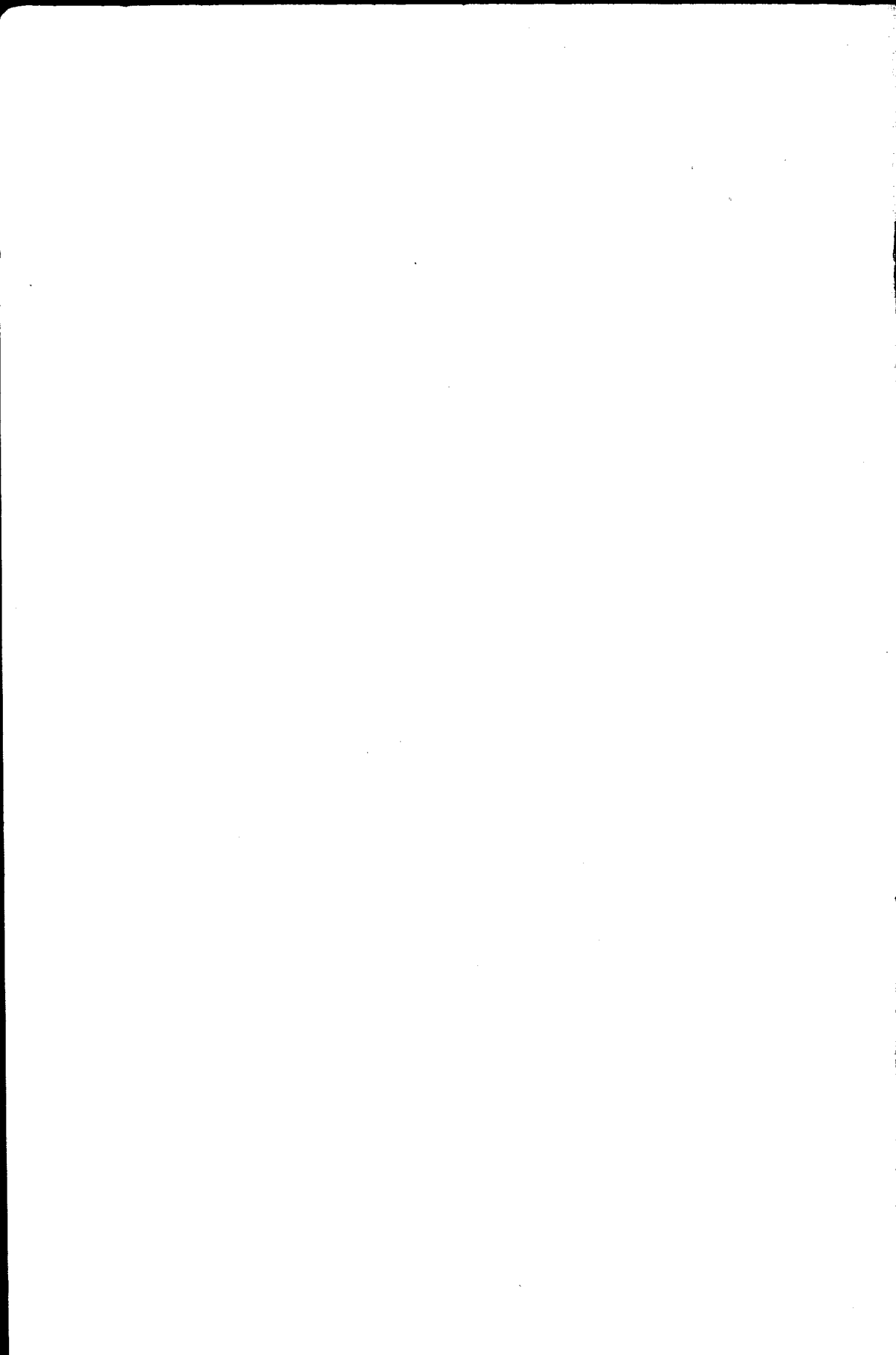


ANNUAL REPORT

1961-1962

INDIAN INSTITUTE OF TECHNOLOGY

MADRAS



ANNUAL REPORT

1961 - 1962

GENERAL

New Act :

The Indian Institute of Technology, Madras has entered the third year of its existence during 1961-1962. The year under report saw some important developments. The Institutes of Technology Act, 1961 enacted by Parliament received the assent of the President of India on the 19th December 1961. Under this Act, a Central Council was constituted to advise the four Indian Institutes of Technology on matters of academic interest, to lay down policies regarding staff recruitment, fixation of cadres, scholarships, etc., examine plans for development and budget estimates, recommend to the Government of India the allocation of funds to the different Institutes, advise the Visitor, who is the President of India, in respect of any function to be performed by him under this Act and, generally, co-ordinate the activities of the four Institutes.

Council :

The Council met on the 25th May 1962 under the Chairmanship of Prof. Humayun Kabir, Minister of Scientific Research and Cultural Affairs, and laid down policies on several important matters. The names of members of the Council are given in Appendix I.

Board and Academic Council (Senate) :

The Board of Governors and the Academic Council (known as the Senate under the Act) of the Institute met four and nine times respectively during the year. The names of the members of the Board of Governors and Academic Council are given elsewhere (Appendix II)

Admission :

• The Institute admitted 135 students to the first year of the five-year Integrated B. Tech. Degree course on the basis of the results of the Joint Entrance Examination conducted in common for all the Institutes. Nineteen students who had passed the B.Sc. Degree Examination were admitted direct to the second year B.Tech. Class. (*Vide* Appendix VIII).

Scholarships :

The Board of Governors decided to grant the benefit of free studentship to all holders of Institute scholarships and to extend a similar benefit on grounds of poverty to a further 10 per cent of the undergraduate students.

Details of scholarships awarded by the Institute and scholarships awarded by the Government of India and other bodies to the students of the Institute will be found in Appendix III.

Academic Session :

The academic session commenced on 3-7-1961 and ended on 30th April 1962.

Examinations :

The examinations were conducted as usual and the results were very satisfactory. The details are given separately. (Appendix IX).

Research :

The research work done by the departments and the publications of the results of the research work are mentioned in the departmental reports. The Magazine "Science and Engineering" published by the Institute during 1961 has been warmly welcomed both in India and abroad. The facilities for research were, naturally, limited in view of the fact that the Workshops/Laboratories were still in the process of erection.

Staff :

Prof. B. Sengupto and Shri R. Natarajan, I.A.S., continued to be the Director and Registrar of the Institute respectively. Prof. K. W. Haug and Dr. Gerhard Rouve from West Germany joined the Departments of Applied Mechanics and Civil Engineering respectively. Dr. E. G. Ramachandran, Dr. M. V. C. Sastri and Prof. S. Sampath joined the Institute as Professors of Metallurgy, Chemistry and Electrical Engineering (Communications) respectively. The number of teachers and other staff recruited during the year and the number that left the Institute are given in Appendix VI. As usual, the Institute deputed delegates to Seminars, Conferences and Congresses.

Staff Training :

Two teachers were deputed to Germany for training while three teachers returned from Germany after undergoing training under the Indo-German training scheme.

Library :

During the year under review, 8579 books and periodicals were added to the Library. The total number of books and periodicals as on 30th June 1962 was 20,721. Details regarding the Library are given in Appendix VII.

Equipment :

In accordance with the Indo-German scheme, capital items of equipment worth about Rs. 12.6 lakhs were supplied by West Germany to the Institute during the year under report. In addition to this, equipment and furniture worth about Rs. 8.4 lakhs were acquired by the various departments of the Institute and the Library. Major items of equipment procured during the year under review are mentioned in the departmental reports.

NON-ACADEMIC DEVELOPMENTS

Institute Gymkhana :

The Institute Gymkhana is responsible for the extra-curricular activities of the students. The students of the Institute were successful

at the Inter-Collegiate contests and All India Radio debates. The Institute Gymkhana had a flying start and many competitions were held with signal success in sports and cultural activities. The Institute sent representatives to Bombay to take part in the Inter-I. I. T. sports and Athletics Meet. Two rolling cups were donated to the Gymkhana—one by Dr. M. V. C. Sastri for group discussion and the other by Mr. Kurt Schroeter for general championship.

N. C. C. :

The activities of the N. C. C. are chronicled under the head 'N. C. C. Rifles'. But mention should be made about the selection of Shri R. Rajamani, Senior Under Officer, to participate in the Republic Day parade at New Delhi. This is the first time that the Institute has been represented on the State Contingent.

Construction Programme :

The Institute has its own roof at last. All the departments and Workshops have started functioning in the campus of the Institute. New structures for learning and living are still going up. What was once an impenetrable forest has now become a temple of learning. The academic staff are expected to move to their residential quarters early next year thus making the campus truly residential.

Hostels :

Two hostels are functioning in the campus. There will be two more next year to accommodate the additional student intake.

Institute Co-operative Stores :

On the initiative of the Director, steps were taken to establish the Co-operative Stores for the purchase of books, stationery, drawing instruments, etc., by the staff and students.

Financial :

The income and expenditure statement for the year ending 31st March 1962 is given in Appendix IV.

Visitors :

Prominent and distinguished scientists and industrialists and others visited the Institute. The names of the prominent visitors are furnished in Appendix V.

All in all, 1961-1962 was a significant and successful year in the progress of the Institute project. On the Academic side, there was close co-operation between the German and Indian members of staff, which was reflected in our excellent examination results. There was a sustained tempo in our construction activities and we hope to have all our Workshops and a major portion of our instructional buildings in commission next year. On the non-academic side, there was a noticeable increase of activity and success on the Gymkhana and N. C. C., sides.

We look forward to 1962-1963 with confidence and hope.

REPORTS FROM THE TEACHING DEPARTMENTS

(I) DEPARTMENT OF MECHANICAL ENGINEERING :

(a) *Staff Structure :*

Professor :	One
German Professors :	Two
Asst. Professor :	One
Lecturers :	Twelve*
Associate Lecturers :	Two
Senior Technical Assistant :	One
German Workshop Staff :	Four

* Two staff members were deputed to West Germany for training.

(b) and (c) *Teaching and Laboratories :*

The construction was in progress regarding the laboratories —ICE, Steam, Turbo machines and Hydraulic machines. Items of equipment pertaining to all the laboratories of the Department as received from the West German authorities have been handled to do the needful for procurement clearance. Planning for the Under graduate instructional equipment for the ICE Laboratory was taken up.

(d) <i>Educational Tours :</i>	Nil
(e) <i>Seminars/Colloquia/ Special Lectures :</i>	Nil
(f) <i>Major equipment procured :</i>	Nil
(g) <i>Research done :</i>	Nil
(h) <i>List of publications :</i>	Nil

(II) DEPARTMENT OF CIVIL ENGINEERING :

(a) *Staff Structure :*

Professor :	Nil
Assistant Professor :	One
Lecturers :	Six
Associate Lecturer :	One

(b) *Teaching :*

II and III Year B.Tech. classes were taught Civil Engineering subjects by this Department.

(c) *Laboratories and Workshops :*

Concrete, Survey, Geology, Soils and Highway Laboratories were set up on a small scale during the year. Planning of the

structures, Hydraulics and Public Health Laboratories was also taken up. Materials used in the construction works in the campus were tested for suitability in the Concrete Laboratory.

(d) *Educational Tours :*

III Year B.Tech. (Civil) students were taken round the construction sites in the campus and in the city to acquaint them with construction techniques and details.

