

**OFFICE OF GLOBAL
ENGAGEMENT**

**INDIAN
INSTITUTE
OF
TECHNOLOGY
MADRAS**



RANKINGS

INSTITUTION OF EMINENCE - 2019

**NATIONAL INSTITUTIONAL RANKING FRAMEWORK -
2019**

#1 Overall best University in India

#1 Engineering Institute in India

(4 years in a row)

**ATAL RANKING OF INSTITUTIONS ON INNOVATION
ACHIEVEMENTS**

#1 Position in the maiden edition of ATAL Ranking of
Institutions on Innovation Achievements



LOCATION

Guindy, Chennai, Tamil Nadu, India

250 Hectares



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KEY FACTS

Indian Institute of Technology Madras was founded in 1959 with technical and financial assistance from the former government of West Germany, it was the third IIT that was established by the Government of India.

- Location : Chennai , Nadu, India
- Campus: 620 Acres
- Academic Departments: 16
- Faculty: 627
- No. of students : 10000+
- No. of Alumni : 50000+
- No. of patents: 100+
- Research publication:
1827 (2018 – 2019)
- 37 Centres of Excellence
- India's first university-driven research park -
"IITM Research Park"



MOTO – “Success is born out of action”

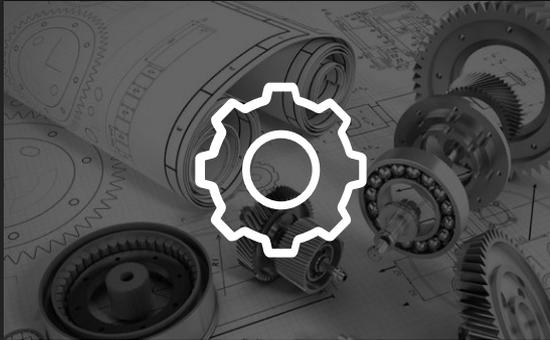
VISION

- The advancement of knowledge through education & research in engineering, social sciences and humanities.
- Service to the community and nation through the use of the resources, both intellectual and material.

MISSION

- To excel in all aspects of academic activity and produce high quality science based engineering students.
- Establish and foster interactive linkages with leading technological institutions and centers of research in India and abroad.
- To carry out public services as a third dimension to their role in addition to education and research.

DEPARTMENTS



ENGINEERING

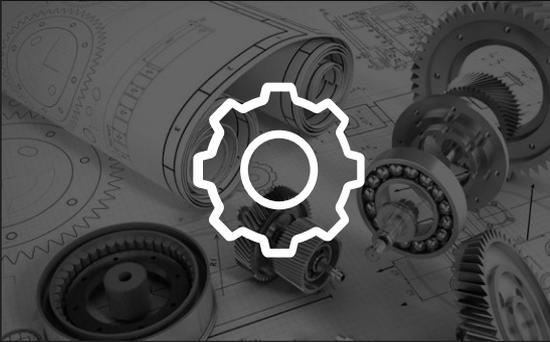


SCIENCE



**HUMANITIES &
MANAGEMENT
STUDIES**

ENGINEERING



- Aerospace Engineering
- Applied Mechanics
- Biotechnology
- Chemical Engineering
- Civil Engineering
- Computer Science and Engineering
- Electrical Engineering
- Engineering Design
- Mechanical Engineering
- Metallurgical and Materials Engineering
- Ocean Engineering



