Centre for Outreach and Digital Education (CODE)

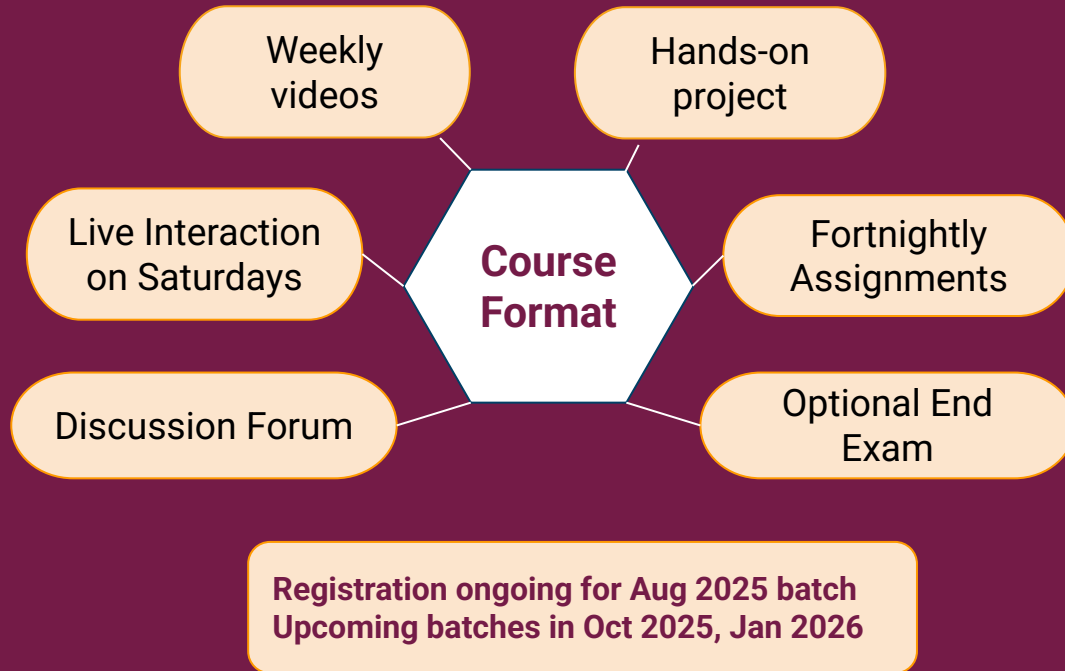## IIT Madras

Academic Programs

01 School Connect Program

02 NPTEL

03 BS Degree

04 Web-enabled M.Tech Programs

05 Executive Education programs

06 Short Term Training Programs
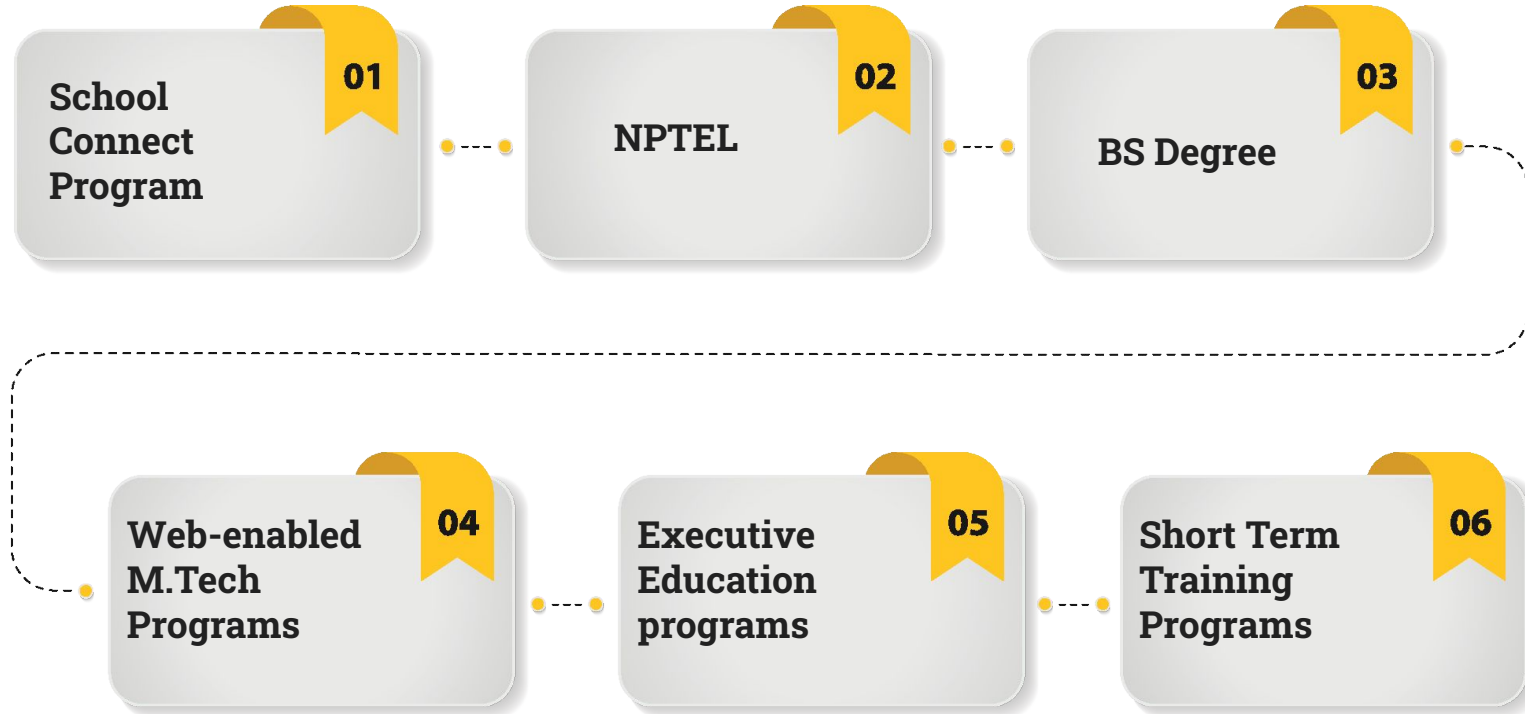
1. School Connect Program

- Introductory 'Hands-on Career Experience Programs'
- Certification courses for Class X, XI & XII Students from partner schools

Course Format

- Weekly videos
- Hands-on project
- Live Interaction on Saturdays
- Fortnightly Assignments
- Discussion Forum
- Optional End Exam

Registration ongoing for Aug 2025 batch
Upcoming batches in Oct 2025, Jan 2026

2300+
SCHOOL PARTNERS
(AS OF 1ST JUNE, 2025)

Including schools from UAE, Nepal, Oman, Qatar and Saudi Arabia

50000+
STUDENT BENEFICIARIES

Current Courses offered under the School Connect Program

code.iitm.ac.in/schoolconnect/index

1	Introduction to Data Science and AI	6	Introduction to Engineering Biological Systems
2	Introduction to Electronic Systems	7	Introduction to Ecology
3	Introduction to Arch. & Design	8	Introduction to Law
4	Fun with Math and Computing	9	Fundamentals of Aerospace
5	Math Unplugged: Games & Puzzles	10	Humanities Unplugged

New courses in the pipeline: Mechatronics, Chemical Engg., Product Design, Computer Science, Civil Engg.

Centre for Outreach and Digital Education
Indian Institute of Technology Madras
Certificate
of Completion
This is to certify that
<Student Name>
a student at
<School Name>
has successfully completed the **8-week certification course**
in Data Science and AI.
SCHOOL CONNECT
October 2024
Prof. Andrew Thangaraj
Chair
IITM CODE

Centre for Outreach and Digital Education
Indian Institute of Technology Madras
Certificate
of participation
This is to certify that
<Student name>
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SCHOOL CONNECT
October 2024
Prof. Andrew Thangaraj
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IITM CODE

2. NPTEL - Joint initiative of seven older IITs and IISc

Free Repository

3200+ courses - for download and viewing

Self-paced Certification

Any time enrollment and certification (online exam) for a nominal fee

Certification Courses every Jan and July on SWAYAM

Enrollment is free. Exam for a nominal fee, is in-person, proctored at centres

More than 900 courses every sem, 30 lakhs+ enrollment, 9 lakhs+ exam registrations