(e) *Seminars/Colloquia/
Special Lectures :*

Nil

(f) *Major equipment procured :*

A. STRUCTURES :	Rs.
1. Gifford-Udall prestressing Jack and accessories .. 1 set	3,521
2. Lindley Extensometer with accessories .. 2 Nos.	3,240
 B. CONCRETE :	
3. Concrete Mixer cft. capacity .. 1 No.	1,400
4. ISS sieves for fine aggregates .. 2 sets	4,755
5. ISS sieves for coarse aggregates .. 2 sets	3,390
6. 'Gilson' Mech. Testing screen .. 2 Nos.	7,700
7. 'Avery' semi-self indicating balance capacity 125 grms. .. 1 No.	1,395
8. Los Angels abrasion Testing Machine .. 1 No.	3,400
9. 'Avery' Platform scale capacity 500 kg. .. 1 No.	4,925
10. Universal Testing Machine capacity 40 tons. 1 No.	34,750
 C. SURVEY :	
11. Standard Vernier Theodolies .. 12 Nos.	57,502
12. Microptic Theodolites .. 2 Nos.	8,475
13. Watts Quickset Levels .. 2 Nos.	1,914
14. Watts Microptic Levels .. 2 Nos.	3,564
15. Plane Tables with accessories .. 15 Nos.	3,300
16. Dumpy Levels .. 10 Nos.	5,500
 D. SOILS :	
17. Triaxial Compression Test apparatus with accessories .. 1 set	2,840
18. Direct shear apparatus .. 1 No.	4,100
19. Miniature Field Premeameter .. 1 No.	1,000
20. Motorised unconfined compression tester with accessories .. 1 No.	1,625
 E. HIGHWAYS :	
21. ASTM Test sieves 8" dia. .. 1 set	2,618
22. ASTM Test sieves 18" dia. .. 1 set	1,560

23. Redwood No. 2 Viscometer	.. 1	1,000
24. Waterbath, thermostatically controlled	.. 1	1,100
25. Deval's Attrition Testing Machine	.. 1	2,176

F : GEOLOGY :

26. Petrological Microscope	.. 1 No.	2,600
27. BSS Test sieves	.. 1 set	1,412
28. Rock Trimmer	.. 1 No.	2,450
29. Rock cutting machine	.. 1 No.	2,600
30. Rock grinding machine	.. 1 No.	2,600
31. Ore mounting equipment	.. 1 No.	22,800
32. Ore polishing machine	.. 1 No.	2,600

(g) *Research done* : Nil

(h) *Publications* :

1. Sri Victor D. Johnson : Tensile strength of Concrete, Science and Engineering, Second Annual Number, 1961, IIT, Madras. pp. 68-79.
2. The split Test for Determining the Tensile strength of concrete. Indian concrete Journal Vol. 35, No. 7, July, 1961, page—235.

(III) DEPARTMENT OF ELECTRICAL ENGINEERING :

(a) *Staff Structure* :

Professors	Two
Assistant Professor	One
Lecturers	Three

(b) *Teaching* :

Electrical Engineering subjects for non-electrical students of the third year class.

Classes in 'Electric and Magnetic circuits' and in Electrical Measurements for 3rd year electrical engineering students.

(c) *Laboratories* :

Electrical Laboratory classes for 3rd year electrical students.

(d) *Educational Tours* : Nil

(e) *Seminars/Colloquia/Special Lectures* Nil

(f) *Major Equipment procured* :

The major laboratory equipment purchased for the year from indigenous sources included about 110 electrical instruments (voltmeters, ammeters, wattmeters, avometers, oscilloscopes etc., battery chargers and workshop equipment like coil winding machines, small drilling machines etc.)

(IV) DEPARTMENT OF CHEMICAL ENGINEERING :

(a) *Staff Structure* :

Professors :	Nil
Asst. Professor :	1
Lecturers :	3 (one on study leave abroad)
Associate Lecturers :	Nil
Senior Tech. Assistants :	3
Junior Tech. Assistants :	1 (Glass Blower)
Draughtsman :	1
Blue Print Operators :	Nil
Foreman :	Nil
Mechanics 'Gr. A' :	Nil
Mechanics 'Gr. B' :	1
Mechanics 'Gr. C' :	Nil
Pilot Plant Mechanic Gr. A :	Nil

(b) *Teaching* :(c) *Laboratories/Workshop* :

- (i) Technical Analysis Laboratory.
- (ii) Fuels Laboratory.
- (iii) Workshop.
- (iv) Glass-Blowing Section.

(d) *Educational Tours* :

Staff and students of the Chemical Engineering Department visited the following industries :—

- (i) E.I.D. Fertilisers Ltd., Ennore.
- (ii) Salt Factory, Attiput.
- (iii) Industrial Estate, Guindy.

(e) *Seminars/Colloquia/Special Lectures* :

(i) Prof. Newitt of Imperial College of Science and Technology, London, addressed the members of the Department of Chemical Engineering, on research problems in Chemical Engineering. He discussed also about the syllabii and curricula for Chemical Engineering education.

(ii) Prof. Rumford, Professor of Chemical Engineering, College of Engineering and Technology, New Delhi, visited the Department of Chemical Engineering and discussed the problems involved in setting up laboratories for undergraduate, post-graduate and research work.

(iii) Dr. Ing. Hans Rumpf of Technische Hochschule, Karlsruhe, visited the Department of Chemical Engineering and offered suggestions about the plans and lay-out of the different laboratories in the Department of Chemical Engineering. He delivered a lecture on "Role of Mechanical Unit Operations in curriculum of Technological Institutions". The full text of his lecture is published in "Science and Engineering", Vol. III.

(f) *Major equipment procured :*

The equipment received includes the following :—

Refractometers, Rotational Viscometer, Compressors, Climatic Chamber, Auto-transformers, Vacuum drying ovens, Furnaces and Camera.

(g) *Research done :*

Research work in the following fields of Chemical Engineering has been initiated and is under progress .—

- (i) Rheological properties of Non-Newtonian fluids.
- (ii) Entrainment of liquid droplets by gases & vapours.
- (iii) Desalination of Sea water.

(h) *List of Publications :*

Salt and its by-products as fertilisers.—C. Sivaprasad Rao.
Chemical Age of India—Vol. XIII, No. 3, Page 186 (1962).

(V) DEPARTMENT OF METALLURGY :

(a) *Staff Structure :*

Professor :	1
Asst. Professor :	1
Lecturer :	1

(b) *Teaching :*

Two hours/week, shared between 1(b) and 1(c) above in the approximate proportion 5 : 1.

(c) <i>Laboratories :</i>	Nil
(d) <i>Educational Tours :</i>	Nil
(e) <i>Colloquia/Seminars :</i>	Nil

(f) *Major equipment procured :*

A Dimmerstate continuously variable transformer was purchased. Some equipment was also received from Germany as part of German aid.

(g) <i>Research done :</i>	Nil
(h) <i>Publications :</i>	Nil

(VI) DEPARTMENT OF APPLIED MECHANICS :

(a) *Staff Structure :*

Assistant Professors	Two
Lecturers	Two
Associate Lecturers	Two
Senior Technical Assistant	One

(b) *Teaching :*

Courses taught :

1. Applied Mechanics (Statics and Mechanics of materials).

2. Applied Mechanics-II (Mechanics of materials and dynamics).
3. Fluid Mechanics.
4. Kinematics and Vibrations.

(c) Laboratories and Workshops	Nil
(d) Educational Tours :	Nil
(e) Seminars/Colloquia/ Special Lectures	Nil
(f) Major Equipment procured :	
1. Stop watches (Swiss make)	4 Nos.
2. Pulley Block (Single)	1 No.
3. Pulley Block (Double)	1 No.
4. Moments Disc. appts.	1 No.
5. Simple Jib Crane	1 No.
6. Screw Efficiency appts.	1 No.
7. Bending Moment appts.	1 No.
8. Moment of inertia Fly wheel apparatus	1 No.
9. Stresses Beam apparatus	1 No.
10. Deflection of Beams apparatus	1 No.
11. Train of Gear Wheels	1 No.
12. Harmonic Motion apparatus	1 No.
13. Screwjack	1 No.
14. Milli-volt meter range 0-100 Kaycee	1 No.
15. Galvanometer (2 MA per divn.)	1 No.
16. Standard Post Office Box (Dial pattern)	1 No.
17. Rheostates 200	6 Nos.
18. Screwjack with handle 5/15 tons	1 No.
19. 5 H.P. Electric Motor with Pump	1 No.
20. Starter and Switch 15 Amps. for the above	1 set
21. Resistance Box 50 -do-	1 No.
22. Resistance Box 100	1 No.
23. Resistance Box 500	1 No.
24. Resistance Box 1000	1 No.
25. Resistance Box 5000	1 No.
26. Battern (Exide) uncharged (e x CS 13L)	1 No.
27. Orifice meter for 2" pipe	1 No.
28. Travelling Microscope	1 No.
29. Shear Force apparatus	1 No.
30. Combined compression and extren- sion of springs apparatus	1 No.

31. Torsion apparatus (Horizontal type)	1 No.
32. Compound Wheel and Axle	1 No.
33. Centrifugal force apparatus (rotating wheel type)	1 No.
34. Slide crank Motion apparatus	1 No.
35. Pulley Block (Triple)	1 No.
36. 'Kayces' Direct Reading Potentiometer	1 No.
37. Parallel Motion apparatus (Models) set of 5 varieties	1 set
38. Link Polygon apparatus (with 8 hooks)	1 No.
39. Moment apparatus	2 Nos.
40. Inclined Plane	2 Nos. (Locally made at the Institute W/s.)
41. Link Polygon apparatus	1 No.
42. Beams (Graduated)	4 Nos.
43. Rope brake dynamometer	1 No.

(g) *Research done : Field of work :*

ELASTICITY :

1. Analytical and experimental investigation of a coupling used in the Rourkela Steel Plant. (Dr. D. V. Reddy).
2. Deflection of Beams with stepped cross section using Mac-laurin's series. (Dr. D. V. Reddy and Mr. A. C. Gangadharan).
3. Deflection of Orthotropic plates using Maclaurin's series. (Dr. D. V. Reddy and Mr. N. R. Nanjappa).
4. Vibrations of Orthotropic plates and Grids. (Dr. D. V. Reddy and Mr. N. R. Nanjappa).
5. Experimental investigation of Grid Vibrations (in progress). (Dr. D. V. Reddy).

FLUID MECHANICS :

1. Subsonic flow past aerofoils in cascade. (Mr. N. R. Rajappa).
2. Experimental studies on turbulent flows in open channels. (Mr. N. V. Chandrasekaraswamy).
3. Theoretical investigations on flow through open channels. (Mr. N. V. Chandrasekaraswamy).
4. Theoretical investigations of the effect of disturbance on laminar boundary layers. (Mr. N. V. Chandrasekaraswamy).
5. Theoretical investigation of free surface oscillations. (Mr. N. V. Chandrasekaraswamy).

(h) *Papers published :*

1. Minimum-weight analysis of interconnected Beam systems. —D. V. Reddy and A. W. Hendry.—Read at the Congress (7th) of Theoretical and Applied Mechanics—December, 1962.

2. Hetenyi's method of Initial conditions of the Analysis of Beams.—Dr. V. Reddy and A. C. Gangadharan.—Published in the Indian Concrete Journal—July, 1962.
3. Frequency Analysis of a Circular Orthotropic Plate clamped along the Edge.—N. R. Rajappa and D. V. Reddy.—Published in the Engineering and Science—Indian Institute of Technology, Madras—1962.
4. Analysis of an Orthotropic Plate by Maclaurin's series.—N. R. Rajappa and D. V. Reddy.—Accepted for publication in the journal of the Royal Aeronautical Society, London.
5. Frequency Analysis of Interconnected Beam Systems.—D. V. Reddy and N. R. Rajappa.—Submitted to the Journal of Applied Scientific Research, Delft, Holland.
6. A moment Distribution method for the Elasto-plastic Analysis of Grid Frameworks.—D. V. Reddy.—Civil Engineering and Public Works Review, 1961.

II. FLUID MECHANICS :

1. Two Dimensional compressible Flow past a Solid Body placed in a stream bounded by a plane wall.—N. R. Rajappa.—Published in the journal of the Aeronautical Society of India, 1962.
2. Variation of the Angle of Incidence of a Cascade of Aerofoils with reference to the Mach Number in Compressible Flow.—N. R. Rajappa.—Published in the Engineering and Science, Indian Institute of Technology, 1962.
3. On compressible Flow past and Oblique Cascade of Thin Aerofoils.—N. R. Rajappa.—Submitted for publication in the journal of the Aeronautical Society of India.
4. Spectrum of Axisymmetric Turbulence.—N. V. Chandrasekaraswamy.—Proc. American Society of Civil Engineers, Engineering Mechanics Division, April, 1962.
5. Open Channel Flow with a constant pressure gradient.—N. V. Chandrasekaraswamy.—Proc. of the Indian Congress of Theoretical and Applied Mechanics, 1961.
6. Turbulent Flow in Open Channels.—N. V. Chandrasekaraswamy.—Ninth convention of IAHR—Belgrade, 1961—Paper No. I/1-1.