SCIENCE



- Mathematics
- Physics
- Chemistry

HUMANITIES AND MANAGEMENT STUDIES



- Humanities & Social Sciences
- Management Studies

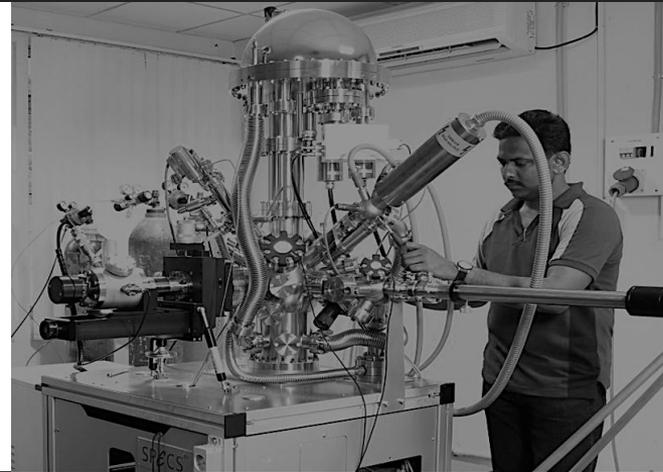
COURSE BASED PROGRAMES

- 4-year Bachelor's - B. Tech
- 5-year Dual Degree - B.Tech & M.Tech
- 5-year Integrated M.A & M.Sc
- 2-year Master's - M.Sc, M.B.A, M.Tech,
M.Tech(UOP);
- M.Tech(ClinicalEngineering)



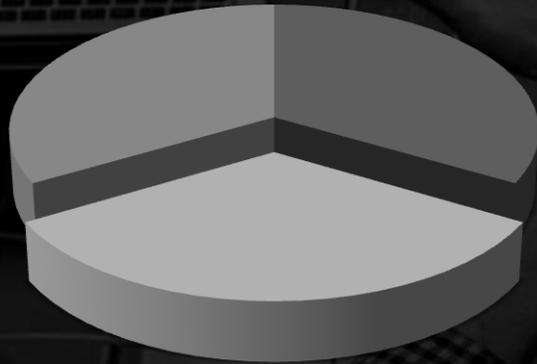
RESEARCH BASED PROGRAMES

- M.S. - 2 to 3 years after B. Tech / M.Sc
- Doctoral - 4 to 5 years after Masters



TOTAL NUMBER OF STUDENTS

Student Ratio



■ Under Graduate

■ Masters

■ Ph D

UG 2105

M.Sc 287

Dual Degree 2037

M.Tech 1356

MBA 115

M.A 240

M.S 746

Ph D 2963

CURRENT STUDENT POPULATION



INTER-DISCIPLINARY RESEARCH AREAS

- Combustion
- Atmospheric Sciences and Technology (Climate science and climate change)
- Nano Science and Technology
- Material Science and Technology
- Sustainability
- Technology and policy
- Computational Engineering
- Environmental Science and Engineering
- MEMS
- NEMS
- Lab on a chip
- Microfluidics
- Bio - engineering
- Advanced sensors
- Instrumentation and Control
- Energy Technology
- Medicine and health care
- Communication Technology
- Security and Defence
- Big Data.



INTER-DISCIPLINARY RESEARCH AREAS

Combustion

- Atmospheric Science and Technology, including climate science and climate change

Nano/ Bio materials and devices

Sustainability

- All energy technologies including new and renewable
- Transportation technologies including guidance and control
- Heritage structures

Technology and Policy

- Education and ICT
- Ethics
- Technology management
- Equity



INTER-DISCIPLINARY RESEARCH AREAS

Environmental science and engineering in the following (and not restricted to) areas

- Air quality and pollution
- Water quality and pollution
- Nuclear waste management
- Carbon dioxide sequestration

MEMS, NEMS, Lab on a chip, micro fluidics and applications

Bio- engineering – applications and devices

Advanced sensors for national security and personal health

Computational Sciences applied to:

- Materials
- System biology
- Quantum computing
- Analytics, simulation and optimization

Centers of Excellence:



1. National Technology Centre for Ports, Waterways and Coasts (NTCPWC)
2. Robert Bosch Center for Data Science and Artificial Intelligence
3. Centre of Excellence on Dam Safety & Dam Rehabilitation
4. Centre of Excellence (CoE) in Advanced Materials and Manufacturing.
5. Centre of Propulsion Technology (CoPT)
6. Graphene Applications (TSAMRC)
7. The Center for Excellence in Steel Technology (CoExiST)
8. Industrial Internet of Things (IIT-GE)
9. Center for Urbanization, Buildings and the Environment (CUBE)
10. Applied Centre for Advanced Automotive Research (CAAR).
11. Indian Solar Energy Harnessing Centre (ISEHC)
12. Raghupathi Singhania Centre of Excellence for Tyre & Vehicle Mechanics

Continuation...

