who, I hear with pleasure, is lending his presence to this Convocation.".

THE YEAR THAT WAS

S. Kumar

It has been a year of quiet progress. The construction programme is running on schedule. The various Departments have not only moved to their new buildings but have intensified their research activities. The Metrology building is fast coming up,

On the eve of the Third Inter I.I.T. Sports and Cultural Meet. a first-class stadium was commissioned and the Meet itself was inaugurated by the Nawab of Pataudi, our country's Cricket Captain. A full account of this Sports Meet is published elsewhere in this issue.

The I.I.T. Central School, just off the Gajendra Circle, was formally inaugurated on 20th January 1965 by Dr. A. L. Mudaliar, in the august presence of Dr. C. D. Deshmukh and Rajah Sir Muthiah Chettiar.

The Alumni will be interested to know that Second Seminar on collaboration between Industries and Institutes concerned with technical education was conducted in our Institute in June 1964. Besides a number of technical institutions, top executives from some of the premier industries participated in this Seminar conducted by the Institute of Applied Manpower Research, New Delhi. This Seminar was considered a grand success all-round.

Shri R. Natarajan, the Institute's first Registrar, will leave the Institute shortly and return to the Government of Madras to take his place in the ranks of the Indian Administrative Service. He will be succeeded at the Institute by Shri C. V. Sethunathan Shri Sethunathan taught Physics at the Vivekananda College, Madras and at the V. O. C. College, Tuticorin. Prior to joining the Institute, he has been Principal and Head of the Department of Physics at Sri Sankara College, Kaladi, Kerala State.

Shri Natarajan has played a vigorous role in the building up of the Institute and has rendered outstanding service in orienting its major policies. His infectious enthusiasm for work, his readiness to demolish bottlenecks and his spirit of friendliness that rose above all distinctions of cadre or rank, will be cherished by all who were in one way or another connected with the work of the Institution. The staff of the Institute will greatly miss this charming personality in the discharge of their day-to-day responsibilities.

Shri Natarajan carries with him the good wishes and affection of a host of friends at I. I. T., Madras.

A STUDENT IN NEW YORK

G. N. Sarma

"No one who sets foot in the United States need do so as a stranger, for the United States is a nation made up of people of many nations, colours, and creeds—" So goes the message from the President of the United States, which greets every visitor upon his arrival here. During the few months which have elapsed since I was greeted thus, I found it to be quite true, and what is more, the visitors are so common in the city of New York, that nobody ever bothers about them! The result was that quite soon after my arrival I was able to move about in New York like a native!

But I will never forget the time when I first set out to locate the Polytechnic Institute of Brooklyn—the destination of my long travel from India. As I emerged out of the subway at the Hoyt Street, and stepped on to the road, with some insufficient directions scribbled on a piece of paper, I discovered that it made no difference which way I proceeded———all looked alike. I had not picked up the 'American' language by that time, and so I gave up asking people for directions, after a few trials. So I started walking in some random direction, scanning the sky for a tall skyscraper that looked like the Poly I had seen in the photographs. The Jay street, on which the Poly is located, is unfortunately an extremely short stretch of a road, so that it was quite some time before my random motions took me to the right place. The Poly looked much smaller than I had imagined. Soon after I started roaming the corridors of Poly, I ran into them-the Indians (from India-and not from the mid-West). I found there was quite a pack of them stalking around. They were extremely helpful in familiarising me with the various aspects of the life at Poly, and with the art of survival there.

Thus started my life at Poly, and during the one full semester that has since elapsed, I was thoroughly impressed by the high quality of instruction, by the intuitive genius of some Americans in handling practical problems, and by their dazzling intelligence, often revealed by the sizzling questions which the students fire at

the teacher. But neither myself, nor Mr. Gowrinathan had any great difficulty in following the lectures or in answering the quiz problems. In fact, we are proud to report that we have been extremely successful in the First Semester, as revealed by our grades. The truth is that the background provided by the undergraduate instruction at I. I. T. Madras has been more than sufficient to enable us to study here easily. The instruction given at I. I. T Madras compares very favourably with the instruction available here. Considering the fact that we, in India, lack many facilities which are readily accessible here, the staff members of the I. I. T. Madras deserve to be complemented. Of course, it should be admitted that the laboratory training here is superior, and the many fascinating research programs that are constantly under way give the distinctive air of scholastic sophistication which our Institutes do not manifest to the same degree This I attribute, to the lack of funds, to the lack of enthusiasm among the industrialists in India for research programs, and to the unfortunate circumstances, in which we find ourselves chocked with the necessity for an extremely rapid economic and industrial growth. Pardon me for side-tracking into an assessment of our problems, but such a thing is inescapable when one sees the prosperous America around him, and asks himself, 'What do we lack?" Basically, I feel, we Indians are potentially capable of development, but we do not have the regenerative, established, economic machinery to develop on, as the Americans have.

Coming back to our Poly, let us take a closer look at these Polymen. These don't fit into any possible definition. They are normally a cheerful-looking lot at the beginning of the semester, somewhat sober by mid-term, and pathetic by the end of the term. The reasons are obvious. True to the American habits, they constantly feed on the contents of the automatic vending machines that are located on each floor, in plenty Many of them are employed, and sponsored by companies like Bell Labs, I. B. M. and others. All polymen, as a rule, are sore about the fact that Poly does not have a campus worth mentioning. The sports activities are constantly reported on the notice boards. I guess they are all held on the courts and gyms of some neighbouring school. If one overlooks these small disadvantages, and looks only at the academic side of the Poly, sure, Poly is the place for

graduate study. As you all know, it is one of the top-ranking institutes in the E. E. branch.

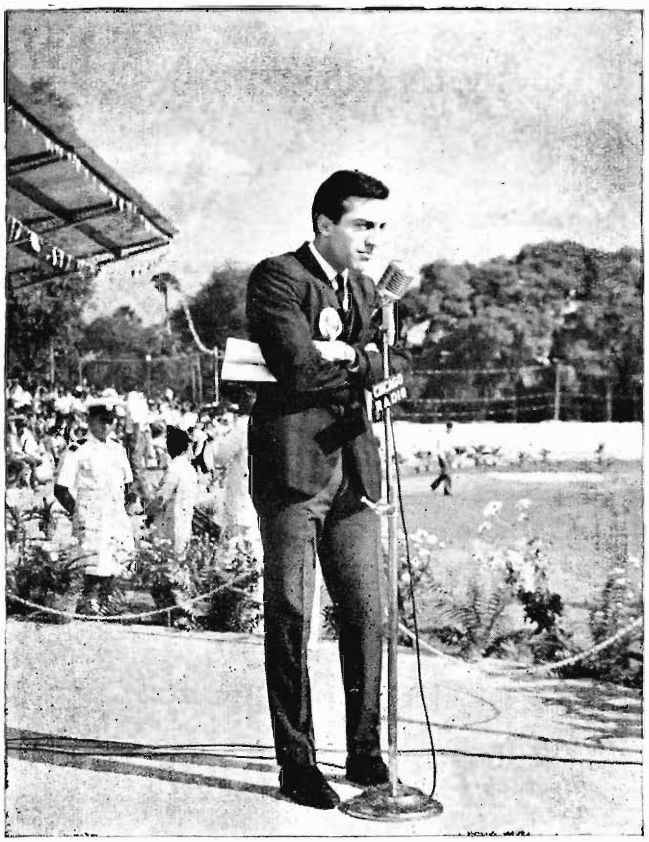
One aspect which is worth mentioning is the placement-service. A large number of firms send their interview committees to Poly once or twice a year. The prospective graduates fill in the Q. R. (Qualification Record) forms with the appropriate details and submit them to the placement office, which checks and sends them to the companies. The list of candidates called for interview is put up on the notice board. Normally, the company comes to the Institute to interview, and selects its men. An average student ends up with about half-a-dozen offers, from which he chooses. The surety of employment has an important effect on the students—very few students are aimless. Most of them are serious about studies, and work with the goal of particular kind of employment in view. No wonder they are hard-working. It is worth comparing with the conditions in our Institute. No doubt, the job opportunities are much fewer in India. But a placement office could bring to the notice of the students the various kinds of openings available, and what these jobs require of them. This could make the students less aimless, and enable them to plan ahead. I am sure the majority of the students at present do not have any idea as to what kinds of jobs are available, or what the industry requires of them. A good placement office could remove such vagueness, make the students more objective, and avoid the wastage of time after graduation, and some disappointment. It serves as a good link between the prospective graduates and the industry, and I feel that this could be part of the much-talked-about co-operation between the educational institutes and the industry. Extrapolating, it might even cover cases of industrial projects on which the prospective employee (say, a student in M. Tech. course) can work on, even while he is a student! I feel that the placement service can be very useful to an Institute like ours, and can play an important role in avoiding wastage of the technical talent.

Being in New York, it is not fair not to say something about it. At first sight, New York baffles the visitor, with its amazing complexity, and it is really quite some time before one can make any sense out of the crazy way of living here. But once it is done, living in New York is perhaps a simpler proposition than living

in any big city of India. This is because of the enormous amount of facilities available. Of course, one has to be content with a limited space to live, and get used to the vertical travelling as well as the lateral one. I will not go into the description of the city, since you all know about it, perhaps better. Besides, the city of New York is so magnificent and colossal that it just defies description. Culturally, I believe, New York is different from the rest of the United States—it reveals an international variety among its people, and is a world by itself.

Dear reader, you have patiently co-operated till now.
Thanks a lot! And I guess that is about all I have to say!

Do you recognise it ?
It is the Ganga Hostel declared open on 1st October 1964.



The Nawab of Pataudi declared the Third Inter I. I. T. Meet open.

★

Mr. Simpson of Kharagpur receiving the General Championship Trophy in the Third Inter I. I. T. Meet.

