IIT MADRAS

#1

#1 ENGINEERING UNIVERSITY IN INDIA

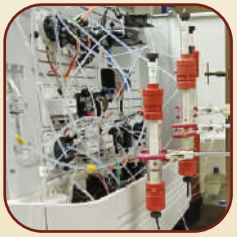
#1 OVERALL BEST UNIVERSITY IN INDIA

ATAL RANKING ON INSTITUTIONS ON INNOVATION ACHIEVEMENTS 2019

INSTITUTION OF EMINENCE

M.Tech., M.Sc., and M.A.

ADMISSIONS 2024



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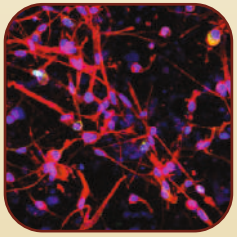


thermoscientific

Greetings from IIT Madras

At IIT Madras, we offer a diverse range of undergraduate and graduate programs that are designed to equip you with the knowledge and skills needed to succeed in your chosen field. Our faculty is highly qualified and experienced, and our curriculum is updated regularly to ensure that you receive the latest and most relevant education.

We understand that choosing the right institute for higher education is a critical decision, and we want to assure you that at IIT Madras, we provide a stimulating and supportive environment that encourages intellectual growth, professional and personal development. We have state-of-the-art facilities, cutting-edge research labs, vibrant laboratory-to-Industry product development, and a thriving student community that will enable you to pursue your academic and extracurricular interests with passion. At IIT Madras, we encourage you to embrace every opportunity to learn, grow, and excel.

Once again, I would like to welcome you to join our institution, and I wish you all the best as you begin your academic journey. IIT Madras will give you the natural and academic environment to enrich yourself and fulfil your dreams and equip you with the skills to meet future demands.

Thank you.

Prof. V. Kamakoti
Director, IIT Madras

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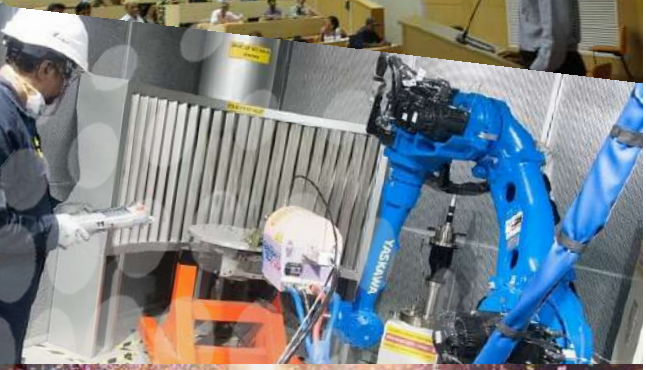

IIT MADRAS

Vision

To be an academic institution in dynamic equilibrium with its social, ecological and economic environment, striving continuously for excellence in education, research, and technological service to the nation.

Mission

- To create and sustain a community of learning in which students acquire knowledge and learn to apply it professionally with due consideration for ethical, ecological, and economic issues.
- To pursue research and disseminate research findings.
- To provide knowledge-based technological services to satisfy the needs of society and the industry.
- To help in building national capabilities in Science, Technology, Humanities, Management, Education, and Research.

Quality Policy

To pursue global standards of excellence in all our endeavors, namely, teaching, research, consultancy, continuing education, and to remain accountable in our core and support functions through self-evaluation and continuous improvement.

Core Values

In pursuit of its mission, IIT Madras will

- Develop human resources to serve the nation
- Recognize teaching as a unifying activity
- Nurture integrity, creativity, and academic freedom
- Retain a willingness to experiment with new paradigms

1. The Institute

The Indian Institute of Technology Madras (IIT Madras) was established as an autonomous Institute of national importance in 1959 by the Government of India with initial technical and financial support from the Government of Germany. IIT Madras is well equipped with teaching laboratories, advanced research facilities, sophisticated services, and computing and networking capabilities. IIT Madras has been ranked as the 'Best Educational Institution' in the country under the National Institutional Rankings Framework (NIRF) ranking number 1 and as the 'Top innovative Institution' in the country under the Atal Ranking of Institutions on Innovation Achievements (ARIIA). Its synchrony with the IITM research park and the ecosystem for startups have entailed top spots in higher technical education, research, and industrial consultancy.

IIT Madras conducts academic Programmes of B.Tech., Dual Degree (B.Tech. and M.Tech.) Dual Degree (B.S. & M.S.), M.B.A., M.Tech., M.Sc. Integrated M.A., M.S., and Ph.D. in various Disciplines. Located in about 250 hectares of natural flora and fauna, with 22 students' hostels (out of which six are exclusively for girls) and faculty/ staff/ married research scholars' quarters, IIT Madras is one of the greenest residential campuses in the country. Faculty of International repute, a brilliant student community, excellent technical and supporting staff, and an effective and agile administration have all contributed to the pre-eminent status of IIT Madras.

2. M.Tech. and M.A. Admissions

2.1 M.Tech., and M.A. Programmes

The four-semester M.Tech. Programmes offered in various Disciplines and Programmes by different departments of the institute are based on the credit system and provide a student with a wide choice of courses. Each Programme comprises several core and elective courses and project work. These Programmes, along with the number of seats available, are indicated in Table 1.

Further details of the Disciplines/ Programmes offered by the respective departments are given in Section 3 - Programme Highlights. Apart from these, User Oriented M.Tech. Programmes (UOP) are also offered by certain departments to meet the specific requirement of industries. Details of these Programmes are available in Section 4 of this brochure.

Each Discipline/ Programme in a department has a faculty advisor to help the students choose academic options for elective courses. Students may be permitted to do their project work in industries and other approved organizations. Students are also encouraged to participate in the research and development projects undertaken by the faculty through the Industrial Consultancy and Sponsored Research (IC & SR; see Section 6).

Opportunities exist for a limited number of students to carry out M.Tech. Projects in other countries such as Germany.
Almost all students desirous of placement are placed in reputed organizations and industries after completing their courses of study.

M.Tech. Students will be eligible for upgradation to Ph.D. if they satisfy the following criteria:

a) The candidate should have successfully completed a minimum of 2 semesters in the M.Tech. Programme.
b) The candidate should have a minimum CGPA of 8.0 in the prescribed courses.

A Committee duly constituted by the Head of the Department will consider applications for upgradation to Ph.D. and make its recommendation. After upgradation, they may opt for two degrees (M.Tech. & Ph.D.) subject to fulfilling the course requirements.

The Dept. of Humanities and Social Sciences, IIT Madras is proud to announce its new Master's Programme across the three streams of Development Studies, Economics and English Studies beginning July 2024. Promising the same quality of rigour and robustness that has characterised our five-year Integrated programme, we have taken heed of changing demands and market conditions to conceptualise our new offering.

Each stream seeks to provide both an excellent theoretical base as well as market-readiness for careers across academia, publishing, policy, governance and corporate consultancy. Our interdisciplinary faculty have drawn upon their considerable experience and research to design a programme that will continue to uphold the standards set over the last many decades by IIT Madras. We look forward to your continued faith and engagement in making the department a desired destination for scores of aspirants from India and abroad.

Only GATE qualified candidates will be eligible for admission to this 2-year program. The students are required to complete a minimum of 200 credits to be eligible for the M.A. degree. Each stream will have 25 seats for Indian students; seats for foreign students will be supernumerary. The students of each stream will have the option of upgrading to PhD program as per the Institute guidelines.

2.2 Financial Assistance – For Indian Nationals only

(i) Financial assistance in the form of Half-Time Teaching Assistantship (HTTA) at the rate of ₹12,400/- p.m. (tenable for a maximum period of 24 months) will be awarded to Indian Nationals doing the M.Tech. Programmes, subject to Institute rules. HTTA students are required to assist the department for 8 hours of work per week related to academic activities of the department such as laboratory demonstration, tutorials, evaluation of assignments, test papers, seminars, research projects, etc. The number of seats available under HTTA is indicated in Table 1.

(ii) A few assistantships may also be offered by some government organizations such as Atomic Energy Regulatory Board, Aeronautical Research and Development Board, and so on.

(iii) A few seats are available without HTTA (N-HTTA, i.e., without any financial assistance) in some M.Tech. Programmes as indicated in Table 1. Candidates can opt for either HTTA (Code ending with Y), or N-HTTA (Code ending with N), or both, in a particular M.Tech. Programme. The eligibility criteria for HTTA and N-HTTA categories are the same.

2.3 Fellowship Schemes

(i) DAE-GF Scheme

DAE-Graduate Fellowship (DAE-GF) Scheme in various engineering disciplines is offered by Department of Atomic Energy. GATE qualified candidates selected under this scheme will get a fellowship of ₹35,000/- per month. After successful completion of M.Tech. programme, the DAE-GF scheme fellows, will be placed in one of the DAE units.

(ii) AERB-GF Scheme

Under Atomic Energy Regulatory Board Graduate Fellowship (AERB-GF) Scheme, up to three candidates will be selected either from Mechanical Engineering (only in Design/ Nuclear/ Thermal Engineering) or Chemical Engineering discipline or from both, and they will be offered a monthly stipend. More details about AERB-GF scheme may be seen on the Website https://www.aerb.gov.in/english/

(iii) ESSO-MoES Scheme

Earth System Science Organization - Ministry of Earth Sciences (ESSO-MoES) ESSO-MoES sponsors a maximum of 10 students for M.Tech. in Ocean Technology (OE2) program, which may include up to 2 candidates from ESSO-NIOT (National Institute of Ocean Technology https://www.moes.gov.in/).

2.4 Reservation of Seats

Seats are reserved for Indian Nationals under the categories SC/ ST/ OBC (Non-creamy layer)/ EWS and PwD (Persons with Disability) according to the Government of India rules.

2.5 Who can Apply?

A) **GATE qualified candidates**
B) **IIT Graduates with B.Tech. Degree**
C) **Candidates sponsored** by various organizations recognized by DST as Research and Development units, candidates sponsored by NIOT or from educational institutions approved by AICTE/UGC/Government or from Government/ Public Sector Undertakings
D) **QIP candidates**
E) **UOP candidates** of various organizations/ industries as per the MoU (Memorandum of Understanding) with the Institute
F) **Defense sponsored** candidates

The minimum requirement and admission procedure are different for different categories (A to F) and are given in Section 2.7. Candidates should contact the appropriate office for details as per the addresses listed in Section 2.6. Candidates belonging to categories C to F cannot apply through the M.Tech Application Portal (MAP).

2.6 Whom to Contact?

The candidates may write to the following offices for details about specific Programmes.

For Categories A & B:
The Chairman
M.Tech. and M.A. Admissions Committee 2024.
GATE - JAM office
IIT Madras
Chennai 600036
Online Application:
https://mtechadm.iitm.ac.in
Email: mtechadm@iitm.ac.in
Phone: 044-22578200

For Categories C & E:
The Deputy Registrar (Academic Courses)
IIT Madras
Chennai 600036
Webpage: www.iitm.ac.in under "NOTICES" - "M. Tech. Advertisement (Sponsored)"
https://mtechspons.iitm.ac.in/

For Category D:
The Chairman
Centre for Continuing Education
IIT Madras
Chennai 600036
Webpage: https://cce.iitm.ac.in/

For Category F:
Director General of Military Training
General Staff Branch
Army Headquarters
DHQ PO, New Delhi 110011

2.7 Minimum Eligibility

A. FOR GATE QUALIFIED CANDIDATES
(Also, see Section 2.9.1)

Candidates qualified in GATE 2022, GATE 2023, or GATE 2024 and satisfying any one of the following:
i. Bachelor's degree in Engineering/ Technology/ Architecture/Four year B.S. degree from Educational Institutions approved by AICTE/ Government*
ii. Master's degree in Chemistry/ Life Sciences/ Mathematics/ Physics related subjects from educational Institutions approved by UGC/ Government*
iii. Degrees obtained through Distance Education/ Correspondence Mode for the qualifying degree specified in [(i) or (ii)].
iv. Candidates yet to appear or have appeared in the final examination for the qualifying degree specified in [(I) or (ii)] and whose results are likely to be declared by July 15, 2024.
v. Associate Membership holders from professional bodies for Admission into their parent disciplines from the following:

- The Institution of Engineers (India) (AMIE)
- The Aeronautical Society of India (AMAeSI) (eligible only for aerodynamics, structures, and propulsions streams)
- The Indian Institute of Metals (AMIIM)
- The Indian Institute of Chemical Engineers, including Polymer and Environmental Group (AMIIChemE)
- The Institution of Electronics and Telecommunication Engineers (AMIETE)

***** *If the degree is issued by a university in countries other than India, the degree must be recognized by the Association of Indian Universities (AIU)/ Commonwealth Universities/ International Association of Universities (IAU) as equivalent to the corresponding Indian Degrees/ Certificates. Additional requirements of GRE/ TOEFL may be required.*

B. FOR IIT GRADUATES
(Also, see Section 2.9.1)

Candidates graduating/ graduated from IITs with B.Tech. degree and having CGPA of 8.0 (on a scale of 10) and above can apply without GATE Score. These applications will be reviewed by the respective Department(s).

C. FOR SPONSORED CANDIDATES
(Also, see Section 2.9.2)

Candidates employed and sponsored (with full pay and allowances for 24 months) by industry/ government organizations/ private and public enterprises, engaged in R&D work recognized by DST/ engineering colleges recognized by AICTE, possessing at least two years of professional experience as on the last date of receipt of applications at IIT Madras can apply, provided they hold:

(i) B.E/ B.Tech. degree from AICTE recognized Engineering Colleges/ University with first class or 60% aggregate marks in all the four years (no need for having GATE Score); or
(ii) AMIE or any other Associate memberships listed above (no need for having a GATE Score)

Also visit: ***https://mtechspons.iitm.ac.in/*** *under "NOTICES" - "M. Tech. Advertisement (Sponsored)".*

D. FOR QUALITY IMPROVEMENT PROGRAMME (QIP) CANDIDATES

M.Tech. under Quality Improvement Programme (sponsored by AICTE) is advertised separately, and the selection of QIP candidates is made through a test/ interview.

E. FOR USER ORIENTED PROGRAMMES (UOP)

Please refer to Section 4 for details on these Programmes.

F. FOR DEFENCE SPONSORED CANDIDATES

M.Tech. programme sponsored by Defence Authority (Research & Training and Post Graduate Training) is through a separate selection procedure. See Section 2.6.

2.8 COAP (Common Offer Acceptance Portal)

All M.Tech. and M.A. Admission offers (through GATE) will be displayed on the Common Offer Acceptance Portal (COAP). Candidates must register at the COAP portal for viewing and accepting their offers. Registration on the COAP portal is free. Candidates are advised to download COAP 2024 information brochure and follow the guidelines for participation. However, note that, COAP is not an application portal for M.Tech admissions. COAP registration number is a mandatory field for registration on the M.Tech applications portal of IIT Madras.

2.9 HOW TO APPLY?

Please note that to apply with a valid GATE Score (GATE 2022, GATE 2023, or GATE 2024) or as IIT B.Tech. Graduate, you have to register in the website mentioned below. If you plan to apply with more than one of the above (see sections 2.7 A/B/C/D/E/F), register separately using the same email and mobile number but with different credentials among (a) valid GATE 2022 Score, (b) valid GATE 2023 Score (c) valid GATE 2024 Score and (d) IIT B.Tech. Graduation with valid CGPA.

2.9.1 FOR GATE QUALIFIED CANDIDATES AND IIT GRADUATES WITH B.TECH. DEGREE (Refer Sections 2.7 A & B):

Apply ONLINE at https://mtechadm.iitm.ac.in
(Instructions and further links available on the Website)

APPLICATION TIMELINE

Opening Date : 20 March 2024
Closing Date : 19 April 2024

APPLICATION FEE

SC/ ST/ PwD/ Female Candidates : ₹ 300/-
All Other Candidates : ₹ 600/-

In case of difficulty in applying ONLINE, please contact:

The Chairman
M.Tech. and M.A. Admissions Committee 2024.
GATE - JAM office
Indian Institute of Technology Madras
Chennai 600036

Phone: 044 – 2257 8200
E-mail: mtechadm@iitm.ac.in

The application fee should be paid online at the online Application portal.

Before you start filling the ONLINE application form, pay attention to the following:

(a) Carefully read all the instructions given herein.
(b) Study Tables 1, 2, 3, and 4 carefully, along with details of the Programmes in Section 3.

(c) If the minimum requirement (Section 2.7 A/B) is satisfied, choose your options from Table 1 (also refer to Tables 2, 3 & 4) and decide your Programmes choices.

(d) Keep a soft copy of the following documents (if applicable) ready for uploading at the Website:

- PDF file of your valid GATE score card (as originally downloaded)
- Image file of your recent passport size photograph (file in jpeg format, size, Min: 10 kB, Max.: 500 kB, - Photo Size, Width: 30 mm, Height: 45 mm)
- Image file of your signature (file in jpeg format, size, Min: 10 KB, Max.: 500 kB Box Size, Width: 80 mm, Height: 35 mm)
- Nationality Certificate* (Any of the following: Birth Certificate or First page of your passport or Voter ID, Transfer Certificate (TC) showing Nationality or
- Certificate issued by approved Govt. agency for Nationality.)
- Persons with Disability (PwD) are required to upload a certificate* of disability from the AUTHORIZED MEDICAL BOARD attached to one of the following: Vocational Rehabilitation Centre (VRC) for Physically Handicapped persons/ Special Employment Exchange for Physically Handicapped/ Government Hospital (District and State level).
- SC/ ST Certificate*
- OBC (Non-Creamy Layer) Certificate*: To be considered under the OBC category, candidates should upload the OBC (Non-Creamy Layer) certificate in the format prescribed by the Government of India issued (on or after 01 April 2023) by competent authorities available on the Website **https://mtechadm.iitm.ac.in**. Submission of only BC or MBC certificate will not be treated as OBC category. If no valid OBC (Non-Creamy Layer) certificate copy is enclosed, the candidate will be treated under the General category.
- EWS certificate*: For General candidates to be considered under the EWS category, they should upload the EWS (Economically Weaker Section) certificate in the format prescribed by the Government of India as issued

(on or after 01 April 2023) by a competent authority available on the Website **https://mtechadm.iitm.ac.in**. If the certificate is neither submitted nor valid, they will be treated under the General category.

- Complete list of courses with syllabi* for ZE/ ZS candidates, Distance education, Associate membership.
- Grade Card(s) / Marksheets* till date for All Candidates.

* Scanned PDF file with a maximum size of 5 MB. Multiple scanned pages should be combined into a single PDF file.

The upload instructions will be available on the online application portal.

(e) Exercise utmost care in choosing the order of choices as the process of selection is computerized. An error in the list of choices may even lead to the rejection of your application. Once the choices are made and the application is submitted, they can NOT be changed.

(f) Complete the application in all respects. No changes in the application are permitted after the application is submitted.

(g) Application Fee (for each application) should be paid online at the Website for online application. For example,

- If a candidate wishes to apply using valid GATE 2022, GATE 2023, and GATE 2024 scores and also as an IIT Graduate, four separate applications would be required with separate application fee, i.e., three corresponding to applications for each GATE score and one for the application as an IIT Graduate.
- If a candidate wishes to apply using valid GATE 2022, GATE 2023, and GATE 2024 scores, three separate applications for each GATE score with separate application fee must be submitted.

After completing the online application form, download the complete application form for safe keeping and record purposes. There is **NO** need to send the hard copy to the Office of Chairman, M.Tech. and M.A. Admission Committee at IIT Madras.

Table 1: M.Tech. Programmes in Various Departments/ Programmes.

Department/ Degree/ Programme	Discipline Code	Code (for Choices)	No. of Seats#
Department of Aerospace Engineering			
Aerospace Engineering	AE1	AE1Y	27
		AE1N	28
Department of Applied Mechanics			
Computational and Experimental Mechanics	AM1	AM1Y	12
		AM1N	8
Biomedical Engineering	AM2	AM2Y	8
		AM2N	5
Department of Biotechnology			
Bioprocess Engineering	BT1	BT1Y	12
		BT1N	5
Department of Civil Engineering			
Building Technology and Construction Management	CE1	CE1Y	10
Environmental Engineering	CE2	CE2Y	10
		CE2N	7
Geotechnical Engineering	CE3	CE3Y	10
		CE3N	4
Hydraulic and Water Resources Engineering	CE4	CE4Y	8
		CE4N	1
Structural Engineering	CE5	CE5Y	14
		CE5N	6
Transportation Engineering	CE6	CE6Y	8
		CE6N	4
Department of Chemical Engineering			
Chemical Engineering	CH1	CH1Y	32
		CH1N	7
Department of Computer Science and Engineering			
Computer Science and Engineering	CS1	CS1Y	47

Department/ Degree/ Programme	Discipline Code	Code (for Choices)	No. of Seats#
Department of Data Science and Artificial Intelligence			
Data Science and Artificial Intelligence	DA1	DA1Y	15
		DA1N	10
Department of Electrical Engineering			
Communication and Signal Processing	EE1	EE1Y	20
		EE1N	4
Power Systems and Power Electronics	EE2	EE2Y	11
		EE2N	4
Microelectronics and VLSI Design	EE3	EE3Y	10
		EE3N	6
Electronic System Design and Instrumentation	EE4	EE4Y	8
		EE4N	2
RF and Photonics	EE5	EE5Y	8
		EE5N	4
Integrated Circuits and Systems	EE6	EE6Y	13
		EE6N	6
Control and Optimization	EE7	EE7Y	8
		EE7N	2
Department of Mathematics			
Industrial Mathematics and Scientific Computing	MA1	MA1Y	25
Department of Mechanical Engineering			
Thermal Engineering	ME1	ME1Y	44
		ME1N	14
Mechanical Design	ME2	ME2Y	25
		ME2N	10
Manufacturing Engineering	ME3	ME3Y	25
		ME3N	8
Department of Metallurgical and Materials Engineering			
Metallurgical and Materials Engineering	MM1	MM1Y	27

Department/ Degree/ Programme	Discipline Code	Code (for Choices)	No. of Seats#
Department of Ocean Engineering			
Ocean Structures	OE1	OE1Y	18
Ocean Technology	OE2	OE2Y	8
Petroleum Engineering	PE1	PE1Y	14
Department of Physics			
Functional Materials and Nanotechnology	PH1	PH1Y	10
Interdisciplinary M.Tech. Programmes			
M.Tech. in Chemical Engineering – Specialization in Catalysis Technology. **(Coordinating Dept. – Chemical Engineering)**	CA1	CA1Y	8
		CA1N	2
M.Tech. in Clinical Engineering **(Coordinating Dept. – Applied Mechanics)**	CL1	CL1Y	16
		CL1N	5

Table 1.1 : M.A. Programmes

Department/ Degree/ Programme	Discipline Code	Code (for Choices)	No. of Seats#
Department of Humanities and Social Sciences			
English Studies	HS1	HS1N	25
Development Studies	HS2	HS2N	25
Economics	HS3	HS3N	25

Y – With Half-Time Teaching Assistantship (HTTA)

N – Without any financial assistance(Non-HTTA)
The number of seats is subject to change.
* Assistantship sponsored by Earth System Science Organization - Ministry of Earth Sciences (ESSO-MoES). ESSO-MoES supports a maximum of 10 students for M.Tech. including up to 2 candidates from ESSO-NIOT.

The number of seats is subject to change.

Table 2: Eligibility for Admission in various M.Tech. Programmes.

Discipline of Qualifying Degree	Qualifying Discipline Code	Eligible M.Tech. 2024 Programme Codes (to which applications can be submitted) For details on additional requirements for each programme, Refer to Table 3
Qualifying Disciplines in Engineering / Technology		
Aeronautical/ Aerospace Engineering	AE	AE1, AM1, AM2, BT1, CS1, MA1, ME1, ME2, ME3, CL1, DA1
Agricultural Engineering	AG	BT1, CE2, CE4, CS1, CL1, DA1
Architecture (B.Arch.)	AR	BT1, CE1, CE6, CS1, CL1, DA1
Automobile Engineering	AU	AE1, AM1, BT1, CS1, ME1, ME2, ME3, CL1, DA1
Biochemical Engineering	BI	BT1, CH1, CS1, CL1, DA1
Biomedical Engineering	BM	AM2, CL1, BT1, CS1, EE4, DA1
Biotechnology	BT	BT1, CE2, CS1, MM1, CL1, DA1
Civil Engineering	CE	AE1, AM1, AM2, BT1, CE1, CE2, CE3, CE4, CE5, CE6, CS1, MA1, OE1, OE2, PE1, CL1, CH1, DA1
Chemical Engineering	CH	AE1, AM1, AM2, BT1, CE2, CH1, CA1, CS1, MA1, ME1, MM1, PE1, CL1, DA1
Ceramics	CR	BT1, CS1, MM1, CL1, DA1
Computer Science	CS	AE1, AM2, BT1, CS1, MA1, CL1, DA1
Data science and Artificial Intelligence	DA	AM1, AM2, CS1, CL1, DA1
Electronics and Communications Engineering*	EC	AE1, AM2, BT1, CS1, EE1, EE2, EE3, EE4, EE6, EE7, MA1, ME3, CL1, EE5, DA1
Electrical and Electronics Engineering*	EE	AE1, AM2, BT1, CS1, EE1, EE2, EE3, EE4, EE6, EE7, MA1, ME3, PH1, CL1, EE5, DA1
Energy Engineering	EN	AE1, BT1, CS1, EE2, ME1, CL1, DA1
Engineering Physics	EP	BT1, CS1, EE1, EE2, EE3, EE4, EE5, EE6, EE7, PH1, CL1, DA1
Environmental Science and Engineering	ES	BT1, CE2, CE4, CH1, CS1, CL1, DA1
Industrial Engineering	IE	BT1, CS1, ME3, CL1, DA1
Instrumentation	IN	AE1, AM2, BT1, CS1, EE1, EE2, EE3, EE4, EE6, EE7, ME3, CL1, EE5, DA1
Information Technology	IT	BT1, CS1, CL1, DA1
Mechanical Engineering	ME	AE1, AM1, AM2, BT1, CE2, CE4, CS1, MA1, ME1, ME2, ME3, MM1, OE2, PE1, CL1, DA1
Manufacturing Engineering	MF	AE1, BT1, CS1, ME3, MM1, CL1, DA1
Machine Tool Engineering	ML	BT1, CS1, ME3, CL1, DA1
Metallurgical and Materials Engg./ Materials Science and Engg. / Metallurgical Engg.	MM	AE1, AM1, AM2, BT1, CS1, MA1, MM1, PH1, CL1, DA1
Marine Engineering	MR	BT1, CS1, ME1, CL1, DA1
Naval Architecture	NA	AE1, AM1, BT1, CS1, MA1, OE1, OE2, PE1, CL1, DA1
Petroleum Engineering	PE	BT1, CS1, ME1, PE1, CL1, DA1
Production and Industrial Engineering.	PI	BT1, CS1, ME3, CL1, DA1

Discipline of Qualifying Degree	Qualifying Discipline Code	Eligible M.Tech. 2024 Programme Codes (to which applications can be submitted) For details on additional requirements for each programme, Refer to Table 3
Production Engineering	PR	AE1, AM1, BT1, CS1, ME3, MM1, CL1, DA1
Other Disciplines in Engineering/ Technology	ZE	AE1, AM1, AM2, BT1, CE1, CE2, CE3, CE4, CE5, CE6, CH1, CA1, CS1, EE1, EE2, EE3, EE4, EE6, EE7, ME1, ME2, ME3, MM1, PH1, CL1, EE5, DA1

Discipline of Qualifying Degree	Qualifying Discipline Code	Eligible M.Tech. 2024 Programme Codes (to which applications can be submitted) For details on additional requirements for each programme, Refer to Table 3
Qualifying Disciplines in Science		
Chemistry	CY	CA1, CS1, MM1, PH1, DA1
Geology and Geophysics	GG	CS1, PE1, DA1
Mathematics/ Applied Mathematics	MA	CS1, MA1, DA1
M.Sc. Computer Science	MC	CS1, DA1
Master of Computer Applications	MP	CS1, DA1
Materials Science	MS	CS1, MM1, PH1, DA1
Nanotechnology	NT	CS1, MM1, PH1, DA1
Operations Research	OR	CS1, DA1
Physics/ Applied Physics	PH	CS1, EE5, MA1, MM1, PH1, DA1
Statistics	ST	CS1, DA1
Master's Degree in Life Sciences	ZL	CS1, DA1
Other Disciplines in Science	ZS	AE1, CH1, CA1, CS1, ME1, ME2, MM1, DA1

Table 2.1: Eligibility for Admission in various M.A. Programmes.

Discipline of Qualifying Degree	Eligible M.A. 2024 Programme Codes (to which applications can be submitted) For details on additional requirements for each programme, Refer to Table 3.1
All Qualifying Discipline	HS1, HS2, HS3

Table 3: M.Tech. Eligible Disciplines, Seats available, Qualifying GATE Paper and Additional Requirements.