13. Centre of Excellence in Urban Transport
14. Centre of Decentralised Power Systems
15. Centre for Non-Destructive Evaluation
16. National Centre for Combustion R&D
17. National Centre for Catalysis Research
18. Centre for NEMS & Nanophotonics (CNNP)
19. Healthcare Technology Innovation Centre(HTIC)
20. Centre for Technology and Policy (CTaP)
21. National Centre for Safety of Heritage Structures (NCSHS)
22. Indo-German Centre for Sustainability (IGCS)
23. China Studies Centre
24. Reliance-IITM Telecom Centre of Excellence



Continuation...



25. Centre for Functional Nanomaterials
26. Thematic Unit of Excellence on Water
27. Centre for Excellence in Wireless Technology (CEWIT)
28. Centre of Excellence on Machine Tools and Production Technology (AMTDC)
29. Centre of Excellence in Iron & Steel Technology (COEXIST)
30. Centre for Computational Brain Research (CCBR)
31. Interdisciplinary Laboratory in Data Sciences (ILDS)
32. Initiative in Biological Systems Engineering (IBSE)
33. Centre for Social Innovation & Entrepreneurship (CSIE)
34. Centre for Railway Research (CRR)
35. Centre for Battery Engineering and Electric Vehicles (CBEEV)
36. TTK Centre for Rehabilitation Research and Device Development (R2D2)
37. Thematic Unit of Excellence (TUE) on Water Purification using Nanotechnology



RESEARCH AND IP

Transformational Research

Direct Societal Impact

Disruptive improvement in housing, water, healthcare, education, energy

900+ Projects Annually

250 Indian Companies

90+ IP Annually

40+ Multinational Companies

Translation Research

Industry

Space

Defense

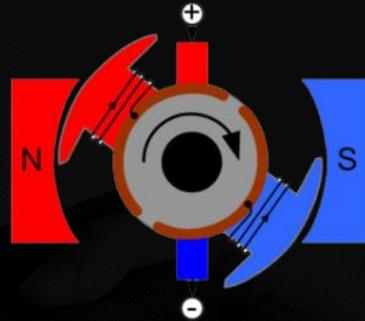
Incubation

Academic (basic, open-sky)

research Publications

Publication

SOCIETAL IMPACT



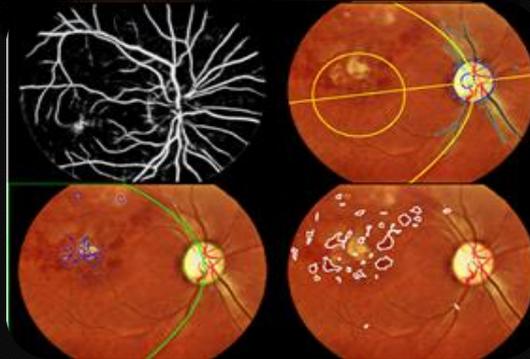
Uninterrupted Power



Clean Water



Assistive Devices



Advanced Healthcare



Affordable Housing

WE ARE MORE...



RELEVANT

Industry
Society

BOLD

Make in India
Global Partnerships

PROFESSIONAL

Research Park
Legal, IP..