THIRD INTER I. I. T. MEET

B. S. Sudhir Chandra.

The 28th day of December 1964 marked the red letter day in the history of Indian Institute of Technology, Madras. The long awaited day had come at last. A grand welcome was accorded to the participants who had come from our sister I. I. Ts. situated at Kharagpur, Bombay, Kanpur and Delhi. The campus was gay coloured and the sapling planted on either side of the roads made it only more pleasant. It was a novel idea to house the participants in various hostels thus increasing the intimacy among the students.

On 28th morning all the roads led to the newly constructed stadium. The stadium was jam packed with sport enthusiasts who were going to witness the proceedings of the 3rd inter I. I. T. Meet to be held for the first time in Madras. The Chief guest of the morning, none other than the young Indian Cricketeer, Nawab of Pataudi, of whom we have heard much in the recent days, was accorded a warm reception. The Rector, Prof. B. Sengupto gave a formal introduction of 'Pat' as one who had revived test cricket in India. Pataudi declared the meet open and the five contingents marched past the saluting base. The pledge was taken by Srikant of home team. Pataudi, in his short speech, stressed the role of games and physical training play in the University career. He was glad that such a meet was staged in a technical institution. He wished that many such gatherings be held in other institutions in our country.

The meet started off with a bang for the start of the first heats of 100 m. sprint in which two from the home team qualified for the final. Joshi Paul gave a flying start for the home team by winning the first place in the long distance 5000 m. race. It was a treat to watch him finishing the last lap. The next item that attracted every one's attention was the High jump event where Ganguly of Bombay cleared the bar set at 5'—8¼" which bettered last year's record by about 4". Dandapani of home team stood second in that event. Simpson of Kharagpur was adjudged the fastest man in the meet when he clocked 11.6

secs. in the 100 m. sprint. D. Swarup of Bombay made a sprint double when he won 200m. and 400m. races. Joshi Paul of home team was once again the cynosure of all eyes when he knocked off the first place in 800m. and 1500m. races incidentally setting up new records. M. Kalappa, the six-footer from home team, took a Kangaroo hop when he broke the record in the Hop-Step and Jump event. Congratulations to D. Swarup of Bombay who had been adjudged the best athlete. Kharagpur walked away with the athletic championship followed by Bombay and Madras. The home team definitely put up a better performance this year in the track and field events. An I. I. T. radio station was set up in the stadium broadcasting at a frequency of I Mc/s, the highlights of the programme on the first day being a talk by the Registrar and an interview with Pataudi, besides relaying a running commentary of the events taking place every day.

Coming to Gymnastics, Kharagpur snatched away all the first places. V. V. Singh of Kharagpur was particularly very impressive and executed the delicate exercises over the horizontal and parallel bars with grace. Kharagpur maintained the lead in Gymnastics too.

In the field of games. the home team's performance was fairly good. Victories in Food-ball and Volley-ball over the formidable opponents (Kharagpur) came as surprise packages for the new year. In Foot-ball the home team won by the odd goal in three against Kharagpur after trailing 0-1 at half time. In the final against Bombay our boys put up a fine performance and won by a satisfactory margin. In Volley-ball the home team not only extended Kharagpur to 5 sets in the final but also succeeded in defeating them in the thrill packed final set. We were unfortunate to have met Kharagpur in the first round. Both teams were well balanced and the better team won. Kharagpur went on to win the final against Bombay comparitively easily. We failed miserably in Table Tennis and lost to Kharagpur in the very first round. Kharagpur beat Bombay in a keenly contested final. Thus Bombay had to give away the trophy held by them for two years. In Shuttle cock badminton we made the exit in the first round being defeated by Bombay. Bombay maintained their supremacy by defeating Kharagpur in the final.

We won the first round in Basket-ball against Delhi but lost in the semi-final to Bombay, who played a more impressive game. In the hard fought out final, Bombay outplayed Kharagpur who had bagged the trophy in the previous years. All interest was focussed on Hockey where the home team met Kharagpur in the final. The exchanges were even and Kharapur took the initial lead. The home team's undying efforts to equalise paid rich dividends when a goal was scored in the closing minutes of the same. Extra time provided was of no avail. The teams entered the field for a second time, the next morning. Kharagpur had the better of exchanges this time and eventually won the match by a solitary goal.

The five I. I. Ts. got themselves placed in the order of seniority in which they were established. Congratulations to Kharagpur who emerged victorious for the third time in succession. On the 31st evening, the prizes and trophies were distributed by Dr. A. L. Mudaliar in a colourful ceremony held in the stadium. The curtain was drawn later in the evening bringing the meet to a close.

The Inter I. I. T. meet has come and gone. But it leaves behind the sweet memories in the hearts of one and all in our campus.

"ON ALUMNI ASSOCIATIONS"

Prof. R. Krishnamurti

The desire for keeping in touch with the past is inborn in man. This desire manifests itself in various ways. In the case of educational institutions (Universities, Colleges and Institutes like the Indian Institute of Technology, Madras), one way in which this desire is satisfied is by the formations of *Alumni* Association and every student joining it as soon as he leaves the Institute. Such associations are usually called "Old Boys' Association", "Old Students' Association" and "Alumni Association"

These associations have one common desire and purpose. Membership of the Association is nominally optional. But all the students are advised to become members, and usually they do, particularly in the earlier stages. The members keep in active touch with one another and with the Institute as often as possible. They are interested in the growth and development of their *alma mater*, write to the Director (or Principal) and members of the staff periodically, and feel very happy when they receive an acknowledgement, even if it be a mere post card. As years roll by, it may happen that the Head of the Institution and Professors will have retired from service, and their places taken up by new persons. But this does not at all affect the relationship between the *alumnus* and the *alma mater*. *The alumnus* keeps in touch with his old teachers by writing personal letters to them, and feels very happy when he receives a reply, in which probably an enquiry is made about him, his family and about the kind of work he is engaged in. Or, he may write to the present set of Professors whom he may not know at all, except by name (in some cases) in the following words: "Dear Sir, I was a student of the Institute during ..... years, and did my ..... course there. When I was studying Prof. ..... was the Director, and I had the privilege of studying under Professors ..... and .... I understand that quite a few of them have retired from service. I shall be grateful if you can acknowledge receipt of this letter, and keep me informed about the Institute, its work, its development etc." He may also add a

sentence or two about himself, what he has been doing, ever since he took his diploma etc.

Such contact (even though they may be by post only) between the present staff and the past students of the Institute will be a source of joy to all. They are very necessary, particularly in the case of an Institute like the Indian Institute of Technology, Madras, whose students come from different parts of India (north and east and south and west) and who, after completing their course, go back to various parts of the country (it may be that quite a few of them go outside India also)and are anxious (wherever they may be) to maintain their contacts with their *alma mater*. When two such *alumni* meet after some years, what eager comparing of notes there is! How they temporarily forget the passage of the intervening years and go back in imagination to those days (probably far away long ago) when they were students of the Institute and when they studied under such and such eminent Professors. They pronounce their verdicts again on their old teachers, (how some of them were inspiring, others were masters of their subjects but poor in expression and how a few of them were terrible bores), try to remember the names and subsequent history of some of their class-mates. and think of their boyish days and pranks—how now and then they had played the truant from the class room, and sat quietly and stealthily in their rooms in the Hostel, smoking a cigarette or perhaps reading a book by P. G. Wodehouse or Erle Stanely Gardner. If it is any two *alumni* of the first or second batch of students, they might recollect how when they first joined the Institute in 1959 or 1960, it was all a mere wooded valley, and how slowly building after building, workshop after workshop, hostel after hostel came into being, providing the students with every facility for study and community life. Or, they might think of the first Convocation, where Dr. S. Radhakrishnan, President of India, delivered the brilliant Convocation Address, how it was an imposing function, and how after the ceremonial function there was a grand dinner at which the past and present students mingled freely along with the staff, and how the events of that great day were implanted in their memories. These occasional meetings and exchanges of confidence are among the choicest pleasures of life.

After the passage of years when, for example, the Institute is planning to celebrate its Golden Jubilee or Diamond Jubilee or

Platinum Jubilee, it is likely that some of its old *alumni* are occupying positions of trust and responsibility in various parts of the world. How proud the *alma mater* will be to write to them, and ask them to grace the function with their presence, and if that was not possible, at least to send a message. Have we not read that Christ's College, Cambridge, is proud of having had Milton as its student: Sir Isac Newton was a student of Trinity College, Cambridge and William Harvey had his education at Caius College, Cambridge; and this University has given them very high places among her distinguished sons. Other Universities in England and the continent have equally illustrious names in the list of their *alumni*. The Universities of the Sorbonne in Paris, Aachen and Braunschweig in Germany, Harvard, Wisconsin, and the Massachussett Institute of Technology in the United States have such a long list of alumni, who have become famous, and who are remembered with affection and pride by their *alma matter*. May it not be that when the twentieth century has rung itself out, and the 21st century is ushered in, some of our *alumni* will have made their mark in an outstanding manner in some special field! Again, one of the *alumni* (he may be from the Punjab or Kashmir or Nepal . . . I am purposely mentioning names from the extreme north of India) may happen to pass through Madras twenty-five years from now, and may visit his old *alma mater*, call on the Director, and the Professors, and have a pleasant half hour's chat with them. It is likely that almost all the Professors under whom he studied had retired, but there may be a solitary exception who recognises him, addresses him, in the singular, gently pats him on the back, puts an intimate question or two to him about his family etc. and (may be) requests him to address the present batch of students. The Director will, when introducing him to the audience, refer to the years of his stay at the Institute and proudly announce that he has got with him in his office-records the placement sheet of Mr. . . . . along with a photograph of his, when he was about 20 years of age! This will be one of the rarest experiences in the life of the *alumnus*. It is most likely that he will blush with a secret sense of joy on the spot, and on returning home communicate it to his friends and relations.