Prog. Code	Eligible Discipline Codes	Qualifying GATE Paper	No. of Seat HTTA	No. of Seat Non HTTA	Additional Requirements
AE1	AE	AE, CE, ME, XE	7	8	Degree obtained through distance education/ correspondence mode/ Associate Membership holders/ GATE paper XE/ Curriculum must match for Qualifying Discipline ZE/ZS.
	ME		14*	15*	
	AU, CE, CH, EN, MF, MM, NA, PR		4*	3*	
	CS, EC, EE, IN, ZE, ZS		2*	2*	
AM1	AE, AU, CE, CH, DA, ME, MM, NA, PR, ZE	AE, CE, CH, DA, GE, ME, MT, NM, XE	12	8	Degree obtained through distance education/ correspondence mode/ Associate Membership holders/ GATE paper XE/ Curriculum must match for Qualifying Discipline ZE.
AM2	BM	AE, BM, CE, CH, CS, DA, EC, EE, GE, IN, ME, MT, NM, XE	4	2	
	IN		1*	1*	
	AE, CE, CH, CS, DA, EC, EE, ME, MM, ZE		3*	2*	
CL1	BM	AE, BM, BT, CE, CS, DA, EC, EE, IN, ME	9	2	Degree obtained through distance education/ correspondence mode/ Associate Membership holders/ GATE paper XE/ Curriculum must match for Qualifying Discipline ZE.
	AE, CE, CS, DA, EC, EE, IN, ME	AE, BM, BT, CE, CH, CS, DA, EC, EE, IN, ME, MN, MT	4	1	
	BT, BI, CH, EP, MM, PI	AE, BM, BT, CE, CS, CH, DA, EC, EE, GE, IN, ME, MN, MT, XE	2	1	
	AG, AR, AU, CR, EN, ES, IE, IT, MF, ML, MR, NA, PE, PI, PR, ZE		1	1	
BT1	AE, AG, AR, AU, BI, BM, BT, CE, CH, CR, CS, EC, EE, EN, EP, ES, IE, IN, IT, ME, MF, ML, MM, MR, NA, PE, PI, PR, ZE	BT	8	4	Nil
		CH	4	1*	
CE1	CE	AR, CE	7	0	Nil
	AR		2		
	ZE		1*		
CE2	CE	AG, BT, CE, CH, ES, ME, XE	8	5	Nil
	AG, BT, CH, ES, ME, ZE		2*	2*	
CE3	CE	CE	9	3	Nil
	ZE		1*	1*	
CE4	CE	AG, CE, ES, ME, XE	5	1	Nil
	AG		2*	0	
	ES, ME, ZE		1*	0	

Prog. Code	Eligible Discipline Codes	Qualifying GATE Paper	No. of Seat HTTA	No. of Seat Non HTTA	Additional Requirements
CE5	CE	CE	13	5	Nil
	ZE		1*	1*	
CE6	CE	AR, CE	6	3	Nil
	AR, ZE		2*	1	
CH1	BI, CH, ES, ZE, ZS	CH	27	5	Degree obtained through distance education/ correspondence mode/ Associate Membership holders/ GATE paper XE/ Curriculum must match for Qualifying Discipline ZE/ZS.
	BI, CE, CH, ES, ZE, ZS	ES	5*	2*	
CA1	CH, ZE	CH, CY	5	1	Degree obtained through distance education/ correspondence mode/ Associate Membership holders/ GATE paper XE/ Curriculum must match for Qualifying Discipline ZE/ZS.
	CY, ZS		3	1	
CS1	All Disciplines of qualifying degree	CS	47	0	Degree obtained through distance education/ correspondence mode and Associate Membership holders/ Curriculum must match for Qualifying Discipline ZE/ZS.
DA1	All Disciplines of qualifying degree	DA	15	10	Nil
EE1	EC, EE, EP, IN, ZE	EC	20	4	Associate Membership holders/ Curriculum must match Qualifying Discipline ZE.
EE2	EC, EE, EN, EP, IN, ZE	EE	11	4	
EE3	EC, EE, EP, IN, ZE	EC	10	6	
EE4	BM, EC, EE, EP, IN, ZE	BM, EC, EE, IN	8	2	
EE5	EC, EE, EP, IN, PH, ZE	EC, EE, IN, PH	8	4	
EE6	EE, EC, EP, IN, ZE	EC, EE, IN	13	6	
EE7	EE, EC, EP, IN, ZE	EC, EE, IN, DA	8	2	

Prog. Code	Eligible Discipline Codes	Qualifying GATE Paper	No. of Seat HTTA	No. of Seat Non HTTA	Additional Requirements
MA1	MA	AE, AG, AR, BM, BT, CE, CH, CS, CY, EC, EE, EY, GE, GG, IN, MA, ME, MN, MT, NM, PE, PH, PI, ST, TF	16	0	Nil
	PH		4*		
	AE, CE, CH, CS, EC, EE, ME, MM, NA		5*		
ME1	ME, AE, CH	AE, AG, AR, BM, BT, CE, CH, CS, CY, EC, EE, ES, EY, GG, GE, IN, MA, ME, MN, MT, NM, PE, PH, PI, ST, TF, XE, XL	42	13	Nil
	AU, EN, MR, PE, ZE, ZS		2*	1*	
ME2	ME, AE, AU	AE, AG, AR, BM, BT, CE, CH, CS, CY, EC, EE, ES, EY, GG, GE, IN, MA, ME, MN, MT, NM, PE, PH, PI, ST, TF, XE, XL	23	9	
	ZE, ZS		2*	1*	
ME3	ME, IN, MF, ML, PI, PR	AE, AG, AR, BM, BT, CE, CH, CS, CY, EC, EE, ES, EY, GG, GE, IN, MA, ME, MN, MT, NM, PE, PH, PI, ST, TF, XE, XL	23	7	
	AE, AU, EC, EE, IE, ZE		2*	1*	
MM1	MM	AE, AG, AR, BM, BT, CE, CH, CS, CY, EC, EE, ES, EY, GG, GE, IN, MA, ME, MN, MT, NM, PE, PH, PI, ST, TF, XE, XL	21	0	Nil
	BT, CH, CR, CY, ME, MF, MS, NT, PH, PR, ZE, ZS		6*		
OE1	CE, NA	CE, NM	18	0	Degree obtained through distance education/ correspondence mode/ Associate Membership holders/ GATE paper XE.
OE2	CE, ME, NA	CE, ME, NM	8**	0	
PE1	CE, CH, GG, ME, NA, PE	CE, CH, GE, ME, NM, PE	14	0	Nil
PH1	PH	AE, AG, AR, BM, BT, CE, CH, CS, CY, EC, EE, EY, GG, GE, IN, MA, ME, MN, MT, NM, PE, PH, PI, ST, TF, XE, XL	7	0	Curriculum must match for Qualifying Discipline ZE.
	EP, NT		2*		
	CY, EE, MM, MS, ZE		1*		

The number of seats is subject to change.

* The indicated number will be considered as the maximum number of available seats for that group of eligible disciplines, and the seats will be allotted from the combined merit list (along with discipline mentioned in the first row)

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ZE, ZS Qualifying discipline / Associate Membership holders / Candidates with degrees obtained through Distance Education / Correspondence Mode candidates must upload a complete list of courses studied during their degree Programme with syllabi. They may be considered for admission to the Programmes relevant to the discipline of their

qualifying degree as decided by the concerned Departments. If they are considered, they may have to take suitability test/interview.

Applications of candidates with B.Tech. From IITs, applying for admission without GATE Score will be reviewed by the respective Department(s). They must upload the all Grade Card(s) pertaining to the B.Tech. Programme at the website.

Table 3.1: M.A. Non - HTTA Seat Table

Prog. Code	Eligible Discipline Codes	Qualifying GATE Paper	No. of Seat Non HTTA	Additional Requirements
HS1	All Disciplines of qualifying degree	XH-C2 (**English**)	23	Nil
		XH-C3 (**Linguistics**)	02	
HS2	All Disciplines of qualifying degree	XH-C6 (**Sociology**)	15	Nil
		XH-C1 (**Economics**)	05	
		XH-C4 (**Philosophy**)	03	
		XH-C5 (**Psychology**)	02	
HS3	All Disciplines of qualifying degree	XH-C1 (**Economics**)	25	Nil

Table-4: Eligible Programmes for various combinations of Qualifying Disciplines and GATE Papers

QD	GATE Paper																											
	AE	AG	AR	BM	BT	CE	CH	CS	CY	DA	EC	EE	ES	EY	GE	GG	IN	MA	ME	MN	MT	NM	PE	PH	PI	ST	TF	XE	XL
AE	AE1, AM1, AM2, MA1, ME1, ME2, ME3, CL1	MA1, ME1, ME2, ME3	MA1, ME1, ME2, ME3	AM2, MA1, ME1, ME2, ME3, CL1	BT1, MA1, ME1, ME2, ME3, CL1	AE1, AM1, AM2, MA1, ME1, ME2, ME3, CL1	AM1, AM2, MA1, ME1, ME2, ME3, CL1, BT1	AM2, CS1, MA1, ME1, ME2, ME3, CL1	MA1, ME1, ME2, ME3	AM1, AM2, CL1, DA1	AM2, MA1, ME1, ME2, ME3, CL1	AM2, MA1, ME1, ME2, ME3, CL1	ME1, ME2, ME3	MA1, ME1, ME2, ME3	AM1, AM2, MA1, ME1, ME2, ME3	MA1, ME1, ME2, ME3	AM2, MA1, ME1, ME2, ME3, CL1	MA1, ME1, ME2, ME3	AE1, AM1, AM2, MA1, ME1, ME2, ME3, CL1	MA1, ME1, ME2, ME3, CL1	AM1, AM2, MA1, ME1, ME2, ME3, CL1	AM1, AM2, MA1, ME1, ME2, ME3	MA1, ME1, ME2, ME3	MA1, ME1, ME2, ME3	MA1, ME1, ME2, ME3	MA1, ME1, ME2, ME3	MA1, ME1, ME2, ME3	AE1, AM1, AM2, ME1, ME2, ME3	ME1, ME2, ME3
AG	CL1	CE2, CE4		CL1	BT1, CE2, CL1	CE2, CE4, CL1	CE2, CL1, BT1	CS1, CL1		CL1, DA1	CL1	CL1	CE2, CE4		CL1		CL1		CE2, CE4, CL1	CL1	CL1							CE2, CE4, CL1	
AR	CL1		CE1, CE6	CL1	BT1, CL1	CE1, CE6, CL1	CL1, BT1	CS1, CL1		CL1, DA1	CL1	CL1			CL1		CL1		CL1	CL1	CL1							CL1	
AU	AE1, AM1, ME1, ME2, ME3, CL1	ME1, ME2, ME3	ME1, ME2, ME3	ME1, ME2, ME3, CL1	BT1, ME1, ME2, ME3, CL1	AE1, AM1, ME1, ME2, ME3, CL1	AM1, ME1, ME2, ME3, CL1, BT1	CS1, ME1, ME2, ME3, CL1	ME1, ME2, ME3	AM1, CL1, DA1	ME1, ME2, ME3, CL1	ME1, ME2, ME3, CL1	ME1, ME2, ME3	ME1, ME2, ME3	AM1, ME1, ME2, ME3, CL1	ME1, ME2, ME3	ME1, ME2, ME3, CL1	ME1, ME2, ME3	AE1, AM1, ME1, ME2, ME3, CL1	ME1, ME2, ME3, CL1	AM1, ME1, ME2, ME3, CL1	AM1, ME1, ME2, ME3	ME1, ME2, ME3	ME1, ME2, ME3	ME1, ME2, ME3	ME1, ME2, ME3	ME1, ME2, ME3	AE1, AM1, ME1, ME2, ME3, CL1	ME1, ME2, ME3
BI	CL1			CL1	BT1, CL1	CL1	CH1, CL1, BT1	CS1, CL1		CL1, DA1	CL1	CL1	CH1		CL1		CL1		CL1	CL1	CL1							CL1	
BM	AM2, CL1			AM2, CL1, EE4	CL1, BT1	AM2, CL1	AM2, BT1	AM2, CL1, CS1		AM2, CL1, DA1	AM2, CL1, EE4	AM2, CL1, EE4			AM2		AM2, CL1, EE4		AM2, CL1		AM2	AM2						AM2	
BT	MM1, CL1	CE2, MM1	MM1	MM1, CL1	BT1, CE2, MM1, CL1	CE2, MM1, CL1	CE2, MM1, CL1, BT1	CS1, MM1, CL1	MM1	CL1, DA1	MM1, CL1	MM1, CL1	CE2, MM1	MM1	MM1, CL1	MM1	MM1, CL1	MM1	CE2, MM1, CL1	MM1, CL1	MM1, CL1	MM1	MM1	MM1	MM1	MM1	MM1	CE2, MM1, CL1	MM1
CE	AE1, AM1, AM2, MA1, CL1	CE2, CE4, MA1	CE1, CE6, MA1	AM2, MA1, CL1	BT1, CE2, MA1, CL1	AE1, AM1, AM2, CE1, CE2, CE3, CE4, CE5, CE6, MA1, OE1, OE2, PE1, CL1	AM1, AM2, CE2, MA1, PE1, CL1, BT1	AM2, CS1, MA1, CL1	MA1	AM1, AM2, CL1, DA1	AM2, MA1, CL1	AM2, MA1, CL1	CE2, CE4, CH1	MA1	AM1, AM2, MA1, PE1	MA1	AM2, MA1, CL1	MA1	AE1, AM1, AM2, CE2, CE4, MA1, OE2, PE1, CL1	MA1, CL1	AM1, AM2, MA1, CL1	AM1, AM2, MA1, OE1, OE2, PE1	MA1, PE1	MA1	MA1	MA1	MA1	AE1, AM1, AM2, CE2, CE4	

QD	GATE Paper																											
	AE	AG	AR	BM	BT	CE	CH	CS	CY	DA	EC	EE	ES	EY	GE	GG	IN	MA	ME	MN	MT	NM	PE	PH	PI	ST	TF	XE	XL
CH	AE1, AM1, AM2, MA1, ME1, MM1, CL1	CE2, MA1, ME1, MM1	MA1, ME1, MM1	AM2, MA1, ME1, MM1, CL1	BT1, CE2, MA1, ME1, MM1, CL1	AE1, AM1, AM2, CE2, MA1, ME1, MM1, PE1, CL1	AM1, AM2, CE2, CH1, CA1, MA1, ME1, MM1, PE1, CL1, BT1	AM2, CS1, MA1, ME1, MM1, CL1	CA1, MA1, ME1, MM1	AM1, AM2, CL1, DA1	AM2, MA1, ME1, MM1, CL1	AM2, MA1, ME1, MM1, CL1	CE2, ME1, MM1, CH1	MA1, ME1, MM1	AM1, AM2, MA1, ME1, MM1, PE1, CL1	MA1, ME1, MM1	AM2, MA1, ME1, MM1, CL1	MA1, ME1, MM1	AE1, AM1, AM2, CE2, MA1, ME1, MM1, PE1, CL1	MA1, ME1, MM1, CL1	AM1, AM2, MA1, ME1, MM1, CL1	AM1, AM2, MA1, ME1, MM1, PE1	MA1, ME1, MM1, PE1	MA1, ME1, MM1	MA1, ME1, MM1	MA1, ME1, MM1	MA1, ME1, MM1	AE1, AM1, AM2, CE2, ME1, MM1, CL1	ME1, MM1
CR	MM1, CL1	MM1	MM1	MM1, CL1	BT1, MM1, CL1	MM1, CL1	MM1, CL1, BT1	CS1, MM1, CL1	MM1	CL1, DA1	MM1, CL1	MM1, CL1	MM1	MM1	MM1, CL1	MM1	MM1, CL1	MM1	MM1, CL1	MM1, CL1	MM1, CL1	MM1	MM1	MM1	MM1	MM1	MM1	MM1	MM1, CL1	MM1
CS	AE1, AM2, MA1, CL1	MA1	MA1	AM2, MA1, CL1	BT1, MA1, CL1	AE1, AM2, MA1, CL1	AM2, MA1, CL1, BT1	AM2, CS1, MA1, CL1	MA1	AM2, CL1, DA1	AM2, MA1, CL1	AM2, MA1, CL1		MA1	AM2, MA1	MA1	AM2, MA1, CL1	MA1	AE1, AM2, MA1, CL1	MA1, CL1	AM2, MA1, CL1	AM2, MA1	MA1	MA1	MA1	MA1	MA1	AE1, AM2	
DA	AM1, AM2, CL1			AM2, CL1	CL1	AM1, AM2, CL1	AM1, AM2, CL1	AM2, CS1, CL1		AM1, AM2, CL1, DA1	AM2, CL1	AM2, CL1			AM1, AM2		AM2, CL1		AM1, AM2, CL1	CL1	AM1, AM2, CL1	AM1, AM2					AM1, AM2	
EC	AE1, AM2, MA1, ME3, CL1	MA1, ME3	MA1, ME3	AM2, EE4, MA1, ME3, CL1	BT1, MA1, ME3, CL1	AE1, AM2, MA1, ME3, CL1	AM2, MA1, ME3, CL1, BT1	AM2, CS1, MA1, ME3, CL1	MA1, ME3	AM2, EE7, CL1, DA1	AM2, EE1, EE3, EE4, EE6, EE7, MA1, ME3, CL1, EE5	AM2, EE2, EE4, EE6, EE7, MA1, ME3, CL1, EE5	ME3	MA1, ME3	AM2, MA1, ME3	MA1, ME3	AM2, EE4, EE6, EE7, MA1, ME3, CL1, EE5	MA1, ME3	AE1, AM2, MA1, ME3, CL1	MA1, ME3, CL1	AM2, MA1, ME3, CL1	AM2, MA1, ME3	MA1, ME3	MA1, ME3	MA1, ME3	MA1, ME3	MA1, ME3	AE1, AM2, ME3	ME3
EE	AE1, AM2, MA1, ME3, PH1, CL1	MA1, ME3, PH1	MA1, ME3, PH1	AM2, EE4, MA1, ME3, PH1, CL1	BT1, MA1, ME3, PH1, CL1	AE1, AM2, MA1, ME3, PH1, CL1	AM2, MA1, ME3, PH1, CL1, BT1	AM2, CS1, MA1, ME3, PH1, CL1	MA1, ME3, PH1	AM2, EE7, CL1, DA1	AM2, EE1, EE3, EE4, EE6, EE7, MA1, ME3, PH1, CL1, EE5	AM2, EE2, EE4, EE6, EE7, MA1, ME3, PH1, CL1, EE5	ME3	MA1, ME3, PH1	AM2, MA1, ME3, PH1	MA1, ME3, PH1	AM2, EE4, EE6, EE7, MA1, ME3, PH1, CL1, EE5	MA1, ME3, PH1	AE1, AM2, MA1, ME3, PH1, CL1	MA1, ME3, PH1, CL1	AM2, MA1, ME3, PH1, CL1	AM2, MA1, ME3, PH1	MA1, ME3, PH1	MA1, ME3, PH1	MA1, ME3, PH1	MA1, ME3, PH1	MA1, ME3, PH1	AE1, AM2, ME3, PH1	ME3, PH1
EN	AE1, ME1, CL1	ME1	ME1	ME1, CL1	BT1, ME1, CL1	AE1, ME1, CL1	ME1, CL1, BT1	CS1, ME1, CL1	ME1	CL1, DA1	ME1, CL1	EE2, ME1, CL1	ME1	ME1	ME1, CL1	ME1	ME1, CL1	ME1	AE1, ME1, CL1	ME1, CL1	ME1, CL1	ME1	ME1	ME1	ME1	ME1	ME1	AE1, ME1, CL1	ME1

QD	GATE Paper																												
	AE	AG	AR	BM	BT	CE	CH	CS	CY	DA	EC	EE	ES	EY	GE	GG	IN	MA	ME	MN	MT	NM	PE	PH	PI	ST	TF	XE	XL
EP	PH1, CL1	PH1	PH1	EE4, PH1, CL1	BT1, PH1, CL1	PH1, CL1	PH1, CL1, BT1	CS1, PH1, CL1	PH1	EE7, CL1, DA1	EE1, EE3, EE4, EE5, EE6, EE7, PH1, CL1	EE2, EE4, EE5, EE6, EE7, PH1, CL1		PH1	PH1, CL1	PH1	EE4, EE5, EE6, EE7, PH1, CL1	PH1	PH1, CL1	PH1, CL1	PH1, CL1	PH1	PH1	EE5, PH1	PH1	PH1	PH1	PH1, CL1	PH1
ES	CL1	CE2, CE4		CL1	BT1, CE2, CL1	CE2, CE4, CL1	CE2, CH1, CL1, BT1	CS1, CL1		CL1, DA1	CL1	CL1	CE2, CE4, CH1		CL1		CL1		CE2, CE4, CL1	CL1	CL1							CE2, CE4, CL1	
IE	ME3, CL1	ME3	ME3	ME3, CL1	BT1, ME3, CL1	ME3, CL1	ME3, CL1, BT1	CS1, ME3, CL1	ME3	CL1, DA1	ME3, CL1	ME3, CL1	ME3	ME3	ME3, CL1	ME3	ME3, CL1	ME3	ME3, CL1	ME3, CL1	ME3, CL1	ME3	ME3	ME3	ME3	ME3	ME3	ME3, CL1	ME3
IN	AE1, AM2, ME3, CL1	ME3	ME3	AM2, EE4, ME3, CL1	BT1, ME3, CL1	AE1, AM2, ME3, CL1	AM2, ME3, CL1, BT1	AM2, CS1, ME3, CL1	ME3	AM2, EE7, CL1, DA1	AM2, EE1, EE3, EE4, EE6, EE7, ME3, CL1, EE5	AM2, EE2, EE4, EE6, EE7, ME3, CL1, EE5	ME3	ME3	AM2, ME3	ME3	AM2, EE4, EE6, EE7, ME3, CL1, EE5	ME3	AE1, AM2, ME3, CL1	ME3, CL1	AM2, ME3, CL1	AM2, ME3	ME3	ME3	ME3	ME3	ME3	AE1, AM2, ME3	ME3
IT	CL1			CL1	BT1, CL1	CL1	CL1, BT1	CS1, CL1		CL1, DA1	CL1	CL1			CL1		CL1		CL1	CL1	CL1							CL1	
ME	AE1, AM1, AM2, MA1, ME1, ME2, ME3, MM1, CL1	CE2, CE4, MA1, ME1, ME2, ME3, MM1	MA1, ME1, ME2, ME3, MM1	AM2, MA1, ME1, ME2, ME3, MM1, CL1	BT1, CE2, MA1, ME1, ME2, ME3, MM1, CL1	AE1, AM1, AM2, CE2, CE4, MA1, ME1, ME2, ME3, MM1, OE2, PE1, CL1	AM1, AM2, CE2, MA1, ME1, ME2, ME3, MM1, PE1, CL1, BT1	AM2, CS1, MA1, ME1, ME2, ME3, MM1, CL1	MA1, ME1, ME2, ME3, MM1	AM1, AM2, CL1, DA1	AM2, MA1, ME1, ME2, ME3, MM1, CL1	AM2, MA1, ME1, ME2, ME3, MM1, CL1	CE2, CE4, ME1, ME2, ME3, MM1	MA1, ME1, ME2, ME3, MM1	AM1, AM2, MA1, ME1, ME2, ME3, MM1, PE1	MA1, ME1, ME2, ME3, MM1	AM2, MA1, ME1, ME2, ME3, MM1, CL1	MA1, ME1, ME2, ME3, MM1	AE1, AM1, AM2, CE2, CE4, MA1, ME1, ME2, ME3, MM1, OE2, PE1, CL1	MA1, ME1, ME2, ME3, MM1, CL1	AM1, AM2, MA1, ME1, ME2, ME3, MM1, CL1	AM1, AM2, MA1, ME1, ME2, ME3, MM1, OE2, PE1	MA1, ME1, ME2, ME3, MM1, PE1	MA1, ME1, ME2, ME3, MM1	MA1, ME1, ME2, ME3, MM1	MA1, ME1, ME2, ME3, MM1	MA1, ME1, ME2, ME3, MM1	AE1, AM1, AM2, CE2, CE4, ME1, ME2, ME3, MM1	ME1, ME2, ME3, MM1
MF	AE1, ME3, MM1, CL1	ME3, MM1	ME3, MM1	ME3, MM1, CL1	BT1, ME3, MM1, CL1	AE1, ME3, MM1, CL1	ME3, MM1, CL1, BT1	CS1, ME3, MM1, CL1	ME3, MM1	CL1, DA1	ME3, MM1, CL1	ME3, MM1, CL1	ME3, MM1	ME3, MM1	ME3, MM1, CL1	ME3, MM1	ME3, MM1, CL1	ME3, MM1	AE1, ME3, MM1, CL1	ME3, MM1, CL1	ME3, MM1, CL1	ME3, MM1	ME3, MM1	ME3, MM1	ME3, MM1	ME3, MM1	ME3, MM1	AE1, ME3, MM1, CL1	ME3, MM1
ML	ME3, CL1	ME3	ME3	ME3, CL1	BT1, ME3, CL1	ME3, CL1	ME3, CL1, BT1	CS1, ME3, CL1	ME3	CL1, DA1	ME3, CL1	ME3, CL1	ME3	ME3	ME3, CL1	ME3	ME3, CL1	ME3	ME3, CL1	ME3, CL1	ME3, CL1	ME3	ME3	ME3	ME3	ME3	ME3	ME3, CL1	ME3
MM	AE1, AM1, AM2, MA1, MM1, PH1, CL1	MA1, MM1, PH1	MA1, MM1, PH1	AM2, MA1, MM1, PH1, CL1	BT1, MA1, MM1, PH1, CL1	AE1, AM1, AM2, MA1, MM1, PH1, CL1	AM1, AM2, MA1, MM1, PH1, CL1, BT1	AM2, CS1, MA1, MM1, PH1, CL1	MA1, MM1, PH1	AM1, AM2, CL1, DA1	AM2, MA1, MM1, PH1, CL1	AM2, MA1, MM1, PH1, CL1	MM1	MA1, MM1, PH1	AM1, AM2, MA1, MM1, PH1, CL1	MA1, MM1, PH1	AM2, MA1, MM1, PH1, CL1	MA1, MM1, PH1	AE1, AM1, AM2, MA1, MM1, PH1, CL1	MA1, MM1, PH1, CL1	AM1, AM2, MA1, MM1, PH1, CL1	AM1, AM2, MA1, MM1, PH1	MA1, MM1, PH1	MA1, MM1, PH1	MA1, MM1, PH1	MA1, MM1, PH1	MA1, MM1, PH1	AE1, AM1, AM2, MM1, PH1, CL1	MM1, PH1