(VII) DEPARTMENT OF PHYSICS :

(a) Staff Structure :

Guest Professor from West Germany	One
Assistant Professor	One
Lecturers	Four (one on study leave in West Germany)
Associate Lecturers	Three
Senior Technical Assistants	Three

(b) *Teaching* :

Teaching of Physics to I, II and III year B.Tech. classes.

(c) *Laboratories* :

For training under-graduate students in Physics.

(d) *Educational Tours* :

Nil

(e) *Seminar/Colloquia/*

Seminar Lectures 23

Special Lectures.

Special Lectures 3

(f) *Major Equipment procured* :

(a) Michaelson interferometer.

(b) New port electromagnet giving upto 10,000 gauss.

(c) Solatron Transfer function analyser.

(d) Honeywell Braun Potentiomer Recorders --

(i) adjustable span, (ii) function.

(e) Hewlitt-packard Low frequency Oscilloscope.

(f) Hewlitt packard Low frequency function generator.

(g) High temperature X-ray Powder Camera.

(h) Weisenberg X-ray Goniometer Camera.

(g) *Research done* :

Research programmes were initiated in the following fields.

1. Electrical conductivity of ionic crystals
 - (a) Sodium nitrate 9BO Sodium Chlorate.
2. X-ray diffractions study of :
3. Dislocations and their role in mechanical behaviour of crystals.
4. Compound semiconductor -- Antimony Telluride.
5. Colou centres in ionic crystals.

(h) *List of Publications* :

Space group of Chinizarin (1:4 Dihydroxy anthraquinone)
by R. Kameswari and B. V. Ramanamurthy.

Journal : "Zeitschrift fur Kristallographie".

(VIII) DEPARTMENT OF CHEMISTRY :

(a) *Staff Structure* :

Professors	One
Lecturers	Three
Associate Lecturers	Two
Senior Technical Assistants	Two
Junior Technical Assistant	One

(b) *Teaching* :

I Year : Elementary course in Organic, Inorganic, Physical and General Chemistry. Also tutorial classes in the above subjects.

- II Year : (Direct Entrants) An Orientation course in Organic, Inorganic and Physical Chemistry.
- III Year : Metallurgy — A course in advanced Inorganic and Physical Chemistry.
- Chemical Engineering : an advanced course in Organic and Inorganic Chemistry.

(c) *Laboratory :*

- I Year : Elementary exercises in volumetric analysis and qualitative analysis of simple salts.
- II Year : Direct Entrants do.
- III Year : Metallurgy : Exercises in Volumetric analysis experiments in Physical chemistry covering the fields of reaction kinetics, colorimetry, Phase rule etc.
- Chemical Engineering : Exercises in Volumetric analysis and experiments in preparative organic chemistry and functional group analysis.

(d) *Educational Tours :* Nil

(e) *Colloquia/Seminar/
Special Lectures* 1

(f) *Major Equipment procured :*

Magnetic Stirrers, Gas ballast vacuum pump, Electrolytic analysis unit, battery charger, direct reading potentiometer, cylindrical and rectangular hot air ovens, electric centrifuges with speed adjustment and revolution counter, refrigerator, photo-electric colorimeter, polarising microscope, Mettler mono-pan semi-microbalance and standard analytical balances, electrical melting point apparatus, students' microscopes, polarimeter, Beckman pH meter, Speaker absorptiometer, precision water thermostat and water stills.

(g) *Research done :*

1. The oxidation of thiomalic acid by iodine, bromine, iodate, bromate and chloramine-T under alkaline conditions was studied with a view to developing a suitable method for its determination (Dr. Aravamudan).
2. The nature of interference of thiourea in the volumetric determinations of Fe(II) using permanganate, dichromate and vanadate was studied. The interference could be removed completely in the case of dichromate and vanadate methods by the addition of mercuric chloride in sufficient excess (Dr. Aravamudan).
3. (V) and Cr (VI) could be easily determined separately in their mixtures using the selective reduction of Cr (VI) with TeO_2 . The earlier methods involved tedious, solvent extraction procedures (Dr. G. Aravamudan).

(h) *List of Publications :*

1. Chemisorption of Hydrogen and carbon Monoxide on Zinc oxide. — T. S. Nagarjunan, M. V. C. Sastri and J. C. Kuriacose. — Proceedings of National Institute of Science, India, 27A 496, 1961.
2. Mechanism of the Photo-initiated Polymerization of Methyl Methacrylate at Zinc Oxide surfaces.
J. C. Kuriacose and M. C. Markham — J. Phys. Chem. 65, 2232, 1961.
3. Adsorption of Nitrogen and Hydrogen on promoted iron catalyst. — M. V. C. Sastri and H. Srikant — J. Sci. India. Res. India. 20D, 321, 1961.
4. Effects of amides on Photochemical Processes at Zinc Oxide surfaces — M. C. Markham, J. C. Kuriacose — J. DeMaçco and C. Giaquinto — J. Phys. Chem. 66 — 932 — 1962.
5. Decomposition of Ethyl Alcohol on Chromia : Part I Reaction Variables and Catalyst Selectivity.
S. N. Pandao, J. C. Kuriacose, and M. V. C. Sastri. J. Sci. Ind. Res. India 21 D 180 — 1962.
6. Alumina : Catalyst and support X"—Herman Pines and C. N. Pillai — J. Am. Chem. Soc. 83 3270 (1961).
7. Alumina : Catalyst and Support XI. — C. N. Pillai and Herman Pines — J. Am. Chem. Soc. 83 3274 (1961).

(IX) DEPARTMENT OF MATHEMATICS :

(a) *Staff Structure :*

Assistant Professor	One
Lecturers	Three
German staff member	Nil

(b) *Teaching :*

The Department undertook teaching in Mathematics for the first three years of the course leading to different disciplines in Engineering.

- | | |
|---|-----|
| (c) <i>Laboratories :</i> | Nil |
| (d) <i>Educational Tours :</i> | Nil |
| (e) <i>Seminars/colloquia/
Special Lectures</i> | |

Seminars were arranged in various topics of pure and applied mathematics at regular intervals. The Department has conducted research in the following branches :

1. Probability Theory and Stochastic Process.
2. Elasticity.
3. Theory of Cosmic Rays.
4. Elementary particles and their inter-actions and
5. Applied Mechanics.

(f) *List of Publications :*

Dr. S. K. Srinivasan.

1. Multiple production of pions in sub GEV region, Nucl. Phys. 29, (1962) 335.
2. Photo production of pions on nucleons in the strip approximation.
3. Strip approximation and photoproduction of pions on pions.
4. On a class of Stochastic differential equations.
5. A simple stochastic model of cascade multiplication with ionisation loss (Science & Engineering, Second Annual Number (1961) pp. 21-24.
6. Multiple stochastic point processes.

Dr. L. V. K. V. Sarma.

1. Shear flow of a conducting fluid in the presence of a magnetic field, published in the Journal of Applied Scientific Research, Section B. Vol. 9, p. 245.

Dr. S. C. Das and Shri R. Subramaniam.

1. Bars reinforced by Hyperboloidal notches under Tension to appear in Arch. Mech. Stos., Poland.
2. Bars reinforced by Hyperboloidal type notches under pure Shear — to be reported in Theoretical and Applied Mech. Congress, '63.
3. Rigid spherical inclusion in semi Infinite space — sent for publication.

(X) DEPARTMENT OF HUMANITIES :

(a) *Academic Staff* :

Professor (in German):	1
Assistant Professor :	1
Part-Time Lecturers :	2
Associate Lecturer :	1
Junior Technical Assistant :	1

(b) *Teaching* :

English—I and II B. Tech. ; German—II B. Tech ; Economics
—III B. Tech.

(c) *Seminars/Colloquia/
Special Lectures* :

All India English Teachers' Conference held in Mysore attended by Prof. A. L. Krishnan and Prof. R. Krishnamurti.

HOSTELS :

KAVERI HOSTEL

Till the beginning of last year the students of the Institute were residing in three different Hostels ; one was within the campus of the Institute while the others were at Guindy and Saidapet. At the beginning of the academic term of 1961-62 all the students were moved to Kaveri and Krishna Hostels within the campus.

The Warden of the Kaveri Hostel was Dr. D. Venkateswarlu and the Assistant Wardens were Mr. M. A. Veluswamy and Dr. K. J. Srivastava. In the beginning of the term elections were held to elect members to the various committees (Messing, Sports, Cultural) and the Hostel Secretary. The Wardens also nominated 'Perfects' ; one student was in-charge of the wing. Kaveri Hostel had a strength of 207 students.

A Unique feature on the literary and cultural side was the introduction of "After-dinner" talks and discussions. The first of these was "My trip down the Colorado" by Dr. C. V. Seshadri. This was followed by a discussion on "Why should there be just one language in the world" ? by Dr. N. Klein and a talk by Dr. W. Koch.

About the end of the first term Dr. D. Venkateswarlu resigned the Wardenship and Dr. D. V. Reddy took over. Mr. Veluswamy, the Assistant Warden, also left the Hostel in early December. Shri C. S. Swami took over Assistant Warden in his place.

KRISHNA HOSTEL

The Krishna Hostel started working on 1st July, 1961 with a total strength of 180 students. Student representatives were elected to be incharge for various activities in this Hostel.

On 2nd October, 1961 a debate was held in the Krishna Hostel premises on the subject 'Fasting as a method of Non-Violence is an Anachronism.' On Saturday the 14th October '61 a batch of German students and Dr. Kraus visited this hostel and there was a light entertainment programme in honour of the guests.

INSTITUTE GYMKHANA

Scope of activities :

The Institute Gymkhana has been organised at the Institute to cater to the extra-curricular activities of the students and to bring together students and teachers of different faculties, disciplines, interests and age groups for mutual benefit, and to provide facilities for the development of individual talents of students by a wide variety of activities, with emphasis on the development of the qualities necessary for working with others as a team and qualities of leadership. These objectives are achieved by the organisation of sports, athletics, recreations, debates, music recitals, dramas, photography, mountain climbing, swimming, roming, publication of magazines and newspapers. The Gymkhana Committee was appointed by the Director in November, 1961, under the Chairmanship of Dr. D. Venkateswarlu, President of the Gymkhana.

Institute, Colours :

The Gymkhana Committee adopted in December, 1961 the design for the Gymkhana Flag, uniform, tie and colours. The Flag was to be of silk with a length to breadth ratio of 3:2 cream colour for the upper diagonal half; maroon colour for the lower diagonal half with a white strip in between maroon and cream and the Institute crest in the centre.

The uniform for ceremonial occasions was to be white trousers, white shirt, navy blue coat with institute crest and tie.

The tie was to be of dark blue colour with three stripes of maroon, white and cream colours diagonally, each of $\frac{1}{4}$ " width in the top half of the tie. The tie may also be presented at ceremonial functions to distinguished persons as a mark of honour. The Institute Colours would consist of an Institute Crest on dark navy blue cloth with maroon, white and cream colour stripes of $\frac{1}{4}$ " width on both sides of the crest and with year of presentation at the bottom.

Publications :

The publications of the Gymkhana this year are (1) 'Third Annual Number' and (2) Brochures for the Sports Day on March 3, 1962 and for the Institute Day on March 9, 1962. It is hoped that it would be possible to run from the next academic year a Monthly devoted 'principally to campus' events and news of interest and value to the students.

Rolling Cups :

The Gymkhana accepted with thanks the following cups instituted by the following members :

1. Dr. M. V. C. Sastry for Group Discussion.
2. Mr. Kurt Schroeter for General Championship.

INTER I. I. T. MEET

The first Inter I. I. T. Sports and Athletic Meet was held in Bombay to which the representatives of the Institute were deputed. The Institute team distinguished themselves in the hammer throw, long jump and hop-step and jump, table tennis, 100 meters, 200 meters, and relay events. In cultural activities the performance of the representatives of the Institute was acclaimed the best.