It might interest the *alumni* of the Institute to know that a "Placement Section" has been constituted by the Board of

Governors, and that its work will be to keep in touch with the *alumni* on the one hand, and different sources of employment on the other, and to facilitate contacts between them to the advantage of both. A Directory of the *alumni* is also being prepared, giving information about each student during his stay at the Institute, and also his subsequent career. The Professor who is the President of the *Alumni* association is in charge of this Placement Section, and is already busy gathering information about each student. Every *alumnus* should keep in close touch with the Placement Section as a matter of duty, and also because such a contact will benefit him and other *alumni.*

It has been well said that one of the criteria for judging the greatness and usefulness of an Institution is to find out the strength of its *alumni* association, the personnel of its executive, and the number of distinguished people whom it has on its rolls. The authorities of the Institute should see to it that every graduand joins the association, that he continues his contacts with it, and that the list is kept upto date. It will be a very good thing if periodically reports are sent to the *alumni* about the growth of the Institute, important changes in staff, and any other matter which would be of general interest. The receipt of such a communication gives an emotional satisfaction to the *alumnus* and he feels happy that his *alma mater* remembers him and communicates with him.

The Latin phrase *alma mater* means " kind or benevolent mother ". The Institute has a right to expect every one of her children to be loyal and grateful to her, to be proud of her, and to keep in active touch with her. An *Alma mater* is something great, something noble, something sacred. Its appeal is irresistible. On every possible occasion, her children must come back to her and offer their obeisance to her. They should become active members of the *Alumni* Association, and be in close touch with their *alma mater* and among themselves. The *Alumni* Association might be compared to an ever-lengthening chain, a chain made of links of grateful affection and reverential regard. The longer the chain, the greater will be the glory of the *alma mater.* It is the good fortune of the earliest batches of students to help in forging the chain. It will be the duty of their successors to keep the chain untarnished and evershining.

LOOKING BACK

S. Gowrinathan.

If I venture to write about life in American Universities, I would be repeating what all of you have already heard from our " American Returned ". So I shall I make it as refreshing as I can, also knowing fully well how American life and activity have been publicized through magazines, films and other such media. What I would *like* to write about is how my country looks from these very different surroundings. I cannot help smearing this article with some of the natural desperation and frustration which a foreign studeut from a developing country experiences when he sees the advanced state of this country.

There exists a sort of complex among many of our students coupled with fear whether their background at I. I. T. Madras would be enough to pursue higher education in U. S. A. I found the going at I. I. T. tough and even boring at times but academically (which is very important) the training is superb. The students will realize this probably better when they leave. Our B. Tech compares very favourably with the B. S. of American Universities. So this should answer many of the letters which raise this question.

Right from the time one gets off at the J. F. K. Airport and enters the dazzling New York, one is forced to compare it with our cities. It becomes a sort of mania and you mentally compare every facet of American life, their food, their customs and of course their material wealth with conditions back at home. You often find yourself asking the question-why? How are these people enjoying this fantastically high standard of living? This results again in a comparison of yourself with all the Americans, starting, of course, with the students to find that they are in no way superior to you. Then again the big question-why? looms larger than ever before.

In fact, some Indians here in U. S. A. remark of the American, with all his high standard of living, " You know they don't have peace of mind. In this highly competitive set-up they are just

breaking up". Not that the Americans don't have problems. Have you ever met a student who normally gets 'S' grades complaining when he gets an 'A'? American problems are similar to the problem of that ace student. For them, poverty means no week-end parties, no vacations, no yacht may be. Needless to say, for us these are super-luxuries. One graduate student here earned a net sum of 800 dollars in summer in two months, working as a waiter if you please. If waiters were paid that much in our country, I am quite sure many of our students would be willing to follow the American practice of " Earn while you learn."

The much publicised porblem of poverty in Appalachia, their juvenile delinqency problem, all look insignificant to us who have seen worse situations. In fact, I couldn't help remarking to some friends here that they make much of their problems. But then, how can they be so philosophical as we to look at really serious problems and console themselves saying that it could have been worse. Perhaps that stems from being civilised and cultured right from B. C., thereby acquiring maturity, for according to Freud, " Maturity is to learn to accept the bitter truths of life."

Most Indians here either blame the population or the Gevernment or some such thing. But I feel that we are being very naive not to take the blame on ourselves. It is our very attitude towards life, our philosophy of contentment, our philosophy of simple living and high thinking. India from ten thousand miles stands as a symbol for this pseudo-spiritualism. This pseudo spiritualism has resulted in a lack of enterprise among us. We are a nation of intelligent people by any standards as can be seen from the academic standing of Indian students here. But we lack that dash necessary for success. We don't want to take risks for the better or worse. "Play it safe" is our motto, our national policy as such.

What man knows is Science, what he doesn't know is philosophy, what he feels is literature, what he does is economic activity and I dare say the Americans are very active.

Another thing which struck me was the way the American students combine fun and pleasure with work—No high thinking and simple living stuff. They prefer to compromise, it seems.

This is something which beats me, especially with our background, it is one or the other. So we take to our books, since to avoid all temptation the safest way is to be away from the source. This way of relaxing completely during the week-end and then back to studies again is something they learn right from sch ol; but don't worry, you'll learn it by the second semester. Those of our students who think they can do it right away try and sink. If you ask me, never enter the water without learning to swim.

By now I must be sounding like a pseudo-philosopher myself. In fact after reading all this amateur stuff one might be led to think that to me our country looks inert. If that was so I would not have bothered to write. I can feel the restlessness, and the change even from here, probably better from here like the roundness of the earth can be seen better from a satellite. Perhaps distance lends enchantment to the view, but it is true that one understands and appreciates his country better when he goes abroad. The westernization of India, as some would prefer to call it, is the talk here among Indian students as well as interested Americans. How much of western ideas should India absorb is a much debated topic. As people who prefer the golden mean (our mixed economy being an example), we will probably westernize half way. Our sense of moderation, our acceptance of certain socialistic principles for public welfare, our principles of non-alignment, are things for which we could pat ourselves on the back, though the Americans confess they fail to appreciate the wisdom in it. Here's for a better India.

BIRTH AND BAPTISM OF THE I.I.T. MADRAS

R. Natarajan, I. A. S.

It was the best of times, it was the worst of times—best because Madras was blessed with an Institute of heroic dimensions, worst because there was no steel or cement to build it with. It was the age of wisdom, it was the age of foolishness—wisdom because the Government of India and the Government of Madras could not have made a worthier choice of a site what with its stately banyan trees, those green mansions, foolishness since there were still some who thought that the Institute was but a fifth wheel to the technological chariot, one more to the welter of engineering institutions at Guindy. It was the epoch of belief, it was the epoch of incredulity—belief for the pioneer members of the staff who were confident of building an Institute in a big way not with bricks alone but with burning enthusiasm, incredulity since quite a few outside thought that the Institute would require tons of luck and pluck to get over its teething troubles. It was the season of light, it was the season of darkness—light as every missionary member of the then staff considered the Institute as the Star of the South, beckoning him to unscaled heights of glory, darkness because one hundred and twenty students had been admitted with nothing but borrowed buildings and borrowed laboratories to greet them with. It was the spring of hope, it was the winter of despair—hope since this was the only higher technological and research institution to be started in the South, despair as German equipment had just started to arrive and suitable staff were in the process of being recruited. We had everything before us, we had nothing before us. The contrasts were almost as striking as in the opening paragraph of Charles Dickens' "A Tale of Two Cities".

To start with, the Institute started functioning "in branches" —classes and laboratory work commenced in the A. C. College of Technology; the Institute office was set up in the Central Leather Research Institute, while the Workshops were erected in the prefab sheds attached to the Highways Research Station. The nucleus of the Institute library was also set up in the A.C. College

of Technology. Right opposite lay part of the Deer Sanctuary, replete with tall trees and dense shrubbery, waiting to be tamed and harnessed to the needs of technology. Two of the well known architects of the city were assigned the task of carving out a Campus out of the jungle: the School of Town and Country Planning, New Delhi, was set with the task of planning and plotting the lay-out. The Campus started taking shape.

German collaboration also took concrete form. Dr. Hahn, Dr. Koch, Mr. Lechner and Dr, Scheer joined the staff as Professors of Mathematics, Physics, Workshop Technology and Mechanical Engineering respectively. Mr. Ebert, Werkstattleiter took upon himself the task of erecting the Workshops so that practical training, for which the Germans were rightly known the world over, could become a renowned reality. The German staff members worked shoulder to shoulder with their Indian counterparts in getting the Institute going with gusto. German equipment had, in the meantime, started to move from German ports. It was just as well they came in a trickle as the Institute buildings were yet to be built and storage was yet a problem. Customs clearance, which was a challenge at first, was quickly grappled with and invaluable German equipment, mostly intended for the Workshops, started moving in. Mr. Ebert went to work on them and the Institute Workshops started taking shape with German thoroughness.

On the Indian side, staff members were slowly increasing. Dr. Venkateswarlu, Dr. Ramasastry, Dr. S. K. Srinivasan, Dr. T. Gopichand, Mr. P. S. Srinivasan and Mr. S. Padmanabhan all joined in quick succession. The Departments of Chemical Engineering, Physics, Mathematics and Mechanical Eengineering were getting started, slowly but surely.