NPTEL highlights

National Programme on
Technology Enhanced Learning

QS REIMAGINE
EDUCATION

Wharton
UNIVERSITY of PENNSYLVANIA

National Programme on Technology Enhanced Learning (NPTEL)

NPTEL

GOLD WINNER
for the category

Lifelong Learning Award Award

The QS-Wharton Reimagine Education Awards celebrate and reward
the world's most successful educational innovations enhancing student
learning outcomes and employability.

Nunzio Quacquarelli
President,
QS Quacquarelli Symonds

Jerry Wind
Professor Emeritus,
The Wharton School

NXVA
NOVA UNIVERSITY
LONDON

جامعة أبوظبي
Abu Dhabi University

The Knowledge Hub
Universities

جامعة عجمان
AJMAN UNIVERSITY

925 courses are open for enrollment in Engineering, Humanities, and Management for the July 2025 semester.

Courses from 80+ top institutes. NPTEL Networks with 7200+ Colleges and 100+ Industry Associates

NPTEL INITIATIVES

Postbac fellowships

Credit Transfer

MOU with AICTE for NPTEL Course as FDP

Support For SPOCS

GATE Exams

NPTEL+

Internship for Toppers

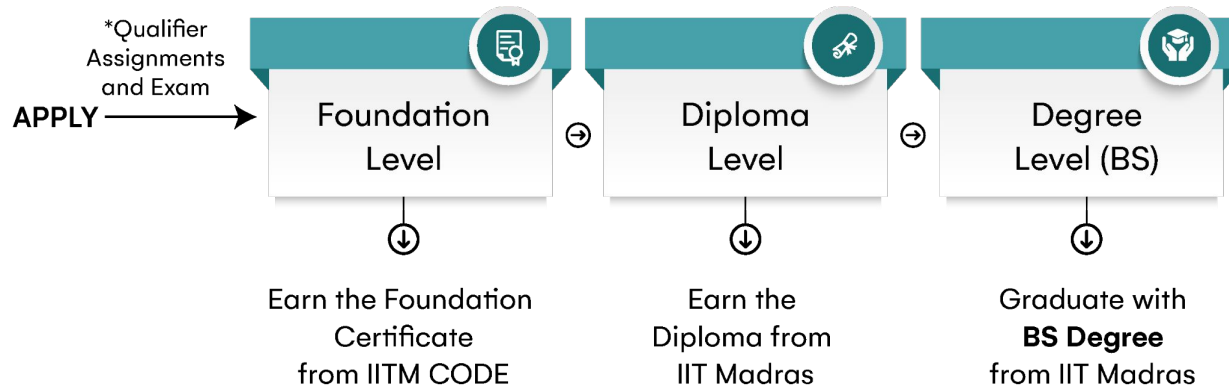Industry Associates

Soft Skill Trainings
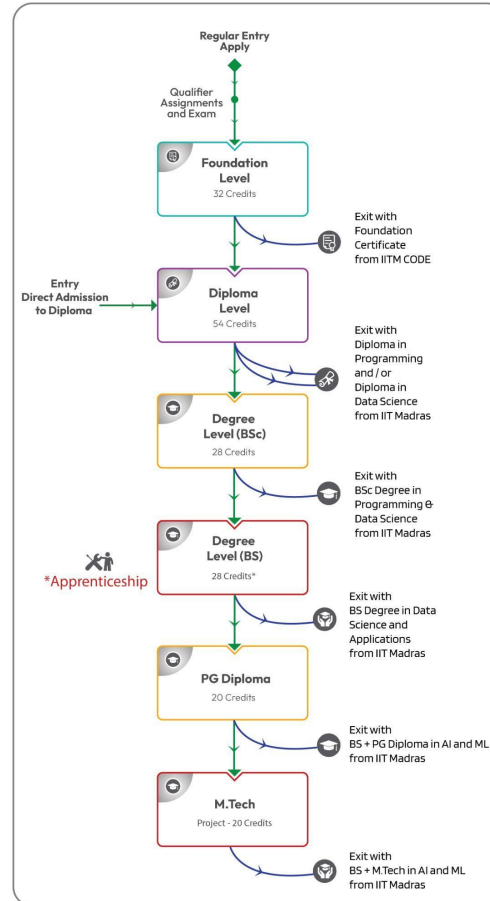
CSR

Translation

NPTEL Social Media

LAB Workshops

3. BS and Diploma Programs

- **BS in Data Science and Applications** (38000+ students)
- **BS in Electronic Systems** (1500+ students)

*Qualifier Assignments and Exam

APPLY →

Foundation Level → Diploma Level → Degree Level (BS)

Earn the Foundation Certificate from IITM CODE

Earn the Diploma from IIT Madras

Graduate with **BS Degree** from IIT Madras

QS REIMAGINE EDUCATION

Wharton
UNIVERSITY of PENNSYLVANIA

Bachelor of Science in Data Science and Applications
Indian Institute of Technology Madras

SILVER WINNER
for the category

Best Online Program Award

The QS-Wharton Reimagine Education Awards celebrate and reward the world's most successful educational innovations enhancing student learning outcomes and employability.

Nunzio Quacquarelli
President,
QS Quacquarelli Symonds