The following members of the Gymkhana distinguished themselves in the year under report :

1. Jacob Dominic secured the Second best Championship Cup in Inter-I.I.T. Sports Meet held at Bombay in December, 1961.
2. V. Shridhartha and R. A. Vaswani won the Gordon Mathews Cup at the debating competition organized by the Madras Christian College. Vaswani also won the individual cup as the best speaker of the day.

3. R. Venkateswaran and S. Nageswar won the Johnson Cup and Evening Club Shields in Quiz Competitions.
4. Lionel Paul won the Junior Singles title in the Gymkhana Club open Tennis Tournament.

N. C. C. RIFLES

An additional company was formed during the year under report.

The strength of the unit was 364 as against 204 of last year. A hundred cadets participated in the ceremonial parade on the 5th November 1961 at the Marina grounds on the occasion of the 13th Anniversary of the inauguration of the N.C.C. when Dr. A. L. Mudaliar, Vice-Chancellor of University of Madras, took the salute. The parade Performance of our Cadets was adjudged as best in the 2 Madras group.

The N. C. C. Unit also participated in the N.C.C.R. Annual Training Camp, at Tiruchirapalli between 27-12-1961 and 9-1-1962 with a contingent of 45 Cadets. The hard work and the disciplined behaviour of our Cadets made a lasting impression on many. The unit won the Rolling Shield for Drill competition. The Quarter Guard of our No. 23 Coy was adjudged the best in the camp. In acknowledgement, the camp Commandant Maj. F. A. Lewin was gracious enough to send out a special letter of appreciation commending the performance of our Cadets.

Senior Under Officer R. Rajamani was selected to participate in the Republic Day parade at New Delhi on 26-1-1962. This is the first time that our Institute was represented in the State Contingent.

On the 26th of January 1962, the Republic Day, a colourful ceremonial parade was held at our Institute parade ground with 130 cadets participating. The Director, Prof. B. Sengupto, took the salute.

'B' and 'C' certificate Examinations were held at our parade ground on 4-2-1962. Maj. C. L. Fonceca of the First Madras Group presided. The Board of Examiners had occasion to compliment the Unit on its high standard of discipline and training.

APPENDIX I

MEMBERS OF THE COUNCIL OF THE INDIAN INSTITUTES OF TECHNOLOGY

I. *Ex-officio Members :*

- (a) The Minister for Scientific Research and Cultural Affairs, Government of India, New Delhi.—*Chairman.*
- (b) (i) The Chairman, Indian Institute of Technology, Kharagpur.
(ii) The Chairman, Indian Institute of Technology, Bombay.
(iii) The Chairman, Indian Institute of Technology, Madras.
(iv) The Chairman, Indian Institute of Technology, Kanpur.
- (c) (i) The Director, Indian Institute of Technology, Kharagpur.
(ii) The Director, Indian Institute of Technology, Bombay.
(iii) The Director, Indian Institute of Technology, Madras.
(iv) The Director, Indian Institute of Technology, Kanpur.
- (d) The Chairman, University Grants Commission.
- (e) The Director-General, Council of Scientific and Industrial Research.
- (f) The Chairman of the Council of the Indian Institute of Science, Bangalore.
- (g) The Director of the Indian Institute of Science, Bangalore.

II. *Representatives of the Central Government :*

- (h) (i) Shri S. S. Khera,
Secretary,
Cabinet Secretariat, New Delhi.
- (ii) Shri R. P. Padhi,
Financial Adviser,
Ministry of Finance, New Delhi.
- (iii) Shri G. K. Chandiramani,
Joint Secretary,
Ministry of Scientific Research & Cultural Affairs,
New Delhi.

III. *Representative of the All India Council for Technical Education :*

- (i) Shri J. J. Ghandy,
The Tata Iron and Steel Co. Ltd.,
Jamshedpur.

IV. Nominees of the Visitor :

- (j) (i) Shri M. R. Shervani,
Member, Rajya Sabha,
New Delhi.
- (ii) Shri Arvind N. Mafatlal,
Mafatlal House, Back Bay Reclamation,
Bombay.
- (iii) Dr. Triguna Sen,
Rector,
Jadvpur University, Calcutta.
- (iv) Prof. P. Maheshwari,
Department of Botany,
University of Delhi, Delhi.

V. Representatives of the Parliament :

- (k) (i) Shri K. Hanumanthaiya,
Member, Lok Sabha, New Delhi.
 - (ii) Shri R. M. Deshmukh,
Member, Rajya Sabha, New Delhi.
- Shri H. S. Shahani, (Secretary)
Asst. Educational Adviser (Tech.)
Ministry of Scientific Research & Cultural Affairs,
New Delhi.

APPENDIX II

The Board of Governors of the Institute comprised :

Chairman

1. Dr. A. L. Mudaliar,
Vice-Chancellor, Madras University,
"Kensington",
Kilpauk, Madras-10.

Members

2. Shri M. J. Jamal Mohideen. M.P.,
President,
South Indian Leather Merchants Association,
No. 10, Perambur High Road, Madras-12.
3. Shri P. M. Reddy,
General Manager, Hindustan Aircraft (P) Ltd.,
Bangalore.
4. Dr. D. S. Kothari,
Chairman, University Grants Commission,
Old Mill Road,
New Delhi.
5. Prof. M. S. Thacker,
Director-General,
Council of Scientific & Industrial Research,
Old Mill Road,
New Delhi.
6. Dr. A. Nagaraja Rao,
Chairman,
Heavy Engineering Corporation,
"Nepal Kothi",
'Doranda',
Ranchi.
7. Shri R. P. Padhi,
Financial Adviser to the Ministry of Scientific
Research & Cultural Affairs,
Government of India,
New Delhi.
8. Shri G. K. Chandiramani,
Joint Educational Adviser (T),
Ministry of Scientific Research &
Cultural Affairs,
Government of India,
New Delhi.

9. Prof. B. Sengupto;
Director,
Indian Institute of Technology,
Madras.
(Secretary).
10. Shri R. Natarajan, I.A.S.,
Registrar,
Indian Institute of Technology,
Madras. *Secretary*

The Board of Governors met four times during the year under report.

ACADEMIC COUNCIL

Chairman

1. Prof. B. Sengupto,
Director.

Members

2. Dr. W. Koch,
Department of Physics.
3. Dr. W. Hahn,
Department of Mathematics.
4. Dr. W. Scheer,
Department of Mechanical Engineering.
5. Dr. D. Koettgen,
Department of Mechanical Engineering.
6. Dr. K. W. Haug,
Department of Applied Mechanics.
7. Dr. N. Klein,
Department of Humanities.
8. Prof. R. G. Narayanamurthi,
Department of Mechanical Engineering.
9. Dr. P. Venkata Rao,
Department of Electrical Engineering.
10. Prof. S. Sampath,
Department of Electrical Engineering.
11. Dr. E. G. Ramachandran,
Department of Metallurgy.
12. Dr. D. Venkateswarlu,
Department of Chemical Engineering.
13. Shri K. S. Sankaran,
Department of Civil Engineering.
14. Dr. D. V. Reddy,
Department of Applied Mechanics.
15. Dr. M. V. C. Sastry,
Department of Chemistry.
16. Dr. C. Rama Sastri,
Department of Physics.
17. Dr. S. K. Srinivasan,
Department of Mathematics.
18. Prof. R. Krishnamurti,
Department of Humanities.
19. Prof. A. L. Krishnan,
Department of Humanities.

Secretary

Shri R. Natarajan, I.A.S.,
Registrar.

The Academic Council met on nine occasions during the period under report.

APPENDIX III

EXTERNAL SCHOLARSHIPS

Sl. No.	Name of the Sanctioning Authority	Nature of scholarships	No. of students	Value per annum	Total amount
1.	Government of India, Ministry of Education.	Merit Scholarships for Post-Matriculation studies.	9	1,200	10,800
ASSAM					
2.	Director of Technical Education, Assam.	Engineering scholarship.	1	940	940
3.	do.	"	1	760	760
4.	State Scholarships Board for Backward and other Backward Classes, Assam.	Post-Matric scholarship.	1	922	922
5.	do.	"	1	1,307	1,307
6.	do.	"	1	1,192	1,192
ORISSA					
7.	Government of Orissa, Tribal and Rural Welfare Department, Bhubaneswar.	"	1	1,172	1,172
8.	do.	"	1	1,107	1,107
9.	Director of Public Instruction, Orissa.	Junior scholarships.	2	300	600
MADRAS					
10.	Director of Harijan Welfare, Madras.	Government of India scholarship (Decentralised)	1	922	922
11.	do.	"	1	1,147	1,147
12.	do.	"	1	902	902
13.	do.	"	1	1,072	1,072

Sl. No.	Name of the Sanctioning Authority	Nature of scholarships	No. of students	Value per annum	Total amount
MAHARASHTRA					
14.	Director of Social Welfare, Maharashtra State.	Government of India scholarships (Decentralised)	3	1,222	3,666
ANDHRA PRADESH					
15.	Director of Social Welfare, Andhra Pradesh.	Government of India scholarships (Decentralised)	3	1,247	3,741
16.	do.	..	1	1,397	1,397
17.	do.	..	1	1,297	1,297
18.	Director of Public Instruction, Andhra Pradesh.	Educational concession to children of political sufferers.	1	400	400
UTTAR PRADESH					
19.	The Nideshak, Harijan Kalyan, U.P.	Government of India scholarship (Decentralised)	1	1,232	1,232
KERALA STATE					
20.	Director of Harijan Welfare, Kerala State.	..	2	1,230	2,460
WEST BENGAL					
21.	Director of Tribal Welfare, West Bengal.	..	1	1,307	1,307
22.	do.	..	1	1,247	1,247
MYSORE STATE					
23.	Director of Social Welfare, Mysore State.	..	1	822	822

Sl. No.	Name of the Sanctioning Authority	Nature of scholarships	No. of students	Value per annum	Total amount
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GUJERAT STATE

24.	Director of Education, Gujerat State.	Higher Education scholarship.	1	600	800
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RAJASTHAN

25.	Director of College Education, Rajasthan.	Government of India scholarship (Decentralised)	1	1,050	1,050
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AID FROM THE PRIME MINISTER'S FUND

26.	Prime Minister's Relief Fund.	Financial Aid.	2	1,500	3,000
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LOAN

27.	Government of Orissa.	Loan Stipend.	6	1,375	8,250
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INSTITUTE SCHOLARSHIPS

Name of Scholarship	No.	Value Rs.	Total amount Rs.
Merit	27	900	24,300
Merit-cum-Means	72	900	64,800
Freeships	12	300	3,600

APPENDIX IV

INDIAN INSTITUTE OF

Receipts and Payments account

RECEIPTS		Rs.	nP.
OPENING BALANCE	.. ..	26,75,528	81
Grants from Government of India	.. ..	1,23,00,000	00
Carried over		1,49,75,528	81

TECHNOLOGY, MADRAS

for the financial year 1961 - 1962

PAYMENTS NON-RECURRING

	Rs.	nP.	Rs.	nP.
A. ON CAPITAL ACCOUNT :				
<i>Equipments, furniture and fittings —</i>				
<i>Departments :</i>				
Civil Engineering	2,25,726	73		
Mechanical „	64,412	94		
Electrical „	77,062	97		
Chemical „	73,384	81		
Chemistry	91,672	91		
Metallurgy	2,857	63		
Physics	1,09,917	10		
Applied Mechanics	1,475	51		
Workshop (including furniture fabrication)	1,42,226	69		
Mathematics	735	90		
Humanities	480	00		
			7,89,953	19
Customs Duty on West German equipments	5,26,238	08		
Clearance charges do.	11,350	01		
			5,37,588	09
Furniture and fittings (Office Library and Institute)			48,873	03
Hostel — Utensils	7,594	30		
Furniture	30,144	34		
			37,738	64
Works expenditure (buildings)			86,74,897	76
Motor vehicles	63,921	18		
Cycles	375	63		
Typewriters & Duplicators	11,991	28		
			76,288	09
<i>Books & Journals :</i>				
Books	75,735	99		
Back Issues	41,877	22		
Other Journals	19,762	27		
	1,37,375	48		
Less : Journals of general interest	864	00		
			1,36,511	48
Carried over			1,03,01,850	28

Receipts and Payments account

RECEIPTS		Rs.	nP.	Rs.	nP.
	Brought forward			1,49,75,528	81
Receipts :					
	Tuition fees			83,100	00
	Seat rent in Hostels			38,800	00
	Admission fees			1,470	00
	Gymkhana and Medical fees			8,492	00
	Application fees (B. Tech.)			2,090	00
	Fines			84	00
RECEIPTS FROM OTHER SOURCES :					
	Application fee for appointment etc.,	4,164	89		
	Library over due collections	470	80		
	Auction sale of fallen trees, etc.	2,956	56		
	Sale of usufructs	4,782	50		
	Sale of tender forms	1,775	00		
	Recovery of rents (watchmens quarters)	58	30		
	Institute Bus collections	179	62		
	Other Miscellaneous receipts	2,126	42		
				16,514	09
	Refund of customs Duty			52,577	34
SUSPENSE ACCOUNT :					
	Deposits	6,44,006	74		
	Advances (Refunds and adjustments)	6,58,808	92		
				13,02,815	66
	Carried over			1,64,81,471	90

for the financial year 1961 - 1962—(Contd.)