The Board of Governors and the Academic Council took swift decisions to ensure that the Institute prospered administratively and academically. Shri L. S. Chandrakant joined as Special Officer and with vigour and nerve he applied himself to the tasks of student admission and staff recruitment. Shri R. Natarajan, I.A.S. was appointed as the first Registrar. The courses Committee met and drew up the syllabii. One hundred and twenty students from all over India were admitted after a country-wide

advertisement, strictly on the basis of merit. They took to their studies with the zeal of pioneers, with such hopes and aspirations as moved and motivated the Pilgrim Fathers in their quest of the New World.

On Shri Chandrakant leaving for Delhi on the conclusion his assignment, Prof. B. Sengupto, a former Principal of the Victoria Jubilee Technical Institute, Bombay, took over as the first Director of the Institute.

Classes commenced on the 22nd of July 1959. The Institute was born. Prof. Humayun Kabir, the then Union Minister for Scientific Research & Cultural Affairs, formally inaugurated the Institute on the 31st of July, 1959 in the distinguished presence of the Chief Minister of Madras, Mr. Von Heyden, the German Charge d'Affaires, Dr. R. A. Kraus, who was to become, later on, the Adviser to the Government of India for the Institute, and the Education Minister of Madras. The Institute had, duly, been baptised.

EXCERPTS FROM THE 'CAMPASTIMES'

15th February, 1963—Personalities: Mr. R. Natarajan, I.A S.

One of the items most looked forward to on the Annual Day is the Registrar's speech. To any visitor the title 'Forever Amber' may look innocent enough and quite a serious topic. Such morbid conjectures are rapidly dispelled by the hilarious words that follow, regaling the audience with mirth and incidentally and unavoidably adding to the discomfiture of a few Staff members who bravely smile through it . . . .

He was once asked why the main roads inside the campus were named as Delhi, Bonn and Madras Avenues. His rejoinder spoke volumes. He said: 'I.I.T., Madras s a Tale of Three Cities'.

15th August, 1964. Personalities: Prof. S. Sampath.

" Perhaps the most well-known fact about Prof. Sampath is his association with the acquisition of our new Analog Computer. He went over to the U.S.A. in December, 1963, personally dismantled it and had it shipped here. The following story bears repetition. I believe the Computer was sulking and refusing to work. Finally a slip read 'Call in an expert'. When one arrived the curt rejoinder was 'Man not expert'. On Prof. Sampath's arrival however it said resignedly 'Hell, back to work'. (American Computers are notoriously colloquial).

15th September, 1964. Classified divertisements:

'On the growth of beards' - - a study of amino acids and their action on faces, by Dr. Swaminathan. Low price edition available in the Cooperative Storee.

* * *

Try once and be satisfied: Dr. Das's rosagullas, made with mathematical precision— —Exported even to Calcutta.

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For important announcements make use of the valuable services of S. M. Krishnan Neelamegham Inc. Towncriers (Laughs unlimited) I. I. T. Madras-36.

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The Security Officer has lost his peak cap and shorts. Finder will be richly rewarded with unclaimed goods.

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Caricature: V. Siddhartha.

At debating, he is a forceful speaker and holds his audience with sheer dynamism notwithstanding obscure points—A bath room singer of unparalleled enthusiasm, he graduated one day into singing to an audience. Influenced as always by Huxley, he sang something about a lone island and was promptly instructed by the audience to remove himself to that spot with as great felicity as possible, whereupon he replied " I'll land up there, but who will 'sea' me ?"

15th October, 1964,

Symposium on Teacher-Student Relationships: V. Siddhartha :

Currently the student teacher relationship is based on the word 'Sir'. One would like to know why, on the one hand, students insist on 'Sirring' teachers and why on the other, the majority of those on the other side of the fence insist on being 'Sirred'. No teacher deserves ex-officio respect. Nor can he demand it - - -

All the instructors or Professors are not intellectually superior to a student. They may know more because of their greater intimacy with the subject but that does not entitle them to remind a student that 'he is talking to a teacher'. If the lecturer has the right to ask a student to stand up while answering a question, the latter has a right to ask the teacher to stand at attention while answering. What matters is the question and its answer and not the way the question is asked. Emotions and tonal qualities have their place in drama and music - - -

It is only the men of Principle who deserve (and get)—respect. It is the business of every student to seek out men of such in-

tegrity, the real teachers. And it is simultaneously the business of those who have a duty by the next generation - - - to be responsive, absorbent and vitally interested in student welfare. It is unfortunate that the legacy of high school should persist in College with students talking in terms of ' buttering ' ' crow catching ' (kakafying) and similar terms.

If the principles of democracy, of social and intellectual equality, are upheld by the academic community there is no reason why familiarity coupled with deep understanding should not prompt every student to turn around and say "These were my teachers".

Dr. C. Rama Sastri :

As far as instruction and contact are concerned, they should mainly be confined to the class-room. The rest of the learning depends as to how the individual grows in the atmosphere - - -

The position of the teacher should be that of an observer seeing how the student fails and succeeds and occasionally come to his rescue if the situation is alarming—A close relationship should not exist between a teacher and a student. The dignity of the staff member is affected to some extent by establishing social equality with the student. A certain distance is good and helps to provide a better attitude for learning.

15th December, 1964.

Co-authors James Brinton Glassco, George E. Bokrath and S. R. Valluri received the Wright Brothers award for the best paper on an aeronautical subject, at the 1964 version of the 1963 SAE National Aeronautic and Space Engineering and Manufacturing Meeting held in Los Angeles, U.S.A.

THE SCIENTISTS' RESPONSIBILITY

Prof. S. Sampath

The human race finds itself on the horns of a dilemma to-day. Advances in science and technology have brought it to a point where the pushing of a button will start a chain of events resulting in the annihilation of all living things in the course of a few minutes. On the other hand, Science holds the key that can open the door marked 'human welfare' and has made it possible, for the first time in History, to regard the betterment of the human race, as a whole, as a practical objective. The scientists of the world have a responsibility for either course of action. One has to distinguish between two categories of Scientists—the lone worker, locked up in his ivory tower, who is too preoccupied with his enquiries into the mysteries of Nature to bother about the mundane consequences of the application of his findings and discoveries; and the other, encouraged and influenced by Government, who uses his tools and skills to advance towards specific objectives which are placed before him. Obviously the latter plays a much more significant role in relation to the impact of Science on human affairs. The crucial questions, in this connection, are: when things appear to go wrong, how much responsibility can be laid at his door, and, if he had acted in the true spirit of Science, could things go wrong, in the first instance? The basic tenet for this argument will be that Science, with its vastly expanding power to unravel the secrets of Nature and gain ascendancy over its elements, should by every angle act contribute to the happiness of the human race and not pave the way for its death and destruction.

We recently had a debate as to whether a country like India should produce an atom bomb. When a Scientist spoke publicly about the problem in terms of the physical hardware involved and the effort required to make it, the politicians called him to order, stating, that it was not his function to discuss this problem, meaning thereby that it was for the Government to decide whether the device should be made or not, and the job of the scientist was merely to carry out the tasks assigned to him.

There is no great excitement now, because the Government's decision not to make an atom bomb conforms to the tenet that Science should do nothing that runs counter to the welfare of the human race. A piquant situation would have arisen if the Government decision had been otherwise. The Scientist would have had to disavow all personal responsibility and carry out the wishes of the Government as a loyal servant, much as a soldier would perform his duties. If he declined to do this, the Government would proceed to find some one else who was both able and willing.

One is reminded here of the action of the atomic Scientists-Vannever Bush, K. T. Compton, J. B. Conant, Enrico Fermi, A. H. Compton, E. O. Lawrence and J. R. Oppenheimer- who recommended to President Truman the bursting of the atom bombs, without prior warning, over the population of the Japanese cities, Hiroshima and Nagasaki. As news of the recommendation leaked out, a group of Scientists at Chicago, headed by James Franck, formulated a solemn petition to the war Secretary in which they highlighted the human problem involved and urged that, instead of the bombardment of Japan as proposed, a demonstration of the new weapon might be arranged, before representatives of the United Nations, in a desert or barren island. The offiicial panel of Scientists repudiated this human approach, and the Government, with an enormously powerful and new weapon in its armoury, was very anxious to use it. The result was an act which has changed the course of history for ever.

Why did the Government-appointed Scientists act in this manner? Was it a hypnosis of power? A striking illustration of this, in relation to an individual scientist, is contained in the Godkin lectures, delivered at Harvard University in 1960, by C. P. Snow. He was giving the audience his version of the interesting sequence of events that led to the British effort behind the strategic bombing of Germany during the War. The central figure in this was F. A. Lindemann, who became Lord Cherwell and Winston Churchill's right-hand man during the crucial years. The idea - bombing directed against all working - class houses in all the major cities of Germany - was scientifically unsound, and an evaluation carried out after the cessation of hostilities proved it to have been a misconceived and futile effort. It was opposed, at the time, in the

secret councils of the Government by Henry Tizard, who had earlier been Scientific Adviser to the U. K. Government and was the principal architect of Britain's defence Radar System. Tizard was no longer in authority, but Lindemann was and he had the friendship and unquestioning support of the Prime Minister. Tizard's views were brushed aside, and in an atmosphere characterized by a hypnosis of power, as it were, a secret decision was made and acted upon in a crisis. Snow contends that, if the controversy had been referred to the Fellows of the Royal Society or to a General Council of professional scientists, Lindemann's moves would have been disapproved. But as is the case with the making of all secret choices, this was not done. It is a remarkable feature of modern conditions that such choices are made by a handful of men under a shroud of secrecy. The choices are cardinal, in the sense that they have a powerful effect on whether Society stands or moves towards its doom. Snow's conclusion is :

> "It is dangerous to have a scientist sitting in power, with no scientists near him, surrounded only by those who think of him as all-wise, all-knowing. The world should never again give any single scientist the powers of choice that Lindemann had."