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Professor Emeritus,
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NXVA
NOVA UNIVERSITY LISBON

جامعة أبوظبي
Abu Dhabi University

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Universities

جامعة عجمان
AJMAN UNIVERSITY

IITM BS Degree in Data Science and Applications

- **Open to anyone who is interested in upskilling - any age, from anywhere, any background**

- **Entry - 4-week qualifier process or JEE**

- **All contents delivered online, proctored in-person exams on Sundays**

- **Access to IITM campus courses at the Degree levels**

Regular Entry
Apply

Qualifier Assignments and Exam

Foundation Level
32 Credits

Exit with Foundation Certificate from IITM CODE

Entry
Direct Admission to Diploma

Diploma Level
54 Credits

Exit with Diploma in Programming and / or Diploma in Data Science from IIT Madras

Degree Level (BSc)
28 Credits

Exit with BSc Degree in Programming & Data Science from IIT Madras

*Apprenticeship

Degree Level (BS)
28 Credits*

Exit with BS Degree in Data Science and Applications from IIT Madras

PG Diploma
20 Credits

Exit with BS + PG Diploma in AI and ML from IIT Madras

M.Tech
Project - 20 Credits

Exit with BS + M.Tech in AI and ML from IIT Madras

- **Upgrade to PG Diploma/MTech program after completing the BS**

- **Upgrade to MS in IITM after completing the final year in IITM in person**

Number of students currently active in the BS Program: 38000+

Foundation Level

23000+

Diploma Level

14000+

Degree Level

1100+

BS-DS Program Student Distribution

Age (yrs)	% of Total
<20	25.16%
20-24	59.73%
25-29	6.66%
30-39	5.15%
40-49	2.42%
50-59	0.77%
60-69	0.10%
70-84	0.01%

Education Level	%
Doing another UG degree in parallel	51.81%
Completed UG	15.75%
Stand Alone	29.71%
Completed PG	2.74%

Working Status	%
Employed	15%

Male	Female	Others
72.44%	27.55%	0.01%

Educational Background	% of Total
Arts/ Science/ Commerce	21.77%
Engineering/ Technology	72.25%
Management	5.98%