PAYMENTS		Rs.	nP.	Rs.	nP.
Brought forward				1,03,01,850	28
B. ON RECURRING ACCOUNT :					
<i>Recurring Part II :</i>					
Pay and allowances—					
Academic and Administrative :					
Director	..	25,848	38		
Academic	..	3,14,607	43		
Administrative	..	30,598	23		
Technical	..	1,57,585	77		
Other supporting staff	..	2,14,718	77		
				7,43,358	58
Other allowances, T. A., Medical expenses, etc.	..			6,900	77
<i>Other charges :</i>					
<i>Departmental working expenses :</i>					
Civil Engineering	..	3,636	15		
Mechanical Engineering	..	4,745	47		
General Workshop	..	56,642	45		
Chemical Engineering	..	58,700	27		
Electrical Engineering	..	32,161	04		
Physics	..	12,279	58		
Chemistry	..	58,124	94		
Applied Mechanics	..	72	63		
Mathematics	..	49	67		
Humanities	..	23	18		
Hostels	..	22,386	05		
				2,48,821	43
Scholarships	..			95,925	00
<i>Contingencies :</i>					
Postage	..	10,884	54		
Entertainments	..	1,297	41		
Telephones	..	9,693	23		
Stationery	..	31,177	14		
Printing	..	3,162	16		
Advertisements	..	23,130	67		
Electricity	..	17,570	03		
Sundries (including N.M.R. payments)	..	18,800	97		
				1,15,716	15
Carried over				1,15,12,572	21

Receipts and Payments account**RECEIPTS**

	Rs.	nP.
Brought forward ..	1,64,81,471	90

Carried over ..	1,64,81,471	90
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for the financial year 1961 - 1962 --(Contd.)

		PAYMENTS			
		Rs.	nP.	Rs.	nP.
Brought forward	..			1,15,12,572	21
<i>Other items :</i>					
Director's discretionary	..			2,502	11
Technical Bulletins and Journals	..			1,483	60
<i>Library :</i>					
Opening cost	..	4,839	74		
Binding charges	..	1,137	35		
Journals of general interest	..	864	00		
				6,841	09
Petrol	..			6,591	88
Lands and gardens	..			4,973	41
N. C. C.	..			28	50
Furniture repairs and service	..			525	92
Athletic and Gymkhana	..			28,252	13
Examination fees to External Examiners	..			4,127	36
Railway freight	..			115	70
Duty Insurance and taxes	..			2,336	50
Lodging allowance to West German Experts	..			41,977	81
Scientific Congress and Seminars	..			81	70
<i>Repairs and maintenance :</i>					
Motor vehicles	..	2,740	55		
Typewriters and duplicators	..	427	74		
Cycles	..	9	13		
				3,177	42
Rent on buildings	..			6,679	20
<i>Travelling allowances :</i>					
Board of Governors	..	742	00		
Staff Committee — Selection Committee and Courses Committee	..	4,972	18		
Finance Committee	..	1,153	44		
External Examiners	..	216	98		
Joint Entrance Examinations	..	6,318	44		
Scientific Congress and Seminars	..	3,551	62		
Candidates called for interview	..	13,919	18		
				30,873	84
Carried over	..			1,16,53,140	38

Receipts and Payments account

RECEIPTS

	Rs.	nP.
Brought forward	1,64,81,471	90

Total	1,64,81,471	90
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for the financial year 1961 - 1962—(Contd).

PAYMENTS		Rs.	nP.	Rs.	nP.
Brought forward	..			1,16,53,140	38
Works maintenance	..			15,838	50
Leave salary and pension contribution	..			10,630	76
Contribution to C. P. Fund	..			31,389	00
<i>Part III—Suspense :</i>					
Miscellaneous advances	..	8,96,906	32		
Deposits (Refunds and adjustments)	..	2,19,216	77		
				11,16,123	09
Closing balance	..			36,54,350	17
Total				1,64,81,471	90

INDIAN INSTITUTE OF

Income and Expenditure account

EXPENDITURE		Rs.	nP.	Rs.	nP.
PAY AND ALLOWANCES :					
<i>Officers :</i>					
Academic and administrative ---					
Director	..	25,948	38		
Academic	..	3,33,953	70		
Administrative	..	30,479	74		
<i>Establishment :</i>					
Technical	..	1,56,295	71		
Other supporting staff	..	2,16,678	23		
				7,63,355	76
OTHER ALLOWANCES :					
T.A., Medical Expenses, etc.	..			8,581	72
DEPARTMENTAL EXPENSES :					
<i>Educational :</i>					
General Workshop	..	59,597	28		
Electrical Engineering	..	32,691	91		
Mathematics	..	49	67		
Physics	..	11,692	77		
Chemistry	..	53,934	41		
Humanities	..	23	18		
Chemical Engineering	..	51,177	94		
Civil Engineering	..	3,721	44		
Mechanical Engineering	..	8,045	23		
Applied Mechanics	..	92	53		
Hostels	..	22,715	37		
		2,43,741	73		
Less : Stock of consumables	..	1,95,059	28		
				48,682	45
OTHER EDUCATIONAL EXPENSES :					
Scholarships	..	81,000	00		
Scientific Congress & Seminars (T.A. to delegates, etc.)	..	3,280	41		
Technical Bulletins & Journals	..	1,483	60		
<i>Library :</i>					
Journals of general interest	..	864	00		
		86,628	01	8,20,619	93
Carried over					

TECHNOLOGY, MADRAS

for the year ended 31st March 1962

		INCOME			
		Rs.	nP.	Rs.	nP.
BY GENERAL INCOME :					
Tuition fees	..	82,800	00		
Seat rent in hostels	..	38,700	00		
Admission fees	..	1,470	00		
Gymkhana and Medical fees	..	8,514	00		
Application fees	..	2,090	00		
		<hr/>		1,33,574	00
Fees for registration of applications for appointment to Teaching staff.		690	66		
For other appointments	..	3,474	23		
		<hr/>		4,164	89
MISCELLANEOUS RECEIPTS :					
Library over due collections	..	470	80		
Auction sale of cut and fallen trees.	..	2,956	56		
Auction sale of usufructs	..	4,782	50		
Sale of tender forms	..	1,775	00		
Recovery of rent for watchmen's quarters	..	58	30		
Other miscellaneous receipts	..	2,126	42		
Collection of fines from the students.	..	84	00		
		<hr/>		12,253	58
Refunds of Customs Duty	..			52,577	34
Institute Bus collections	..			179	62
Grants from Government of India	..	1,23,00,000	00		
Less : Amount utilised for capital expenditure	..	1,06,85,730	08		
		<hr/>		16,14,269	92
Carried over				<hr/>	
				18,17,019	35

Income and Expenditure account

EXPENDITURE		Rs.	nP.	Rs.	nP.
Brought forward	..	86,628	01	8,20,619	93
<i>Library : (contd.)</i>					
Operating cost	..	4,832	84		
Binding charges	..	1,137	35		
Athletic & Gymkhana	..	29,509	08		
T.A. and Examination fees to external examiners	..	4,344	34		
Lodging allowances to German experts	..	40,404	89		
				1,66,856	51
GENERAL EXPENSES :					
Postage	..	9,345	73		
Entertainments	..	1,297	41		
Telephone charges	..	10,323	50		
Stationery	..	32,975	72		
Printing	..	5,848	66		
N.C.C.	..	28	50		
Advertisements	..	24,018	89		
Electricity charges	..	18,044	56		
Sundries (including payments to N.M.R. watchmen)	..	18,848	09		
				1,20,731	06
OTHER EXPENDITURE :					
Petrol	..	7,415	71		
Duty Insurance & Road Taxes	..	2,336	50		
Railway freight	..	20	00		
Repairs and maintenance	..	3,888	34		
Rent on buildings	..	6,414	62		
Lands and Gardens	..	4,973	41		
Director's Discretionary	..	2,502	11		
				27,550	69
TRAVELLING EXPENSES :					
Members of the Board of Governors	..	742	00		
Selection and Courses Committees	..	4,972	18		
Finance Committee	..	1,153	44		
Joint Entrance Examination	..	6,318	44		
Candidates called for interview	..	13,919	18		
				27,105	24
Carried over	..			11,62,863	43

for the year ended 31st March 1962—(Contd.)

INCOME

	Rs.	nP.
Brought forward ..	18,17,019	35

Carried over ..	18,17,019	35
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Income and Expenditure account

EXPENDITURE

	Rs.	nP.
Brought forward ..	11,62,863	43
Contribution to C.P.F. ..	13,602	00
Leave Salary & Pension contribution on Foreign Service ..	7,141	22
Works and maintenance ..	15,838	50
Audit fees ..	1,615	00
Excess of income over expenditure ..	6,15,959	20

Total ..	18,17,019	35
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for the year ended 31st March 1962—(Contd.)

INCOME

	Rs.	nP.
Brought forward ..	18,17,019	35

Total ..	18,17,019	35
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INDIAN INSTITUTE OF

Balance Sheet as at

CAPITAL FUND & LIABILITIES		Rs.	nP.	Rs.	nP.
CAPITAL FUND :					
Block value of German aid per contra—					
Equipments	..	43,01,209	00		
Library Books	..	1,21,231	25		
		44,22,440	25		
Cost of assets acquired out of grant from Government of India during 1961-62 .. 1,06,85,730 08					
Surplus of Income over Expenditure Account as on 31-3-1961 .. 69,20,021 97					
Excess of Income over Expenditure (1961-62) .. 6,15,959 20					
				2,26,44,151	50
<i>Deposits :</i>					
Earnest money, caution Deposits etc.,		7,72,032	03		
Withheld amounts from Contractors— (Works)	..	42,624	00		
				8,14,656	03
<i>Sundry Creditors on Works Account :</i>					
For supplies to the Departments (B/P)	..	3,09,267	81		
		96,907	64		
				4,06,175	45
<i>Outstanding Expenses payable :</i>					
Salaries	..	1,12,009	26		
Other Allowances	..	2,612	06		
Scholarships	..	7,425	00		
L.S. and P.C. on account					
F.S. Personnel	..	9,340	83		
C. P. F. Contribution	..	11,862	00		
Rent on Buildings	..	19,707	62		
Lodging Allowances to German Experts	..	5,536	28		
Electricity Charges	..	4,277	94		
Telephones	..	741	72		
Audit fees (60-61)	Rs. 1,105	00			
Audit fees (61-62)	Rs. 1,615	00			
		2,720	00		
				1,76,232	71
Carried over				2,40,41,215	69