QD	GATE Paper																												
	AE	AG	AR	BM	BT	CE	CH	CS	CY	DA	EC	EE	ES	EY	GE	GG	IN	MA	ME	MN	MT	NM	PE	PH	PI	ST	TF	XE	XL
MR	ME1, CL1	ME1	ME1	ME1, CL1	BT1, ME1, CL1	ME1, CL1	ME1, CL1, BT1	CS1, ME1, CL1	ME1	CL1, DA1	ME1, CL1	ME1, CL1	ME1	ME1	ME1, CL1	ME1	ME1, CL1	ME1	ME1, CL1	ME1, CL1	ME1, CL1	ME1	ME1	ME1	ME1	ME1	ME1	ME1, CL1	ME1
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PE	ME1, CL1	ME1	ME1	ME1, CL1	BT1, ME1, CL1	ME1, PE1, CL1	ME1, PE1, CL1, BT1	CS1, ME1, CL1	ME1	CL1, DA1	ME1, CL1	ME1, CL1	ME1	ME1	ME1, PE1, CL1	ME1	ME1, CL1	ME1	ME1, PE1, CL1	ME1, CL1	ME1, CL1	ME1, PE1	ME1, PE1	ME1	ME1	ME1	ME1	ME1, CL1	ME1
PI	ME3, CL1	ME3	ME3	ME3, CL1	BT1, ME3, CL1	ME3, CL1	ME3, CL1, BT1	CS1, ME3, CL1	ME3	CL1, DA1	ME3, CL1	ME3, CL1	ME3	ME3	ME3, CL1	ME3	ME3, CL1	ME3	ME3, CL1	ME3, CL1	ME3, CL1	ME3	ME3	ME3	ME3	ME3	ME3	ME3, CL1	ME3
PR	AE1, AM1, ME3, MM1, CL1	ME3, MM1	ME3, MM1	ME3, MM1, CL1	BT1, ME3, MM1, CL1	AE1, AM1, ME3, MM1, CL1	AM1, ME3, MM1, CL1, BT1	CS1, ME3, MM1, CL1	ME3, MM1	AM1, CL1, DA1	ME3, MM1, CL1	ME3, MM1, CL1	ME3, MM1	ME3, MM1	AM1, ME3, MM1, CL1	ME3, MM1	ME3, MM1, CL1	ME3, MM1	AE1, AM1, ME3, MM1, CL1	ME3, MM1, CL1	AM1, ME3, MM1, CL1	AM1, ME3, MM1	ME3, MM1	ME3, MM1	ME3, MM1	ME3, MM1	ME3, MM1	AE1, AM1, ME3, MM1, CL1	ME3, MM1
ZE	AE1, AM1, AM2, ME1, ME2, ME3, MM1, PH1, CL1	CE2, CE4, ME1, ME2, ME3, MM1, PH1	CE1, CE6, ME1, ME2, ME3, MM1, PH1	AM2, EE4, ME1, ME2, ME3, MM1, PH1, CL1	BT1, CE2, ME1, ME2, ME3, MM1, PH1, CL1	AE1, AM1, AM2, CE1, CE2, CE3, CE4, CE5, CE6, ME1, ME2, ME3, MM1, PH1, CL1	AM1, AM2, CE2, CH1, CA1, ME1, ME2, ME3, MM1, PH1, CL1, BT1	AM2, CS1, ME1, ME2, ME3, MM1, PH1, CL1	CA1, ME1, ME2, ME3, MM1, PH1	AM1, AM2, EE7, CL1, DA1	AM2, EE1, EE3, EE4, EE6, EE7, ME1, ME2, ME3, MM1, PH1, CL1, EE5	AM2, EE2, EE4, EE6, EE7, ME1, ME2, ME3, MM1, PH1, CL1, EE5	CE2, CE4, ME1, ME2, ME3, MM1, CH1	ME1, ME2, ME3, MM1, PH1	AM1, AM2, ME1, ME2, ME3, MM1, PH1, CL1	ME1, ME2, ME3, MM1, PH1	AM2, EE4, EE6, EE7, ME1, ME2, ME3, MM1, PH1, CL1, EE5	ME1, ME2, ME3, MM1, PH1	AE1, AM1, AM2, CE2, CE4, ME1, ME2, ME3, MM1, PH1, CL1	ME1, ME2, ME3, MM1, PH1, CL1	AM1, AM2, ME1, ME2, ME3, MM1, PH1, CL1	AM1, AM2, ME1, ME2, ME3, MM1, PH1	ME1, ME2, ME3, MM1, PH1	ME1, ME2, ME3, MM1, PH1	ME1, ME2, ME3, MM1, PH1	ME1, ME2, ME3, MM1, PH1	ME1, ME2, ME3, MM1, PH1	AE1, AM1, AM2, CE2, CE4, ME1, ME2, ME3, MM1, PH1, CL1	ME1, ME2, ME3, MM1, PH1
CY	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	CA1, MM1, PH1	CS1, MM1, PH1	CA1, MM1, PH1	DA1	MM1, PH1	MM1, PH1	MM1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1
GG						PE1	PE1	CS1		DA1					PE1				PE1			PE1	PE1						
MA	MA1	MA1	MA1	MA1	MA1	MA1	MA1	CS1, MA1	MA1	DA1	MA1	MA1		MA1	MA1	MA1	MA1	MA1	MA1	MA1	MA1	MA1	MA1	MA1	MA1	MA1	MA1		
MC								CS1		DA1																			
MP								CS1		DA1																			
MS	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	CS1, MM1, PH1	MM1, PH1	DA1	MM1, PH1	MM1, PH1	MM1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1
NT	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	CS1, MM1, PH1	MM1, PH1	DA1	MM1, PH1	MM1, PH1	MM1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1	MM1, PH1
OR								CS1		DA1																			

QD	GATE Paper																											
	AE	AG	AR	BM	BT	CE	CH	CS	CY	DA	EC	EE	ES	EY	GE	GG	IN	MA	ME	MN	MT	NM	PE	PH	PI	ST	TF	XE	XL
PH	MA1, MM1, PH1	MA1, MM1, PH1	MA1, MM1, PH1	MA1, MM1, PH1	MA1, MM1, PH1	MA1, MM1, PH1	MA1, MM1, PH1	CS1, MA1, MM1, PH1	MA1, MM1, PH1	DA1	EE5, MA1, MM1, PH1	EE5, MA1, MM1, PH1	MM1	MA1, MM1, PH1	MA1, MM1, PH1	MA1, MM1, PH1	EE5, MA1, MM1, PH1	MA1, MM1, PH1	MA1, MM1, PH1	MA1, MM1, PH1	MA1, MM1, PH1	MA1, MM1, PH1	MA1, MM1, PH1	EE5, MA1, MM1, PH1	MA1, MM1, PH1	MA1, MM1, PH1	MA1, MM1, PH1	MM1, PH1	MM1, PH1
ST								CS1		DA1																			
ZL								CS1		DA1																			
ZS	AE1, ME1, ME2, MM1	ME1, ME2, MM1	ME1, ME2, MM1	ME1, ME2, MM1	ME1, ME2, MM1	AE1, ME1, ME2, MM1	CH1, CA1, ME1, ME2, MM1	CS1, ME1, ME2, MM1	CA1, ME1, ME2, MM1	DA1	ME1, ME2, MM1	ME1, ME2, MM1	ME1, ME2, MM1, CH1	ME1, ME2, MM1	ME1, ME2, MM1	ME1, ME2, MM1	ME1, ME2, MM1	ME1, ME2, MM1	AE1, ME1, ME2, MM1	ME1, ME2, MM1	ME1, ME2, MM1	ME1, ME2, MM1	ME1, ME2, MM1	ME1, ME2, MM1	ME1, ME2, MM1	ME1, ME2, MM1	ME1, ME2, MM1	AE1, ME1, ME2, MM1	ME1, ME2, MM1

Important Note: seats are NOT available for some departments/ qualifying disciplines. Please refer to Table 3 of the Brochure for details.

QD- Qualifying Discipline Code

2.10 Admission procedure

2.10.1 GATE Qualified Indian Nationals

Admission to candidates (who are not required to take Suitability Test/ Interview) will be finalized strictly in the order of merit as per the GATE Score (CGPA & Department Review for IIT Graduates) and on the basis of choices given by them in the application.

Persons with Disability (PwD): For PwD candidates with any category of disability (viz., blindness or low vision, hearing impairment, loco motor disability, or cerebral palsy), the benefit will be given to only those who have at least 40% permanent physical impairment in relation to a body part/ system/ extremity/ whole body, etc. Such candidates must upload, along with the Application Form, the Certificate of Disability from the authorized medical board attached to one of the following: Vocational Rehabilitation Centre (VRC) for Physically Handicapped persons/ Special Employment Exchange for Physically Handicapped/ Government Hospital (District and State level).

Timeline for Admission offers: The first set of offers will likely be sent by 13-15 May 2024. These offers will be made available on the COAP portal. Candidates are advised to register on the COAP portal and follow the offer acceptance process and the associated guidelines. The candidates, who accept & freeze their offer, have to make online payment of Institute Fees within the stipulated date. Online Procedural Details are available at the M.Tech. Admissions Portal. After completing the acceptance either in the Main or Additional rounds, if seats are unfilled, some additional spot rounds may be initiated after the day of Admission.

- There is a possibility of upgrading the choice(s) of the candidates who have already accepted the offer of Admission, depending upon the subsequent availability of vacancies in the subsequent round of offers within the institute.
- Additional round(s) of offer after admission day (July 2024) will be offered online if vacancies arise.

When the candidates who are given Admission during the first, second, and subsequent rounds of offers withdraw from the programmes, few seats may get vacant. If the seats fall vacant, additional online spot rounds may be conducted in July 2024 to fill these remaining vacancies. Candidates who could not secure Admission in the first, second, and subsequent rounds of offers before the Admission Day will be considered for this spot round. Candidates are NOT required to report In-Person for any of these additional rounds. These spot rounds will be handled similarly to any of the additional rounds, which are decisive. Please note that the spot round of offers after Admission Day will be operated only when there are any unfilled seats. Its operational details will be available on the M.Tech. Admission Portal: https://mtechadm.iitm.ac.in

Reporting for Admission

GATE qualified candidates and IIT B.Tech. Graduates who accept the offer of Admission must produce completion certificate of their qualifying degree examination and join the Institute on Tuesday 23 July 2024 forenoon. Failure to do so may result in the cancellation of the offer of Admission. Sponsored candidates should report for Admission on Tuesday 23 July 2024* afternoon. Selected candidates will have to pay various fees and deposit amounts as applicable. The candidate must produce a medical fitness certificate from a Registered Medical Practitioner in the format which can be downloaded along with the letter of offer of Admission. In all matters relating to Admission, the decision of the M.Tech. Admission Committee will be final.

2.11 Payment of Admission Fee and Refund Policy

2.11.1 For Indian Nationals:

When Admission is offered and accepted by candidates, the candidates have to pay an Institute Fee of ₹ 23,650/- in the case of General/OBC/EWS candidates and ₹ 18,650/- in the case of SC/ ST/ PwD candidates, using the online payment facility available on the Website. In case a candidate withdraws his/ her offer of Admission, a Processing Fee of ₹ 5000/- will be retained by the Institute, and the remaining amount would be refunded. However, if a candidate accepts the offer of Admission made in the Additional Rounds (July 2024), and pays the Institute Fee, then no refund of the Institute Fee will be made on withdrawal of Admission.

INDIAN INSTITUTE OF TECHNOLOGY MADRAS

Fees for the **M.Tech. Indian Students** to be admitted in the academic year 2024-25.

S.No	Items of Fees & Deposits		(Value in Rs.)
I. INSTITUTE FEES			
A. One time Fees:			
1	Admission fee		3000
2	Student welfare fund		1500
3	Career Pathway Facility charges		5500
4	Alumni Services Fee		6000
	Total A (One Time Fees)		**16000**
B. Semester Fees:			
1	Tuition fee *		25000
2	Enrolment fee		1500
3	Medical fee		1500
4	Seat Rent		7500
5	Utility Charges (Fan, Water, Electricity, Internet Charges) only for Hosteller		5000
	Total B (Semester Fee)		**40500**
C. Deposits (Refundable):			
Institute Deposit and Library Deposit (each Rs.2500)			**5000**
		Total (A+B+C)	**61500**
Institute fees payable through online at https://www.iitm.ac.in/academics & https://pay.iitm.ac.in	**Hostellers**	GE/OBC/EWS	**61500**
		SC/ST/PwD	**36500**
	Day scholars	GE/OBC/EWS	**56500**
		SC/ST/PwD	**31500**

II. HOSTEL FEES & MESS CHARGES PER SEMESTER (Subject to Revision)			
S.No	**Items of Fees & Deposits**	**Hosteller**	**Day Scholar**
1	Hostel Admission fee	500	-
2	Advance Dining charges (120 Days) – Subject to change	17766	-
3	Food Waste Disposal charges	250	-
4	Establishment 'A' charges	7500	-
5	Establishment 'B' charges	1500	-
6	RO Water Charges	500	-
7	Extra-curricular Fee	2000	2000
8	Student Wellness Fee	500	500
9	Medical Insurance Premium (per annum) – Subject to change	2301	2301
10	Hostel Refundable Deposit (at the time of admission only)	5000	-
Hostel Fees payable through online at https://ccw.iitm.ac.in **&** https://dost.iit.ac.in/iitmdost/		**37817**	**4801**
Note – Optional fees of Rs. 7500 for Saarang / Shaastra / E-Summit			

NS - Non-Statutory fees

* - SC/ST/PwD students are exempted from payment of tuition fee irrespective of their parental Income. **Sponsored candidates have to pay a tuition fee of Rs. 50,000/- additionally.**

Advance Dining charges and Student Medical Insurance Premium are subject to change depending on the tender.

Sd/-

Assistant Registrar (Courses)

INDIAN INSTITUTE OF TECHNOLOGY MADRAS

Fees for the **M.A. Indian Students** to be admitted in the academic year 2024-25.

S.No	Items of Fees & Deposits		(Value in Rs.)
I. INSTITUTE FEES			
A. One time Fees:			
1	Admission fee		3000
2	Student welfare fund		1500
3	Career Pathway Facility charges		5500
4	Alumni Services Fee		6000
	Total A (One Time Fees)		**16000**
B. Semester Fees:			
1	Tuition fee *		20000
2	Enrolment fee		1500
3	Medical fee		1500
4	Seat Rent		7500
5	Utility Charges (Fan, Water, Electricity, Internet Charges) only for Hosteller		5000
	Total B (Semester Fee)		**35500**
C. Deposits (Refundable):			
Institute Deposit and Library Deposit (each Rs.2500)			5000
		Total (A+B+C)	**56500**
Institute fees payable through online at https://www.iitm.ac.in/academics & https://pay.iitm.ac.in	**Total Fee for Hostellers**	GE/OBC/EWS	**56500**
		SC/ST/PwD	**36500**
	Total Fee for Day scholars	GE/OBC/EWS	**51500**
		SC/ST/PwD	**31500**

II. HOSTEL FEES & MESS CHARGES PER SEMESTER (Subject to Revision)

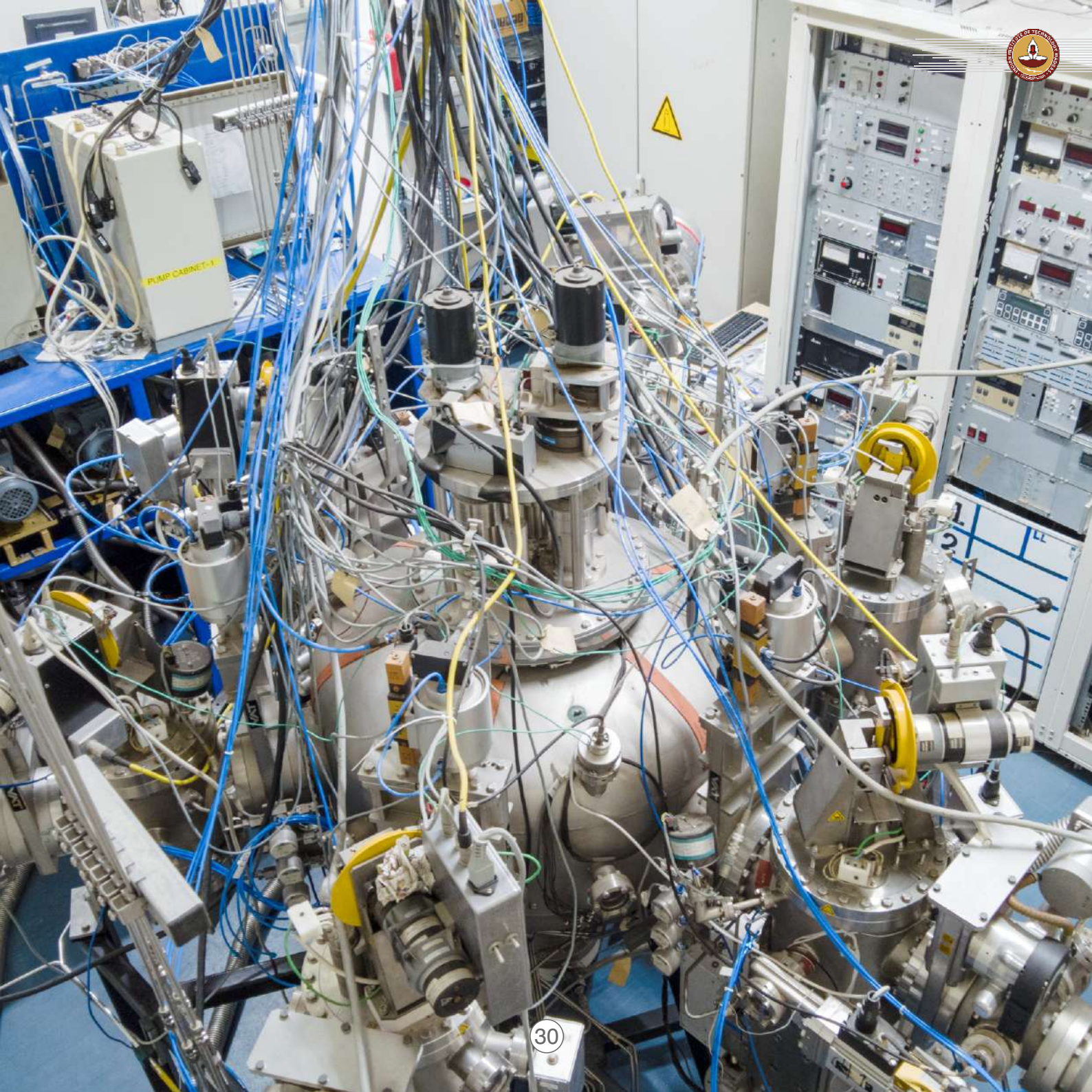
S.No	Items of Fees & Deposits	Hosteller	Day Scholar
1	Hostel Admission fee	500	-
2	Advance Dining charges (120 Days) – Subject to change	17766	-
3	Food Waste Disposal charges	250	-
4	Establishment 'A' charges	7500	-
5	Establishment 'B' charges	1500	-
6	RO Water Charges	500	-
7	Extra-curricular Fee	2000	2000
8	Student Wellness Fee	500	500
9	Medical Insurance Premium (per annum) – Subject to change	2301	2301
10	Hostel Refundable Deposit (at the time of admission only)	5000	-
Hostel Fees payable through online at https://ccw.iitm.ac.in **&** https://dost.iit.ac.in/iitmdost/		**37817**	**4801**
Note – Optional fees of Rs. 7500 for Saarang / Shaastra / E-Summit			

NS - Non-Statutory fees

* - SC/ST/PwD students are exempted from payment of tuition fee irrespective of their parental Income. **Sponsored candidates have to pay a tuition fee of Rs. 50,000/- additionally.**

Advance Dining charges and Student Medical Insurance Premium are subject to change depending on the tender.

Sd/-
Assistant Registrar (Courses)


PUMP CABINET-1

DEPARTMENT OF AEROSPACE ENGINEERING

The Department of Aerospace Engineering at the Indian Institute of Technology Madras (IITM) was established in 1969. Since then it has been in the forefront of fundamental and applied research & development with scientific and social impact in the country.

The department has been involved in activities supporting our national ambitions in the field of Aerospace Engineering. Continued interaction with R&D agencies of international repute in the field of aerospace engineering has led to mutually beneficial research activities.

One of the major contributions to our society has been in the form of training manpower via graduate research programs (PhD and Master of Science by research) as well as course based programs (M.Tech, Dual Degree and B.Tech).

Graduate and undergraduate programs offered are of international repute and considered the best in the country. Various alumni from this department have been at the forefront of research organizations in the country and elsewhere.

Prof. H. S. N. Murthy
Head of the Department

DEPARTMENT OF AEROSPACE ENGINEERING

The Department offers a vibrant academic atmosphere which enables independent research and free exchange of ideas.

Programmes (M.Tech.)

- Aerospace Engineering

Research areas

Aerodynamics and Flight Mechanics

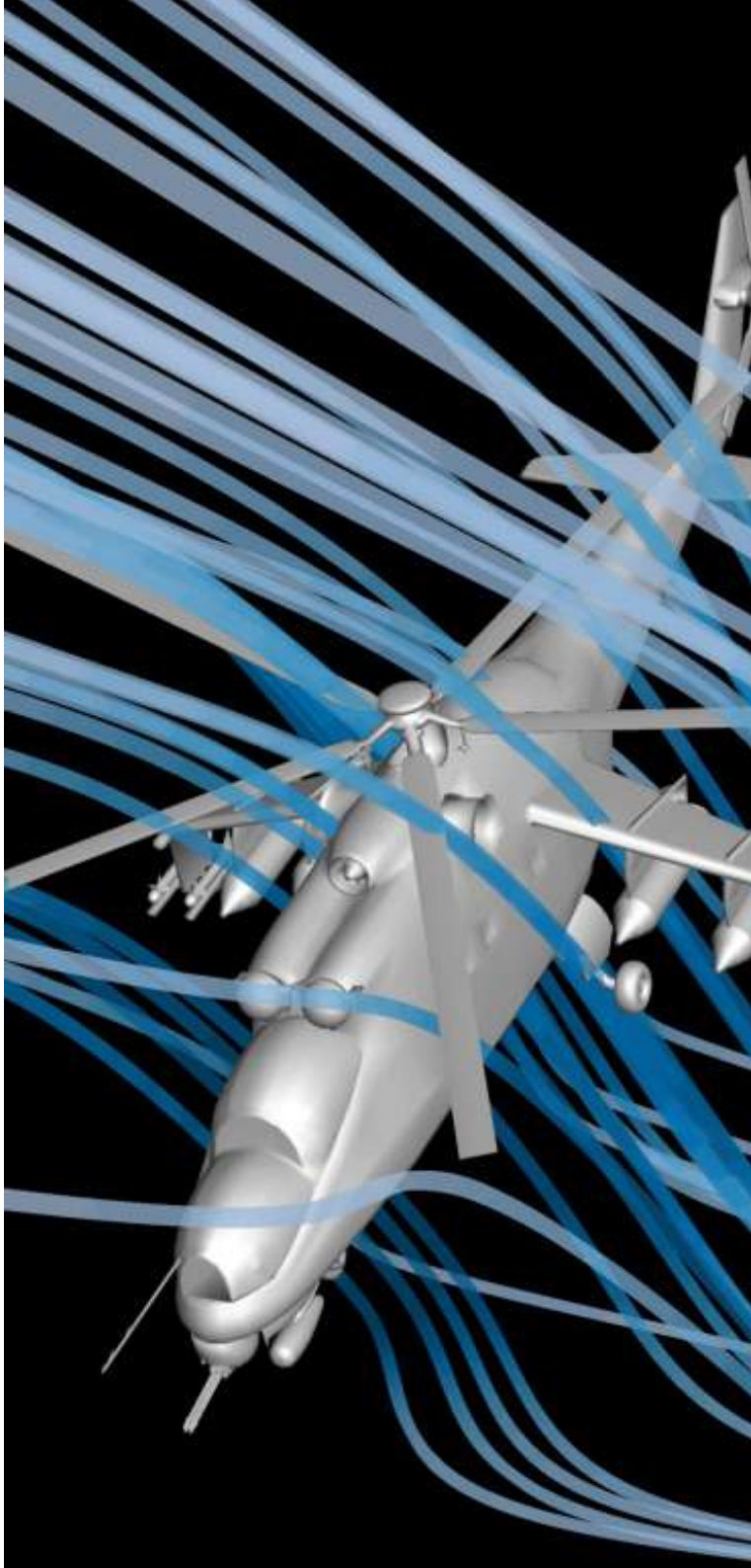
- Subsonic, Transonic, Supersonic, Hypersonic, Rarefied Gas Flows
- Boundary Layers and Stability of Flows, Turbulent Flows
- Shock Tubes and Related Problems
- Development of Algorithms and Code for Numerical Methods in Gas Dynamics and Computational Fluid Dynamics
- Vortex Dynamics, Supersonic Mixing and Combustion
- Optical Flow Diagnostics

Aerospace Propulsion

- Rocket Propulsion and Solid Propellant Combustion
- Airbreathing Propulsion and Combustion
- Multiphase Flow Simulation
- Combustion Instability
- Optical Flow/Combustion Diagnostics
- Cascade flows, High fidelity CFD in Turbomachines

Aerospace Structures

- Finite Element and other Numerical Methods
- Composite Structures
- Fatigue and Fracture Mechanics
- Contact Mechanics
- Vibrations and Impact Mechanics
- Multifunctional Materials
- Multi-scale Modelling



Placements

AGNIKUL

AIRBUS

Collins Aerospace

DISYS®

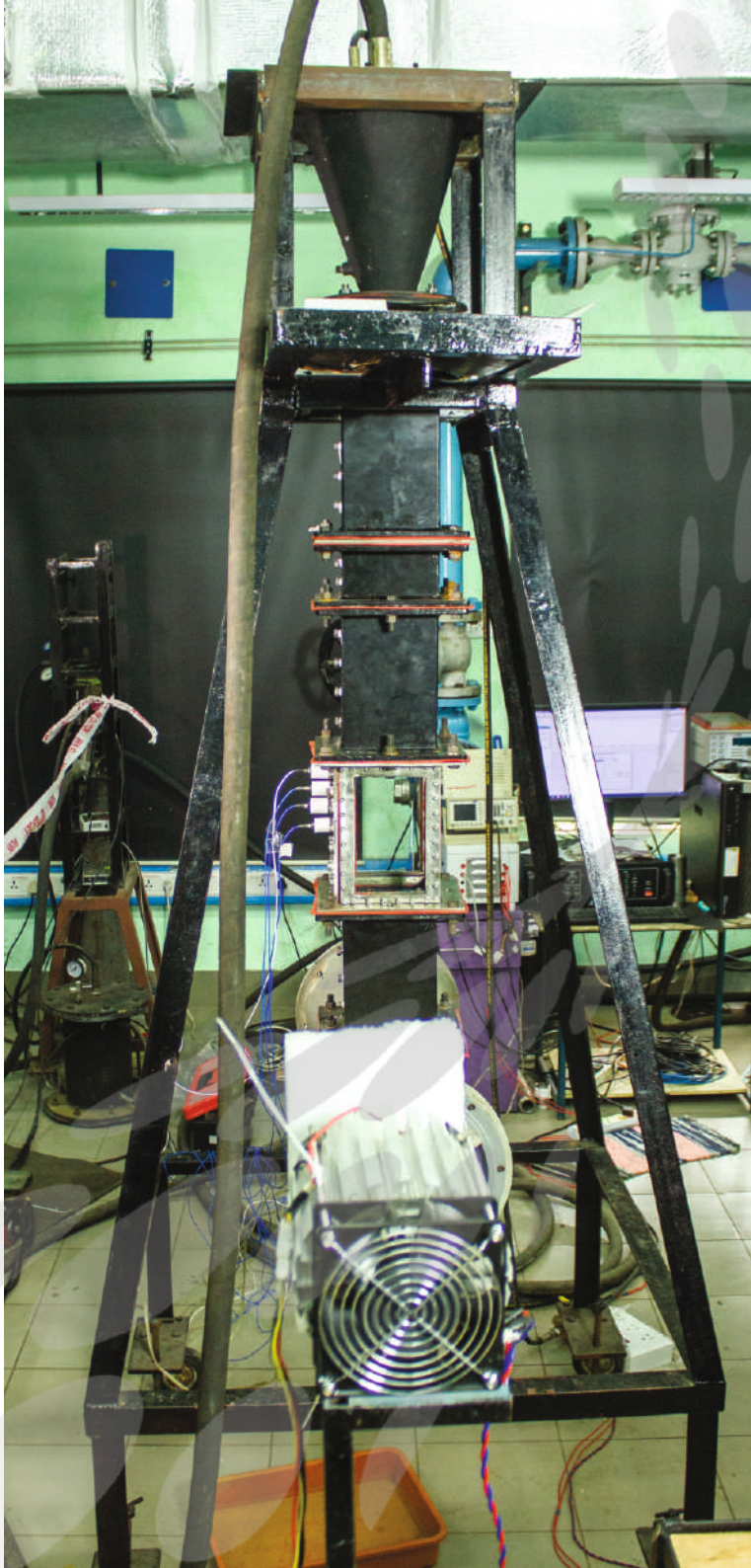
TATA ADVANCED SYSTEMS

FEV

FIITJEE

LENNOX INTERNATIONAL

SIEMENS Gamesa RENEWABLE ENERGY



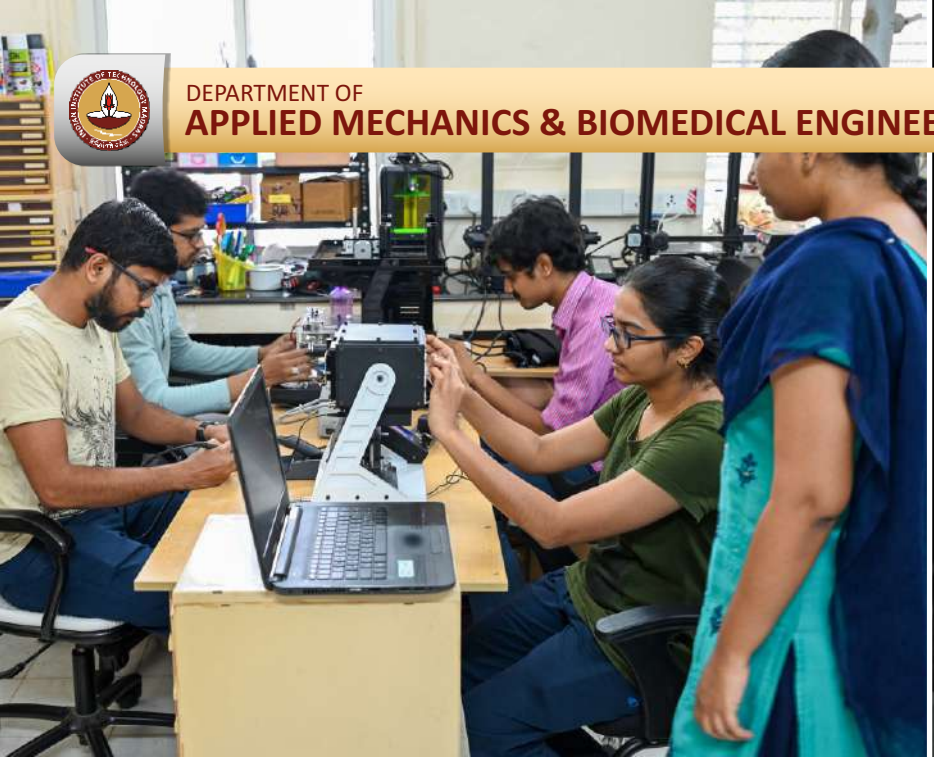
DEPARTMENT OF
AEROSPACE ENGINEERING

Faculty

Dr. Amit Kumar
Dr. Aswathy Surendran
Dr. Bharath Govindarajan
Dr. David Kumar
Dr. Devaprakash Muniraj
Dr. Dipankar Das
Dr. H S N Murthy
Dr. Joel George M
Dr. K Bhaskar
Dr. K V N Gopal
Dr. Luoyi Tao
Dr. M Ramakrishna
Dr. M Senthil Murugan
Dr. Manikandan Mathur
Dr. Nandan K Sinha
Dr. P A Ramakrishna
Dr. P Sriram
Dr. Prashant Rawat
Dr. Pravendra Kumar
Dr. R I Sujith
Dr. R Sriram
Dr. R Velmurugan
Dr. Rajesh G
Dr. Ranjith Mohan
Dr. S R Chakravarthy
Dr. Sameen A
Dr. Santanu Ghosh
Dr. Satadal Ghosh
Dr. Shankar Ghosh
Dr. Shantanu Shashikant Mulay
Dr. Shyam Keralavarma
Dr. Sivasambu Mahesh
Dr. Sunetra Sarkar
Dr. T Jayachandran
Dr. T M Muruganandam
Dr. Vadlamani Nagabhushana Rao

DEPARTMENT OF

APPLIED MECHANICS & BIOMEDICAL ENGINEERING



The Department started in 1962 with an original focus on academic activities in three broad areas, namely, Biomedical Engineering, Fluid Mechanics and Solid Mechanics, Over the years, the department has organically evolved in a fashion that led to blurring the boundaries between the above areas and is today a unique department that focuses on high quality research in fundamental and interdisciplinary engineering in the area of current importance.