Category	%
General	46.89%
OBC NCL	29.46%
EWS	14.46%
SC / ST	9.19%

Income Level	% of total
> 5 LPA	56.21%
1-5 LPA	18.97%
< 1 LPA	24.82%

Student community across India

343 students outside India currently studying in the BS program
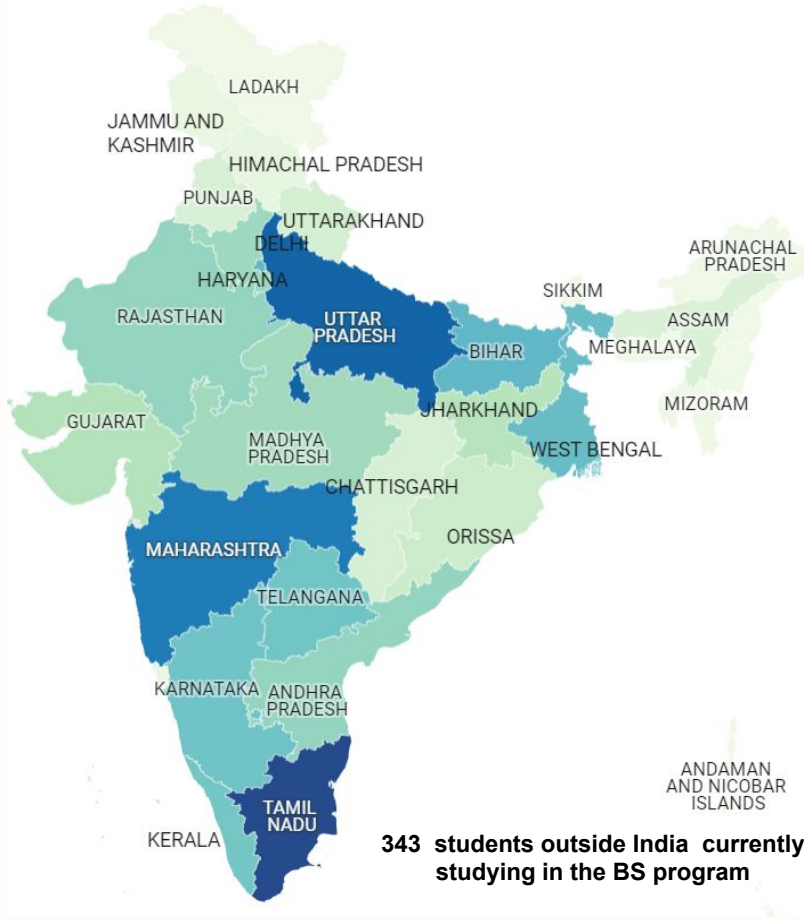
State	Count	State	Count
Tamil-Nadu	**4522**	Punjab	302
Uttar-Pradesh	**4039**	Assam	270
Maharashtra	**3221**	Jammu-And-Kashmir	99
Bihar	**1865**	Himachal-Pradesh	92
West-Bengal	**1826**	Puducherry	77
Delhi	**1748**	Goa	42
Karnataka	**1606**	Tripura	41
Telangana	**1529**	Andaman-And-Nicobar-Islands	20
Kerala	**1266**	Dadra-And-Nagar-Haveli	12
Rajasthan	**1209**	Manipur	12
Madhya-Pradesh	**1036**	Meghalaya	11
Andhra-Pradesh	**1022**	Arunachal-Pradesh	5
Haryana	**1022**	Mizoram	5
Jharkhand	734	Nagaland	5
Gujarat	729	Sikkim	4
Odisha	465	Daman-And-Diu	2
Chhattisgarh	363		
Uttarakhand	323		

4. Web Enabled PG Programs - M.TECH

Prerequisite:
Program wise eligibility + 2 years work experience

M. Tech

- ❖ **Aerospace Engg**
- ❖ **Artificial Intelligence**
- ❖ **Electrical Engg**
- ❖ **Comp Sc. Engg**
- ❖ **Mech Engg**
- ❖ **E-Mobility**

PG Diploma exit option available

01 Duration
1 or 2 years + 1 year Project

02 Mode of Delivery
Live classes during the weekdays
4pm - 7pm (IST)

03 Interim Assessments and End Term
Online proctored and center based

04 Immersion
Through Laboratory sessions or Campus visits or Project review as per program

05 Project
Hands-on project in work area, reviewed by IITM Faculty

06 Award of Degree
M.Tech

Support of Company is required by way of a MoU / Letter of Support to execute the project in the employed organization

4.1 Web Enabled PG Programs - PG DIPLOMA

Prerequisite:
Program wise eligibility
Open for **Freshers**

PG Diploma

- ❖ **Aerospace Engg**
- ❖ **Artificial Intelligence**
- ❖ **Electrical Engg**
- ❖ **Mech Engg**
- ❖ **E-Mobility***
- ❖ **Process Safety**