In all countries whose citizens subscribe to the ideal of the welfare of the human race, it is essential that there be a General Council of Scientists. Such a Council should have the sanction of public opinion behind it and shall be above Government and Legislature in the sense in which the Supreme Judiciary of the country is above these. In this council, men of distinction and objectivity will consider the cardinal choices before the nation and reach conclusions, in the true spirit of Science and without pressures of any kind. Then Science may come into its own and the dilemma resolved beyond doubt.

THE MILESTONE

D. D. Samuel

It is a privilege for us, human beings, to be gifted with an indestructible memory from which we effortlessly draw the knowledge and experience of the past to equip ourselves for the journey into the future. Thus we march on along the highway of our precious life with the preparation of the past, with the strifes of the present and with the expectation of the future. We have crossed many a milestone during this great mission and I am sure every one will share my opinion if I say the leap to cross the milestone of I. I. T. life was full of exciting adventures in the jungles that shield the campus; it was full of lovely entertainment—I mean those lectures and tutorials—it was full of pleasant amusements—I mean those periodicals and examinations. Now it is a precious and pleasant past which we are proud to recollect.

On this side of the fence to-day we realise that we have taken many things from our I. I. T. life. First of all we had the privilege of being the pioneers of this institution. Pioneering an arduous task needs courage, confidence and above all sacrifice. It is the pioneers who clear the way for their followers. The waterstreams and shelters on the way are the result of their glorious victory over the infinite struggles they came across. They are the monuments of their generosity towards those who follow them. It is in our sacrifice and efforts that each benefit a person enjoys to-day found its footing. We have learnt to condition our lives to challenging circumstances, unfamiliar surroundings and many a time to painful but un-avoidable impositions. We have fought against the forces of destiny. No one can deny how exciting it was to cycle down four times a day in pouring rain to the present campus. How narrow was our field of recreation. But to quote G. K. Chesterton, "An inconvenience is an adventure, rightly considered."

Secondly all of us are a part of the social net-work of our country. Problems await us wherever we go. Adjusting to an environment which is entirely strange in customs, language and

many other things is a challenging talk. But for an I. I. T. an it is nothing. Perhaps the corporate life which we enjoyed in our hostels may be common to all those who have lived in such places. But we have learnt much more than that. We have observed the different customs and ways of life of people of different parts of India. May be we could not agree in many things. Or may be we have even quarrelled. But remember quarrels are but instruments to achieve better understanding. Perhaps a present hosteler may view his life with displeasure at certain critical times. But I am sure when he is out of the hostel, out in the open world standing alone to fight his problems, he will feel that he is well armed.

Every human being in this world is blessed with some inherent talents. But every human being is not privileged to enjoy opportunities to develop them. Think for a while how many opportunities were placed before us in various fields. Some of us are good sportsmen; some are orators. There are good poets amongst us There are so many actors.

Students of I. I. T. stand out to-day as leading technologists of this country. We have no doubt that as years rool by, Engineers coming out of I. I. T. will be even better. We owe this great privilege to our learned members of the teaching faculty; to the educational pattern that governs all curriculam. We have better workshop facilities than others. May be as the pioneers of this institution the first few batches were not able to derive full benefit from these. The construction of an ideal technical syllabus might have been experimented on us. Sometimes we have been overburdened; at the same time in some fields we have been undernourished. But we are proud that we have helped all the succeeding batches to have a balanced course of everything. We have enjoyed all humanities lectures immensely. We have a satisfaction that we are not only specialists in our own field of Engineering but are also capable of dealing with all human problems. When we look back on the whole series of experiences in the class-rooms of I. I. T. everthing is pleasant to us; the dry wits of our lecturers who effortlessly tried to please us; our best efforts to get some leisure hours and all there. The only thing that was unpleasant and for most of us may be still a matter that cannot be reconciled with was perhaps the periodicals that took us

by 'absolute' surprise. But as all of us know any kind of discipline is hard to reconcile with. However discipline is essential.

We have had enough fun and many enjoyable things during our five year stay. Every one of us in the midst of all examinations enjoyed the film club every Sunday night. But everything is over to-day and the game has ended. The most lovable part of one's life, namely the student-life, stands out as a by-gone past; a past that has been wonderful and enchanting; an unforgettable milestone that has made this present and has shown a bright future!

DISTINGUISHED STUDENTS

Academic

President's Gold Medal:

1964	1965
S. R. Thangavelu	C. R. Muthukrishnan

Merit Prizes:

CHEMICAL ENGINEERING	
P. S. Krishnamurthy	R. V. S. Mani
CIVIL ENGINEERING	
B. S. Sudhir Chandra	K. M. Kripanarayanan
ELECTRICAL ENGINEERING	
G. N. Sarma	C. R. Muthukrishnan
MECHANICAL ENGINEERING	
S. R. Thangavelu	R. A. Vaswani
METALLURGY	
R. Natarajan	Narayanan Kutti Menon
PHYSICS	
T. M. Haridasan	
MATHEMATICS	
B. Nagabushanam	

EXTRA CURRICULAR ACTIVITIES

GYMKHANA SECRETARY

1959—60	...	R. C. SINHA
1960—62	...	S. S. RANDHAWA
1962—63	...	S. GOPALAKRISHNAN
1963—64 Feb.	....	P. A. BHAT
Feb. 1964—64 July	...	T. S. ANANTHU
1964—65	...	S. A. ALEEM

ACADEMIC AND EXTRA-CURRICULAR

Governor's Prize:

1964	1965
S. GOPALAKRISHNAN	BASU JOHN VETTAH

STAFF NEWS

[The following changes have taken place in the various Departments as given below.]

DEPARTMENT OF APPLIED MECHANICS

The Department of Applied Mechanics is very soon going to become the Department of Aeronautics and Applied Mechanics. This will bring considerable changes in the scope and activities of the Department. It is expected that the department staff strength will be increased considerably. During the past academic year the department has been fairly active in research both in Fluid Mechanics, with several papers to the credit of the staff members.

Mr. Rajappa left for United States of America on leave of absence to work for his Doctorate in the field of Aeronautics in Standford University.

Dr. D. V. Reddy is expected to return and rejoin duty as Assistant Professor in the Department around August 15th.

Mr. Ponnuswamy, a graduate from Coimbatore P. S. G College of Technology, joined the Department recently as a Senior Technical Assistant.

Dr. S. R. Valluri has been appointed as a member of the Executive Council for the Central Mechanical Engineering Research Institute. He has also been invited to present a paper at the forthcoming International Conference in Fracture to be held in Japan in September, 1965.

Mr. P. S. Srinivasan since his return from Germany has joined the Department.

DEPARTMENT OF CHEMICAL ENGINEERING

The following members joined the Department of Chemical Engineering during the year 1964-65.

1. Dr. N M. Raghavendra, B. Sc., B. Sc. (Tech), Ph. D. (I.I.T. -Kharagpur).
2. Shri V Muthukrishnan, B. E. (Chem).
3. Shri R. Ramakrishnan, B. E. (Chem), M. Tech.

4. Shri T. K. Ramanujam, M. Sc. (Tech).
5. Shri K. J. Sethuraman, B. E.

Dr. M. Satyanarayana, Lecturer of this Department who was on leave at the University of California, USA as a post Doctoral Fellow worked on 'Diffusion and Chemical Reaction in Solid-Solid systems' and returned to India in August 1964. He was promoted as Assistant Professor in November 1964.

Shri A. Baradarajan, Shri K. Jayasimhulu and Shri R. Subramaniam, Senior Technical Assistants in the Department are promoted as Associate Lecturers in November 1964.

Deputations:

Dr. K. Subbaraju, Lecturer in this Department, has been deputed for one year's training in the Atomic Energy Establishment Training School, Bombay.

Shri R. Subramaniam, Associate Lecturer in the Department, is deputed for training in 'Synthetic Products Technology' for a period of six months in Bombay.

Shri K. Ramamurthy, Senior Technical Assistant, is being deputed for training for a period of four months in 'Heavy Chemicals and Fertilisers'.

Dr. K. Ramananda Rao, Lecturer in this Department, has been selected to attend the International Seminar sponsored by the UNESCO for Research and Education in Chemical Engineering and Physical Chemistry at the Technical University, Karlsruhe in the Federal Republic of Germany from 3-5-65 to 15-7-66.

Dr. D. Venkateswarlu, Dr. T. Gopichand, Dr. M. S. Murthy and Shri T. Venkataraman of this Department were deputed by the Institute to attend the annual meeting of the Indian Institute of Chemical Enginneers held at Bangalore in December 1964.

Dr. D. Venkateswarlu is elected as a member of the Council, Admission, Education and Examination Committee, and Publication Committee, Indian Institute of Chemical Engineers.

DEPARTMENT OF CIVIL ENGINEERING

Staff Members who have joined the Department.

Lecturers:

1. Sri B. Ramanathan, B.E., M.Sc.
2. Sri P. K. Ninan, B.E., M.Tech.
3. Sri S. Ganapathy Chettiar, B.Sc., B.Sc. (Engg.), M.Sc.

Associate Lecturer:

1. Sri V. Paramasivam, B.E., M.Tech.
2. Sri P. Krishna Iyer, B.E., M.Sc.,
3. Sri B. Vasudeva Rao, B.E., M.Sc.
4. Sri M. V. Jagannatha Rao, B.E. M.Tech.

Senior Technical Assistants:

1. Sri P. R. Kannan, B.E.
2. Sri M. N. Ramamoorthy, B.E.

DEPARTMENT OF ELECTRICAL ENGINEERING

Sri B. Ramaswami, Lecturer, has proceeded to the U.S.A. for an eighteen-month period of advanced study and research, under the USAID programme.