INNOVATIVE

Research Fund
Start-ups

RESPONSIVE

Alumni-Industry Initiatives
Positive Messaging



RESEACH FUNDING

No.	Financial Year	Sponsored Research Projects	Consultancy Assignments
		(Value Rs. In Crores)	(Value Rs. In Crores)
1	2018-2019	536.548	145.899
2	2016-2017	330.92	143.35
3	2015-2016	204.48	71.15
4	2014-2015	67.25	64.23
5	2013-2014	193.20	54.00
6	2012-2013	105.20	45.88
7	2011-2012	181.85	50.77
8	2010-2011	117.15	36.39

IITM RESEARCH PARK

India's first
University-Based
Research Park



IITM - RESEARCH PARK

85 R&D Companies

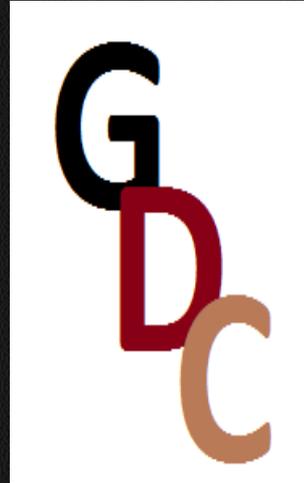
180 Start-ups



IITM ENTREPRENEURSHIP ECOSYSTEM

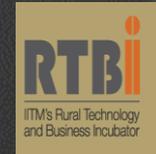


Ideate → Pre-Incubate → Incubate → Support



IITMEF - IIT Madras
Entrepreneurship Forum

E-Cell



M.S. Entrepreneurship



OFFICE OF GLOBAL ENGAGEMENT

ROLES

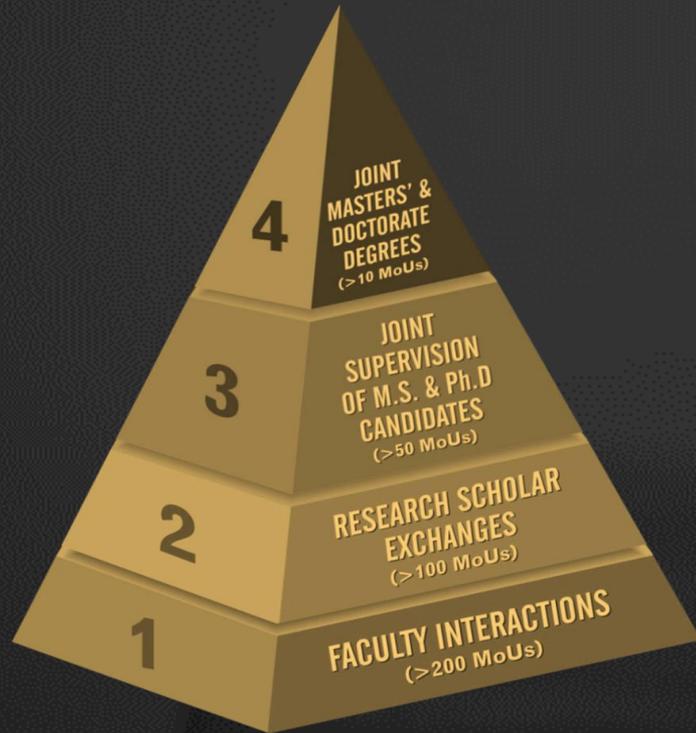
- Coordinate international delegation visits to IITM and reach out to foreign universities.
- Encourage, maintain and sustain relationships with foreign universities and enterprises.
- Promote international student exchanges (both inbound and outbound)
- Facilitate faculty exchanges and research collaborative workshops

ACTIVITIES

- Focal point for international visitors
- Host visitors based on established protocol
- Plan and coordinate department & lab visits, maximize effectiveness of interactions with IITM faculty