It is the only truly graduate-focused interdisciplinary department in the Institute, housing 35+ labs with state-of-the-art facilities. The department boasts of serving with 36 faculty members currently drawn from more than eight fields of engineering and science, reflecting the innately interdisciplinary nature of the department. In addition, about 20 adjunct and visiting faculty members from reputed universities worldwide are engaged in collaborative work with our faculty colleagues and guide research theses and MTech projects. Several guest faculty augment service through course offerings in current trends.

Apart from Ph.D. and M.S. (by research), the department offers three MTech programs now, namely, Computational and Experimental Mechanics, Biomedical Engineering and Clinical Engineering. It also offers Interdisciplinary Dual Degree programs for undergraduates that align with the current interests in the Industry and research circles such as Biomedical Engineering, Computational Engineering, Energy Systems and Complex Systems.

Programmes (M.Tech.)

- Computational and Experimental Mechanics
- Biomedical Engineering
- Clinical Engineering (Interdisciplinary programme)

Research areas

Solid Mechanics

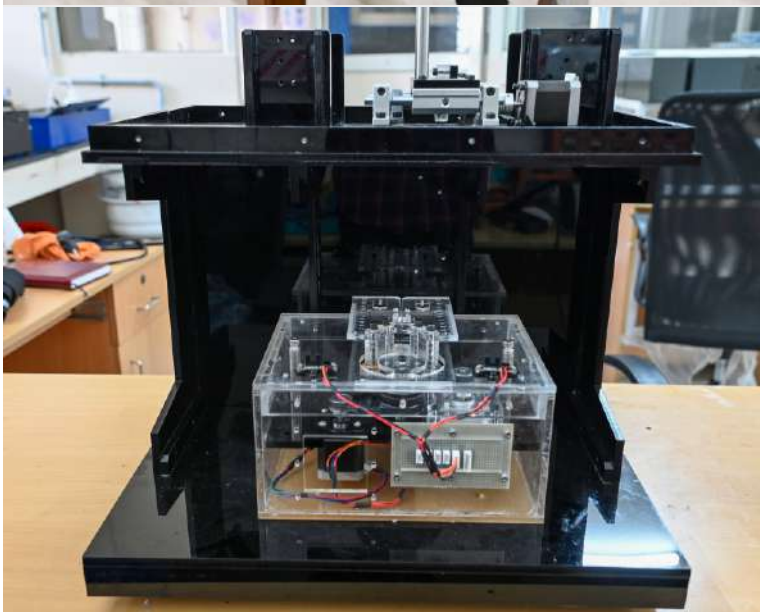
- Composite
- Digital photoelasticity
- Computational methods
- Fracture & Fatigue
- Inelasticity
- Smart materials
- Stochastic mechanics
- Vibrations

Fluid Mechanics

- Forced shear layers
- Insect flight
- Interfacial phenomena
- Bio-fluid dynamics
- Direct simulation of turbulence
- Active flow control algorithms
- Thermal hydraulics
- Unsteady aerodynamics
- Combustion
- Multiphase flows

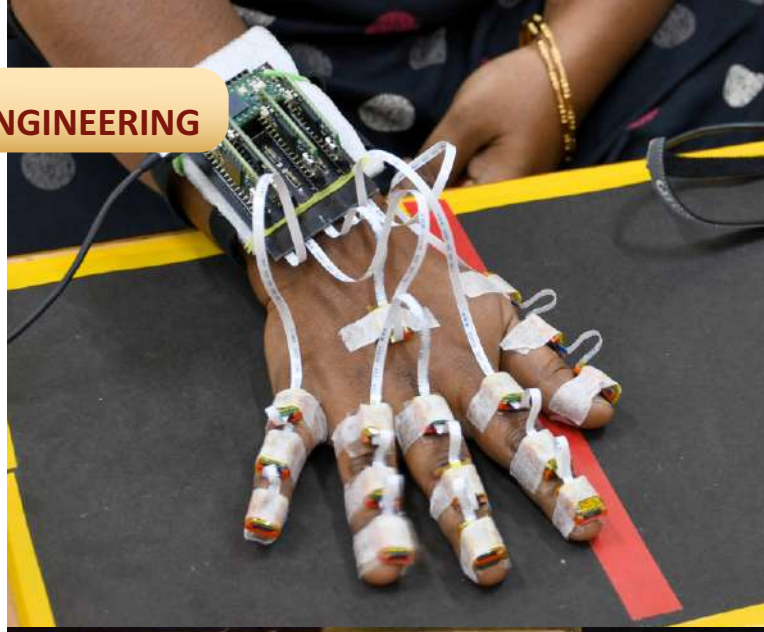
Biomedical

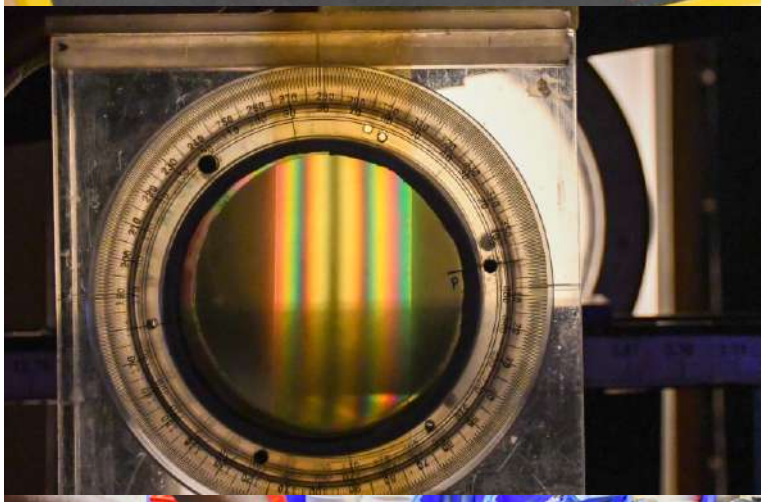
- Bioelectronics
- Biomedical signal processing
- Haptics
- Biomedical Optics
- Biosensors
- Nanobiotech
- Tissue mechanics
- Bio metastatis



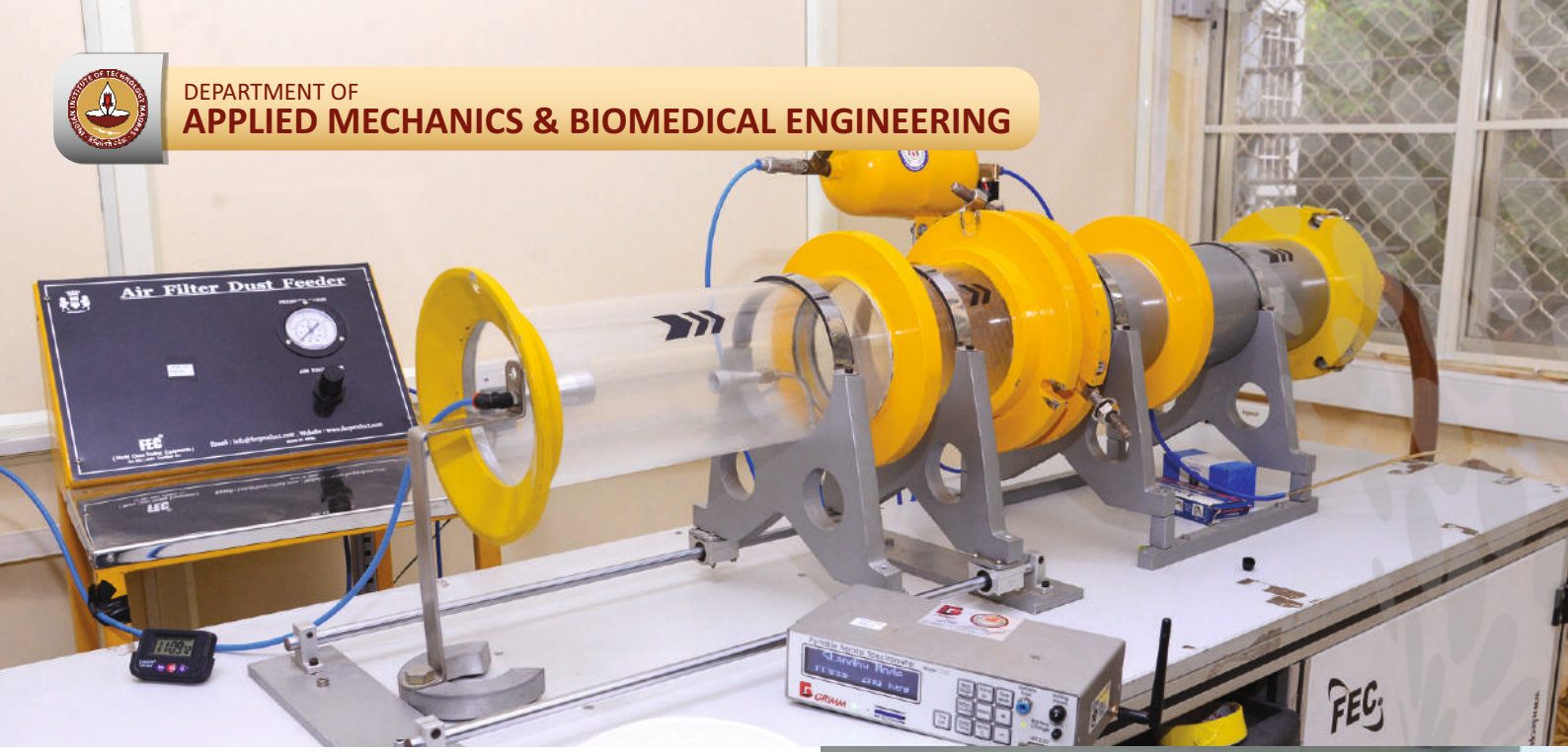
Placements

इसरो ISRO
BAJAJ
AMADA AMADASOFT INDIA
Rane Expanding Horizons
DECISION POINT
apollo TYRES
GALAXEYE
FEV
HSBC
Whirlpool CORPORATION
MIKO 3
TRANSASIA No.1 Diagnostic Company in India
ZEE
KONGSBERG
SIEMENS Healthineers
GE





DEPARTMENT OF
APPLIED MECHANICS & BIOMEDICAL ENGINEERING



Faculty

Dr. Abhijit Chaudhuri
Dr. Anubhab Roy
Dr. Anuradha Banerjee
Dr. A Arockiarajan
Dr. K Arul Prakash
Dr. Arun Kumar Thittai
Dr. Babji Srinivasan
Dr. A P Baburaj
Dr. Ganesh Tamadapu
Dr. Ilaksh Adlakha
Dr. Lakshminath Kundanati
Dr. C Lakshmana Rao
Dr. Mahesh Panchagnula
Dr. M Manivannan
Dr. Pijush Ghosh
Dr. B S V Prasad Patnaik
Dr. V V Raghavendra Sai
Dr. S Ramakrishnan
Dr. M Ramasubba Reddy
Dr. K Ramesh
Dr. Rinku Mukerjee
Dr. Sarith P Sathian
Dr. Satyanarayanan Seshadri
Dr. Saumendra Kumar Bajpai
Dr. Sayan Gupta
Dr. Shaikh Faruque Ali
Dr. M S Sivakumar
Dr. N Sujatha
Dr. S Swathi
Dr. Vagesh D Narasimhamurthy
Dr. S K M Varadhan
Dr. S Vengadesan
Dr. Kiran Raj M
Dr. S Ganga Prasath
Dr. Danny Raj M
Dr. Kannabiran Seshasayanan

DEPARTMENT OF BIOTECHNOLOGY

The Department of Biotechnology at IIT Madras, founded in 2004 and housed in the Bhupat and Jyoti Mehta School of Biosciences, has a multidisciplinary coverage of scientific, technological, socio-economic, and educational domains of interest and aims to be an internationally recognized Centre of repute, collaborating with academic institutions, industries, healthcare institutions and other stakeholders. We aim to attain excellence and competitiveness in the areas of research, teaching, administration, outreach and public relations under the ambit of the Institute, state, and national interests. I invite you to explore our website to learn more about our faculty, research facilities, students, educational programs and on the ongoing research and consultancy projects.

As of 2021, the Department of Biotechnology broadly encompasses four major domains: Biological Sciences, Biomolecular Sciences, Computational Biology, and Biological Engineering, with 33 regular faculty members. Established in 2004, the Department hosts at present ~330 undergraduate students (Dual Degree Programs), ~60 Masters level students (M.Tech/MS), ~200 doctoral scholars (Ph.D.), ~30 postdoctoral scholars and

Prof. Sanjib Senapati
Head of the Department

project staff, and 13 technical and administrative staff. The Department offers two integrated (Dual Degree) programs namely, BS/MS in Biological Sciences or BTech/MTech in Biological Engineering with strong emphasis both on modern biology and engineering and on extensive practical laboratory training. The Department also offers Master of Science (MS) by research, Doctor of Philosophy (Ph.D.) programs along with an M.Tech. in Clinical Engineering, (a multi institutional program) and an MTech program in Bioprocess Engineering. The Department has made significant strides in positioning itself as one of the best centres of excellence in the Biotechnology field in the past decade.

Programmes (M.Tech.)

- Bioprocess Engineering

Research areas

Biological Science

Biological Engineering

Computational Biology

Biochemistry And Molecular Biophysics (BMB)

DEPARTMENT OF
BIOTECHNOLOGY

Biological Science

Placements

Biological Engineering

Computational Biology

B

BEGHOU CONSULTING

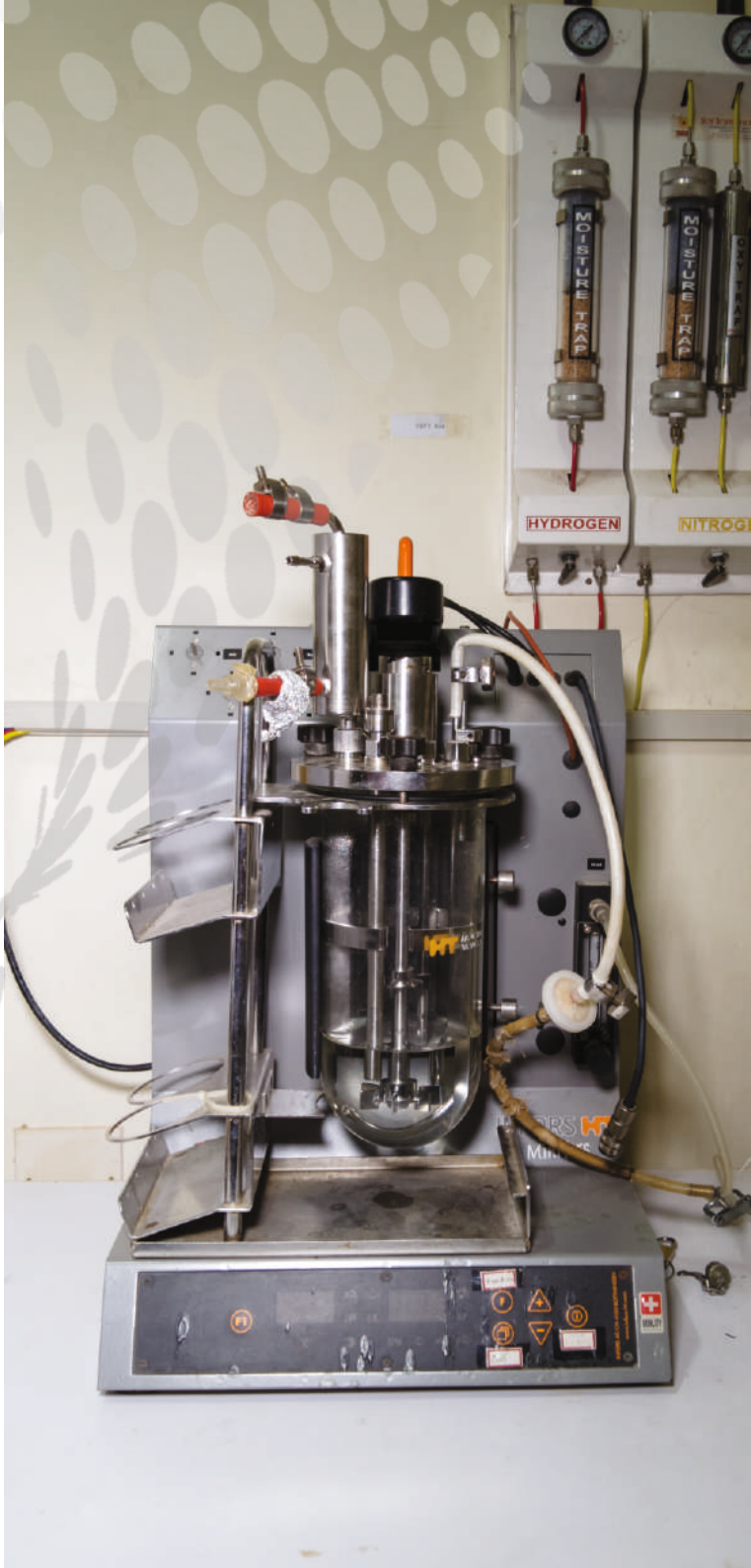
Acharya
IIT-JEE / NEET / FOUNDATION
COACHING

Biocon Biologics
Transforming Healthcare. Transforming Lives.

DEMOLISH

infoedge

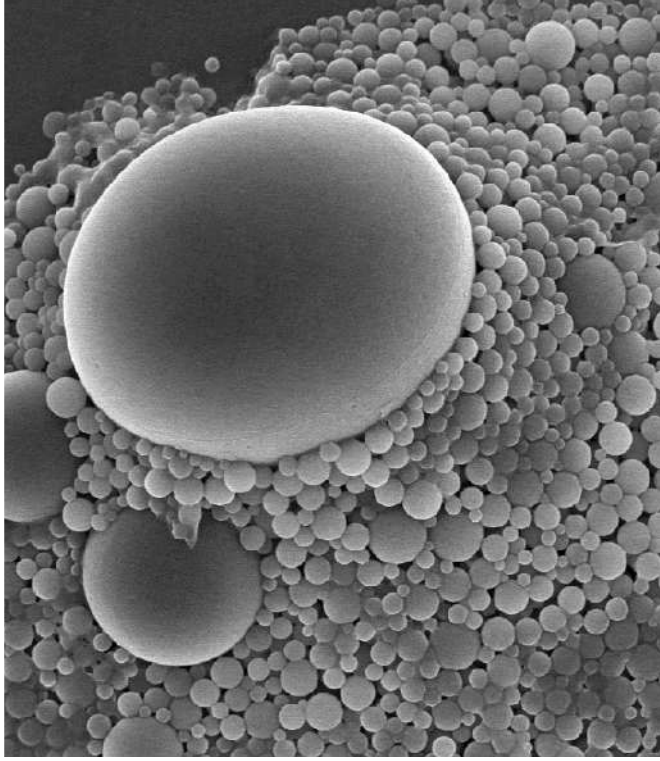
kotak
Kotak Mahindra Bank



DEPARTMENT OF
BIOTECHNOLOGY

Faculty

Dr. A Gopala Krishna
Dr. Amal Kanti Bera
Dr. Arumugam Rajavelu
Dr. Athi N. Naganathan
Dr. G K Suraishkumar
Dr. Greeshma Thrivikraman
Dr. Guhan Jayaraman
Dr. Himanshu Sinha
Dr. K Chandraraj
Dr. K Subramaniam
Dr. Karthik Raman
Dr. Krithika Ravi
Dr. M Hamsa Priya
Dr. M Michael Gromiha
Dr. Madhulika Dixit
Dr. N Manoj
Dr. Nathiya Muthalagu
Dr. Ninitha A J
Dr. Nirav P Bhatt
Dr. Nitish R Mahapatra
Dr. R Baskar
Dr. R Murugan
Dr. Richa Karmakar
Dr. S Mahalingam
Dr. Sanjib Senapati
Dr. Santhosh Sethuramanujam
Dr. Sathyanarayana N Gummadi
Dr. Shantanu Pradhan
Dr. Smita Srivastava
Dr. Suresh Kumar Rayala
Dr. V Kesavan
Dr. V Srinivasa Chakravarthy
Dr. Vani Janakiraman
Dr. Vignesh Muthuvijayan



DEPARTMENT OF CHEMICAL ENGINEERING

Chemical Engineering is a constantly evolving discipline which keeps pace with the developing world. Our department reflects this in its teaching curriculum, research focus, industry partnerships and entrepreneurial initiatives.

In the department, we endeavour to keep up with the current trends of the needs of industry and society at large through our research and consultancy projects, while maintaining a firm grounding in the fundamentals.

We have now embarked upon a very focused internship program for M.Tech. students that is aimed at helping them get an experience of working in core chemical and process industry and also an avenue that may help them seek gainful employment. In line with this we also have courses that focus specifically on the industry experience.

Our academic and research programs are also designed to prepare the students for a wide range of avenues for students to choose their career path. These include employment in industry or further

Prof. Ravikrishna R.
Head of the Department

research as part of a PhD program either in IIT Madras or elsewhere. With an average of 5-6 Ph.D. students and 1-2 PDFs per faculty, research groups are now reaching critical mass.

Faculty from our department are also involved in a number of inter-disciplinary centres of excellence and students can get to be a part of one of these.

In addition to being ranked as the top engineering school in India, IITM has also been recognized as one that has the best innovation/ incubation ecosystem. Nearly 20% of the faculty in ChE are actively involved in start-up's, facilitated by IIT Madras Research Park located next door.

Programmes (M.Tech.)

- Chemical Engineering
- Catalysis Technology *(Interdisciplinary programme)*

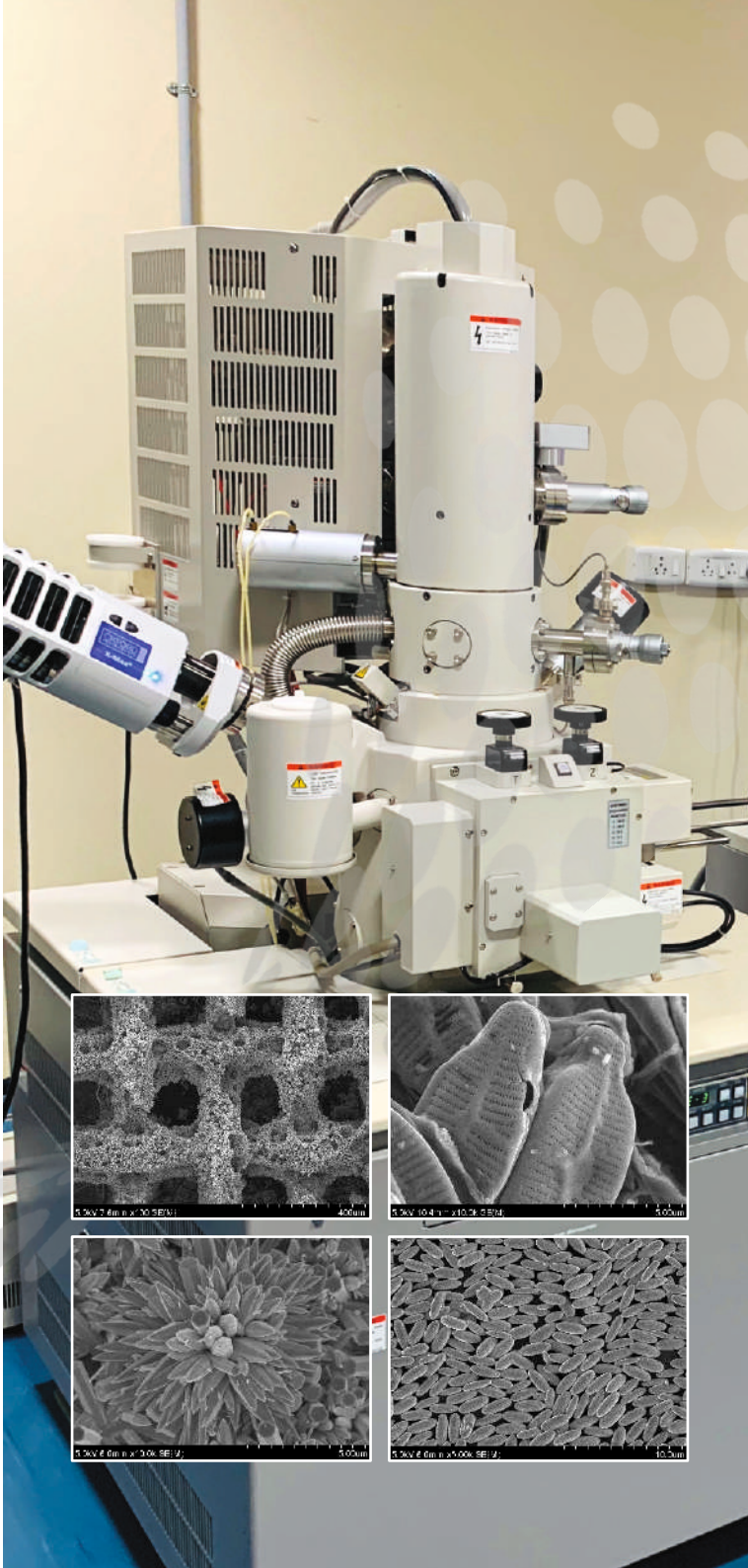
Research areas

Energy and Materials
- Conventional energy
- Renewable and Unconventional

Environment
- Development of processes and materials for the management of waste and environmentalresources
- Fate and transport of pollutants in the environment

Molecular Simulations
- Computational material science
- Physics, chemistry and mechanics of materials
- Materials for energy & environment
- Computational material science

Process Intensification
- Efficient equipment design
- Use of external energy source
- Advanced processes

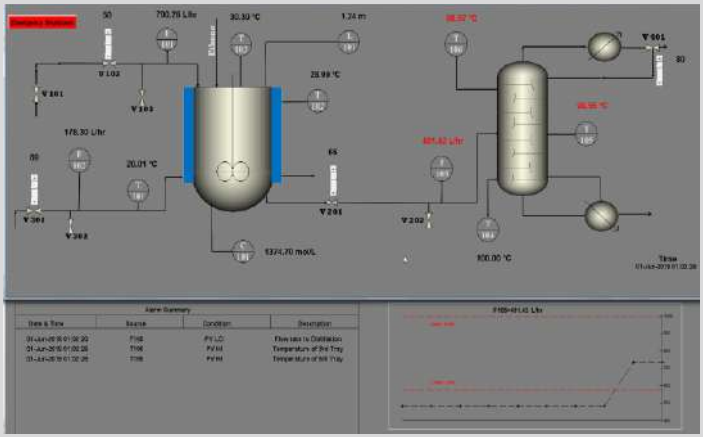


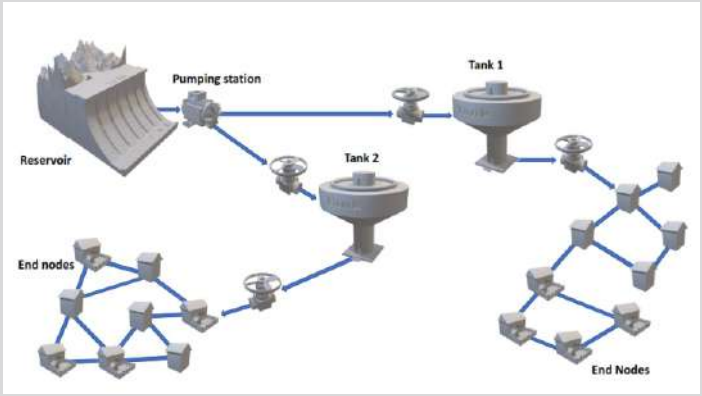
Process systems engineering

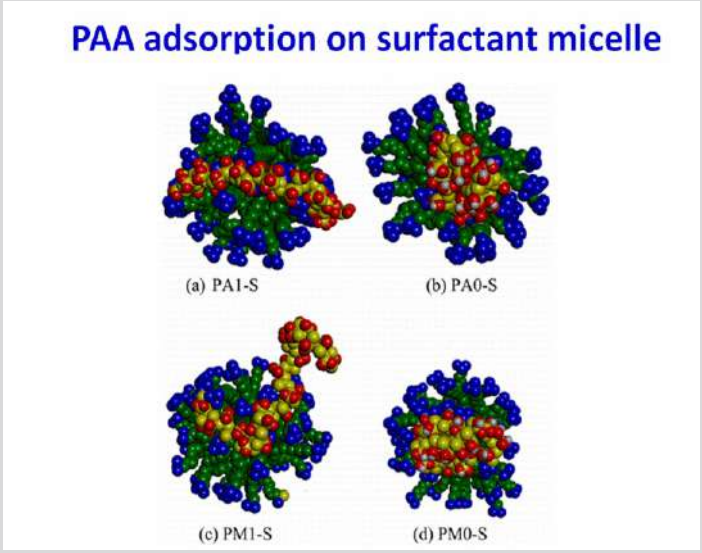
- Systems Engineering and Data Sciences
- Integrated Process Manufacture
- Systems Biology
- Energy and Water Systems