TECHNOLOGY, MADRAS

31st March 1962

PROPERTY AND ASSETS

	Rs.	nP.	Rs.	nP.
<i>Buildings</i> (completed) ..	42,06,448	99		
<i>Building</i> (under construction) :				
Expenditure is	Rs.	nP.		
on 31-3-'61 ..	30,17,664	85		
Add : Expenditure during				
the year 1961-62 ..	73,03,969	35		
	<u>1,03,21,634</u>	<u>20</u>		
Less : Transferred				
to Buildings				
(completed) ..	42,06,448	99		
	<u>61,15,185</u>	<u>21</u>		
			1,03,21,634	20
<i>Equipments, Furniture & Fittings</i> :				
At cost as on 31-3-61 ..	9,66,485	69		
Less : customs duty and clearance				
charges on equipments for Germany				
shown below ..	2,03,975	99		
	<u>7,62,509</u>	<u>70</u>		
Add : Additions during the year ..	8,54,006	75		
	<u>16,16,516</u>	<u>45</u>		
Block value of Equip-	Rs.	nP.		
ments from Germany				
as on 31-3-61 ..	30,38,934	00		
Additions during the				
year 1961-62 ..	12,62,275	00		
	<u>43,01,209</u>	<u>00</u>		
Customs duty and clea-				
rance charges thereon				
as on 31-3-1961 ..	22,03,975	99		
" " during 61-62 ..	5,38,698	31		
	<u>7,42,674</u>	<u>30</u>		
			66,60,399	75
Motor Vehicles at cost as on 31-3-'61 ..	50,534	51		
Add : Additions during the year ..	63,921	18		
	<u>1,14,455</u>	<u>69</u>		
<i>Library</i> :				
Books and Scientific Journals at cost				
as on 31-3-'61 ..	2,31,193	65		
Add : Additions during the year ..	1,36,376	40		
	<u>3,67,570</u>	<u>05</u>		
Carried over ..			<u>1,74,64,059</u>	<u>69</u>

Balance Sheet as at

CAPITAL FUND & LIABILITIES

	Rs.	nP.
Brought forward ..	2,40,41,215	69

Total ..	2,40,41,215	69
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31st March 1962—(Contd.)

PROPERTY AND ASSETS			
		Rs.	nP.
Brought forward		1,74,64,059	69
	Rs. nP.		
Block value of German books and journals as on 31-3-1961	1,13,300 25		
Add: Additions during the year	7,931 00		
	<u>1,21,231 25</u>	4,88,801	30
<i>Typewriters and Duplicators :</i>			
At cost as on 31-3-61	18,052 49		
Add: Additions during the year	11,991 28		
	<u>30,043 77</u>		
<i>Cycles :</i>			
At cost as on 31-3-61	767 34		
Add: Additions during the year	375 63		
	<u>1,142 97</u>		
Stock of consumable stores with (Depts.) as on 31-3-'62		1,95,059	28
Stock of materials etc., (Works)		6,44,602	12
Outstanding dues from students (fees account)		844	00
Debtors Account (Pachaiyappa's Trust)			
Advances and Deposits works			
Advances	14,83,137 33		
Others	4,42,268 57		
	<u>19,25,405 90</u>		
<i>Closing Balances :</i>			
Stamps on hand		3,564	76
Office Imprest Cash		500	00
<i>Cash :</i>			
On hand (including Temporary)			
With State Bank of India, Saidapet	36,40,650 50		
	<u>36,54,350 17</u>		
Total		2,40,41,215	69

APPENDIX V

LIST OF DISTINGUISHED VISITORS TO THE INSTITUTE

1. Dr. H. R. Ambler,
Scientific Adviser to the United Kingdom
High Commission,
New Delhi .. 8- 7-1961.
2. Mr. E. Maxwell Arnot,
World Representative of
Messrs. Butterworth & Co., London. .. 8- 8-1961.
3. Mr. E. C. Watson,
Scientific Attache,
American Embassy, New Delhi. .. 25- 8-1961.
4. Mr. Hermann,
Commercial Counsellor of the
Federal Republic of Germany,
New Delhi. .. 22- 9-1961.
5. Prof. Gerlad Picket,
Guest Professor (TCM),
Bengal Engineering College,
Howrah. .. 8-10-1961.
6. Prof. Dr. -Ing Hans Rumpf,
Technische Hochschule, Karlsruhe,
West Germany. .. 10-10-1961.
7. Prof. Dr. R. A. Kraus,
Special Commissioner to the Government of
West Germany for the Development of I.I.T.,
Madras. .. October, 1961.
8. Dr. D. P. Nayar,
Director (Education) Planning Commission.
New Delhi. .. 6-10-1961.
9. Steering Committee of the I. I. T. Kanpur
Indo-American Programme consisting of : .. 14-11-1961.
 - (a) Prof. Norman C. Dahl,
Professor of Mechanical Engineering,
Massachusetts Institute of Technology,
Cambridge, Massachusetts.
 - (b) Prof. Robert S. Drake,
Jr. Chairman,
Department of Mechanical Engineering,
Princeton University, Princeton.
 - (c) Dean Robert S. Green,
College of Engineering
Ohio State University, Ohio.

- (d) Prof. Erman A. Pearson,
Professor of Sanitary Engineering,
University of California, Berkeley.
- (e) Prof. Arthur H. Benade,
Associate Professor of Physics,
Case Institute of Technology, Ohio.
10. Professors D. Hahn and Heinrich,
Bechtholdt of the University of Heidelberg,
W. Germany .. 27- 1-1962.
11. Mr. J. J. Pratt,
Deputy Director,
Commonwealth Office of Education,
Australia. .. 29- 1-1962.
12. Mr. J. F. Hilliker,
Secretary,
Commonwealth Education Conference,
(Canada) .. 29- 1-1962.
13. Prof. Ross J. Martin, Dean,
University of Illinois, U. S. A. .. 1- 2-1962.
14. Dr. Malcolm Adisheshaiah,
Asst. Director-General,
UNESCO, Paris. .. 1- 2-1962.
15. His Excellency Mr. George F. Duckwitz,
Ambassador of the Federal Republic of
Germany to India, New Delhi. .. 7- 2-1962.
16. Dr. F. H. Scheibe,
Chief Executive Officer of the
German Academic Exchange Service, Bonn.
and
Dr. R. Moenig,
Director of the Inter-Nations, Bonn. .. 8- 2-1962.
17. Mr. Immanuel Birnbaum,
Foreign Editor of the German Magazine
"Suddeutsche Zeitung", Munich. .. 16- 2-1962.
18. Prof. D. M. Newitte,
F. R. S. Imperial College of Science,
and Technology, London. .. 2- 3-1962.
19. Dr. P. Nilakantan, Director,
National Aeronautical Laboratory,
Bangalore. .. 15- 3-1962.
20. Mrs. and Dr. Bockelmann,
Lord Mayor of Frankfurt. .. 29- 3-1962.

21. Mr. H. Wright Baker,
Ag. Director and Chief Unesco Adviser,
Central Mechanical Engg. Research Institute,
Durgapur. .. 20- 4-1962.
 22. Shri C. R. Pattabhiraman,
Union Dy. Minister for Labour, Employment
and Planning, New Delhi. .. 6- 6-1962.
 23. Prof. Thomas B. Drew,
Columbia University, New York, and
Prof. V. Lakshminarayanan,
Principal Birla College of Engg. Pilani. .. 9- 6-1962.
 24. Dr. K. N. Mathur,
Director, Central Scientific Instruments
Organisation, New Delhi. .. 28- 6-1962.
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APPENDIX VI
STAFF APPOINTMENTS

S. No. (1)	Name (2)	Designation (3)
<i>Academic :</i>		
1.	Dr. E. G. Ramachandran	Professor
2.	„ M. V. C. Sastri	-do-
3.	Shri S. Sampath	-do-
4.	Dr. D. V. Reddy	Assistant Professor
5.	„ V. G. K. Murti	-do-
6.	Shri N. V. Chandrasekaraswamy	-do-
7.	„ M. Chidananda Gupta	-do-
8.	Dr. T. C. M. Pillai	-do-
9.	„ S. C. Das	-do-
10.	Shri V. D. Muthayya	Lecturer
11.	Dr. C. V. Seshadri	-do-
12.	Shri K. S. Padiyar	-do-
13.	Dr. C. K. Narayanaswamy	-do-
14.	Shri Y. R. Nagaraja	-do-
15.	„ M. V. Panduranga Rao	-do-
16.	„ C. Rajasekaramurthy	-do-
17.	„ S. S. Das Gupta	-do-
18.	Dr. L. V. K. V. Sarma	-do-
19.	Shri C. J. Nagabhushana	-do-
20.	„ S. R. Majumdar	-do-
21.	„ T. A. Ramalinga Bhat	-do-
22.	„ C. Satyanarayana Raju	-do-
23.	„ M. Ramanujam	-do-
24.	„ Y. Balagangadhara Varma	-do-
25.	„ K. V. Gopalakrishnan	-do-
26.	„ V. M. Radhakrishnan	-do-
27.	„ N. R. Rajappa	-do-
28.	„ G. Viswanathan	Associate Lecturer
29.	„ N. V. Dravid	-do-
30.	„ B. S. V. Gopalam	-do-
31.	„ S. Bhimasankara Sastri	-do-
32.	Dr. S. Ramagopala Sarma	-do-
33.	Shri A. C. Gangadharan	-do-
34.	„ M. A. Lakshmithathachar	-do-
35.	„ C. S. Swami	-do-
36.	„ E. M. Gopalakrishnan	-do-
37.	„ N. Rajagopalan	-do-
38.	„ C. N. Krishnamurthi	-do-

S. No. (1)	Name (2)	Designation (3)
39.	Shri G. K. Narasimhamurthy	Associate Lecturer
40.	.. Y. V. G. Satyanarayana- murthy	-do-
41.	Mrs. Jayanthi Lalitha	-do-
42.	Shri S. Srinivasan	-do-
43.	.. D. S. Subramanyam	-do-
44.	.. C. Sivaprasada Rao	-do-
45.	.. R. Nagarajan	-do-
46.	.. R. Subramanian	Senior Technical Asst.
47.	.. A. Baradarajan	-do-
48.	.. C. Venkataramaiah	-do-
49.	.. S. Ramakrishna Iyer	-do-
50.	.. G. Bapaiah	-do-
51.	.. N. V. Koteswara Rao	-do-
52.	.. U. Bhaskara Rao	Tutor
53.	.. M. N. Sampath	Senior Technical Asst.
54.	.. P. Kotiveeraiah	-do-
55.	.. S. Ramaswamy	-do-
56.	.. J. Suryanarayanamurthi	-do-
57.	.. K. N. Reddy	Junior Technical Asst.
58.	.. N. Satyamurthy	-do-
59.	Kumari Jagathambal Srinivasan	-do-
60.	Shri V. Kannan	-do-
61.	.. V. Raman	-do-
62.	.. M. Innaci	-do-
63.	.. R. Raghavan	-do-
64.	.. Kulwant Singh Bhatia	-do-
<i>Technical :</i>		
65.	Shri R. Padmanabha Iyer	Foreman
66.	.. A. P. Prabhakaran	-do-
67.	.. P. J. George	-do-
68.	.. M. P. Bhushanam	Supervisor
69.	.. Dayal Singh	Mechanic 'A'
70.	.. Kshirasagar	-do-
71.	.. R. G. Thiagarajan	-do-
72.	.. S. Selvaraj	Mechanic 'B'
73.	.. D. J. Williams	-do-
74.	.. V. Ramamurthi	-do-
75.	.. V. Venkatapathi	-do-

S. No. (1)	Name (2)	Designation (3)
76.	Shri C. D. N. Karunakaran	Mechanic 'B'
77.	„ V. Sankaran	Mechanic 'C'
78.	„ K. Rajagopalan	Lab. Attendant
79.	„ G. Balasundaram	-do-
80.	„ R. S. Sridharan	-do-
81.	„ C. R. Mani	-do-
82.	„ Nelson Samuel	-do-
83.	„ P. A. Venugopal	-do-
84.	„ K. N. Kathirvelu	-do-
85.	„ R. Natarajan	-do-
86.	„ K. Rajagopalan	-do-
87.	„ D. Ramachandran	-do-
88.	„ Mohan Kumar Nair	Draughtsman
89.	„ D. Radhakrishna Reddy	-do-