The following Staff-members joined the Department during 1964-65:

Sri K. K. Mukhopadyaya,	*Lecturer.*
Sri V. Seshadri,	*Lecturer.*
Sri Anil Kumar	*Associate Lecturer.*
Sri V. Rajagopalan	*Associate Lecturer.*
Sri P. Sashidhara Rao	*Senior Technical Assistant*
Sri S. Dasarathy	*Senior Technical Assistant.*
Sri K. Venkataramani	*Senior Technical Assistant*

The following Staff-members left the Department during 1964-65:

Sri M. Ramamurthi, *Lecturer* (*Left for Canada*)

Sri M. S. R. Sarma, *Lecturer* (*Left for the U.S.A.*)

Sri P. S. Sarma, *Associate Lecturer* (*Joined I. I. T., Kanpur*).

Sri G. Ramachandra Raju, *Associate Lecturer* (*Joined the Military Engineering Service*)

Sri K. Padmanabha Swamy, *Senior Technical Assistant* (*Joined the Central Engineering Service*)

Sri N. Mukundan, *Senior Technical Assistant* (*Joined Private Industry*)

DEPARTMENT OF MECHANICAL ENGINEERING

Staff Members who have left the Department:—

Sri S. R. Majumdar, 10th April '64 and joined M/s. Kalinga-Otto (P) Ltd., Calcutta-16. as Senior Project Engineer.

Sri M. A. Parameswaran, on 30-5-1964, and joined M/s. J. K. Steel (P) Ltd., Rishra, Hooghly, as Design Engineer.

Sri S. Sur, on 31-7-1964, and joined Utkal Machineries Ltd. Orissa, as Design Engineer.

Sri C. J. Nagabushana, on 12-11-1964, and joined M/s. K. C. P. Ltd., Madras-19, as Design Engineer.

Sri C. Rajasekaramurthy, on 22-12-1964, and proceeded for higher studies at Waterloo University, Canada.

Prof. M. C. Gupta, on 25-1-1965, proceeded for higher studies to the United States of America.

Staff members who have joined the Department:

Mr. V. Radhakrisnan, Lecturer, Production Section, on 8th August 1964.

Dr. V. C. Venkatesh, Asst. Professor, Production Engineering Section, on 24th August 1964.

Mr. K. R. Govindamallan, Lecturer, ICE, on 31st August 1964.

Mr. P. S. Srinivasan, Lecturer, joined the Department on 24th October, 1964 after his training in Germany and is now attached to the Applied Mechanics Department.

Mr. S. Padmanaban, Lecturer, Instrumentation, joined the Department on 16th November, 1964, after his training in Germany.

Mr. K. Satyanarayana, Lecturer in Turbomachines, joined the Department on 14 th December, 1964.

DEPARTMENT OF METALLURGY

Dr. K. I. Vasu, M. Sc., Ph. D. (London), D. I. C. joined the Department as a Scientific Pool Officer on 16th May, 1964. He was working as a Lecturer in Sree Keralavarma College, Trichur upto 1959 and as a research scholar in Indian Institute of Science, Bangalore, before he proceeded to Imperial College, London, for his Doctorate.

Mr. A. T. Santhanam, B. Tech., A.M.I.I.M., an alumnus of the Institute, joined the department as a Senior Technical Assistant on 2nd July, 1964.

Mr. K. V. Nagarajan, M. Sc., M. Tech. (I. I. T. Bombay) joined the Department as an Associate Lecturer on 10th July, 1964.

Mr. S. Sundaresan, B. Sc. (Hons), B. E., (I. I. Sc. Bangalore), M. E. (Poona) joined the Department as a Lecturer on August 7, 1964.

Mr. K. V. Natarajan, B. Sc., B. E. (Met) (I. I. Sc., Bangalore), A.M.I.I.M. joined the Department as a Senior Technical Assistant on 26th August, 1964.

Mr. C. S. Krishnan, B. Sc. (Hons), M. Sc. (Geology) joined the Department as a Senior Technical Assistant on 12th November, 1964. Before joining this Department he was working as a Senior Scientific Assistant in National Metallurgical Laboratory, Jamshedpur.

Mr. K. J. Lakshminarayana Iyer, M.Sc., B. E. (I. I. Sc., Bangalore) joined the Department as an Associate Lecturer on 4th January, 1965.

Mr. S. S. Das Gupta, Lecturer since 1961, left the Institute on 22nd October, 1964. He is now working as a Design Engineer with M/s. Moeller and Neumann G. m. b. H., St. Ingbert (Saar), West Germany.

Mr. Yagnyavalkya, Associate Lecturer since 1963, left the Institute on 25th April, 1964. He is now working as a Research and Development Metallurgist in Jyoti Limited, Baroda-3.

Mr. S. Ramakrishna Iyer, Senior Technical Assistant since 1962, has been promoted as a Lecturer with effect from 19th October, 1964.

DEPARTMENT OF CHEMISTRY

No Staff Member left the department during the year.

Dr. V. Ramakrishnan has recently joined the Chemistry Department. He had his education at the Annamalai University where he secured his B. Sc. (Honours), M. Sc.. and Ph. D. degrees. He worked for about ten years under Prof. V. Baliah, Ph. D. (Stanford) and his research was in the area of physical organic chemistry.

Later in 1962, he went over to Louisiana State University. During his tenure as Assistant Professor at Louisiana State University, U. S. A., he made investigations on the charge-transfer interactions and the spectroscopy and photochemistry of organic disulphides. Two of his research papers were presented at the regional A.C.S. meeting at Houston (November '63) and the Spectroscopy Symposium at Columbus (Ohio) last summer.

Before joining us, he was at Annamalai as a C.S.I.R. Pool Officer and gave lectures on group theory and quantum chemistry.

It will be interesting to note that Dr. V. Srinivasan, one of the most popular staff members, has recently been upgraded as Assistant Professor. Amidst his busy activity in scientific research in setting up the adsorption laboratories, he takes a very keen interest and participates in the extra-curricular activities of the students.

DEPARTMENT OF HUMANITIES

Shri V. S. N. Sarma, B. Sc., M. A., D. L.D. (Teacher's Diploma in German) joined the Department as Lecturer in German. Before coming to I.I.T., Madras, he was a Lecturer in the Indian Institute of German Studies, Poona.

Shri G. Viswanathan, Lecturer in English, left the Institute and is now in Vaishnava College, Madras.

DEPARTMENT OF MATHEMATICS

1. Dr. S. D. Nigam joined as the Head of the Department in May, 1964. He was Assistant Professor at I. I. T. Kharagpur.

2. Shri V. Subba Rao, joined the Institute in July, 1964. He was Research Scholar at I I. T., Kharagpur.

3. Dr. K. J. Srivastava left the Institute in July, 1964 and joined the Mathematics Department of I. I. T., Delhi, as Assistant Professor.

DEPARTMENT OF PHYSICS

Dr. S. Ramaseshan has gone to the Oxford University as a Visiting Professor for one year.

Shri K. Viswanatha Reddy joined the Department as an Associate Lecturer.

Shri Venkatesamurthy joined the department as an Associate Lecturer.

Messrs. K. Sarangapani, G. Sreenivasamurthy and V. Ramachandran have joined the Department as Senior Technical Assistants.

WHERE THEY ARE AND

What they are doing

CHEMICAL ENGINEERING

1. Sri P. S. Krishnamoorthi, the merit prize winner in 1964, is in Dalmia Cement Ltd., Dalmiapuram, Tiruchi. At present he has gone on study leave to the University of Waterloo, Waterloo, Canada to work for Master's Degree in Chemical Engineering.

2. Sri C. P. Vijayan, is continuing his studies in I. I. T., Madras for M. Tech. in Chemical Engineering.
Address: 226-Ganga Hostel, I. I. T. Madras-36.

3. Sri M. C. Uttam is a trainee in Atomic Energy Establishment, Trombay, Bombay.
Address: 33-AEE Hostel, Band Stand, Bandra, Bombay.

4. Sri D. S. Sihota is undergoing practical training in West Germany.
Address: 325, Hameln, Poppendiekweg-26, West Germany.

5. Sri V. K. Batra is working for his Master's Degree in Chemical Engineering in the Banares Hindu University.
Address: 92-Morvi Hostel, Varanasi-5, U. P.

6. Sri A. R. Sangameswaran has joined as a Junior Chemical Engineer in E. S. S. O. Oil Refineries, Bombay.
Address: 3/44-A-Shiv Saraswati, Sion West, Bombay-22.

7. Sri B. Sudhakar Baliga is working in National Rayon Corporation, P. O. Mohone, Kalyan, Bombay.

8. Sri S. Ramkumar is working in EID Parry & Co., Ranipet, North Arcot District, Madras.

9. Sri K. Neelakantan has taken up post graduate studies in Chemical Engineering in I.I.T. Madras.
Address: 231-Ganga Hostel, I. I. T. Madras-36.

10. Sri P. Ananda Bhat is working in National Rayon Corporation, Bombay.
Address: 47-Dormitory, National Rayon Colony, Kalyan.

11. Sri M. Bhaskaran is employed in the Indian Oil Company, Gauhati Oil Refineries Division.
Address: 27/84-Vineetha, Rafi Ahmed Kidwai Road, Wadala, Bombay-31.

DEPARTMENT OF CIVIL ENGINEERING

1. Sri B. S. Sudhir Chandra, the merit prize winner in 1964. continues his studies for M. Tech. (Structures) in I. I. T, Madras.
Address: 229-Ganga Hostel. I. I. T. Madras-36.

2. Sri A. K. Mehrotra is in P. W. D., Lucknow, U. P.
Address: C/o Sri S. P. Mehrotra, Principal, Kalicharan Inter College, Chowk, Lucknow-3.

3. Sri V. Koteeswaran is a Design Engineer in M/s C. J. Pell and Partners, Consulting Engineers, 4 Manchester Square, London W-1.
Address: 49-Evelyn Gardens, London S. W. F., England.