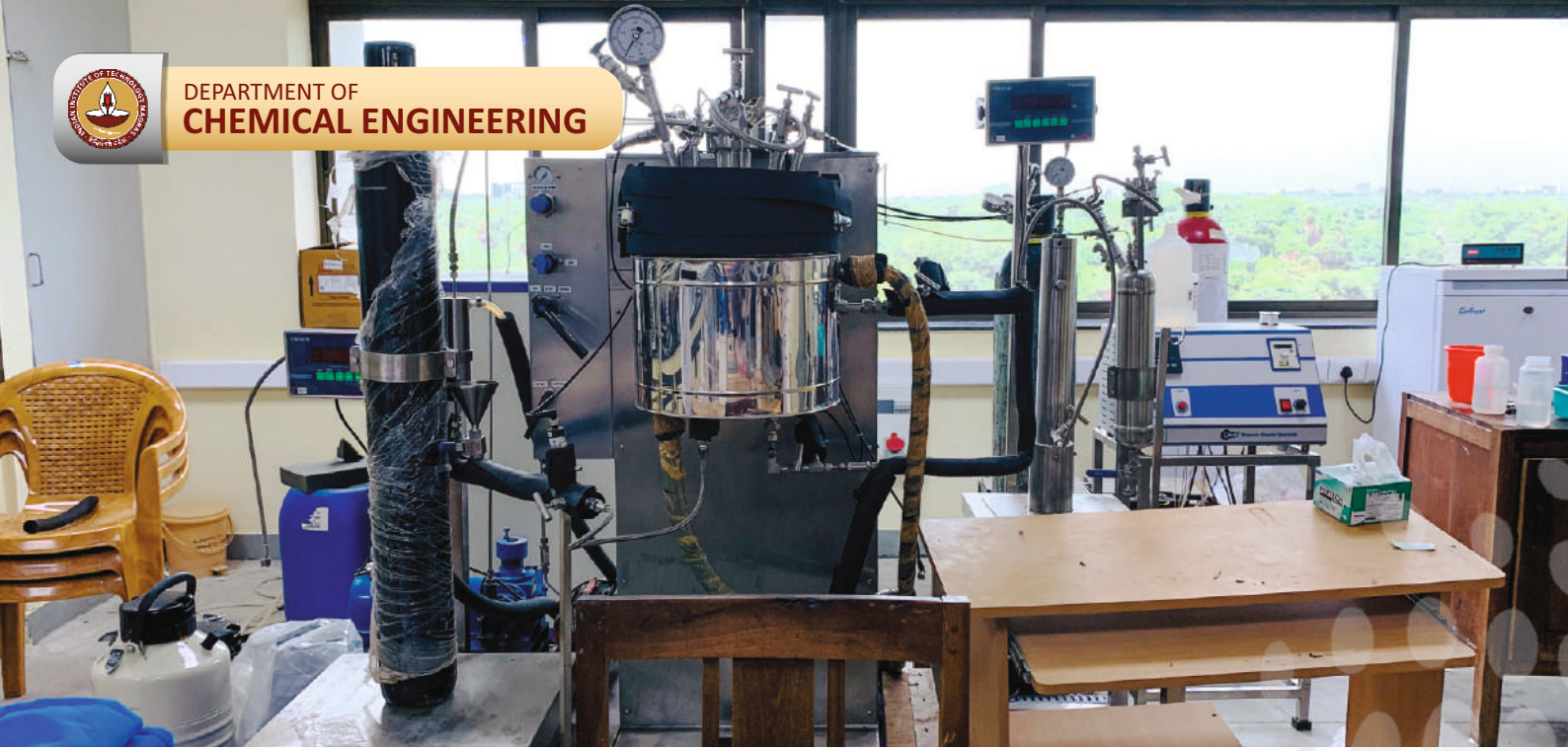
Placements

Aakash BYJU'S
TVS
ZEE
Deloitte.
TCS TATA CONSULTANCY SERVICES
INGENERO Excellence Through Insight
TATA STEEL
SHELL
kotak Kotak Mahindra Bank
SterliteTech
Reliance Industries Limited Growth is Life
Quest global





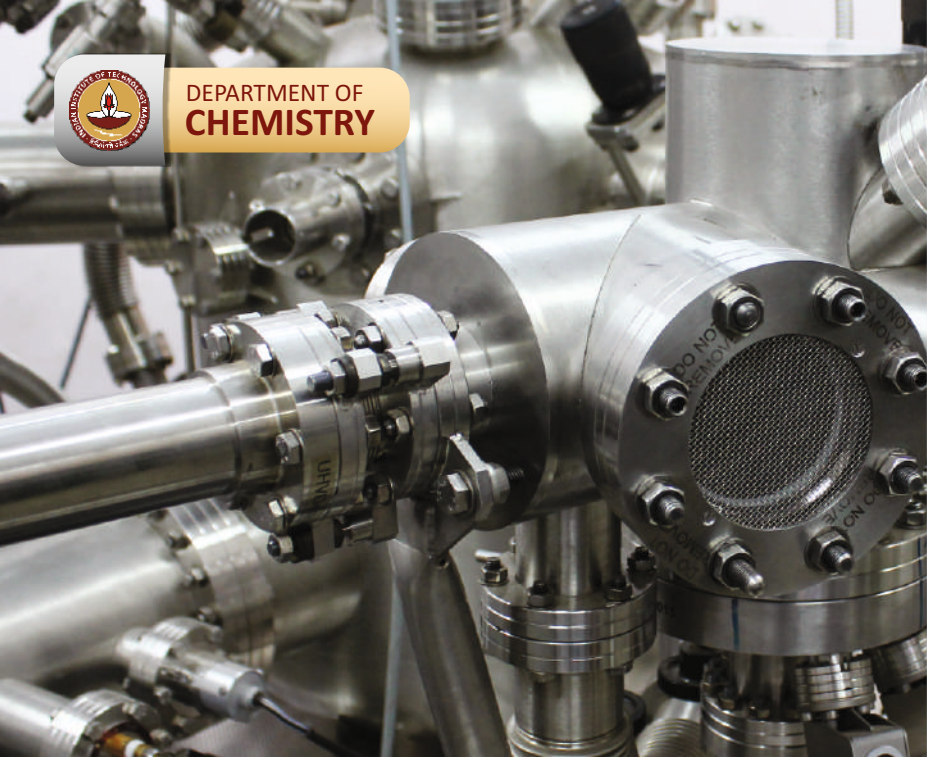




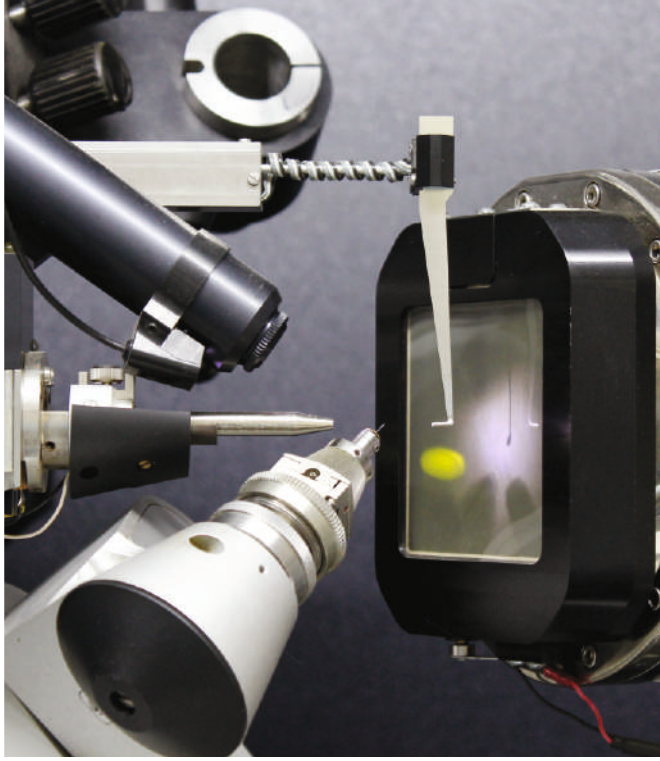
DEPARTMENT OF
CHEMICAL ENGINEERING

Faculty

Dr. Abhijit P. Deshpande
Dr. Arun K. Tangirala
Dr. Aravind Kumar Chandiran
Dr. Basavaraj M. Gurappa
Dr. Ethayaraja Mani
Dr. Himanshu Goyal
Dr. Jitendra Sangwai
Dr. Jithin John Varghese
Dr. Kannan A
Dr. Nagarajan R
Dr. Niket S. Kaisare
Dr. Preeti Aghalayam
Dr. Pushpavanam S
Dr. Raghuram Chetty
Dr. Ragunathan Rengasamy
Dr. Rajagopalan Srinivasan
Dr. Rajnish Kumar
Dr. Ramanarayanan R
Dr. Ramanathan S
Dr. Ravi R
Dr. Ravikrishna R
Dr. Renganathan T
Dr. Shankar Narasimhan
Dr. Sreenivas Jayanti
Dr. Sridharakumar Narasimhan
Dr. Sumesh P. Thampi
Dr. Susy Varughese
Dr. Swapna Rabha
Dr. Tanmay Basak
Dr. Tarak Patra
Dr. Upendra Natarajan
Dr. Vinu R



DEPARTMENT OF
CHEMISTRY



The Department of Chemistry has grown in multiple dimensions and today it has 34 faculty members, and 27 technical and administrative staff members. The Department is home to around 100 M. Sc students and 300 Ph. D students at any given time. The Department is among the best in the country in both teaching and research and is well recognized throughout the world through many of its Alumni. Today, the Department stands tall in terms of quality research at the national and international platforms. Its outstanding and dedicated faculty and students are among its core strengths.

Faculty members of the Department have excelled and are instrumental in the setting up of three different research centres, namely, Thematic Unit of Excellence (TUE) for nanoscience, National Centre for Catalysis Research (NCCR) and Centre for Magnetic Resonance Imaging and Spectroscopy (MRI). They are dynamic and attract excellent funding from both Government and Industry.

The Department is very proud that our faculty members not only practice basic science but also are involved in solving socially

Prof. Sanjay Kumar
Head of the Department

relevant scientific problems such as water purification methods using nano technology.

The Department has two academic programmes, a Master of Science in Chemistry and Ph. D. The selection of the students into the Master's program is through a national level entrance examination called 'JAM', organized jointly by all the IITs in the country. The selection of students into the Ph. D programme is via a pre-qualification in one of the examinations, namely, GATE, CSIR-UGC/JRF and INSPIRE by Government of India, followed by an in-person interview. Details of these programs can be found in this website and also in the IITM website.

Programmes (M.Sc.)

- Chemistry

About

The two years M.Sc (General Chemistry) course is a flagship program of the Department of Chemistry at IIT Madras. The course consists of four semesters with continuous evaluation of the students. The curriculum and syllabus were consciously drawn for a General Chemistry program covering all aspects of chemistry to ensure a well-rounded training in theory as well as laboratory practical aspects of Chemistry. The viva voce conducted during laboratory classes and student seminars were the hallmarks of this program which provided the students with the invaluable experience to "stand up and deliver". The value of such an experience has been deeply appreciated by the Alumni of the Chemistry Department long after their graduation. Presently the students are admitted on the basis of Joint Admissions Test for MSc (JAM), a national level common entrance examination and the students are selected from all over India.

Students have many options/opportunities available to them in India and abroad, and tend to take up various assignments after their M. Sc Degree. A fairly good number

of them still opt for Ph.D. admissions abroad and among the top ranking institutions within India. Not surprisingly, over the years, the Alumni of the M.Sc. Chemistry program have taken up top positions in various academic and research institutions and in top Chemical and Pharma industries around the world. Quite a few of them have been recognized as “Distinguished Alumni” by their Alma Mater for their accomplishments in academics and research.

From a humble beginning with a handfull of motivated students, the M. Sc (General Chemistry) program at IIT Madras has grown from strength to strength into a deep-rooted, fruit-bearing tree that is currently nurtured by a highly qualified and dedicated team of faculty members of the Department of Chemistry. It will hopefully continue to grow and provide extensive knowledge and resource in contemporary topics to the future generation of young chemists.

Placements

Aakash + BYJU'S

ADITYA BIRLA GROUP

Reliance

ALLEN CAREER INSTITUTE

TVS

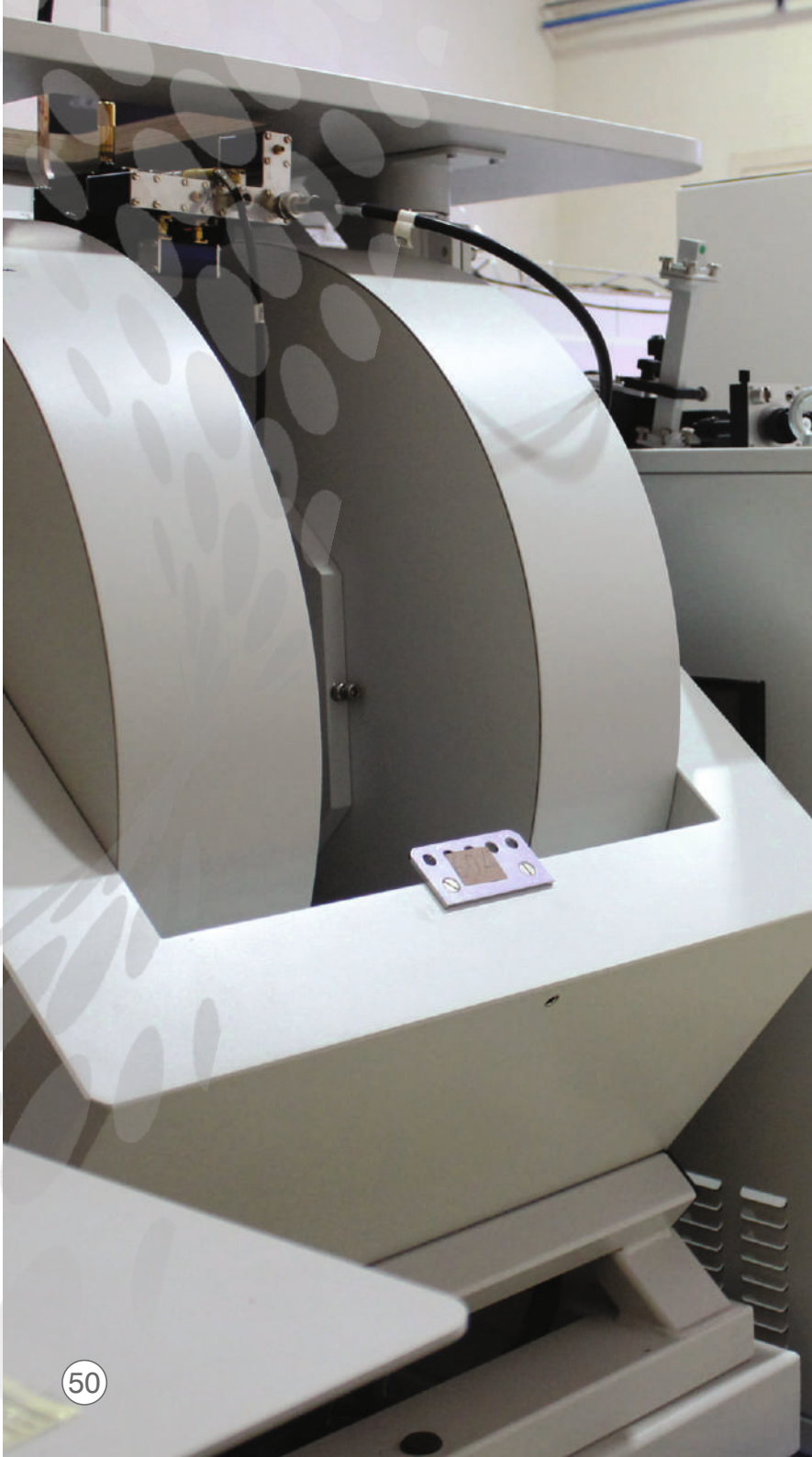
SHELL

ExxonMobil

DEPARTMENT OF
CHEMISTRY

Faculty

Dr. Anbarasan, P.
Dr. Archita Patnaik
Dr. Arnab Rit
Dr. Arti Dua
Dr. Baskaran, S.
Dr. Beeraiah Baire
Dr. Bhyrappa, P.
Dr. Chaitanya Sharma Yamijala
Dr. Debashis Chakraborty
Dr. Dhamodharan, R.
Dr. Dillip Kumar Chand
Dr. Edamana Prasad
Dr. Hema Chandra Kotamarthi
Dr. Indrapal Singh Aidhen
Dr. Jeganmohan, M.
Dr. Kartik Chandra Mondal
Dr. Kothandaraman, R.
Dr. Mahiuddin Baidya, M. D.
Dr. Mishra, Ashok Kumar
Dr. Muraleedharan, K. M.
Dr. Narasimha Murthy, N.
Dr. Palaniselvam Thangavelu
Dr. Pradeep, T.
Dr. Rajakumar Balla
Dr. Ramesh Laxminarayan Gardas
Dr. Ranga Rao, G.
Dr. Sanjay Kumar
Dr. Sankararaman, S.
Dr. Sekar, G.
Dr. Selvam, P.
Dr. Sooraj Kunnikuruvan
Dr. Sudam G. Dawande
Dr. Sundargopal Ghosh
Dr. Venkatakrishnan, P.
Dr. Vidyasagar, K.



DEPARTMENT OF CIVIL ENGINEERING

The Department of Civil Engineering offers globally recognized B.Tech., M.Tech., Dual Degree, M.S., and Ph.D., programmes. With well-established laboratory facilities and world-class testing facilities incorporating cutting edge technologies, our research/teaching efforts are making significant societal impact.

Our alumni network spans globally with eminent personalities holding prestigious administrative positions in leading academic institutions, industries and government sectors. The rich expertise of faculty members with advanced degrees and/or training from reputed institutions in India and overseas, strengthen the academic and research activities of the department.

The increasing interactions with national and international academia and industry have truly made this department one of the top choices of students.

We work closely with various private and public agencies and participate in policy making and advising in the implementation of

Prof. Benny Raphael
Head of the Department

latest technologies in the profession of civil engineering and allied areas. We look forward to fulfilling our obligations of creating the next generation engineers and leaders in academia and industry. We are committed to being active participants in the development of the intellectual ecosystem of our nation and the world.

Programmes (M.Tech.)

- Building Technology, Construction Materials & Management
- Environmental Engineering
- Geotechnical Engineering
- Hydraulics and Water Resources Engineering
- Structural Engineering
- Transportation Engineering

Research areas

Building Technology, Construction Materials & Management (BTCM)

- Building Physics, Thermal comfort and lighting.
- Construction Materials, Cement Chemistry, Alternative Cementitious Binders, Materials Characterization, Molecular Modeling of Cementitious Materials, Concrete Technology, Special reinforcement, Mechanical and fracture characterization of reinforced concrete composites, Fibre- and Textile-reinforced concrete, Material modeling, Fatigue life modeling, Corrosion and durability, Service life modeling, 3D-printing of concrete, Sustainability and life cycle assessment, carbon footprint.
- Construction Management, Construction Automation, Robotics, Building Information Modeling (BIM), Public-private partnership (PPP), Construction safety, Construction contracts, Dispute Resolution, Policy development, Sustainability assessment

Environmental Engineering

- Aerosols, Climate Interaction and Hydro-Meteorology
- Circular Economy and Sustainability
- Solid and Hazardous Waste Management

- Wastewater Management and Reuse
- Water Quality Assessment and Treatment
- Urban Air Quality Management

Geotechnical Engineering

- Ground Improvement and Geosynthetics
- Computational Geomechanics
- Geoenvironmental Engineering and Unsaturated Soil Mechanics
- Soil Dynamics and Earthquake Geotechnical Engineering
- Rock Engineering and Underground Space technologies

Hydraulics and Water Resources Engineering

- Hydrologic Modelling
- Computational Hydraulics
- Vegetation Under Abiotic Stresses and Climate Change
- Experimental Hydraulics, Sediment Transport, Cohesive Sediment Dynamics

Structural Engineering

- Behaviour and design of RC and steel structural systems
- Computational Methods in Structural Engineering
- Earthquake Engineering - Research on Fire, Blast, and metamaterials

Transportation Engineering (TR)

- Traffic Engineering and Management
- Intelligent Transportation Systems
- Urban Transport Planning
- Pavement Analysis and Design
- Pavement Construction Technology and management

Placements

CUBE HIGHWAYS · aarvee associates architects engineers & consultants pvt. ltd. · Thornton Tomasetti · WSP · Government Of Telangana Irrigation & CAD Department · KELLER · ATKINS · AFCONS · AECOM · Andhra Pradesh Water Resource Department

DEPARTMENT OF
CIVIL ENGINEERING

Faculty

Building Technology, Construction Materials & Management
Dr. Ashwin Mahalingam
Dr. Aslam Kunhi Mohamed
Dr. Benny Raphael
Dr. Keerthana Kirupakaran
Dr. Koshy Varghese
Dr. Manu Santhanam
Dr. Murali Jagannathan
Dr. Nikhil Bugalia
Dr. Piyush Chaunsali
Dr. Radhakrishna G Pillai
Dr. Ramamurthy K
Dr. Ravindra Gettu
Dr. Satyanarayana K N
Dr. Sivakumar Palaniappan

Environmental Engineering
Dr. Chandan Sarangi
Dr. Indumathi M Nambi
Dr. Ligy Philip
Dr. Mathavakumar S
Dr. Mohanakrishnan Logan
Dr. Sachin S Gunthe
Dr. Shiva Nagendra S M
Dr. Tanushree Parsai

Hydraulics and Water Resource Engineering
Dr. Balaji Narasimhan
Dr. Murty B S
Dr. Soumendra Nath Kuiry
Dr. Sreeparvathy Vijay
Dr. Subbarao Pichuka
Dr. Sudheer K P
Dr. Venkatraman Srinivasan
Dr. Venu Chandra

Geotechnical Engineering
Dr. Chandrasekhar Annavarpu
Dr. Dali Naidu Arnepalli
Dr. Dodagoudar G R
Dr. Ramesh Kannan K
Dr. Robinson R G
Dr. Subhadeep Banerjee
Dr. Tarun Naskar
Dr. Thyagaraj T
Dr. Vidya Bhushan Maji

Structural Engineering
Dr. Alagappan Ponnalagu
Dr. Alagusundaramoorthy P
Dr. Amlan K Sengupta
Dr. Apparao G
Dr. Arul Jayachandran S
Dr. Arun Menon
Dr. P S Lakshmi Priya
Dr. Meher Prasad A
Dr. Murty C V R
Dr. Nageswara Rao B
Dr. Phanisri Pradeep Pratapa
Dr. Raghukanth S T G
Dr. Rupen Goswami
Dr. Saravanan U
Dr. Satish Kumar S R

Transportation Engineering
Dr. Atul Narayan S P
Dr. Bhargava Rama Chilukuri
Dr. Gitakrishnan Ramadurai
Dr. Karthik K Srinivasan
Dr. Lelitha Devi Vanajakshi
Dr. Murali Krishnan J
Dr. Surender Singh

DEPARTMENT OF
COMPUTER SCIENCE & ENGINEERING

Welcome to the Department of Computer Science and Engineering at IIT Madras. IIT Madras was ranked first amongst several other similar Research and Teaching institutions in Engineering, for the continuous seventh time in the 2022 edition of National Institute Ranking Framework established by the Ministry for Human Resources Development (MHRD), the Government of India. IIT Madras was ranked amongst the top 50 Asian Universities in the QS rankings 2018.

The Department started as the Computer Centre in 1973 with the acquisition of an IBM 370 Computer. It presently offers B. Tech., dual-degree B.Tech./ M.Tech., M.Tech., M.S., Ph.D. degree programmes. A dual-degree B.Tech/M.Tech. program in data science, open to all B.Tech. students of IIT Madras, has been started from Jan. 2018.

The department has a vibrant student body numbering around 700 and faculty numbering nearly 35. About 60% of students are postgraduates, mostly supported by government of India scholarships and research projects. The Departments also offers

Prof. V. Krishna Nandivada
Head of the Department

several attractive industry-sponsored fellowships for outstanding Ph.D. scholars.

The vision of the CSE Department is Global Excellence and Local Relevance in Research, teaching, and technology development in Computer Science and Engineering. In pursuit of this vision, the Department is actively engaged in research activities in various research areas.

The Department's research activities have been funded by several Government organizations such as Department of Science & Technology (DST), Ministry Of Electronics & Information Technology (MeiTY), and Defence Research and Development Organisation (DRDO); and by several industries. Several of our alumni hold important positions in the industry and academia worldwide. Students have been recently placed, both in India and abroad, in several leading national and international companies.

Programmes (M.Tech.)