RESEARCH COLLABORATION PHILOSOPHY



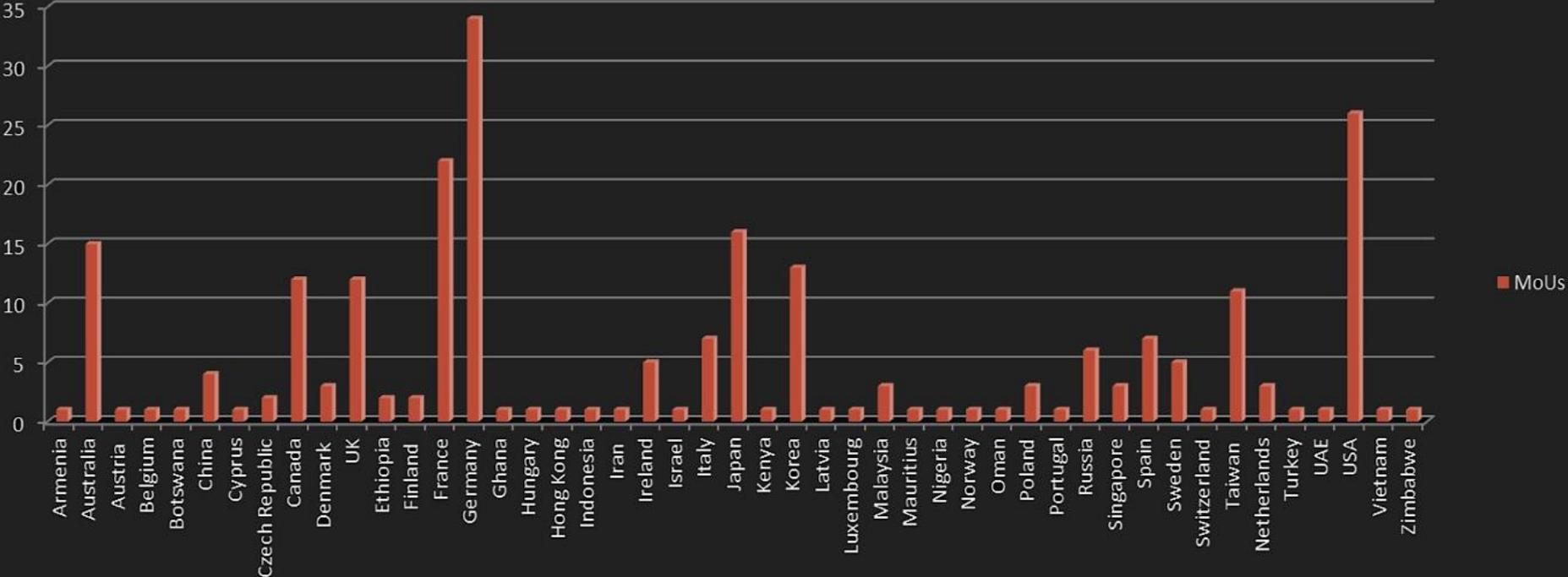


UNIVERSITY PARTNERSHIPS

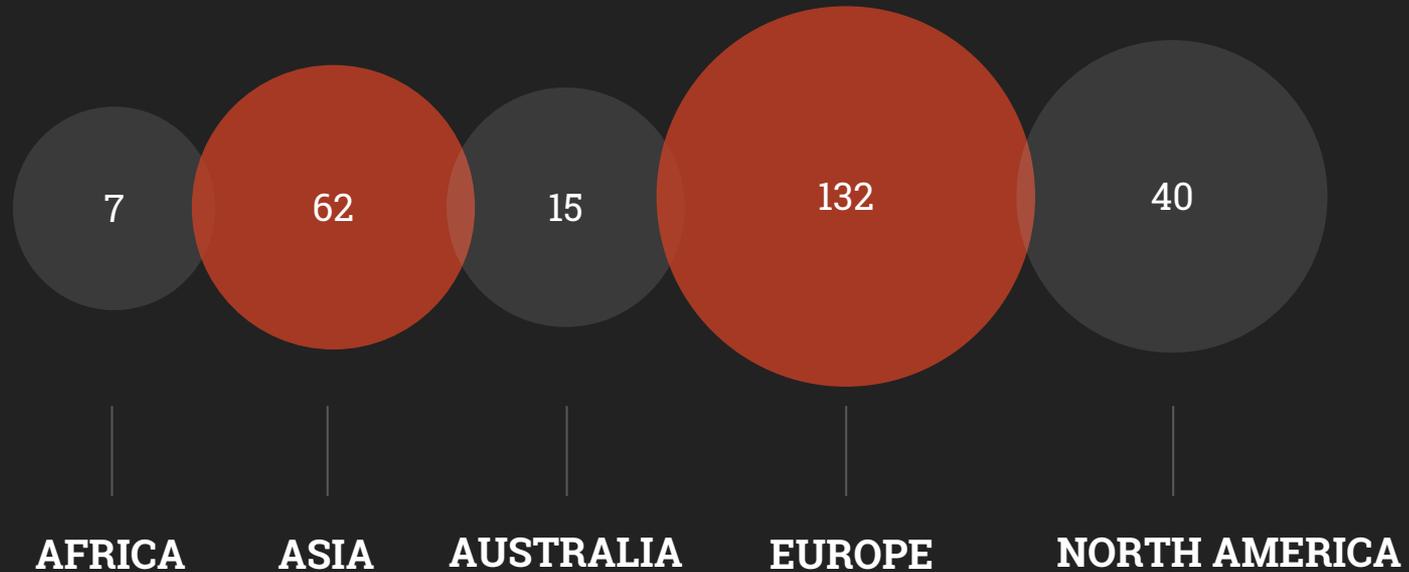
We are focused on building strong research collaborations with leading global institutions. To accomplish this, we envisage a 4-stage process:

- Faculty interactions (visits & workshops, video-conferencing, joint proposals, co-authored papers)
- Student exchanges (Ph.D. and M.S. scholars to spend 3-6 months carrying out research at collaborators' laboratories)
- Joint-supervision of research scholars, serving on doctoral and Masters' committees
- Joint-degree programs (where sufficient sustainability and scalability of relations has been demonstrated)

MEMORANDUM OF UNDERSTANDING



MEMORANDUM OF UNDERSTANDING





JOINT DOCTORATE PROGRAMS (JDP)

Europe

- RWTH Aachen University, Germany
- University of Duisberg-Essen, Germany
- University of Passau, Germany
- University of Heidelberg, Germany
- University of Bordeaux, France
- École centrale de Nantes, France
- Aalto University, Finland

America

- Michigan State University, United States of America

Australia

- University of Melbourne
- Queensland University of Technology
- Swinburne University of Technology
- University of Technology Sydney
- Deakin University
- Curtin University

Asia

- National University of Singapore, Singapore
- National Tsing Hua University, Taiwan
- National Chiao Tung University, Taiwan
- Nanyang Technological University, Singapore



JOINT SUPERVISION PROGRAMS (JSP)

- The University of Melbourne, Australia
- Deakin University, Australia