Administrative :

90.	Shri S. Pattabiraman	Stores Officer
91.	Shri W. Hanumesi Rao	Jr. Superintendent
92.	„ P. Subramaniam	Assistant
93.	„ K. A. Ramanathan	-do-
94.	„ D. Thiagarajan	-do-
95.	„ P. N. Parthasarathy	Auditor
96.	„ V. Ramachandran	Cashier
97.	„ P. P. Ramanathan	Store-Keeper
98.	„ G. C. Dass	-do-
99.	„ M. C. James	-do-
100.	„ K. Sreedharan	-do-
101.	„ T. J. Thomas	-do-
102.	„ C. P. M. Pillai	-do-
103.	„ R. Ramanathan	-do-
104.	„ D. B. Subramanian	-do-
105.	„ J. S. Varadachari	Upper Division Clerk
106.	„ Syed Jalaluddin	-do-
107.	„ K. Ramaswamy	-do-
108.	„ T. Edmund	-do-
109.	„ V. Krishnaswamy	-do-
110.	Smt. P. Anusuya	-do-
111.	Shri P. Natarajan	-do-

S. No. (1)	Name (2)	Designation (3)
112.	Shri K. Sessaiah	Upper Division Clerk
113.	„ P. Krishna Rao	-do-
114.	„ M. A. Sheriff	-do-
115.	„ T. G. Venkatasubramaniam	-do-
116.	„ K. Pachiappan	-do-
117.	„ K. Mahadevan	-do-
118.	„ Lucos Sandy	-do-
119.	„ A. R. Paul	-do-
120.	„ K. Rangarajan	-do-
121.	„ Y. K. Vedantham	-do-
122.	„ A. Narayana Rao	-do-
123.	„ Abdullah Khan	-do-
124.	„ R. Jayaraman	-do-
125.	„ T. R. Arunachalam	-do-
126.	„ V. Janakiraman	-do-
127.	„ K. Chandran	-do-
128.	„ G. Srinivasalu	-do-
129.	„ S. Arunachalam	-do-
130.	Kum. M. S. Vasantha Bai	-do-
131.	Shri V. Md. Nisar Ahmad	-do-
132.	Shri M. K. Subramanian	Steno-Typist
133.	„ S. Venkataramani	-do-
134.	„ D. Gurumoorthy	Lower Division Clerk
135.	„ V. Ayyaswami	-do-
136.	Kum. S. Hema Bai	-do-
137.	„ A. Lakshmi	-do-
138.	Shri S. A. Hussainy	-do-
139.	„ D. Daniel	-do-
140.	„ N. Narasimhan	-do-
141.	„ S. Karthikeyan	-do-
142.	„ N. K. Krishnamoorthy	-do-
143.	„ V. Pandarinathan	-do-
144.	„ S. S. Sukumaran	-do-
145.	„ V. C. Srinivasa Rao	-do-
146.	„ M. T. Varghese	-do-
147.	„ V. Balasubramanian	-do-
148.	„ R. Durairaju	-do-
149.	„ T. Seshadri	-do-
150.	„ R. Venkataraman	-do-
151.	„ A. Gopalan	-do-

S. No. (1)	Name (2)	Designation (3)
152.	Shri T. R. Swaminathan	Lower Division Clerk
153.	Kum. S. Saroja	-do-
154.	Shri V. Loganathan	-do-
155.	„ G. Balasubramanian	-do-
156.	„ K. S. Narasimhan	-do-
157.	„ K. Seshadri	-do-
158.	„ S. K. Thanikachalam	-do-
159.	Smt. Shobha Shekher	-do-
160.	Kum. S. Ruckmani	Telephone-Operator
161.	Shri C. R. Thangappan	Driver
162.	„ C. C. Abraham	-do-
163.	„ S. Subramanian	Daftry
164.	„ C. Lakshmanan	Peon
165.	„ R. Santhanam	-do-
166.	„ G. I. Bakthavatsalu	-do-
167.	„ V. Subramanian	-do-
168.	„ N. Balakrishnan	-do-
169.	„ M. P. Unnikrishnan	-do-
170.	„ N. Subbarayan	-do-
171.	„ V. K. Vaidyanathan	-do-
172.	„ P. C. Prasad	-do-
173.	„ R. Raghavalu	-do-
174.	„ S. Alexander	-do-
175.	„ S. Krishnamurthy	-do-
176.	„ V. Vekataraman	-do-
177.	„ T. Mani	-do-
178.	„ M. Anthony	-do-
179.	„ R. Gangadharan	Chowkidar
180.	„ G. Dharmaraj	-do-
181.	„ R. Sankiah	-do-
182.	„ Man Bahadur	-do-
183.	„ G. Kesavan	-do-
184.	„ G. Ethiraj	-do-
185.	„ M. Arumugam	-do-
186.	„ Indra Sen	-do-
187.	„ Churamani	-do-
188.	„ A. Ram Singh	-do-
189.	„ N. Shanmugham	-do-
190.	„ M. Dass	-do-
191.	„ R. A. Ramaswami Naidu	-do-

S. No. (1)	Name (2)	Designation (3)
192.	Shri L. Sabastian Manual	Chowkidar
193.	.. G. Natarajan	-do-
194.	.. P. Munuswami	-do-
195.	.. A. Krishnan	Sweeper
196.	.. B. Narayana	-do-
197.	.. C. Perumal	-do-
198.	.. Kondiah	-do-
199.	.. V. Thirumaliah	-do-
200.	.. P. Lakshmiah	-do-
201.	.. N. Bhoomiah	-do-
202.	.. Thirupal	-do-
203.	.. K. Thirumaliah	-do-
204.	.. Govindaraj	-do-
205.	.. Vedachalam	-do-
206.	.. Ganesan	-do-
207.	.. Thirumaliah	-do-
208.	.. K. S. Swaminathan	Cycle Messenger
209.	.. M. Arumugham	Mali
<i>Engineering :</i>		
1.	Shri G. Sundaram	Accounts Officer (Works)
2.	.. K. Viswanathan	Divisional Accountant
3.	.. B. V. Raman	-do-
4.	.. N. G. Yadav	Asst. Architect
5.	.. P. K. Ramanathan	Executive Engineer (on deputation from Madras P.W.D.)
6.	.. A. Abdul Khader	Assistant Engineer
7.	.. Y. S. Nagaraja Rao	Assistant Engineer (on deputation from Madras P.W.D.)
8.	.. Abraham Varghese	-do-
9.	.. N. J. Chandrasekharan	-do- (on deputation from Madras P.W.D.)
10.	.. Sgru Merle Ray	Junior Engineer
11.	.. R. Sankararajan	-do-
12.	.. K. Ramachandra	-do-
13.	.. K. G. Sundararajan	Supervisor
14.	.. A. V. Subramanian	Junior Engineer
15.	.. V. Thirunarayanan	-do-
16.	.. Franklin Dorairaj	-do-

S. No. (1)	Name (2)	Designation (3)
17.	Shri N. S. Neelakantan	Supervisor
18.	„ K. Thiagarajan	-do-
19.	„ K. Subramanian	-do- (Resigned. Relieved on 12-11-1962)
20.	„ K. S. Krishnaswamy	Supervisor
21.	„ S. Srinivasan	-do-
22.	„ R. Mahalingam	-do-
23.	„ N. Chandrasekaran	Draughtsman
24.	„ S. Manickam	-do-
25.	„ M. A. Subhan	-do-
26.	„ R. Sankaran	Work Subordinate
27.	„ R. Jambunathan	-do-
28.	„ A. Sardar Jhan	-do-
29.	„ V. Srinivasan	-do-
30.	„ S. Sundaramoorthy	-do-
31.	„ C. S. Mahadevan	-do-
32.	„ T. V. Balasubramaniam	Maistry Grade I
33.	„ C. P. Koshy	-do-
34.	„ V. Raman Unny	-do-
35.	„ S. P. Warriar	-do-
36.	„ M. Ramachandran	Carpenter Maistry Grade I
37.	„ M. Natesa Achari	-do-
38.	„ V. Periaswamy	-do-
39.	„ A. Raman	-do-
40.	„ V. M. Menon	Maistry Grade II
41.	„ M. K. Koshy	-do-
42.	„ K. Venkataraman	-do-
43.	„ Y. Prabhakar Reddy	-do-
44.	„ S. Chandrasekharan	-do-
45.	„ P. Sundaresan	-do-
46.	„ N. Jagadesan	-do-
47.	„ T. T. Mahalingam	-do-
48.	„ K. Ramamurthy	-do-
49.	„ B. Damodaran	-do-
50.	„ S. Ramamurthy	Head Cooly
51.	„ S. Sahadevan	-do-
52.	„ T. S. Munirathinam	-do-
53.	„ N. Ganesan	-do-
54.	„ T. P. Krishnaswamy	Lower Division Clerk (Institute Gymkhana)

TERMINATION OF SERVICES/RESIGNATION/RELEASE

S. No. (1)	Name (2)	Designation (2)
1.	Shri C. G. Swaminathan	Professor
2.	.. R. Srinivasan	Lecturer
3.	Dr. S. Rajappa	-do-
4.	Shri C. N. Krishnamurthi	Associate Lecturer
5.	.. N. S. Santhanam	Senior Tech. Asst.
6.	.. C. Rama Rao	-do-
7.	.. N. Sankaran	Junior Tech. Asst.
8.	.. A. V. Rajagopalan	Upper Division Clerk
9.	.. K. Pachiappan	-do-
10.	.. V. Pandarinathan	Lower Division Clerk
11.	.. D. Gurumurthi	-do-
12.	.. K. Kondaswami	Chowkidar
13.	.. R. Devarajan	-do-
14.	.. Abdul Sattar	-do-
15.	.. D. J. Williams	Mechanic 'B'
16.	.. S. A. Nadesan	-do-
17.	.. C. R. Mani	Lab. Attendant
18.	.. P. A. Venugopal	-do-
19.	.. M. Mohankumaran Nair	Draughtsman

LIST OF STAFF WHO HAD PROCEEDED TO WEST GERMANY
FOR HIGHER TRAINING OR RETURNED TO DUTY DURING
1961-1962 UNDER INDO-GERMAN TRAINING SCHEME

Sl. No.	Subject	Name of Trainee	Date of deputation from India	Date of arrival in India
1.	Fluid Mechanics	Shri P. S. Srinivasan	10-5-1962	
2.	Switch-Gear and Instrument Tech.	Shri S. Padmanabhan	-do-	
3.	Chemical Engg.	Shri Y. Balagangadhara Varma		14-5-1962
4.	-do-	Shri M. Ramanujam		3-5-1962
5.	Electrical Engg.	Shri C. Satyanarayana Raju		30-4-1962

APPENDIX VII

LIBRARY

Number of books added during the period :

(1) Upto end of June, 1961	..	..	..	12,142
(2) Between July, 1961 and June, 1962	..	..	..	8,579
Total	..	..	..	<u>20,721</u>

Number of journals arranged Department-wise :

S. No.	Department	Subscription	Gift	Total
1.	Humanities	57	1	58
2.	Physics	80	2	82
3.	Mathematics	77	..	77
4.	Chemistry	80	..	80
5.	Applied Mechanics	..	..	..
6.*	Civil Engineering	93	3	96
7.	Mechanical Engineering	51	3	54
8.	Electrical Engineering	42	2	44
9.	Chemical Engineering and Chemical Technology	41	..	41
10.	Metallurgy	26	1	27
11.	Periodicals received from Germany	62	..	62
	Total	609	12	<u>621</u>

* Regarding the Journals in Civil Engineering, out of 113 items ordered, only 93 are being received.

Number of periodicals and books repaired for damages $1,299+369=1,668$.