- Computer Science and Engineering

Research areas

Computer Systems

- Computer Architecture
- VLSI Design
- Computer Networks
- Programming Languages and Software Engineering
- Distributed Systems and Blockchains
- Object Oriented Systems
- High Performance Computing & Parallelization
- Computer Network Security

Intelligent Systems and Human Computer Interaction

- Machine Learning
- Artificial Intelligence
- Speech Processing
- Pattern Recognition
- Image Processing

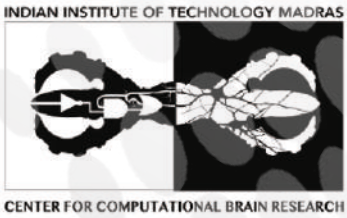
- Information Management
- Computational Brain Research
- Data Mining
- Computational Biology

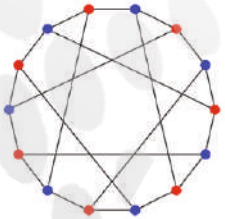
Theoretical Computer Science

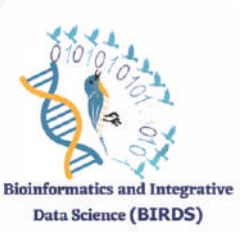
- Design and Analysis of Algorithms
- Computational Complexity Theory
- Cryptography and Cybersecurity
- Combinatorics and Graph Theory
- Distributed Algorithms and Distributed Trust

Research Labs and Centres

- AI4Bharat
- Artificial Intelligence and Databases (AIDB) Lab
- Bioinformatics and Integrative Data Science (BIRDS) Lab
- Blockchain Research Lab
- Centre for Computational Brain Research -- Electro Encephalogram (CCBR-EEG) Lab
- Centre for Computational Brain Research (CCBR)
- Computer Vision Lab
- Cryptography Cybersecurity and Distributed Trust (CCD) Lab
- Distributed and Adaptive Wired/Wireless Networks (DAWN) Lab
- Distributed and Object Systems (DOS) Lab
- High Performance Computing and Networking (HPCN) Lab
- Machine Learning Theory (MALT) Lab
- Prathap Subrahmanyam Centre for Digital Intelligence, Secure Hardware and Architecture (PSC-DISHA)
- Programming Languages, Architecture, and Compilers Education (PACE) Lab
- Reconfigurable and Intelligence Systems (RISE) Lab
- Reinforcement learning and stochastic optimization Lab
- Research in Algorithms & Graphs (RAnG) Lab
- Robert Bosch Centre for Data Science and Artificial Intelligence (RBCDSAI)
- Sensing and Networked Systems Engineering (SENSE) Lab







DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

- Speech, Music and Vision (SMV) Lab
- Theory of Computing (ToC) Lab
- Visualization and Perception (VP) Lab

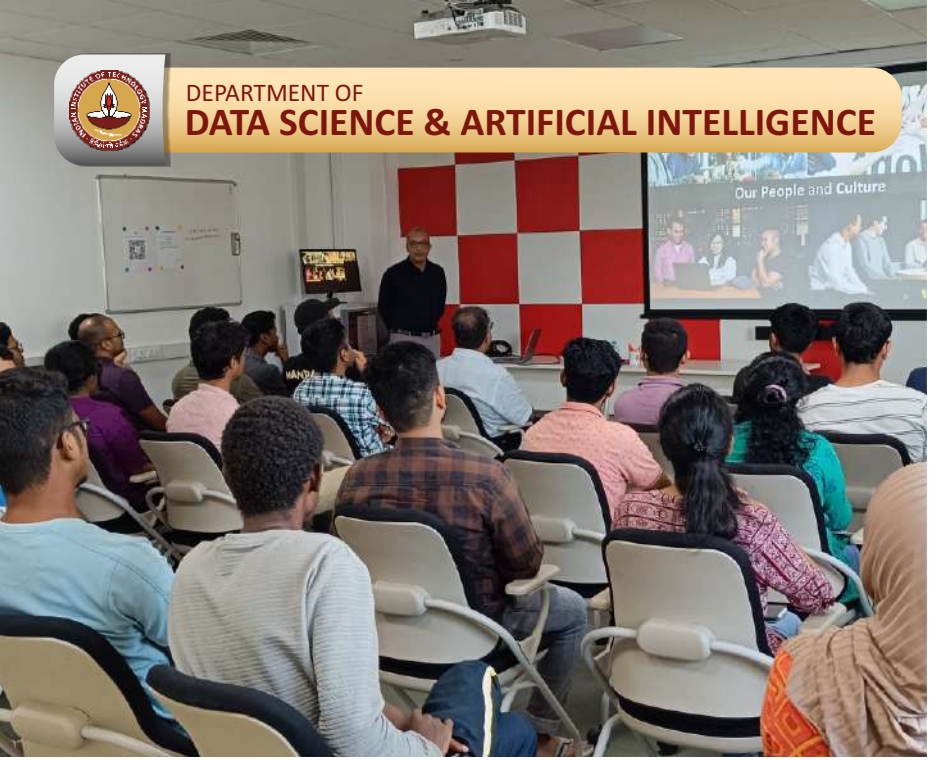
Visit us at
https://cse.iitm.ac.in/

Faculty

Shweta Agrawal
Akanksha Agrawal
John Augustine
Sutanu Chakraborti
Ayon Chakraborty
Sukhendu Das
Harish Guruprasad
D. Janakiram
V. Kamakoti
Mitesh Khapra
Nishad Kothari
P. Sreenivasa Kumar
Chandrashekar Lakshminarayanan
Anurag Mittal
C. Siva Ram Murthy
Madhu Mutyam
Kartik Nagar
V. Krishna Nandivada
Manikandan Narayanan
N.S. Narayanaswamy
Meghana Nasre
Rupesh Nasre
L A Prashanth
Arun Rajkumar
B. V. Raghavendra Rao
Balaraman Ravindran
Chester Rebeiro
Jayalal Sarma
C. Chandra Sekhar
Krishna Moorthy Sivalingam
Aishwarya Thiruvengadam
Yadu Vasudev

Visiting/Adjunct/ Other Faculty

Hema A. Murthy
Partha Mitra
Mriganka Sur
Sarath Chandar
Pratyush Kumar
Anoop Kunchukuttan
KC Sivaramakrishnan
Raj Dabre
Valerie King
Bruce M. Kapron
Shay Kutten



DEPARTMENT OF DATA SCIENCE & ARTIFICIAL INTELLIGENCE

Data Science and AI are impacting every aspect of modern life. The Department of Data Science and AI has been set up as an interdisciplinary department spanning both fundamental areas and application domains. IIT Madras has a rich tradition of nurturing collaborative research into various aspects of AI and Data Science with the establishment of multiple research centres over the years. In keeping with this tradition, the M.Tech. programme is designed to cater to students with different academic backgrounds. We expect the graduates of this program will be highly valued in different industries for various data science and AI roles as well as become entrepreneurs in their own right.

Research Centres

Robert Bosch Centre for Data Science and AI (RBCDSAI)
Centre for Integrative Biology and Systems mEdicine (IBSE)
Centre for Responsible AI (CeRAI)
AI4Bharath
Walmart Centre for Tech Excellence
Wadhwani School for Data Science and AI (WSAI)

Prof. B. Ravindran
Head of the Department

DEPARTMENT OF
DATA SCIENCE & ARTIFICIAL INTELLIGENCE

Programmes (M.Tech.)

- Data Science and Artificial Intelligence

Research areas

Foundational/Core Research
- Network Science
- Reinforcement Learning and Multi-arm Bandits
- Deep Learning
- Responsible AI
- Theoretical ML

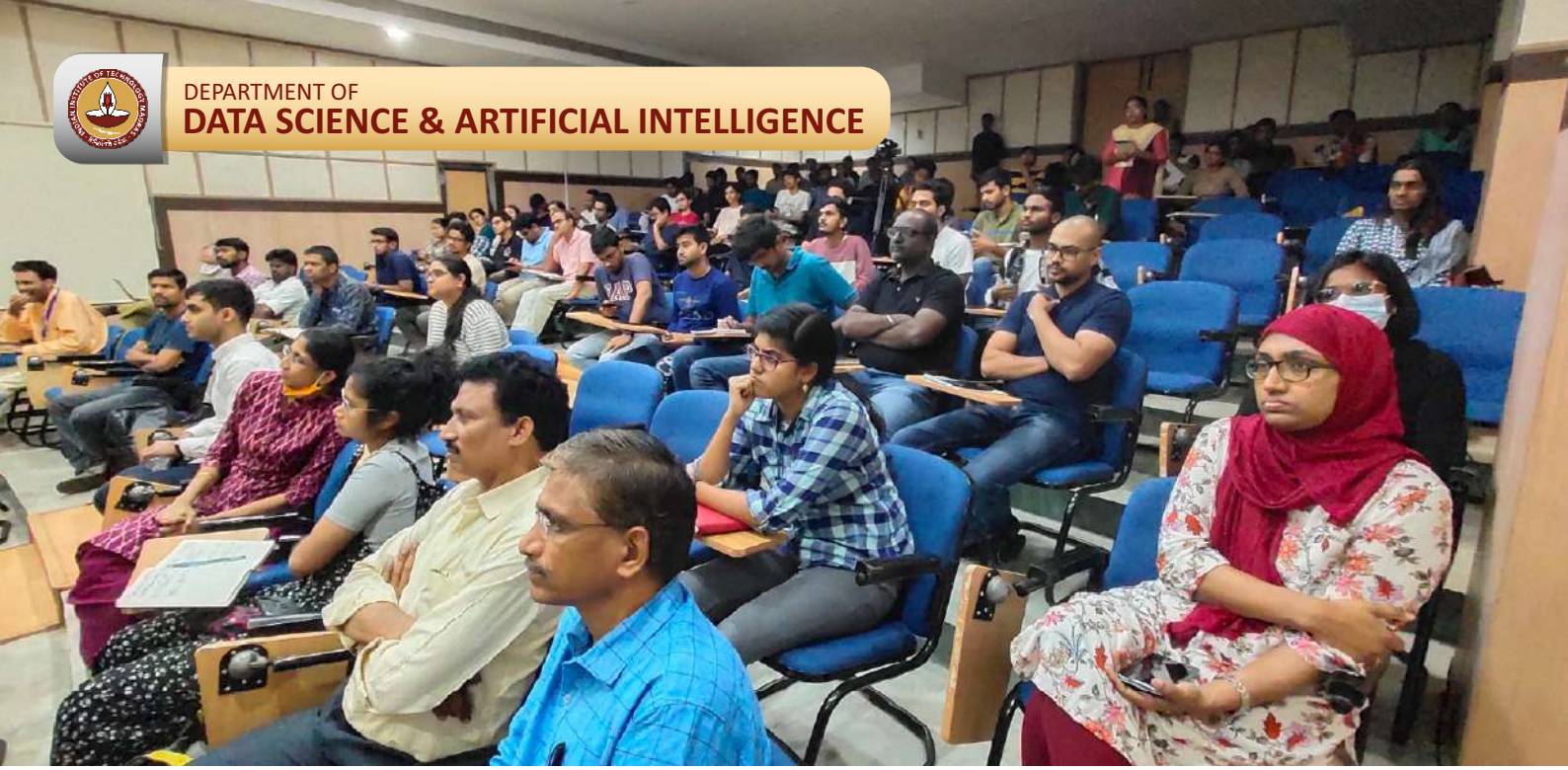
Applied Research
- NLP
- Computer Vision
- Speech
- Data Mining
- Deployable AI
- AI for Social Impact
- Time Series Analysis

Interdisciplinary Research
- Healthcare
- Agriculture
- Smart cities and transportation
- Financial analytics
- Manufacturing
- Systems Engineering
- Energy and Environment
- Defence
- Education
- Systems Biology

CeRAI Centre for Responsible AI

Walmart

RBCDSAI IITM



DEPARTMENT OF
DATA SCIENCE & ARTIFICIAL INTELLIGENCE

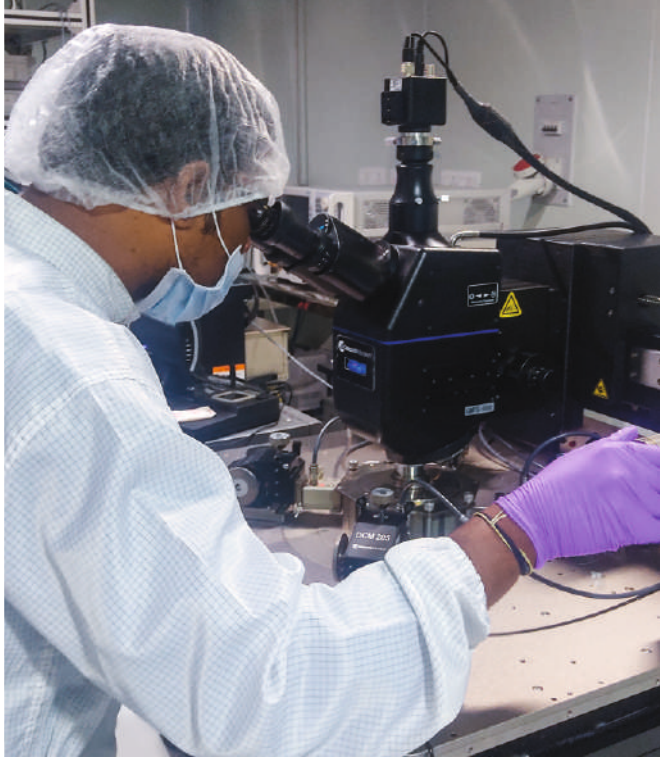
Placements & Collaborations

Honeywell
freshworks
SERB
BOSCH
Vymo
GENOME 10K
KANTAR
Tredence
Connect the Dots
APPLIED MATERIALS
ncbs
National Centre for Biological Sciences
Tata Institute of Fundamental Research
NATIONAL INSTITUTE FOR RESEARCH IN TUBERCULOSIS
ERICSSON
itihaasa
Research and Digital
WELLS FARGO
Adobe
Verisk
DASSAULT AVIATION
KLA Tencor
NVIDIA
thsti
Dr.Mehta's Hospitals
Northwestern University
PayPal
Mindtree
SAINT-GOBAIN
DVARA Holdings
Microsoft Research
Google
SOCIETE GENERALE
ASHOK LEYLAND
intel
webscience TRUST

DEPARTMENT OF
DATA SCIENCE & ARTIFICIAL INTELLIGENCE

Faculty

B Ravindran
Raghunathan Rengaswamy
Karthik Raman
Gitakrishnan Ramadurai
Arun Tangirala
Ganapathy Krishnamurthi
Balaji Srinivasan
Nandan Sudarsanam
Mitesh Khapra
Arun Rajkumar
Nirav Bhatt
Harish Guruprasad
Chandrashekar Lakshminarayanan
Lakshmi Narasimhan T
Sivaram Ambikasaran



DEPARTMENT OF
ELECTRICAL ENGINEERING

Our department was established in 1959. We currently have about 1000 students, 60 faculty members, 30 supporting staff members and 2 post-doctoral fellows with us.

We perform a variety of research work from absolute fundamentals to component design to system integration to deployment/commercialisation. We have strong industry interaction and have been involved in development of state-of-art products. We house extensive fabrication, calibration and testing facilities for carrying out academic projects, sponsored research and consultancy projects.

Prof. Nagendra Krishnapura
Head of the Department

DEPARTMENT OF
ELECTRICAL ENGINEERING

Programmes (M.Tech.)

- Communications and Signal Processing
- Power Systems and Power Electronics
- Microelectronics and VLSI Design
- Electronic System Design and Instrumentation
- RF and Photonics
- Integrated Circuits and Systems
- Control and Optimization

Research areas

Communications And Signal Processing
- Communications
- Image & Speech Processing
- Learning & Optimisation
- Communication Networks

Telecom and Wireless Sensing
- Non-orthogonal spectrum sharing
- Custom air interface for tactical communication
- Distributed RADAR systems
- Signal processing for next-gen wireless

Integrated Circuits and Systems
- Analog and mixed signal ICs
- Noise analysis
- FPGAs and hardware accdelerators
- DSP architectures and CAD

RF and Photonics
- Applied optics
- Fiber optic sensors
- Inverse imaging and remote sensing
- High power fiber lasers
- Optical communication and signal processing
- Plasmonics and metamaterials
- Quantum communication
- Silicon photonics

Microelectronics
- High speed electronic and optoelectronic devices

- Micro electro mechanical systems and bio-sensors
- Modelling of semiconductor devices

Networks and Stochastic systems

- 5G communications
- Modelling of Stochastic and Queuing Networks
- Quantum Information Theory
- Scheduling in Communication Networks
- Opinion Dynamics in Social Networks

Placements

ANALOG DEVICES
CISCO
ENPHASE
intel
TVS
HFCL GROUP
Reliance
Qualcomm
SAMSUNG
Texas Instruments

DEPARTMENT OF
ELECTRICAL ENGINEERING

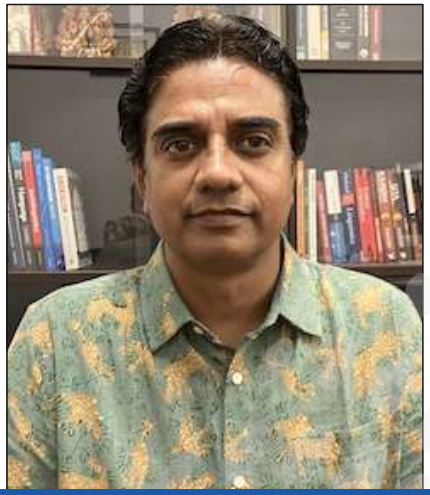
Faculty

Dr. Amitava DasGupta
Dr. Ananth Krishnan
Dr. Anbarasu M
Dr. Andrew Thangaraj
Dr. Anil Prabhakar
Dr. Aniruddhan S
Dr. Anjan Chakravorty
Dr. Aravind R
Dr. Arun D. Mahindrakar
Dr. Arun Karuppaswamy B
Dr. Arun Pachai Kannu
Dr. Ashok Jhunjhunwala
Dr. Atmanand MA
Dr. Avhishek Chatterjee
Dr. Balaji Srinivasan
Dr. Bharath Bhikkaji
Dr. Bhaskar Ramamurthi
Dr. Bhaswar Chakrabarti
Dr. Bijoy Krishna Das
Dr. Boby George
Dr. Christopher
Dr. David Koilpillai R
Dr. Debdutta Ray
Dr. Deepa Venkitesh
Dr. Deleep R Nair
Dr. Devendra Jalihal
Dr. Enakshi Bhattacharya
Dr. Gaurav Raina
Dr. Giridhar K
Dr. Harishankar R
Dr. Jagadeesh Kumar V
Dr. Janakiraman
Dr. Jayaraj Joseph
Dr. Kalyan Kumar B
Dr. Kamalesh Hatua
Dr. Kaushik Mitra
Dr. Klutto Milleth J
Dr. Krishna Jagannathan
Dr. Krishna S
Dr. Krishna Vasudevan
Dr. Lakshmi Narasimhan
Dr. Lakshminarasamma N
Dr. Mahesh Illindala
Dr. Mahesh Kumar
Dr. Manivasakan R
Dr. Mansi Sharma
Dr. Mathiazhagan C
Dr. Mohanasankar
Dr. Nagendra Krishnapura
Dr. Nandita DasGupta
Dr. Nitin Chandrachoodan
Dr. Pradeep Kiran Sarvepalli
Dr. Puduru Viswanadha
Dr. Qadeer Ahmad
Dr. Rachel Kalpana
Dr. Radhakrishna Ganti
Dr. Rajagopalan AN
Dr. Rajeswaran G
Dr. Ramalingam CS
Dr. Ramkrishna Pasumarthy
Dr. Ramya Balachandran
Dr. Ravikumar CP
Dr. Ravishankar A
Dr. Sanjay Bhat
Dr. Sarathi R
Dr. Saurabh Saxena
Dr. Shanthi Pavan
Dr. Shanti Bhattacharya
Dr. Shanti Swarup K
Dr. Sheetal Kalyani
Dr. Shivananju BN
Dr. Shreepad Karmalkar
Dr. Soumya Dutta
Dr. Sridharan K
Dr. Srikrishna Bhashyam
Dr. Srirama Srinivas
Dr. Subhas Mukhopadhyay
Dr. Sudharsanan Srinivasan
Dr. Uday Khankhoje
Dr. Umesh S
Dr. Venkatesh R
Dr. Venkatesh TG
Dr. Vijaysekhar Chellaboina
Dr. Vinita Vasudevan

DEPARTMENT OF HUMANITIES & SOCIAL SCIENCES

The Department of Humanities and Social Sciences, IIT Madras has the distinction of being the first to offer degrees in Humanities and Social Sciences streams by any Institute in the IIT System. Our decades old investment in our conviction, our quest for meaningful and organic education, and our aspiration for internationalization guided our plunge into 2 year M.A programs in Development Studies, Economics and English Studies.

The decision to select students through GATE was conditioned by our desire for highly motivated students to explore excellence in a diverse environment. It is my privilege to welcome you all. I assure you that these two years will be a transformative experience for you.



Prof. Rajesh Kumar
Head of the Department

Programs (M.A.)

- Development Studies
- Economics
- English Studies

About

The Dept. of Humanities and Social Sciences, IIT Madras is proud to announce its new Master's Program across the three streams of Development Studies, Economics and English Studies beginning July 2023. Promising the same quality of rigour and robustness that has characterised our five-year Integrated program, we have taken heed of changing demands and market conditions to conceptualize our new offering.

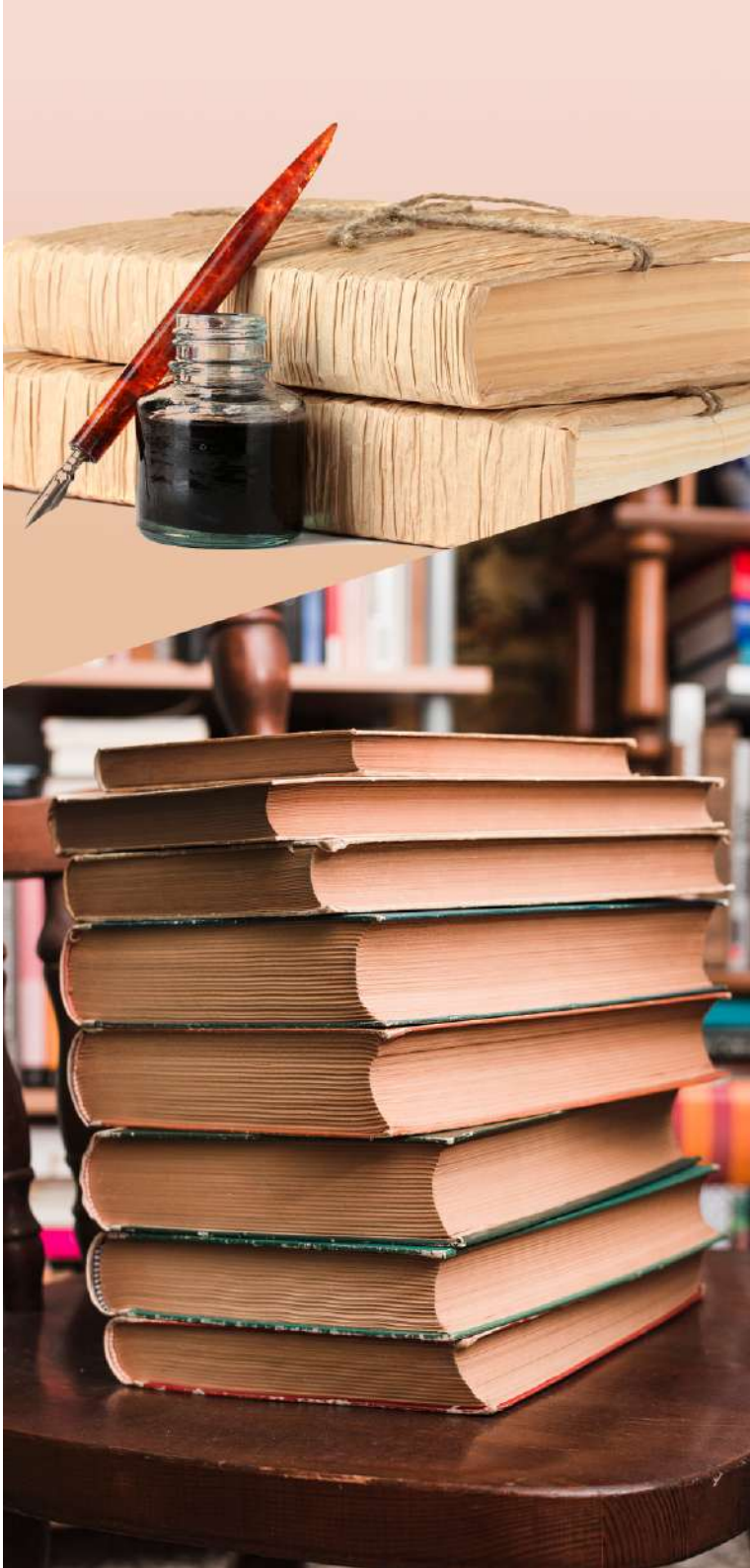
Each stream seeks to provide both an excellent theoretical base as well as market-readiness for careers across academia, publishing, policy, governance and corporate consultancy. Our interdisciplinary faculty have drawn upon their considerable experience and research to design a program that will continue to uphold the standards set over the last many decades by IIT Madras. We look forward to your continued faith and engagement in making the department a desired destination for scores of aspirants from India and abroad.

Only GATE qualified candidates will be eligible for admission to this 2-year program. The students are required to complete a minimum of 200 credits to be eligible for the M.A. degree. Each stream will have 25 seats for Indian students; seats for foreign students will be supernumerary. The students of each stream will have the option of upgrading to Ph.D. program as per the Institute guidelines.

Placements

The programs offered by the department are designed to empower the students to have a career across academic and research, corporate and consultancy, policy and governance, and media and publishing. The graduating students will have an on-campus opportunity to explore the job market in the following sub-sectors:

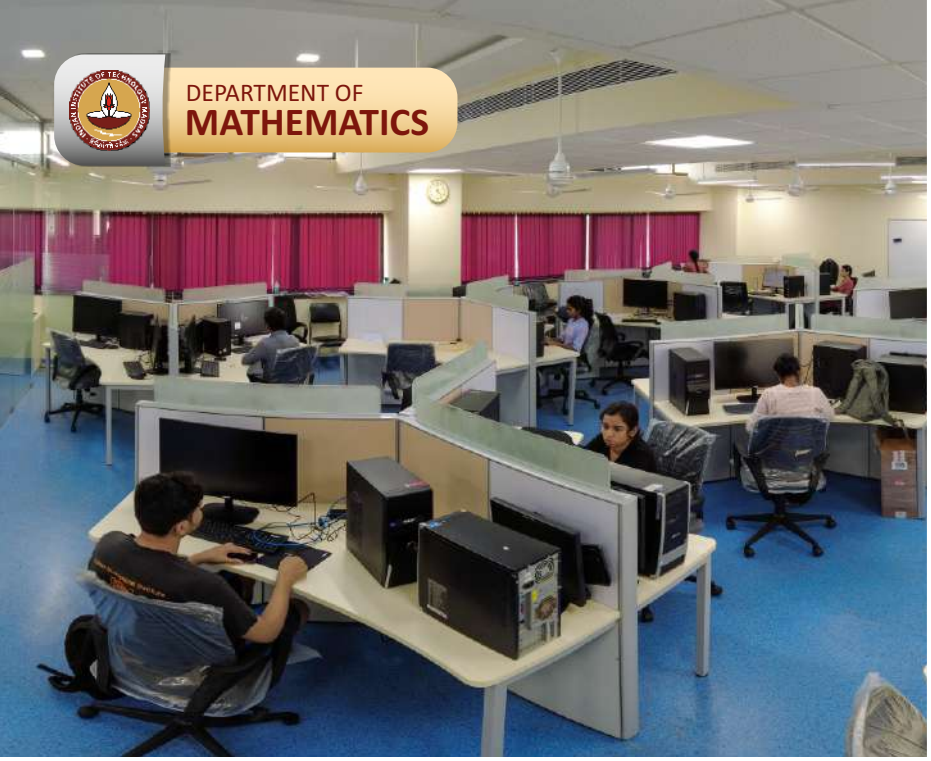
- **Academic & Research**
  - Research Institutions
  - Universities
  - Think Tanks
- **Corporate & Consultancy**
  - Consulting Firms
  - Investment Banking
  - Non-Banking Financial Institutions
- **Policy & Governance**
  - Multilateral Agencies
  - NGOs/NPOs
- **Media & Publishing**
  - Print & Electronic Media
  - Publishing Houses



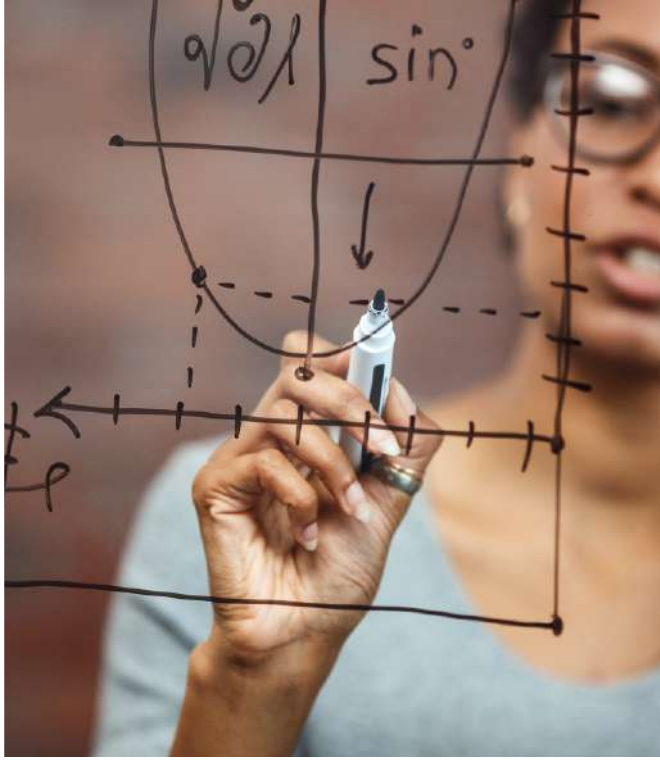
DEPARTMENT OF
HUMANITIES & SOCIAL SCIENCES

Faculty

Dr. Aditya K.
Dr. Anindita Sahoo
Dr. Anup Kumar Bhandari
Dr. Avishek Parui
Dr. Aysha Iqbal
Dr. Binitha V. Thampi
Dr. Hemachandran Karah
Dr. Divya A.
Dr. Joe Thomas Karackattu
Dr. John Bosco Lourdusamy
Dr. Krishna Malakar
Dr. Jyotirmaya Tripathy
Dr. Kalpana K.
Dr. Mathangi Krishnamoorthy
Dr. Merin Simi Raj
Dr. Muraleedharan V. R.
Dr. Milind Brahme
Dr. Prema Rajagopalan
Dr. Pramod Kumar Naik
Dr. Rajesh Kumar
Dr. Sabuj Kumar Mandal
Dr. Roland Wittje
Dr. Sandeep Kumar Kujur
Dr. Santhosh R.
Dr. Santosh Kumar Sahu
Dr. Santhosh Abraham
Dr. Satya Sundar Sethy
Dr. Solomon J. Benjamin
Dr. S.P. Dhanavel
Dr. Sreekumar N.
Dr. Subash S.
Dr. Sudhir Chella Rajan
Dr. Sudarshan Padmanabhan
Dr. Suresh Babu M.
Dr. Swarnalatha R.
Dr. Tabraz S. S.
Dr. Umakant Dash



DEPARTMENT OF
MATHEMATICS



The Department of Mathematics, IIT Madras was established in 1959, the same year as that of the Institute. The Department offers M.Sc (Mathematics), M. Tech. (Industrial Mathematics and Scientific Computing) and Ph.D. programmes.