- Purdue University, USA
- University of Sydney, Australia

JOINT MASTERS PROGRAM (JMP)

- University of Passau, Germany

JOINT DEGREE PROGRAMS



JOINT SUPERVISION PROGRAMS



JOINT MASTERS PROGRAMS





INBOUND

- Enquiries and assistance to students for exchange programs
- Processing of applications
- Welcome Information Package before arrival
- Pick up from airport and help in settling down @ IITM.
- Orientation program
- Immigration process assistance
- Buddy Program

OUTBOUND

- Advertising of “study-abroad”, research exchange & internship programs
- Handling enquiries for exchange programs
- Guidance for exchange programs at IITM
- Nomination
- Facilitating the application process
- Coordinating with partner universities



FACULTY COLLABORATIONS

- Global Initiative of Academic Networks (GIAN), an initiative by Govt. of India, is aimed at bringing international faculty members to institutes of Higher Education in India for a duration of two to three weeks.
Link - <http://www.gian.iitkgp.ac.in/>
- Visiting Advanced Joint Research (VAJRA) Faculty Scheme is a dedicated program exclusively for overseas scientists and academicians with emphasis on Non-resident Indians (NRI) and Persons of Indian Origin (PIO) / Overseas Citizen of India (OCI) to work as adjunct / visiting faculty for a specific period of time in Indian Public funded academic and research institutions.
Link - <http://www.vajra-india.in/>
- IIT Madras has offered twice as many courses as the next closest institution in India. One-fourth of all visiting faculty are being hosted by IIT Madras.