Names of the organisations which have made gifts to the Library :—

1. Institution of Chemical Engineers, London.
2. Indian Institute of Technology, Kharagpur.
3. Managing Board of Demag, Germany.
4. Ministry of Transport & Communication, New Delhi.
5. Coir Board, Kalavoor.
6. British Information Service (India).
7. Imperial Chemical Industries, London (Endeavour).
8. Central Water & Power Research Station, New Delhi.
9. Cobalt Information Centre, Paris.
10. Council of Scientific & Industrial Research, New Delhi.
11. Voltas Limited, Bombay.
12. French Embassy, Madras.
13. Beckman Instruments, Inc. California (Analyzer).
14. Institution of Marine Technology, Bombay.
15. Massachusetts Institute of Technology, United States of America.
16. National Productivity Council, New Delhi.
17. The International Nickel Company (Ltd.) London.
18. Indian Commercial Company (P.) Limited, Bombay.
19. Standford Research Institute, California.
20. Central Leather Research Institute, Madras.
21. University of Illinois, United States of America.
22. United States Information Service, Madras & New Delhi.
23. UNESCO Chronicle, Unesco House, Paris.
24. Directorate of Irrigation and Waterways, West Bengal.

LIBRARY CO-OPERATION

Names of Libraries

1. Director, Tata Institute of Fundamental Research, Colaba, Bombay.
2. Indian National Scientific Documentation Centre, New Delhi. (INSDOC).
3. The Madras University Library.

EXPENDITURE

	Rs.
Books	74,517
Journals	41,042
Back numbers of Journals	28,523
Operating cost	865
Binding Materials	5,055

BACK VOLUMES

A list of back volumes available and on order, arranged subjectwise, is furnished herein below :—

Sl. No.	Name of the Department	Name of the Journal	Period of Back volumes ordered	Period of Back volumes available
1.	HUMANITIES	NIL.	Vol. 16-27	Vol. 16-27
2.	PHYSICS	Current Science	1947-58	1947-58
		Nuclear Physics Indian Academy of Sciences	1947-58 Vol. I	1947-58 Vol. I
		Journal of Scientific and Industrial Research	V. 38-42 & 44-48 V. 4-17 1946-58 Except V. 16, 1957	V. 38-42 & 44-48 V. 4-17 1946-58 Except V. 16, 1957
		Automation and Remote Control.	1957-58	1957-58
		Instruments & Experimental Techniques	1958	1958
		Science Abstracts	Sec. A 1946-58 Sec. B 1946-59	Sec. A 1946-58 Sec. B 1946-54 & 1957-59
		Physical Review	1946-58	—
		Reviews of Modern Physics	1946-58	—
		Journal of Applied Physics	1946-58	—
		Journal of the Optical Society of America	V. 36-48	—
		Review of Scientific Instruments	1946-58	1946-58
		Proceedings of the Institute of Radio Engineers	1946-54	1946-54 1955-60 (Gift)
		Bell System Technical Journal	1946-58	1946-58
		Physics and Chemistry of Solids	1956-58	1956-58
		Journal of Scientific Instruments	1946-58	1946-58 (except V. III)
		Zeitschrift fur Kristallographie	1945-58	1945-58

Sl. No.	Name of the Department	Name of the Journal	Period of Back volumes ordered	Period of Back volumes available
		Universitas	1956-58	1956-58
		Canadian Journal of Physics	1946-58	1946-58
		Progress of Theoretical Physics	V. 1-20 1946-58	1946-58
3.	MATHEMATICS	Journal of Mathematics and Mechanics	1952-59	1952-59
		Mathematical Reviews	1940-58	1940-58
		Supplement of the progress of Theoretical Physics	Nos. 1-12	Nos. 1-12
4.	CHEMISTRY	Chemical Abstracts	1907-58	1907-58
		Transactions of the Faraday Society	1946-59	1946-59
		Discussions of the Faraday Society	1947-59	1947-59
		Journal of Inorganic and Nuclear Chemistry	1955-58	1955-58
		Tetrahedron	1957-59	1957-59
		Analytical Chemistry	1940-59	1940-59
		5th Decennial Index of Chemical Abstracts	1947-56 (19 Vols.)	1947-56 (19 Vols.)
		Quarterly Review of Chemical Society	1947-58	1947-58
		Chemical Reviews	V. 26-58 1940-58	
5.	APPLIED MECHANICS	Publications of the International Association of Bridge and Structural Engineers	1950-59	1950-59
		Journal of Mechanics and Physics of Solids	V. 1-7 1952-59	V. 1-7 1952-59 (except V. 4)
		Journal of Fluid Mechanics	V. 1-7 1956-59	V. 1-7 1956-59
		ACIEL-Stahl-Steel Belgium	1950-59 upto V. 26 No. 6	1950-59 upto V. 26 No. 6
		Physics of Fluids	V. 1 & 2 1958-59	V. 1 & 2 1958-59
		Quarterly of Applied Mechanics Reviews	V. 1-11 1948-59	—

Sl. No.	Name of the Department	Name of the Journal	Period of Back volumes ordered	Period of Back volumes available
		Quarterly of Applied Mathematics	V. 8-17 1950-59	—
		Journal of the Franklin Institute	V. 249-266 1950-58	V. 249-266 1950-58
		Proc. of the American Society of Civil Engineers	V. 45-56 without index	—
6.	CIVIL ENGINEERING	Transactions of the American Society of Civil Engineers	1950-59	1950-59
		Structural Engineer	1955-58 Except V.34, No.2 Feb. 56	1955-58 Except V.34, No.2 Feb. 56
		Proceedings of the Institute of Civil Engineers	1920-58	—
		Civil Engineering (U.S.A.) Geotechnique	1950-59 1956-59	1950-59 1956-59 except V. 9 ('59)
		Magazine of Concrete Research	V. 1, 1959	—
		Engineering News Record	V. 144-163 1950-59	V. 144-163 1950-59
		Journal of Royal Institute of British Architects	V. 66. 1959	—
		American Society for Testing Materials Bulletin No. 102. 242. (lacks 108, 117 and 120).	1940-59	—
		Photogrammetric Engineering	1956-58	—
7.	MECHANICAL ENGINEERING	Proceedings of the Institution of Mechanical Engineers including Automobile Division	1920-58 except No. 1-7 & index of Auto- mobile Dvn. for 1958.	Vol. 120-149, 1952-172 lacking V. 166 Nos. 4 & 6. Vol. 167. No. 1, 4 & 10 others to follow.

Sl. No.	Name of the Department	Name of the Journal	Period of Back volumes ordered	Period of Back volumes available
8.	ELECTRICAL ENGINEERING	Transactions of the American Institute of Electrical Engineers	V. 49-64 1930-45	V. 49-64 1930-45 except V. 54.
		Transactions of the American Institute of Electrical Engineers	V. 77 & 78 1958-59	56, 61-63. V. 77 & 78 1958-59.
		Proceedings of the Institute of Electrical Engineers	V. 78-92 ; lacks 4 issues 1939-45 & 1950-58	—
		Bulletin of Electrical Engineering Education (British)	1953-60	1953-60
		Transactions of the American Institute of Electrical Engineers	V. 1-10	—
		9.	CHEMICAL ENGINEERING & CHEMICAL TECHNOLOGY	Industrial and Engineering Chemistry.	1909-58	1909-58
Transactions of the Institute of Chemical Engineers.	1923-58			1923-58
Transactions of Indian Institute of Chemical Engineers	1947-58 except V. 4 & 8 part 1.			1947-58 except V. 4 & 8 part 1.
Chemical Age of India	Series 4. 7, 8-10 V. 7-9 (Nos. 1-4)			Series 4, 7, 8-10 V. 7-9 (Nos. 1-4)
Transactions of the American Institute of Chemical Engineers contd. as Chemical Engg. progress	V. 13-55			V. 13-55
Journal of the American Institute of Chemical Engineers	1955-57			1955-57
Chemical Engineering Science	1951-59			1951-59
Journal of Chemical and Engg. data	V. 1-4			V. 1-4
Petroleum Refiner	1953-59			1953-59

Sl. No.	Name of the Department	Name of the Journal	Period of Back volumes ordered	Period of Back volumes available
		Chemical Engg. Combustion and Flame	1950-59 1957-61 lacks Nos. 3 & 4 of 1958.	1950-59 —
10.	METALLURGY	Journal of the Institute of Metals	1950-58	1950-58
		Transactions of A.M.I.E. U. S. A.	1954-60	—
		Acta Metallurgica U. S. A., American Society of Metal Transactions.	1953-60 1945-59 1946-55	1953-60 1945-59 1946-55
			Index V. 34-51 & classi- fied index	Index V. 34-51 & classi- fied index
		Metallurgical Reviews	V. 4-6 1959-61	V. 4-6 1959-61
		Metal Progress/Journal of the Iron and Steel Institute, London	1950-60 V.165-196 1950-60	1950-60 V.165-196 1950-60
JOURNALS SHARED BY DEPARTMENTS		Engineering Index	1940-58 19 Vols.	1940/58 19 Vols.
		Shared by Mechanical, Civil, Chemical, Electrical, Applied Mechanics and Metallurgy Departments.		
		Transactions of American Society of Mechanical Engineers including Journal of Applied Mechanics.	1950-58	
		Shared by Applied Mechanics, Mechanical & Chemical Engineering Departments.		

APPENDIX VIII

1961-1962 ADMISSION

(A) I year of the 5-year B.Tech Degree Course —

(a) Total number of candidates who took the admission test State-wise :—

(from Centres in the Southern Zone)

Gujerat	..	2	Mysore	..	141
West Bengal	..	3	Uttar Pradesh	..	2
Kerala	..	163	Madhya Pradesh	..	2
Madras	..	474	Punjab	..	2
Andhra	..	287	Foreign	..	1

(b) Total number of candidates who qualified in the admission test State-wise :—

Madras	..	64	Kerala	..	6
Mysore	..	27	Punjab	..	1
Andhra	..	19	Foreign	..	1

(c) Total number of candidates who appeared for interview and number selected Institute-wise :—

No. appeared for interview :

Madras	..	64	Kerala	..	6
Mysore	..	27	Punjab	..	1
Andhra	..	19	Foreign	..	1

No. selected for admission :

To Indian Institute of Technology,	Madras	..	76	
"	"	Kharagpur	..	11
"	"	Bombay	..	7

(B) II year of the 5-year B.Tech. Degree Course (Direct Entrants) for B.Sc. Degree holders :—

State	No. of candidates	No. selected
Andhra	.. 31	4
Assam	.. 1	-
Bihar	.. 2	-
Delhi	.. 8	2
Gujerat	.. 1	-
Kerala	.. 21	2
Jammu & Kashmir	.. 2	-
Himachal Pradesh	.. 1	-
Madras	.. 64	6
Madhya Pradesh	.. 3	-
Maharashtra	.. 15	1
Mysore	.. 24	2
Orissa	.. 6	2
Punjab	.. 6	-
West Bengal	.. 5	-
Uttar Pradesh	.. 10	-

APPENDIX IX
EXAMINATION RESULTS

Class	No. of students appeared	No. of students promoted	No. of students detained
I B.Tech	.. 135	129	6
II B.Tech.	.. 138	130	8
III B.Tech.	.. 108	107	1

LIST OF CANDIDATES WHO OBTAINED THE FIRST TWO RANKS
IN THE B.TECH EXAMINATION IN 1961-1962

I YEAR

1st rank .. Shri R. Krishnaswamy (1.047/61)
2nd rank .. Shri Vaidyanathan Venkatesan (1.123/61)

II YEAR

1st rank .. Shri C. V. Sahasranaman (1.088/60)
2nd rank .. Shri R. A. Vaswani (2.009/61)

III YEAR

Chemical Engineering

1st rank .. Shri P. S. Krishnamurthy (1.032/59)
2nd rank .. Shri C. P. Vijayan (1.008/59)

Civil Engineering

1st rank .. Shri B. S. Sudheer Chandra (1.078/59)
2nd rank .. Shri Arun Kumar Mehrotra (1.040/59)

Electrical Engineering

1st rank .. Shri G. N. Sharma (2.012/60)
2nd rank .. Shri Sarosh Talukdar (1.069/59)

Mechanical Engineering

1st rank .. Shri S. R. Thangavelu (1.081/59)
2nd rank .. Shri S. Gopalakrishnan (2.003/60)

Metallurgy

1st rank .. Shri R. Natarajan (1.047/59)
2nd rank .. Shri C. G. Krishna Das Nair (1.030/59)