The Department continues to adhere to high standards in teaching and research. This attracts the best students for our M.Sc., M.Tech. and Ph.D. programmes. There are 41 faculty members, 115 Ph.D. scholars, 89 M.Sc. students, 44 M.Tech. students and a few post-doctoral students.

The department has expertise in areas (broad): Algebra & Number theory, Topology & Geometry, Analysis related topics, Differential equations & Applied mathematics, Discrete mathematics & theoretical computer science, Probability & statistics.

Prof. Arindama Singh
Head of the Department

M.Tech Programme

M.Tech. in Industrial Mathematics and Scientific Computing (MA1)

The primary objective of this Programme is to train the manpower required to deal with the problems faced by industry through knowledge of mathematical modelling and scientific computational techniques so as to achieve reduced costs, flexibility and high quality. The curriculum is interdisciplinary in nature, and the course contents provide a broad understanding of the different aspects of applied mathematics and computer applications. The lecture-based courses cover a wide spectrum of topics, including mathematical modelling, applied statistics, and probability, operations research, numerical methods, discrete mathematics, data structures and simulation. The laboratory courses provide necessary training in advanced techniques of software and simulation. Students are also required to take suitable courses from the engineering and science departments. Modelling workshops, spread over two semesters, are an integral part of the Programme, during which the students gain proficiency in the modelling of real-world problems, experience in teamwork and effective technical communication. An important component of the Programme is the project work that will be done by the student in collaboration with industry and engineering / science departments. The aim of the projects is to impart in-depth training in the analysis of problems relevant to the industry.

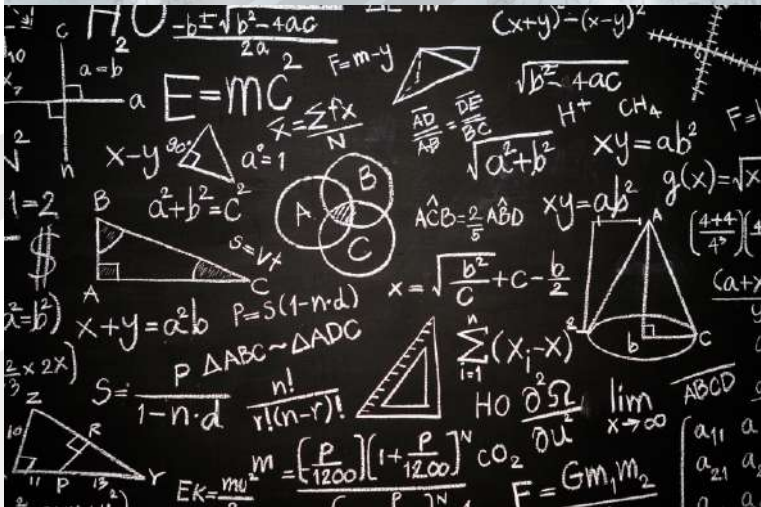
M.Sc. Programme

M.Sc. in Mathematics

The Master of Science programme, running successfully for the past sixty years, aims at mainly training the students to pursue a research career in Mathematics, where advanced electives are offered even from the third semester onwards. At the end of this programme, the students generally find themselves doing doctoral research or pursue higher education in mathematics, in India or abroad. Currently around 90 students are enrolled into this programme.

More information about the programme is available on the following website: https://math.iitm.ac.in/

Placements



DEPARTMENT OF
MATHEMATICS

Faculty

Dr. Vetrivel V
Dr. Arindama Singh
Dr. S. Ponnusamy
Dr. R. Rama
Dr. Satyajit Roy
Dr. S. Sundar
Dr. Y.V.S.S. Sanyasiraju
Dr. R. Radha
Dr. K. C. Sivakumar
Dr. Ch. Srinivasa Rao
Dr. S. R. Manam
Dr. A.K.B. Chand
Dr. A. V. Jayanthan
Dr. A. J. Shaiju

Dr. Kalpana Mahalingam
Dr. Shruti Dubey
Dr. Kunal Krishna Mukherjee
Dr. Santanu Sarkar
Dr. R. Balaji
Dr. Sounaka Mishra
Dr. Arijit Dey
Dr. Neelesh S Upadhye
Dr. V. Uma
Dr. T. V. Anoop
Dr. Soumen Sarkar
Dr. Priyanka Shukla
Dr. N. Narayanan
Dr. Sarang S. Sane

Dr. T. E. Venkata Balaji
Dr. Suhas J. Pandit
Dr. B. Sriram
Dr. K. Sumesh
Dr. Dipramit Majumdar
Dr. Sivaram Ambikasaran
Dr. Aprameyan P.
Dr. Ramesh Kasilingam
Dr. Barun Sarkar
Dr. Surjit Kumar
Dr. Arunkumar G.
Dr. A Sathish Kumar
Dr. Anuj Jakhar
Dr. R. Usha

DEPARTMENT OF MECHANICAL ENGINEERING

Mechanical Engineering is one of the major activities in the engineering profession and its principles are involved in the design, study, development and construction of nearly all physical devices and systems. Continued research and development have led to better machines and processes helping the mankind.

The Department of Mechanical Engineering at IIT Madras is as old as the Institute itself. Its impact on the institute and on society is easily demonstrated by noting the alignment of the department's evolution with key events and technological advances in India and elsewhere. Today, the department of Mechanical engineering of IIT Madras attracts and features an extraordinary rich diversity and quantity of talented individuals, with nearly 700 undergraduates, 500 graduate students and over 60 faculty members. The impressive array of students makes the department as the largest in the country and one of the largest in Asia.

In addition to teaching undergraduate and graduate students, the faculty of Mechanical Engineering actively pursues research through graduate students. The current graduate students include

Prof. P. Chandramouli
Head of the Department

nearly 150 Master of Technology students (M.Tech), 170 Master of Science (by research) students (M.S.) and 300 students pursuing their doctoral programme (Ph.D).

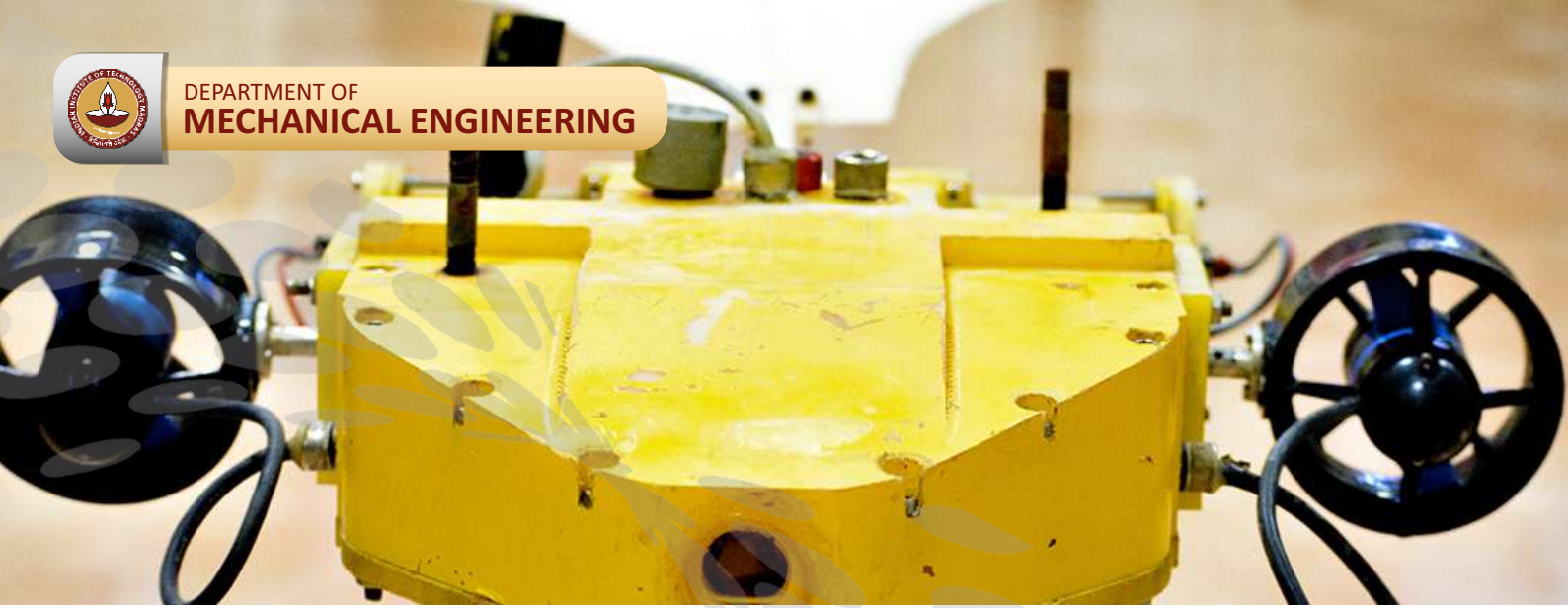
Programmes (M.Tech.)

- Thermal Engineering
- Mechanical Design
- Manufacturing Engineering

Research areas

Placements

AGNIKUL
BAJAJ
DECISION POINT
BorgWarner
EULER
CATERPILLAR®
EATON
ExxonMobil
Mercedes-Benz
LARSEN & TOUBRO
Fynd
SterliteTech
HAVELLS
NINELEAPS



DEPARTMENT OF
MECHANICAL ENGINEERING

Faculty

Dr. Abhijit Sarkar
Dr. Advaith Sankar
Dr. Amitava Ghosh
Dr. Anand Krishnasamy
Dr. Anand, T.N.C.
Dr. Anil Meena
Dr. Arunachalam, N.
Dr. Arunn Narasimhan
Dr. Arvind Pattamatta
Dr. Ashis Kumar Sen
Dr. Babu Viswanathan
Dr. Balaji Srinivasan
Dr. Balaraman V.
Dr. Chakravarthy Balaji
Dr. Chandramouli, P.
Dr. Dhiman Chatterjee
Dr. Gnanamoorthy, R.
Dr. Hariharan, K
Dr. Kameswararao Anupindi
Dr. Krishna Kannan
Dr. Krishnan Balasubramanian
Dr. Krithika Narayanaswamy
Dr. Maiya, M. P.
Dr. Mallikarjuna, J. M.
Dr. Mani, A.
Dr. Manish Anand
Dr. Manivannan, P. V.
Dr. Manoj Pandey
Dr. Mayank Mittal
Dr. Narasimhan Swaminathan
Dr. Pallab Sinha Mahapatra
Dr. Parag Ravindran
Dr. Piyush Shakya
Dr. Prabhu Rajagopal
Dr. Raghavan, V.
Dr. Raghu V Prakash
Dr. Raju Sethuraman
Dr. Ramesh Babu, N.
Dr. Ramesh, A.
Dr. Ramkumar, P.
Dr. Ratna Kumar Annabattula
Dr. Samuel, G. L.
Dr. Sarit Kumar Das
Dr. Sateesh Gedupudi
Dr. Sathyan Subbiah
Dr. Seshadri Sekhar, A.
Dr. Shaligram Tiwari
Dr. Shamit Bakshi
Dr. Shankar Krishnapillai
Dr. Shyama Prasad Das
Dr. Sivasrinivasu Devadula
Dr. Somashekhar S. Hiremath
Dr. Sourav Rakshit
Dr. Srikrishna Sahu
Dr. Srinivasa Reddy, K.
Dr. Srinivasan, K.
Dr. Sujatha Srinivasan
Dr. Sujatha, C.
Dr. Sundararajan Natarajan
Dr. Sushanta Kumar Panigrahi
Dr. Varunkumar, S.
Dr. Vimal Edachery
Dr. Vishal V. R. Nandigana
Dr. Viswanath, K.
Dr. Venkatarathnam G.
Dr. Varma A. K.

DEPARTMENT OF
METALLURGICAL & MATERIALS ENGINEERING

Department of Metallurgical and Materials Engineering is one of the oldest departments of IIT Madras, established in 1959. In the first few decades of its existence, the focus was more on industrial metallurgy. However, over the past few decades, the department has adapted to the transformations and expectations worldwide in diverse areas of materials science and engineering.

The department has 33 dynamic faculty members, with their teaching, research, and consultancy activities in various areas ranging from conventional metallurgy to frontiers of materials science. Several faculty members of the department in recent times have taken the lead in establishing prospective Centres of Excellence in the areas of advanced/correlative microscopy, materials, and manufacturing for futuristic mobility that includes additive manufacturing, ceramic technologies, and surface engineering along with pyrometallurgy. The department hosts state-of-the-art materials processing and characterization facilities, along with excellent computational infrastructure. If you are interested in pursuing a career in metallurgy, materials science, and engineering, this is the department that you should be in.

Prof. Subramanya Sarma V.
Head of the Department

Programmes (M.Tech.)

- Metallurgical and Materials Engineering

Research areas

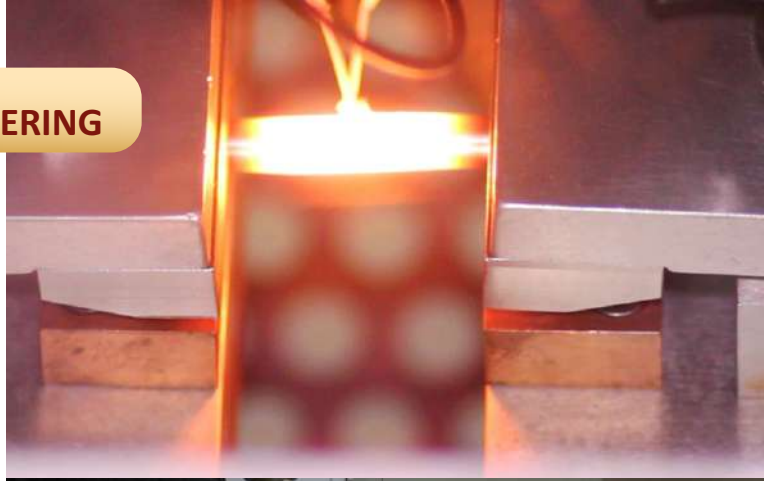
Metal Forming and Mechanical Behaviour
- High temperature deformation
- Creep and fatigue behaviour of materials
- Hot working and deformation processing maps
- Plastic anisotropy and crystallographic texture in materials
- Sheet metal forming

Materials Joining & Additive Manufacturing
- Physical and mathematical simulations of welding
- Microstructural modelling
- Thermal field and distortion analysis
- Alloyed design for additive manufacturing
- Additive manufacturing process development

Materials Processing
- Development of advanced nano structural materials
- Directional solidification
- Development of metal foams
- Thin films and nanoparticles

Iron and Steel Technology
- Modelling of diffusion controlled transformations
- Development of ultra-high strength multiphase steels
- Alternate steel making technologies
- Process modelling of steel making

Ceramics, Functional & Biomedical Materials
- Multicomponent high entropy ceramics
- Fibre reinforced plastics
- Solid oxide and proton exchange membrane fuel cells
- Smart materials
- Thermoelectric materials
- Magneto-electric nanocomposites
- Electrospun and electrosprayed bioceramics and biocomposites
- Energy storage materials



- Polymer and soft materials
- Colloids and emulsions

Advanced Characterisation Techniques
- Aberration corrected transmission electron microscopy
- Electron energy loss spectroscopy
- Electron channelling contrast imaging
- Atom probe tomography
- X-ray tomography

Corrosion and Surface Engineering
- Smart and nano coatings for corrosion and erosion protection
- Electrochemical and corrosion behaviour
- Wear behaviour of coatings
- Development of high entropy alloy (HEA) coatings

Electronic Materials
- Printed electronics
- Low dimensional semiconductors
- Optoelectronic devices

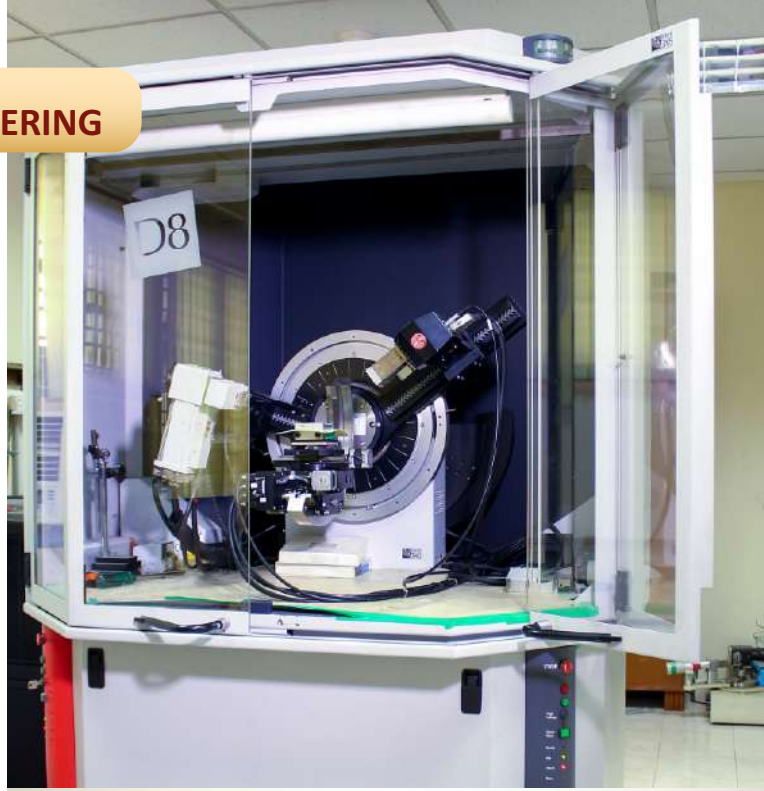
Process Metallurgy and Sustainability
- Gas atomisation of metal powder
- Recovery of critical metals from electronic waste
- Circular economy

Integrated Computational Materials Engineering
- Combined process and alloy design using ICME
- Finite element method and fast fourier transform approach to crystal plasticity CPFEM & CPFFT
- Applications of Density Functional Theory (DFT)
- Gibbs energy modelling employing CALPHAD

Material Informatics
- Machine learning and artificial intelligence
- Materials property prediction

Placements

ISRO (Department of Space, GoI)
MIDHANI (Ministry of Defence, GoI)
Tata steel
Aditya Birla Group
Applied Materials Inc
Micron
GKN Aerospace
Sundaram Clayton Ltd.



DEPARTMENT OF
METALLURGICAL & MATERIALS ENGINEERING

Faculty

Dr Ajay Kumar Shukla
Dr Anand Krishna Kanjarla
Dr Balasubramanian M
Dr Bhattacharya S S
Dr Bhattacharyya Somnath
Dr Bhuvanesh Srinivasan
Dr Chakkingal Uday
Dr Ganesh Sundara Raman S
Dr Hari Kumar K C
Dr Haridoss Prathap
Dr Hemaprabha E
Dr Kamaraj M
Dr Lakshman Neelakantan
Dr Manas Mukherjee
Dr Murty B S
Dr Murugaiyan Amirthalingam
Dr Parasuraman Swaminathan
Dr Phanikumar Gandham
Dr Pradeep K G
Dr Ranjit Bauri
Dr Ravi Kumar N V
Dr Ravi Sankar Kottada
Dr Rohit Batra
Dr Sabita Sarkar
Dr Sampath Kumar T S (Emeritus)
Dr Sampath V
Dr Sankaran S
Dr Satyesh Kumar Yadav
Dr Sreeram K Kalpathy
Dr Srinivasa Rao Bakshi
Dr Subramanya Sarma V
Dr Surendra B Anantharaman
Dr Tiju Thomas

Visit the department website:
https://mme.iitm.ac.in/

DEPARTMENT OF OCEAN ENGINEERING

The Ocean Engineering Center of IIT Madras was established in 1977 as centre of excellence for the development of technology in the field of ocean engineering. A review committee headed by Prof. M.G.K. Menon reviewed the progress of the Department in 1982 and recommended the formation of full-fledged Department. The Department has been functioning as an academic department since 1982.

The Department was created with the following objectives:

- To create infrastructure and expertise in order to carry out R & D work in areas of Ocean Engineering and related fields, which have direct relevance in the national context.
- To create educational and research opportunities at graduate and doctoral levels.
- To extend educational facilities and train the manpower from industry, R & D organizations and other educational institutions in order to enable them to carry out tasks in the areas of Ocean Engineering.

Prof. S Nallayarasu
Head of the Department

- To collaborate with user organizations on need-based problems.

The last 40 years have seen a remarkable growth of the Department in terms of expertise and infrastructure facilities and there has been notable success in achieving the above-mentioned objectives. The Department vigorously pursues activities in line with its objectives and remains committed to excellence in its endeavor in education, research, and training programs as well as supporting developmental efforts of marine industries.

Programmes (M.Tech.)

- Ocean Structures (Formerly Ocean Engineering)
  Stream 1 : Offshore Structures
  Stream 2 : Port, harbour and Coastal structures
  Note : Streaming will be based on CGPA of 1st Semester
- Ocean Technology (UoP-MOES)
- Petroleum Engineering

Research areas

Naval architecture
- Ship resistance and Propulsion
- Navigation and Maneuvering
- Underwater Robotics
- AUVs and UAVs
- ML and AI in Naval Architecture

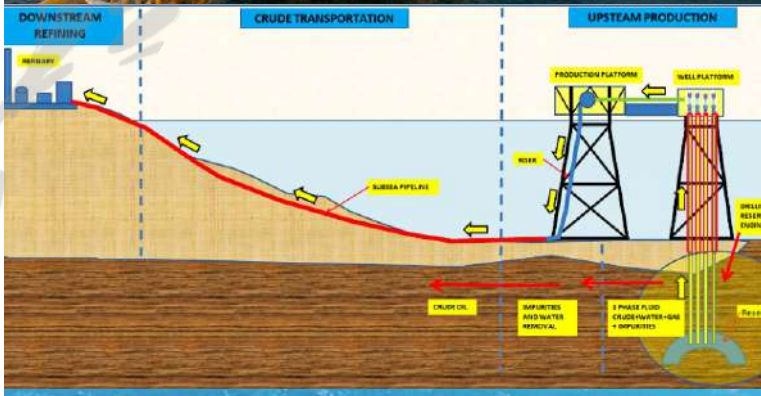
Coastal engineering
- Coastal protection
- Hydrodynamics
- Siltation and dredging
- Climate change
- Tsunami effects

Offshore engineering
- Offshore Structures
- Floating Systems
- Fluid Structure Interaction
- Offshore Renewable Energy

Petroleum engineering
- Reservoir engineering
- Reservoir Fluid Dynamics
- Geomechanics

Placements

TechnipFMC
L&T
AFCONS
ONGC
TCS TATA CONSULTANCY SERVICES
IRS
virtusa
OCEANEERING
citi
ICICI Bank
AXIS BANK
AMERICAN EXPRESS
kotak
HCL
IIFL
wipro
AADHAAR
quantitative brokers
pwc
ABInBev
A&M
SAGGEZZA
Telstra



DEPARTMENT OF
OCEAN ENGINEERING

Facilities

The department has state-of-the-art experimental and computational facilities as listed below.

- Wave basin (30m x 30m x 3m)
- Shallow wave basin (20m x 16m x 1m)
- Deep Wave flume (90m x 4mx 2.5m)
- Shallow water wave flume (72mx2mx2.7m)
- Current Flume (30m x 2.0m x 1.8m)
- Glass flume (20m x 0.6m x 1m)
- Towing tank (85m x 3.2m x 2.8m)
- Computing cluster
- Instrumentation Lab & other research labs

Faculty

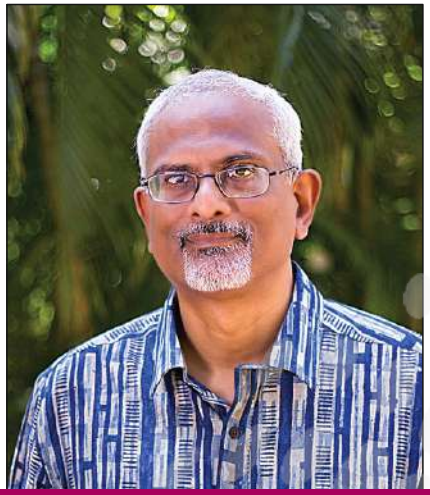
Dr. S. Nallayarasu
Dr Abdus Samad
Dr. P. Ananthakrishnan
Dr. K. Murali
Dr. Nilanjan Saha
Dr. Rajiv Sharma
Dr. R. Panner Selvam
Dr. S.A. Sannasiraj
Dr. P. Shanmugam
Dr. S Chandrasekaran
Dr. G. Suresh Kumar
Dr. V. Sriram
Dr. Rajesh Nair
Dr. Deepak Kumar
Dr. R. Vijayakumar
Dr. Suresh Rajendran
Dr. Tarun K. Chandrayadula
Dr. Vijay K G
Dr. K. Narendran
Dr. Abhilash Sharma
Dr. J. Arjun
Dr. V. Sundar
Dr. R. Sundaravadivelu

DEPARTMENT OF PHYSICS

The Department of Physics is amongst the largest physics departments in the country in terms of quality research output, number of faculty, students and programs. The research spans many frontier areas from experimental solid state physics, optical and laser physics to high-energy particle physics. Theoretical and computational physics research ranges from condensed matter, quantum information theory and dynamics to string theory and cosmology.

The Department offers programs at the Bachelor's, Master's as well as at the Doctoral Research levels. There is a vibrant undergraduate 4 year program -- Bachelor of Technology (B.Tech.) in 'Engineering Physics'-- in conjunction with the Department of Electrical Engineering. Students with a good academic record in this program have an option to upgrade to an M. Tech. in various interdisciplinary areas (IDDD) as well as in Electrical Engineering.

We offer three types of Master's programs: a 5 year Dual Degree (BS-MS), a 2-year Master of Science (M.Sc.), and a Master of



Prof. Arul Lakshminarayan
Head of the Department

Technology (M.Tech.) in Functional Materials and Nanotechnology. At the apex is the prestigious Doctoral (Ph.D.) program with more than 200 research scholars at any given time. They spend about 5 years interacting with our expert faculty and typically publish their research in reputed international journals with high impact factors.

Programmes (M.Tech.)

- Functional Materials and Nanotechnology

Programmes (Ph.D.)

- Physics

Research areas

Theoretical Condensed Matter Physics
- Electronic Structure
- Quantum Magnetism
- Strongly Correlated Systems

Dynamical Systems
- Quantum Chaos
- Complex systems

Gravitation and Cosmology
- Gravitational Waves
- Classical and Quantum Gravity
- Early Universe

Theoretical High Energy Physics, Nuclear Physics and Strings
- Quantum Field Theory
- Black Holes
- Nuclear Structure

Quantum Information and Quantum Optics
- Quantum Information and computing
- Photonics
- Quantum Sensing

Soft Matter and Biological Physics
- Active Matter
- Complex Fluids
- Polymer Physics
- High resolution imaging & optical tweezer

Experimental High Energy Physics
- Particle Detectors
- Relativistic Heavy Ion Collisions
- Quark Interactions

Optics and Photonics
- Nanophotonic Materials
- Ultrafast Spectroscopy
- Photonic Crystals

Atomic and Molecular Phyiscs
- Intermolecular Coulombic Decay
- Trapped Ions

Energy Materials
- Solar Cells
- Batteries

Experimental Condensed Matter Physics
- Multiferroic and magnetoelectric oxides
- Low Temperature Physics, Superconductivity
- Quantum Materials and Devices
- Weyltronics
- Microwave Materials, Meta Materials
- Spintronics

Placements

lime AI

intel

kotak
Kotak Mahindra Bank

VANTAGE RESEARCH

Sri Chaitanya
Educational Institutions

Faculty

Dr. Abhishek Misra
Dr. Anbarasu M
Dr. Aravind, G
Dr. Arul Lakshminarayan
Dr. Ashwin Joy
Dr. Ayan Mukhopadhyay
Dr. Basudev Roy
Dr. Birabar Ranjit Kumar Nanda
Dr. C. V. Krishnamurthy
Dr. Chandra Kant Mishra
Dr. Dawood Kothawala
Dr. Dillip K. Satapathy
Dr. Ganesan, AR
Dr. Harish Kumar, N
Dr. James Libby
Dr. Jatin Rath
Dr. Jayeeta Bhattacharyya
Dr. K Lakshmi Ganapathi
Dr. Kasiviswanathan, S
Dr. Lakshmi Bala, S
Dr. Mahaveer Kumar Jain
Dr. Manoj Gopalakrishnan
Dr. Manu Jaiswal
Dr. Markandeyulu, G
Dr. Murugavel, P
Dr. Neelima M. Gupte
Dr. Nirmala R
Dr. Panchanana Khuntia
Dr. Parvendra Kumar
Dr. Pattabiraman, M
Dr. Prabha Mandayam
Dr. Prabhat R Pujahari
Dr. Prafulla Kumar Behera
Dr. Prahallad Padhan
Dr. Pramoda Kumar Nayak
Dr. Prasanta Kumar Tripathy
Dr. Prasanta Kumar Muduli
Dr. Prem B. Bisht
Dr. Rajesh Singh
Dr. Rajesh Narayanan
Dr. Ramachandra Rao, MS
Dr. Ramaprabhu, S
Dr. Ravichandran Shivanna
Dr. Samir Choudhuri
Dr. Santhosh, PN
Dr. Satyanarayana, MV
Dr. Sethupathi, K
Dr. Shantanu Mukherjee
Dr. Siddharth Dhomkar
Dr. Sivarama Krishnan
Dr. Somnath Chanda Roy
Dr. Srinivas, V
Dr. Sriramkumar, L
Dr. Sudakar Chandran
Dr. Sunethra Ramanan
Dr. Sunil Kumar, P. B
Dr. Suresh Govindarajan
Dr. Vaibhav Madhok
Dr. Venkatachalam Subramanian
Dr. Vidya Praveen Bhallamudi
Dr. Vijayan, C
Dr. Yasir Iqbal

4. USER ORIENTED PROGRAMMES (UOP)

User Oriented Programmes are designed to meet the specific requirements of the user industries.