Scheme for Promotion of Academic and Research Collaboration (SPARC) funds for long term visit by the International Faculty (2 to 8 months) but would also fund the travel and sustenance of Indian students at the University/ Institute of the International collaborator

Link - <https://sparc.iitkgp.ac.in/index.php>

Visiting International Faculty (VIF) is a new program launched by IITM, focusing on recruiting full-time foreign faculty at the equivalent level of Assistant Professor.

- Target Groups for VIF – Recent Doctoral Graduates
- Gross Pay (Including Benefits) – 2000 – 2200 Euros per month

Link - <https://facapp.iitm.ac.in/>

IITM Faculty Research Profiles - <https://icandsr.iitm.ac.in/sites/default/files/pdf/IITMFP.pdf>



IITM CALENDAR

ACADEMIC INFORMATION

DURATION	SEMESTER 1	SEMESTER 2
Term	3rd Week of July to 1st Week of December	2nd Week of January to 2nd Week of May
Classes	Last Week of July to Mid of November	Mid of January to End of April
Orientation	3rd Week of July	2nd Week of January
Exams	3rd & 4th Week of November	1st & 2nd Week of May

For exact Academic Calendar log on to <http://www.iitm.ac.in/calendar>

Faculty offering exchange opportunities

DEPARTMENT	Bachelor/DD	Master	Research
Aerospace Engineering	✓	✓	✓
Applied Mechanics	✓	✓	✓
Bio Technology	✓	✓	✓
Chemical Engineering	✓	✓	✓
Chemistry	x	✓	✓
Civil Engineering	✓	✓	✓
Computer Science and Engineering	✓	✓	✓
Electrical Engineering	✓	✓	✓
Engineering Design	✓	✓	✓
Humanities and Social Sciences	x	✓	✓
Management Studies	x	✓	✓
Mathematics	x	✓	✓
Mechanical Engineering	✓	✓	✓
Metallurgical and Materials Engineering	✓	✓	✓
Ocean Engineering	✓	✓	✓
Physics	✓	✓	✓

For online Course Handbook log on to <http://www.iitm.ac.in/courses>

The attendance code and grade points followed at IITM are given below:

Attendance rounded to	Remarks	Code	P	Pass
>95%	Very Good	VG	F	Fail
85 - 94%	Good	G	W	Failure due to insufficient attendance
<85%	Poor	P	I	Incomplete (Subsequently to be changed into pass [E to S] or U grade in the semester)
Grade	S A B C D E U		X	Completed NSO/NCC/NSS requirements
Grade Points	10 9 8 7 6 4 0		Y	Incomplete (in NSO/NCC/NSS)

Credit System followed in IIT Madras

1 credit = 50 min (1 credit hour) per week
1 credit hour lecture needs 2 credit hours outside the classroom (for homework and tutorial etc)

So 3 lectures a week = 3 + (3x2) = 9 credit course

2.5 hrs of lab work = 3 credits

In any given semester, a student should not be required to register for more than 60 credits. This means a maximum academic time commitment of about 50 clock hours every week.

Language of Instruction: English

Language Courses:
German, French and Chinese courses are offered as part of Humanities department courses

APPLICATION PROCEDURE

Last date for Application:
SEMESTER 1 : 15th May
SEMESTER 2 : 15th November

Required Documents:
> Application Form
> Transcripts
> Nomination letter from International Office

OTHER INFORMATION

Estimated cost of living: **₹5000 / month** (approx.)
Health Insurance : **₹1000** (approx.)