4. Sri Madhava Sampigethaya is studying for M. E. (Structures) at the Indian Institute of Science, Bangalore.

5. Sri B. Gopalakrishnan continues his studies for M. Tech. (Soil Mechanics) in I. I. T., Madras.

6. Sri C. T. Kumarappan is working in the Prestressed Concrete Co. (P) Ltd., Gagan, Mahal Colony, Domalguda, Hyderabad-29.

7. Sri P. Mohan is a Design Engineer in the firm of Prynne, Abbott and Davis, Architects, 13-College Road, Madras-6.

8. Sri P. K. Prabhakaran continues his studies for M. Tech. (Structures) in I.I.T., Madras.
Address: 230, Ganga Hostel, I.I.T., Madras-36.

9. Sri K. K. Dutt is a Military Engineer at Dehra Dun.

10. Sri Govind Das Daga has joined as a Design Engineer in a private firm at Bhilai.
Address: Qrs. No. 1-A, Street No. 14, Sector-1, Bhilai.

11. Sri G. Viswanathan is worklng in Gammon India (P) Ltd., at Neyveli.
Address : D 27-Sealed Office Road, Block-11, Neyveli, South Arcot District, Madras State.

12. Sri Venkateseshiah is working in M/s. Gammon India (P) Ltd., Coke Oven, Durgapur Steel Plant, Durgapur-3.

13. Sri N. K. Paretkar has joined the M. P. E. B. at Jabalpur.
Address : Civil Division, M. P. E. B., Jabalpur.

14. Sri K. Ramachandra is working in the Cementation Company Ltd., Bombay.
Address : 31-Kadwani Chambers, Love-Lane, Mazagoan Bombay-10.

15. Sri M. R. Sampathkumaran is a Technical Assistant incharge of Structural Erection work in Bhilai Steel Plant.
Address : 4-R-Avenue-'E', Sector-6, Bhilai.

16. Sri V. G Joshi has joined the C. P. W. D. Nagpur.
Address : 166-Sankar Nagar. Nagpur.

ELECTRICAL ENGIENERING

1. Shri G. N. Sarma has joined the Brooklyn Polytechnic Institute, U. S A., as Research Assistant. He is working for his Master's degree in Control Systems.

2. Shri S. Talukdar is working for his Master's Degree in Electrical Engineering at Purdue University, U.S.A.

3. Shri P. V. Venkateswara Rao is undergoing training at the West Coast Mills Ltd., Dandeli. After training, he is to be absorbed by the Rajahmundry Paper Mill.
Address: No. 21-'A'-Hostel, West Coast Paper Mills Ltd, Dandeli, North Canara.

4. Shri P. C. Gupta worked for a short while as Associate Lecturer in Electrical Engineering at I. I. T.. Delhi. He is currently pursuing a Master's Programme in Control Engineering at Purdue University, Lafayette, Indiana, U. S. A.

5. Shri V. Nandakumara Rao is currently undergoing the two-year Master of Business Administration Programme in the Indian Institute of Management at Ahmedabad.
Address: I.I.M. Hostel, Ambawadi, Ahmedabad-6.

6. Shri R. Ramachandran is working in Siemens Engineering and Manufacturing Company, Bombay.
Address: 2/137, "Venkateswara", 16th Road, Chembur, Bombay-71 (AS).

7. Shri Srinivas Nageshwar joined the M. Tech. Degree course in Electrical Engineering at I.I.T., Madras, but left after a few months to join Hewlett Packard Company at Boblin-gen in West Germany.

8. Shri R. Venkateswaran is working as Test Engineer with the Electronic Firm, Hewlett Packard in Boblingen, West Germany.

9. Shri C. Eswaran is working as an Associate Lecturer in the Dept. of Electrical Engineering at Govt. College of Technology, Coimbatore.

10. Shri S. D. Tank is a Graduate Trainee in TISCO, Jamshedpur.
Address: 26. L-5 Road No. 4, Kadma, Farm Area, P. O. Kadma, Jamshedpur-5 (Bihar).

11. Shri Jacob Dominic is working in the Tiruchi Boiler Plant, Tiruchirapalli.

12. Shri Girish Chandra Das is working for his Master's Degree in Electrical Engineering at I.I.T., Madras.

13. Shri S. Gowrinathan - has joined the Brooklyn Polytechnic Institute, U. S. A., as a graduate student. Is working for his Master's Degree in Control Systems.

14. Shri V. L. Prasad is currently undergoing the two-year Master of Business Administration Programme in the Indian Institute of Management at Ahmedabad. This course has been organised with the collaboration of the Business School of Harward University.

15. Shri P. C. Majhee is working for M. Tech. in Electrical Engineering at I. I. T., Madras.

16. Shri Rama Jogeswara Sarma is a Junior Engineer (Electrical) in the Maintenance Sub-Division of E. E. General Office Hyderabad.

17. Shri P. M. V. Subramanian is working for his M. Tech. Degree in Electrical Engineering at I. I. T., Madras.

18. Shri Ch. S. Rajeswara Rao is working for his M. B. A. Degree in the Indian Institute of Management at Ahmedabad.

19. Shri G. E. C. Vidyasagar is a Junior Engineer in the State Electricity Board, Hyderabad, A. P.

MECHANICAL ENGINEERING

1. Sri S. R. Thangavelu, the President's Gold Medalist in 1964 is a Graduate Apprentice in Ashok Leylands Ltd., Ennore, Madras.

2. Sri S. Gopalakrishnan, the Governor's Prize Winner in 1964 is an Associate Lecturer in the Mechanical Engineering Dept., I. I. T., Madras-36.
   Address: 66, Perumal Koil Street, Saidapet, Madras-15.

3. Sri S. Srinivasan is an Engineer (Trainee) in the Industrial Engineering Section of the Madras Rubber Factory, Tiruvottiyur High Road, Madras-19.
   Address: 52, Bharathi Nagar, Usman Road, T.Nagar, Madras - 17.

4. Sri R. Mahadevan is working for his Master's Degree in Production Engineering in the I. I. T., Kharagpur.
   Address: C-118-J. C. Bose Hall, I. I. T., Kharagpur.

5. Sri S. S. Randhawa is now in the University of California, working for Master's Degree in Industrial Engineering. His present address is :
   F. 39, International House, University of California, Berkeley 4-California. U. S. A.

6. Sri K. V. Srinivasan is a student in the Indian Institute of Petroleum, Dehradun. His present address is: Indian Institute of Petroleum, Post Box 80, Dehra Dun, U. P.

7. Sri R. Devanathan is an Apprentice Engineer in Larsen and Toubro Ltd., Bombay. His present address is :
12-E-4th Block-Meera Mansions, Sion, Bombay-22.

8. Sri D. D. Samuel is an Apprentice Engineer in American Refrigerator Company (ARCO), Calcutta.
Address ; Y. M. C. A. Wellington Branch, 42, S. N. Banerjee Road, Calcutta-14.

9. Sri R. Seshadri Reddy is an Apprentice Engineer in Voltas Ltd., Thana, Bombay.

10. Sri P. Premananda Prabhu is a student of M. Tech. (Design and Production Engineering) in I. I. T. Bombay.
Address: Room No. 233, Hostel No. 1, I. I. T., Powai, Bombay 76.

11. Sri R. Ganesh is a student of M. E. (Machine Design) in the Indian Institute of Science, Bangalore.
Address ; No-6-19th Cross, Bangalore-12.

12. Sri H. K. Subramanya Rao is a Graduate Engineer in the Hindustan Steel Ltd., Rourkela.
Address: Room No. 66, Sir J. C. Bose Hostel, Sector-5-Rourkela-2.

13. Sri V. Amudachari is a Graduate Apprentice in Ashok Leylands Ltd., Ennore, Madras.
Address : 1-Nehru Nagar-Adyar-Madras-20.

14. Sri D. Satyanarayana Rao is an Industrial Engineer in Rohtas Industries Ltd., Dalmianagar, Bihar.

15. Sri M. V. Narayanan is an Assistant Industrial Engineer (Trainee) in ACC Vickers Babcock Ltd., Durgapur.
Address : 19--Senior Staff Hostel, ACC Vickers Babcock Ltd., Durgapur-6.

16. Sri A. Malleswara Rao is employed in the West Coast Paper Mills Ltd.
Address : No. 21-A-Hostel, The West Coast Paper Mills Ltd., Dandeli, North Kanara.

17. Sri Iswar Chandra is working in the Heavy Engineering Corporation, Durgapur-10, West Bengal.

18. Sri M. V. Krishnamurthy has joined the Mechanical Engineering Department, Indian Institute of Science, Bangalore, as a research scholar.

19. Sri P. D. Prabhakar is working in Tata Electric Locomotive Company Ltd., Jamshedpur.

20. Sri J. C. Kalyan is working in Hindustan Machine Tools at Chandigarh.

21. Sri A. R. Jayaraman is a Graduate trainee in the Enfield India Ltd., Post Box No. 5284-Tiruvottiyur, Madras-19.

22. Sri V. S. Srivastava had joined the Gorakhpur Engineering College as a staff member.
Address: C/o Shri K. P. Shrivastava, Advocate, Bank Road, Gorakhpur (U. P.).

23. Sri G. Lakshmi Narasimhan is a Senior Apprentice in the Institute of Armament Technology, Dapodi, Poona-12.

24. Sri P. Devanani is working as a technical assistant in Bhilai Steel Plant.

25. Sri Mohan Krishnan Muju : C/o Shri D. N. Muju, Khanakahi Moulla, Zaina Kada, Srinagar-2, Kashmir.

26 Sri Mahesh Kumar Suri ; B-110-Double Storey, Rameshnagar, New Delhi-15.

27. Sri Salim K. Kazi is a Junior Engineer in the Press-Plant of the Premier Automobiles Ltd.
Address: 17/174-Central Government Quarters, Ghatkoper, Bombay-77.