(i) M.Tech. in Construction Technology and Management (CE7):
This user-oriented Programme is tailored to meet the requirements of the construction Industry. It is open only to sponsored candidates from organizations involved in construction operations - both government and private. The Programme is designed for training construction engineers and managers with undergraduate degree s in Architecture, Civil, Mechanical, and Electrical Engineering. The contents of the core courses incorporate topics in the areas of construction engineering and management. Based on the background of the students, elective courses may be taken from courses offered by several Departments including Civil Engineering, Electrical Engineering, Humanities & Social Sciences, Management Studies, Mechanical Engineering, Metallurgical and Materials Engineering, and Ocean Engineering. Two semesters are devoted to project work, which can be done at the institute and/ or at the sponsoring agency.

(ii) M.Tech. in Ocean Technology (OE2):
This Programme is sponsored by NIOT

(iii) Web Enabled M.Tech programs for Industries:
Web enable programs jointly worked out with industries by the concerned departments are being offered. Details on web enabled programs are available at http://cce.iitm.ac.in/course.html

(iv) M.Tech Quantum Science & Technology (Sponsored program)
The M.Tech in Quantum Science and Technology (QuST) is envisaged as an Inter Disciplinary program, to cater to the growing need of manpower development in the nation. The National Mission on Quantum Technology and Applications requires a trained workforce that specializes on the different aspects of frontier subjects such as:

- Quantum information and algorithms
- Quantum communication
- Quantum computing
- Quantum and post quantum cryptography
- Quantum machine learning
- Quantum sensing

Qualification and experience:

1. Bachelor's degree in Engineering/Technology/Architecture or equivalent or professional qualification like AMIE or any other Associate membership as specified in the M.Tech Admission.
2. Brochure with first class or 60% of aggregate marks over the 4 years (55% in the case of SC/ST candidates)
3. Degrees obtained through distance education/ correspondence mode, the Departments will follow interview procedure for screening in such cases.
4. Two years professional experience as on 30.04.2024 after qualifying degree.

(v) Two year MA in (i) Development Studies (ii) Economics (iii) English Studies is offered by Humanities & Social Sciences Department.

5. STUDENT AMENITIES:

5.1 Central Academic Facilities:

5.1.1 Central Library:

The central Library, a five-storey, air-conditioned building, houses a large number of books and has subscriptions to most of the renowned journals of engineering, science and technology, including e-subscriptions. It is divided into different sections: Text Book/ Reference, General Stacks, Reading Halls, Journal and Current Periodicals, Media Research Centre (which regularly screens educational and scientific videos), and a Book Bank.

5.1.2 Laboratories:

In order to fulfill the teaching and research pursuits, IIT Madras has laboratory facilities ranging from the very basic to highly sophisticated ones. The Institute houses many labs with cutting-edge resources built in collaboration with industry partners. The central lab facilities include the Sophisticated Analytical Instrument Facility (SAIF), Material Science Research Centre (MSRC), and Central Electronic Centre (CEC). A complete list of all the labs under each department is available at http://www.iitm.ac.in/departments.

5.1.3 Computer Centre:

The computer Centre houses one of the supercomputing facilities of the country with high performance computing environment (HPCE), high speed Networks catering to the needs of approximately 18,000 nodes spread over the campus, Data Centre, E-services and workflow.

5.1.4 Central Workshop:

The workshop is an educational platform where science and technology intersect. The central Workshop is one of the support services of the Institute that enhances the academic process of B. Tech., M. Tech. students and Ph. D. Research Scholars. Experiment set-ups are routinely fabricated in this facility with utmost quality within the stipulated time to support research projects and teaching lab requirements of the Institute.

5.2 Residential Facilities:

5.2.1 Hostels:

IIT Madras is a residential Institute and provides on-campus accommodation to all students, faculty, and staff. For students, there are 22 hostels, out of which six are girl's hostels. All Hostels are named after the prominent rivers of India. In view of the unique and ecologically diverse nature of IITM, the students are not allowed to drive powered vehicles on the campus. They can use a bicycle or walk. The Institute operates buses and vans from the main gate to different parts of the campus and also around the Hostel and Institute Zone at frequent intervals for easy travel. Most hostels have a capacity of 350 to 400 rooms. Internet and Local Area Network (LAN) facilities are provided in every room, and there is a computer room in all hostels as well. Students are also given an email account on the Institute Server.

Accommodation in the hostels is provided by the Chairman, Council of Wardens (CCW). The hostel rooms are furnished with a cot, a chair, and a writing table. Students are expected to bring their own bedding. Establishment fees cover the rent for the hostel accommodation (vide Section 2.11 for fees and deposits). Each hostel has a small library for the exclusive use of the students of that hostel.

Students can borrow novels and other reading material from the hostel library. Most hostels also have a garden. Every hostel has a facility for sports such as table tennis, volleyball, ball-badminton courts. Every hostel has a music room and a tech room. Washing machines are provided in all the hostels. Students can also avail the laundry facility on the campus. There is a room with television known as the "common room" where most of the hostel gathering takes place.

Each hostel has a warden, who is a faculty member, and a resident Assistant Warden. They, with the help of the office staff, handle all administrative work concerning the hostel. The hostel council consists of the warden and a number of student secretaries, elected by the residents of the hostel, who decide issues pertaining to the hostel.

5.2.2 Open Air Theatre (OAT):

In between the Gajendra Circle (GC) and the hostel zone, you will spot a large arena called the OAT (Open Air Theatre), where the weekend movies are screened by the Film Club. The best of the latest movies in English, Hindi, and regional languages are screened. Movies in other languages are also screened by cultural associations. OAT is the venue where the 'Saarang' (the Institute's cultural festival) pro-shows are held. The capacity of OAT is about 7000, and it looks splendid when it gets lit up during shows of Saarang.

5.2.3 Shopping:

The Students' Facilities Centre (SFC) located in the hostel zone caters to the general needs of the students and is a popular location. It houses a patisserie cum coffee shop, general store, gift shop, juice shop, saloon, travel agency, printing, and photocopying. The shopping centre in the residential zone hosts grocery shops, vegetable/ fruit shops, a general purpose megastore, a tailor, a dry-cleaner, and a beauty parlour.

5.2.4 Food:

Institute has three large dining facilities, namely Himalaya, Vindhya, and Nilgiris. Vindhya dining facility caters to girl students while Himalaya and Nilgiris cater to all gender students. A multitude of caterers operate the Himalaya dining facility, with a choice of North Indian and South Indian vegetarian and non-vegetarian cuisines.

Apart from these facilities, there are various eateries on the campus, including Himalaya Food Court (HFC - a multi-cuisine food court having six different eateries catering to the students and larger campus community), a Chettinad NV restaurant at Quark. A two-story sprawling food court is available in the Academic Zone (Institute Canteen and Food for Thought food court).

5.2.5 Bank Facilities:

State Bank of India has a branch near the Gajendra Circle. A branch of Canara Bank is also available in the residential zone Shopping Centre. The SBI has two ATMs - one at the Branch and the other at the Taramani Guest House. Canara Bank also has two ATMs - one at its branch and the other opposite to Narmada Hostel. The SBI ATMs can be used to make all

payments to the Institute. There is also an ICICI ATM in the office of Hostel Management (CCW office).

5.3 Student Life at Institute:

5.3.1 Institute Hospital:

Institute hospital has the facilities to take care of general health problems faced by students. It runs its services round the clock. Apart from the regular doctors, a set of visiting specialists includes a general surgeon, ENT surgeon, opthalmologist, orthopedist, cardiologist, and psychiatrist. Well-equipped laboratories for almost all tests, X-Rays, and an in-patient ward are also available. For futher details, visit: https://hospital.iitm.ac.in/

5.3.2 Guidance and Counseling:

'Mitr' is a body comprising faculty and senior students with an objective to provide guidance to the students on academic and extra-curricular activities on campus, to expose them to various life skills, and to counsel students to cope with emotional disturbances they face - curriculum related or otherwise. You can reach Mitr at any time for any kind of difficulties, and it will solve them just the way your friend would. 'Saathi' is a body comprising faculty and senior students with an objective to conduct programs/ workshops, from a proactive standpoint, for the Institute/ campus residents.

To help students who require counseling, expert/ professional counselors are engaged by the Institute and are available in a counseling room located at the Central Library. They are also available 24x7 through telephone. Apart from this, the Institute Hospital has two visiting Psychiatrists who take care of students who seek their help or referred to by Mitr or faculty advisors.

The Wellness Centre (WC) serves as a bridge between the Institute members seeking help and the outsourced professional services (MedAll and YourDOST). WC also comprises of mental health professionals who may directly offer counseling and psychotherapeutic services during exigencies.

5.3.3 Weaker Section:

Special help is provided for SC/ ST students. The advisor for the weaker section provides nurturing wherever required and tutoring by seniors. Students are benefitted significantly through the help provided at different stages.

5.3.4 Students with Physical Disability:

Most of the buildings are installed with elevators and ramps to facilitate access to the students with physical disability, and specially designed hostel rooms with attached bathrooms on the ground floor are assigned to PwD candidates. An exclusive advisor is assigned to take care of the academic and general well-being of these students. Dean (Academic Courses), Advisor (PD), and Dean (Students) meet with each of these students periodically to understand the special attention/ requirements on a case to case basis. Additional requirements like large font question paper, extra time during examinations, suitable requirement/ assistance in the conduct of laboratory experiments, and flexible curriculum requirements are also provided.

5.3.5 Students' Welfare Fund:

Students' Welfare Fund provides financial assistance to the needy students such as aid for physically handicapped, accident or sudden illness related expenses that are not otherwise met by regular medical insurance, and loan to individual students to meet expenses related to travel and other expenses when they go on to 'study abroad schemes'.

5.3.6 Student's Distress Fund supported by Alumni:

IITM Alumni have created a corpus to provide help to deserving students who are identified under financial distress due to any reason such as loss of bread-winner in the family.

5.3.7 Medical Insurance Coverage for all Students:

All students are covered under a Medical Insurance Scheme exclusively designed for students. An annual premium is paid by each student. All minor ailments are attended to by the Institute Hospital.

5.3.8 Travel Money by Alumni:

The IITM Alumni funded IITMAANA Travel Grant programme is designed to assist IITM students, faculty, and staff to visit USA and other countries abroad and present their papers at internationally recognized technical conferences. Participation in summits, workshops, competitions, and semester exchange programmes may also be funded through this programme. One of the main objectives of IITMAANA is to promote Research and Development in Technical Education by providing an opportunity to deserving students to interact with peers and experts at the International level. For more details: https://alumni.iitm.ac.in

5.3.9 Prizes and Recognition:

No competent and deserving candidate goes unrecognized at IIT Madras. They win prizes for achievements ranging from commendable academic performance to those excelling in extra-curricular activities.

5.3.10 Training and Placement:

The Placement Office is involved in securing placements for students graduating from the Institute. The office maintains a close liaison with various industrial establishments (both private and public sectors), which conduct campus interviews and select UG and PG students from all disciplines. The placement cell provides the infrastructural facilities to conduct group discussions, placement tests, and interviews.

5.3.11 Industry and Alumni Relations:

IITM is actively involved with national and international organizations through the Centre for Industrial Consultancy and Sponsored Research (IC & SR). Set up in 1973, the IC & SR plays a vital role in bringing together industry professionals and the faculty of the Institute for gaining insight and solving challenging problems. These joint efforts result in significant contributions to technology development. Students are actively involved in all these efforts. For more information, please visit: https://icandsr.iitm.ac.in/

5.3.12 Recreational/ Extra Curricular Activities:

IITM has a vibrant campus with many opportunities for students to get involved in co-curricular and extra-curricular activities. With the establishment of Centre for Innovation (CFI), and the Students Activities Centre (SAC), there are as many as 25 different co-curricular and cultural clubs with about 2000 students registered with them. These pave the way for the students to develop their talents, passion, and skills and showcase their abilities.

Many competitions and festivals are held; the prominent ones are the technical festival, named 'Shaastra' and the cultural festival, called 'Saarang'. There are many smaller scale versions of fests conducted by clubs on campus. Apart from these, some departments also conduct special fests at different times of the year. Some of the prominent ones are CEA Fest, Exebit, Biofest, Amalgam, Forays, Wavez, Mechanica, Samanvay, and Chemclave.

5.3.13 Student Clubs:

A large number of student-managed clubs are active in the Institute: Astronomy Club, Data Analytics Club, Linux Users Club, Design Club, Music Club, Institute Adventure Club, Quiz Club, Word Games Club, IIT for villages, Prakriti (group of environmentally conscious people), Oratory Club, Colloquium, Reflections (Perception, Introspection, and Retrospection), EMLs (Extra Mural Lectures, inspirational lectures).

5.3.14 Sports Activities and Facilities:

A sport at IIT Madras generates a lot of enthusiasm, not only within the campus, but also from other colleges in the city and the country. The academic calendar is packed with sporting events, intra-hostel and inter-hostel events, inter-collegiate and inter-IIT tournaments. All hostels actively compete to win the coveted Schroeter Cup, which is the inter-hostel sports championship.

The Institute has excellent sporting facilities on the campus, which include: IIT Champlast Cricket Field, Athletics Stadium,

four synthetics floored Tennis & Wood-Floored Badminton Courts, three flood-lit synthetics floored basketball and three volleyball courts, swimming pool of Olympic standards, Hockey & Football fields with flood-lights, well-equipped Gymnasium, and newly constructed word class Squash courts.

LTAP:

The IIT Madras Students' Activities Trust, in a bid to enrich students' personalities within the campus, has initiated Leisure Time Activities Program (LTAP), a program for students providing opportunities to learn various skills during their leisure time within the campus itself. The founding principles of the LTAP program enable an overall development among students.

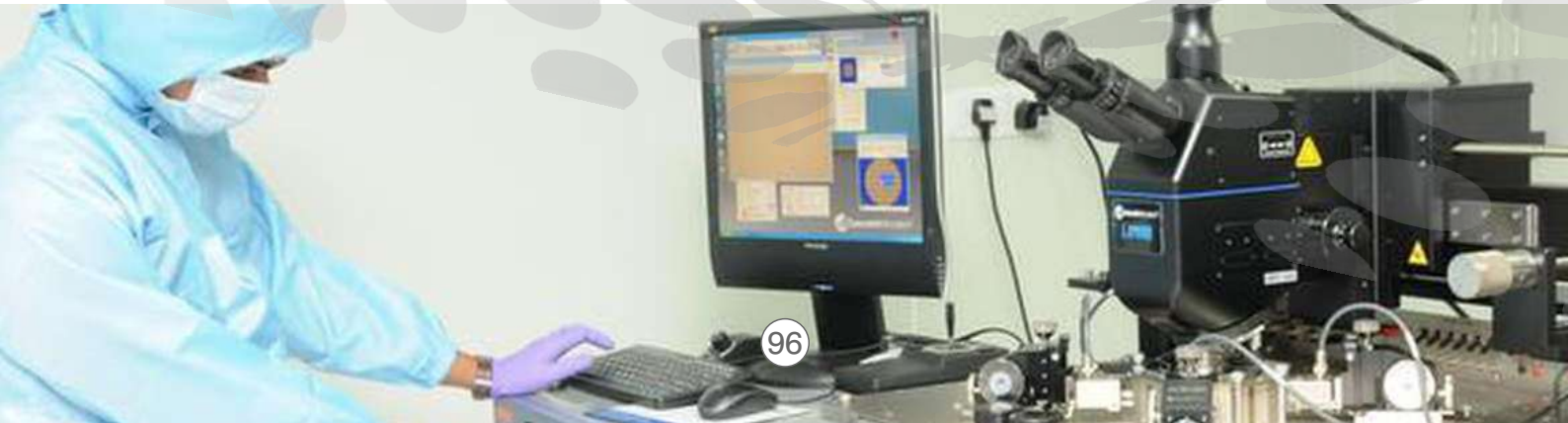
6. RESEARCH FACILITIES:

Ample opportunities exist for research-minded students to hone their research skills and participate actively in pioneering research studies. The faculty of departments of Engineering, Sciences, Management, and Humanities & Social Sciences, along with their students, are involved in academic research, which often results in highly acclaimed publications in International and National Journals. Some of the research work is also presented at International and National conferences. A large number of sponsored research projects are funded by agencies such as the Department of Science and Technology, Department of Biotechnology, Naval Research Board, Armament Research Board, Aeronautical Research and Development Board, Indian Space Research Organization for tackling the challenging research issues of national interest. Several application-oriented industrial consultancy projects and collaborative research projects with foreign universities are also undertaken by our faculty.

Opportunities are available for interested students to participate in such sponsored research, industrial consultancy, or collaborative research projects. The Industrial Consultancy & Sponsored Research (IC & SR) wing of the Institute coordinates the sponsored research and consultancy activities, while the Office of the Dean, Academic Research, administers the academic research activities.

The Engineering and Science Departments of our Institute are equipped with excellent laboratories, with state-of-the-art equipment. Research is being carried out on many areas of topical interest. For example, research is carried out in areas such as Laser Diagnostic Applications, Non-destructive Techniques, NMR Spectroscopy, Solid State Physics, and Micro-electronic devices. Nano-materials technology, Bio-technology, Bio-medical research, Bio-chemistry, Wireless Local Loop Technology, Alternative Energy Sources, and Emission Control, Composite Materials, Finite Element Modeling, Photo Elasticity, Structural Analysis, Computational Fluid Dynamics, Ocean Engineering, Vibration & Acoustics, Rarefied Gas Dynamics, to name a few. A more detailed description of the research work undertaken in each department is available in the Institute website. Academic leadership and expertise exist on every facet of science and engineering using experimental, computational, and theoretical methods of research.

M.Tech. students are required to complete a one year research project, in their third and fourth semesters, under research guide(s), selected in consultation with their respective Head of the Department and Faculty Advisor.



IMPORTANT DATES

GATE QUALIFIED CANDIDATES & IIT GRADUATES

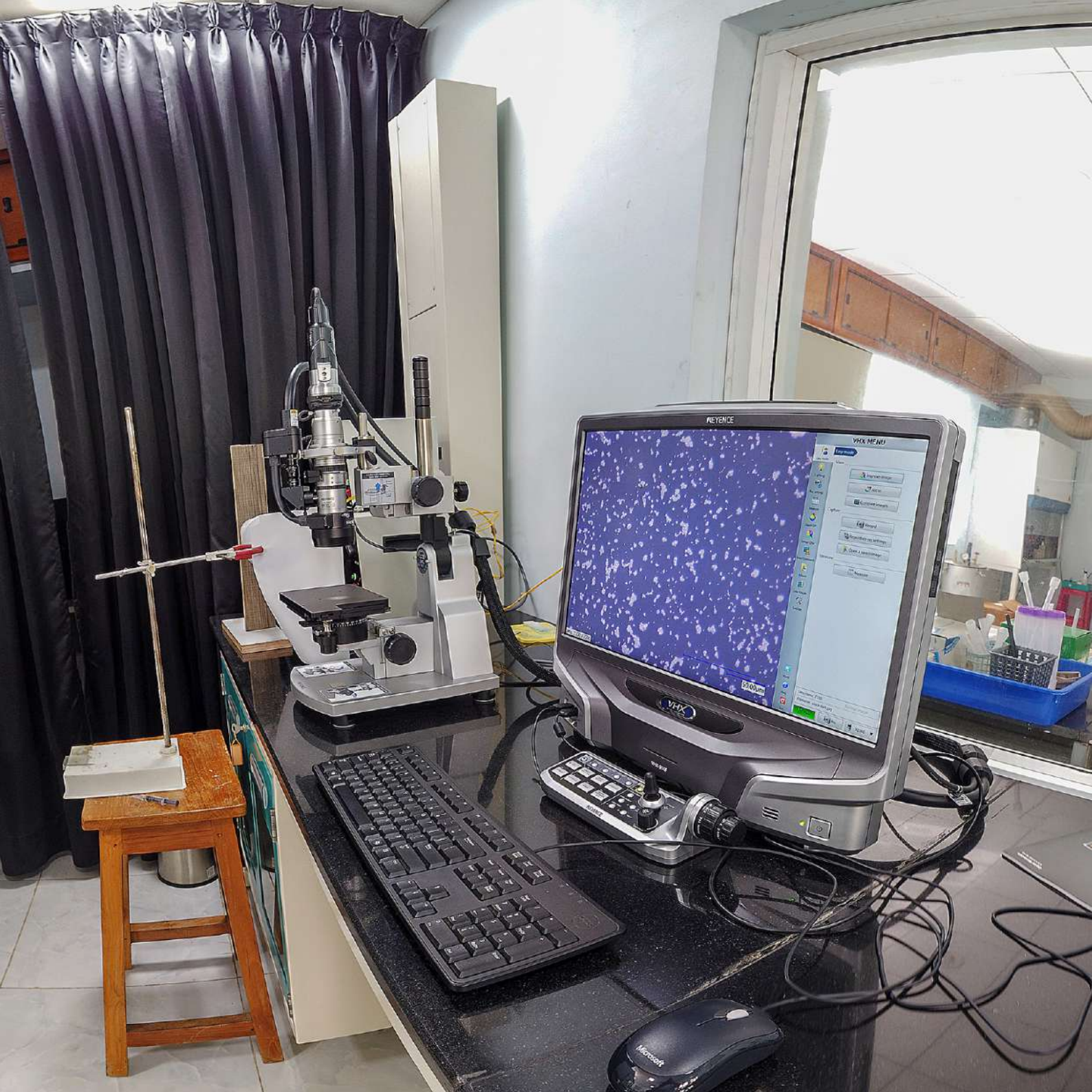
Opening of Website for ONLINE applications	20 March 2024
Closing of Website for ONLINE applications	19 April 2024
Date of reporting for admission	23 July 2024 (Tuesday)*
Orientation Programme	26 July 2024 (Friday)*
Commencement of Classes	29 July 2024 (Monday)*

Timeline for admission offers: The first set of offers will likely be sent by 1st May, 2024.

FOR SPONSORED & OTHER CATEGORY CANDIDATES

M.Tech. Sponsored Application Portal Opens	20 March 2024
Portal Closes on the Last Date at 23.59 Hrs.	19 April 2024
Date of Reporting for Admission	23 July 2024*
Orientation Programme, Photo Session, and Workflow Enrolment	26-28 July 2024*
Commencement of Classes	29 July 2024*

*Dates mentioned are tentative anda ny change in the date will be displayed in the M.Tech. and M.A Admission Portal.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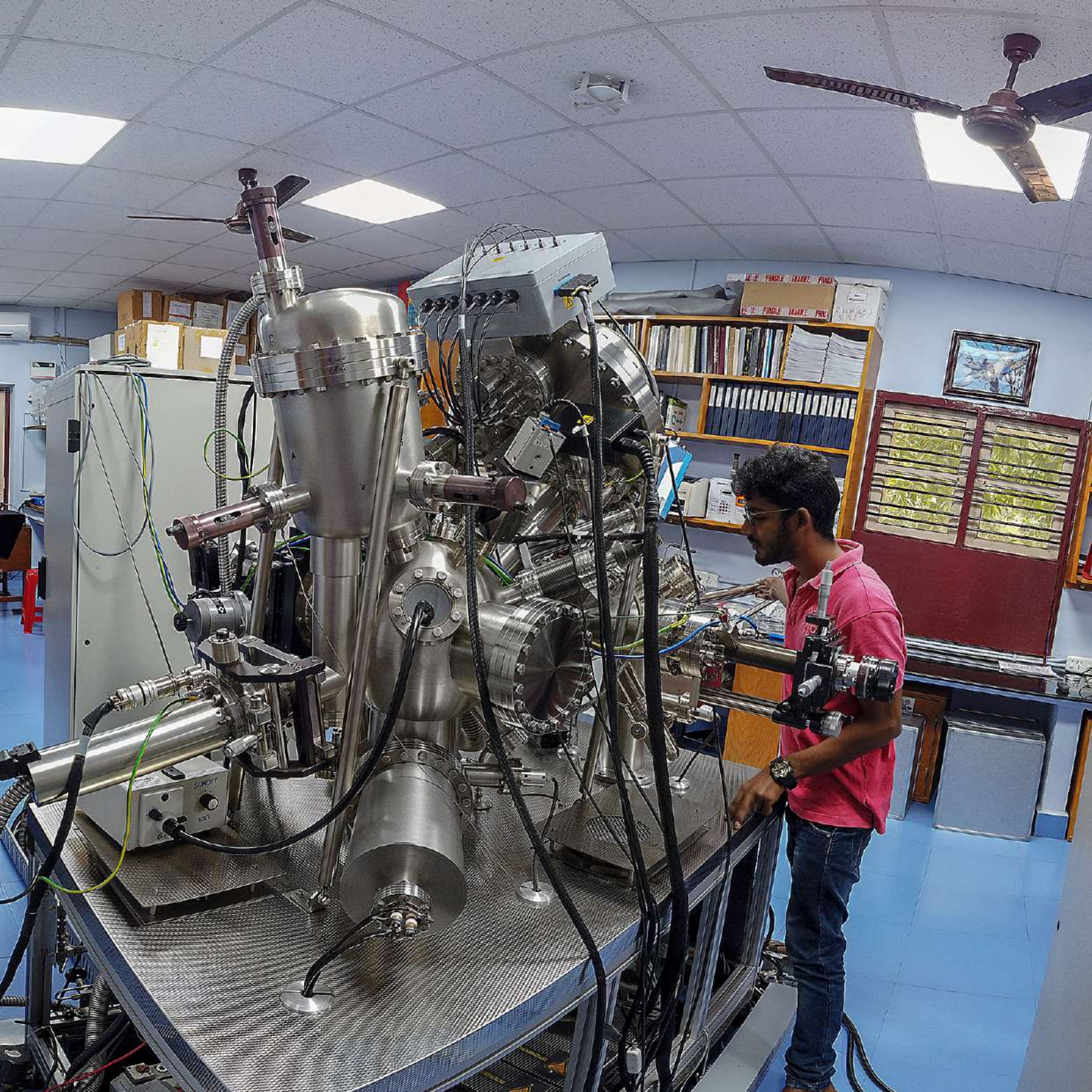
VHX
Microsoft



IIT MADRAS

About GATE

Graduate Aptitude Test in Engineering (GATE) is a national level exam that primarily tests the comprehensive understanding of various undergraduate subjects in Engineering/ Technology/ Architecture/ Science/ Commerce/ Arts. GATE will be a computer-based test (CBT). The exam will be conducted by IISc Bengaluru and seven IITs (IIT Bombay, IIT Delhi, IIT Guwahati, IIT Kanpur, IIT Kharagpur, IIT Madras, IIT Roorkee), on behalf of the National Coordination Board – GATE, Department of Higher Education, Ministry of Education (MoE), Government of India (GoI). Qualified GATE score can be used for seeking admission and/or financial assistance. GATE score is also used by some colleges and institutions for giving admission to students without MoE scholarship/assistantship. Further, many Public Sector Undertakings (PSUs) have been using the GATE score in their recruitment process.

About JAM

JAM Exam is a Computer Based Test (CBT) to be conducted in SEVEN different subjects: Biotechnology (BT), Chemistry (CY), Economics (EN), Geology (GG), Mathematical Statistics (MS), Mathematics (MA), Physics (PH). Fully objective type, with three types of questions: (i) Multiple Choice Questions (MCQ), (ii) Multiple Select Questions (MSQ), and (iii) Numerical Answer Type (NAT) questions. Candidates can appear for either ONE or TWO test papers. DIRECT admission to over 3000 seats in various postgraduate programmes at IITs. JAM Scores to be used for admissions to over 2300 seats by various CFTIs including NITs, IISc, DIAT, IIEST, IISER Bhopal, IISER Tirupati, IIPE and IISc Bengaluru.

ADDRESS for CORRESPONDENCE

GATE QUALIFIED CANDIDATES & IIT GRADUATES	
The Chairman M.Tech. and M.A. Admissions Committee 2024, GATE - JAM Office, IIT Madras, Chennai 600036	Telephone : (044) 2257 8200 Email : mtechadm@iitm.ac.in Website : https://mtechadm.iitm.ac.in/

SPONSORED & UOP CANDIDATES	
The Deputy Registrar (Academic Courses) Indian Institute of Technology Madras, Chennai 600036	Telephone : (044) 2257 8046 Email : drcourses@iitm.ac.in Website : https://www.iitm.ac.in/

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