Miscellaneous:

Accommodation arranged by partner University

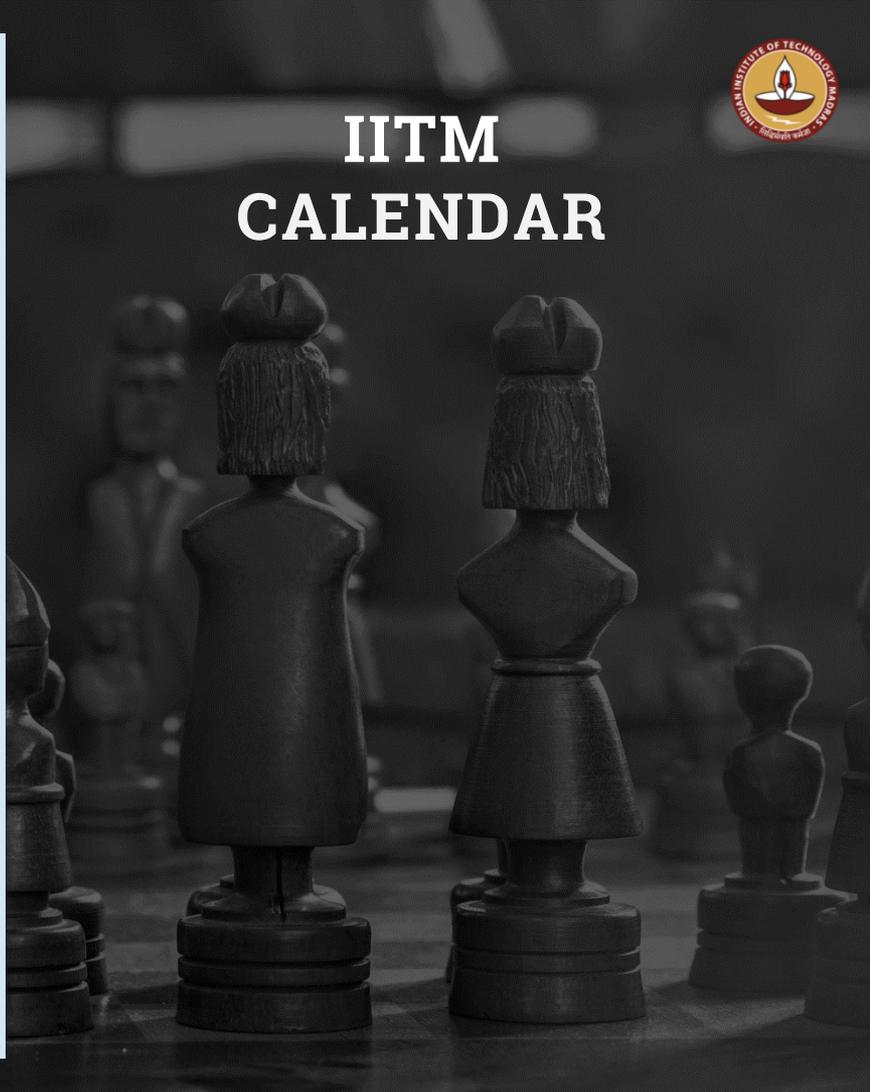
For additional information on accommodation write to Office of International Relations

If accepted, Academic section will issue offer letter for Visa requirements.

IITM follows the semester system.

IITM follows the quarter system for MBA program, each quarter is usually of eight week duration.

Quarter 1&5: July - September
Quarter 2&6: September - November
Quarter 3&7: January - March
Quarter 4&8: March - May



CONTACT US



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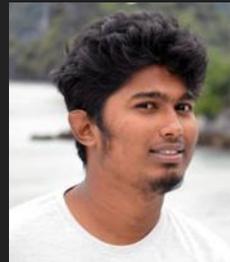
Inbound Coordinators



Akshaya Shridharr

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Outbound Coordinator



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Continuation...



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Contact Details



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Transforming Minds

Indian Institute of Technology - Madras