28. Sri V. C. Varshney : P. O. Wazirganj, Budann District U. P.

METALLURGY

1. Sri R. Natarajan, the Merit Prize Winner in 1964, is studying M. E. (Chemical Metallurgy) in the Indian Institute of Science, Bangalore.
Address: Room No. 29, 'E' Block, Indian Institute of Science Hostel, Bangalore-12.

2. Sri C. G. Krishnadas Nayar is a graduate student in the Department of Mechanical Engineering, University of Sasketchewan, Saskatoon, Sasketchewan, Canada.

3. Sri A. T. Santhanam is a Senior Technical Assistant in the Department of Metallurgy, I.I.T., Madras-36.

4. Sri G. Harinarayanan is a graduate trainee in the Indian Aluminium Company, Alwaye. Kerala.
Address : Kamalalayam, Kalapady, N. Parur, Kerala.

5. Sri A. C. Raghuram is studying M. Tech.(Ferrous Metallurgy) in the I. I. T. Bombay.
Address : Hostel No-1, I. I. T., Powai. Bombay-76.

6. Sri B. Lakshminarayanan is undergoing practical training in West Germany.

7. Sri T. Varadarajan is studying M. Tech. (Physical Metallurgy, in the I. I. T. Bombay.
Address ; 176, Hostel No-1, I. I. T., Powai, Bombay-76.

8. Sri J. Venkateswarlu is an Assistant in the Quality Control Department, Fa. Edelstahwerk Reckhammer.
Address : 536-RS. Luttringhausen Linde 117-West Germany

9. Sri T. P. Singh : C/o M/s. Diyal Singh Warag (P) Ltd., Sadar Bazaar, Delhi-6.

10. Sri A.K. Mithal is an Apprentice Officer in Textile Machinery Corporation, Belgharia, West Bengal.
Address: 2-New Office Building, Texmaco, Belgharia, 24-Parganas, West Bengal.

11. Sri R. N. Jha, is undergoing practical training in West Germany.

12. Sri Gyanendra Nath is a Graduate Engineer in the Hindustan Steels Ltd., Bhilai.

13. Sri L. Venkata Pattabhiraman has joined the Atomic Energy Establishment, Trombay, Bombay.

M. Sc. (MATHEMATICS)

1. Shri B Nagabhushanam is a Business Executive in Sarabai Chemicals, Ahmedabad.

2. Shri P. V. Navaneethakrishnan has joined the Department of Mathematics, College of Engineering, Guindy, Madras-25 as an Associate Lecturer.

3. Shri R. Sridhar is a research scholar in the Institute of Mathematical Sciences, Adyar, Madras-20.

4. Shri A Sundaram is a research scholal in the Institute of Mathematical Sciences, Adyar, Madras-20.

5. Shri S. N. Venkatarangam is a research scholar in the Department of Mathematics, I. I. T. Madras.

M. Sc. (PHYSICS)

1. Shri T. M Haridasan is Research Scholar in the Indian Institute of Science, Bangalore.

2. Shri S. Gowri Shankar is working for M. Tech. (Physical Metallurgy, in I.I.T. Bombay.

3. Shri R. Ramaswamy has rejoined duty as Assistant Professor in Thiagarajar College of Engineering, Madurai.

4. Kumari S. Vijayalakshmi is a Research Scholar in the Department of Physics, I. I. T. Madras-36.

5. Shri N. Harihara Iyer is also a research scholar in the Department of Physics, I. I. T., Madras.

6. Shri R. Lakshminarasimhan is working for M. Tech. (Physical Metallurgy) in I. I. T. Bombay.

7. Kumari L. Annapoorni is a research scholar in the Department of Physics, I. I. T., Madras.

8. Shri C. S. Sastry has also joined the Department of Physics, I. I. T. Madras as a Research Scholar.

MARRIAGES

KOTEESWARAN : At Madras on March 23, 1964, V. Koteeswaran, B. Tech. '64 and Premalatha.

MEHROTRA: At Lucknow, on February 6, 1965, A K. Mehrotra, B. Tech., '64, and Prabha.

VENKATESESHIAH: At Vijayawada, on February 19, 1965, P. Venkataseshiah, B. Tech. '64 and Anjani.

VENKATESWARLU: At Jagalmudi, on May 22, 1964, J. Venkateswarlu, B. Tech. '64 and Himavathi.

SRIDHAR: At Madras, on August 26, 1964, R. Sridhar, M. Sc. '64 and Radha.

SUNDARAM: At Ootacamund, on August 27, 1964 A. Sundaram, M. Sc. '64, and Srividya.

ALUMNI ASSOCIATION

INDIAN INSTITUTE OF TECHNOLOGY, MADRAS-36

Annual Report for the Year 1964-65

The Alumni Association of the I.I.T., Madras, was formally inaugurated by Prof. B. Sengupto on 10th July, 1964. Dr. D. Venkateswarlu who had already distinguished himself as a pioneer in building up such various essential associations as the Gymkhana took up the responsibility of being the convenor and interim President of this Association. · Much of what this Association stands for to-day is largely due to the drive and skillful management of Dr. Venkateswarlu.

At the first meeting on 10th July, 1964 the present executive body was elected by the then graduands. Dr. M. V. C. Sastri was nominated as the President and Dr. B. V. A. Rao as the Treasurer by the Director, Prof. B. Sengupto. The executive body took charge on 1st September, 1964.

In the beginning, the association had a number of problems such as lack of accommodation etc. However, Dr. M. V. C. Sastri, was gracious enough in accommodating our office in one of the, rooms of his Department. Again, much of the clerical work fell upon the members of the Executive Body. Luckily, this situation was soon overcome, when the services of the Secretariat of the Placement Section became available to the Association. Shri S. Gopolakrishnan, an alumnus, now staff member in the Department of Mechanical Engineering in this Institute, was co-opted as a member of the Executive Committee.

· The very first thing the Executive Committee planned was to compile a complete directory of our alumni The idea of having a directory of this type came to us from our Director, Prof. B. Sengupto, who is taking lot of trouble in giving it a suitable shape. We sent out letters to all the past students requesting them to furnish us with information regarding their placement. Most of them wrote enthusiastically in reply and appreciated the idea of the Association in bringing out a directory. The information will

indeed help towards compilation of an efficient and up-to date directory.

We are gratified to find that among the first batch of graduates, 72 have enrolled themselves as members of the Association and we hope that the remaining will follow suit. We sincerely believe that the succeeding batches will also show the same enthusiasm and help the Association to grow into a strong organisation.

To look after the interests of the Alumni in the vital matter of placement, the Institute has set up a Placement Section with the President of the Alumni Association as ex-officio in-charge. He is assisted by an Advisory Council consisting of the Heads of all the Engineering Departments. The Section has started functioning only since December last and is expected to gather momentum as time goes by. We welcome this organisation and look forward to its taking shape as an influential instrument of support to the alumni.

In one of the meetings of the Executive Committee it was decided to bring out a magazine dealing with the activities of the alumni and news about the campus. To help in this venture, the Executive Committee approached Prof. S. Sampath and Mr. V. S. Kumar who consented readily to associate themselves with the publication of this brochure. We record with deep gratitude the indefatigable energy of the members of the Editorial Board, but for whom, this magazine could not have been brought out on this occasion at all.

I take this opportunity to thank Dr. M. V. C. Sastri for the interest he has taken in the welfare of this Association. His vast experience and ability will undoubtedly lead the Association to new avenues of success. I also wish to express gratitude to our treasurer, Dr. B. V. A. Rao and to Mr. B. S. Sudhir Chandra, Mr. Sridhar and Mr. S. Gopalakrishnan, Members of the Executive Committee, for their untiring zeal and enthusiasm in the activities of the Association.

A. T. SANTHANAM
Secretary

Dated 2nd April, 1965

ALUMNI ASSOCIATION

INDIAN INSTITUTE OF TECHNOLOGY, MADRAS-36

Statement of accounts of the Association as on 28th March, 1965

Receipts	Rs.	P.	Expenditure	Rs.	P.
Balance amount in the Bank at the time of taking charge	3,544	52	Advance amounts returned to I.I.T.	1,000	00
Contributions from staff members towards dance performance	27	00	Paid to various hostels for dinner charges on guests.	1,507	54
Life Memberships	1,950	00	Paid to Engineering Unit for expenditure incurred in the last Alumni Day.	300	00
Collection through advertisements in the first issue of the Alumni Magazine	180	00	Paid to Vummidiars (Mfrs.) Pvt. Ltd, Madras for replacing two stainless steel meals plates lost during the last Alumni Day.	43	57
			Paid to Klein & Peyerl, Photographers.	3	58
			Advance paid to the Secretary for incidental expenditure	150	00
			Advance paid to Printers, caterers	400	00
			Balance in the Bank	2296	83
Total Rs.	5,701	52	Rs.	5,701	52

DR. B. V. A. RAO,
Treasurer

Dated: *2nd Apoil 1965*

ALUMNI ASSOCIATION
INDIAN INSTITUTE OF TECHNOLOGY, MADRAS

Patron: PROF. B. SENGUPTO

Executive Committee for the year 1964-65

President:	Dr. M. V. C. SASTRI
Treasurer:	Dr. B. V. A. RAO
Vice-President:	SHRI B. S. SUDHIR CHANDRA
Secretary:	SHRI A. T. SANTHANAM
Joint-Secretary:	SHRI R. SRIDHAR
Members:	SHRI S. NAGESWAR
	SHRI S. GOPALAKRISHNAN
	SHRI ISHWAR CHANDRA