Upgrade option to M.Tech available

01
Duration
1 or 2 years

02
Mode of Delivery
Live classes during the weekday 4pm - 7pm (IST)

03
Interim Assessments and End Term
Online proctored and center based

04
Immersion
Through Laboratory sessions or Campus visits as per program

05
Mini Project
Applicable for Artificial Intelligence, E-Mobility

06
Award of Degree
1. PG Diploma

* Candidate has to be employed and support of Company is required by way of a MoU / Letter of Support ONLY for E-Mobility program.

Web Enabled Program Numbers

Number of Web M.Tech programs: 11; Active Students - 893

Electrical Engineering

1. Communications & Signal processing
2. Integrated Circuit System
3. Microelectronics
4. Multimedia

364 students

Mechanical Engineering

1. Mechanical Design
2. Automotive Technology

109 students

Aerospace Engineering

1. Aerospace Engineering
2. Ammunition Technology

121 students

E-Mobility

22 students

Artificial Intelligence

174 students

Information security

103 students

POST GRADUATE DIPLOMA IN PROCESS SAFETY

01 ELIGIBILITY
- BE/B.Tech degree in Chemical, Civil Engg, Mech, Elec, Instrumentation Engg, Petroleum, or allied branches (or) MSc (Chemistry
- Minimum 60% aggregate (or equivalent CGPA) or 50% aggregate +2 years relevant work experience

02 DURATION STRUCTURE
- 1-2 Years / 3 Terms per Year
- 6 Core; 3 Electives; 1 Lab

03 RECOMMENDED FOR
- HSE Officers, Safety Engineers
- Industrial Workers, Supervisors, and Managers responsible for workplace safety
- Professionals in safety-critical sectors (e.g., Construction, Oil & Gas, Manufacturing)

Important Dates & Applications

Visit **code.iitm.ac.in/webmtech** for course details and application

Important Dates	WMT PG Programs
Application opens on	February 01, 2026
Application end date	May 31, 2026
Entrance Exam date	July 5, 2026
Term start	September 2026
Application fee	Rs. 3,000/-

5. Executive Education

Typically 1-6 month programs - completely online

Weekly assignment

3-6 hours content/week Recorded videos

Executive Education

Live interaction with faculty every Saturday

Module level quiz

IITM Labs/ Campus Visit

Executive Education Programs

- Supply Chain Management Professional Certification (SCMPro) - Joint certification with CII
- Battery Pack Design and Development - Fundamentals (new course launch)
- eMobility (CPoeM)
- Construction Technology and Management
- Digital Transformation – Fundamentals
- Foundations of Machine Learning
- Quantum Computing
- Certificate Program on Electric Vehicles (CPEV) - optional lab add-on available
- Battery Cell Technology
- Motors & Controllers
- Additive Manufacturing (3D printing)
- Responsible AI
- Electric Vehicle Engineering & Development (EVEND)
- Sustainability for Indian Businesses

Lab courses launched: 3-day in-person for MoCo and 6-day in-person for CPoeM

6. Short Term Training Programs

Customized for Companies

Duration: 1 day to 1 week

In-person or Online

Management
- Scale Up Program for Incubators
- Lean management and value stream mapping
- Women Leadership Development Program

Data Science / AR - VR
- Data Science for Financial Surveillance
- A short introduction to ML

Electrical Engineering
- Robust Parameter Design using Taguchi Methods

Automobiles
- Vehicle Dynamics, Drivetrain sizing
- Electric Vehicles Engg, Battery System, Charging Tech, Motors, Power Electronics, Mechatronics

Civil Engineering
- Construction Automation and Robotics
- Construction Safety

Mechanical Engineering
- Advanced HVAC design and testing training
- Design for Manufacture & Assembly
- Analysis of Mechanical Behaviour of Materials

7. Partner with IITM CODE

Upskill your Employees

CSR Contribution

Leadership Talks

Internship and Recruitment

Viva and Mentorship
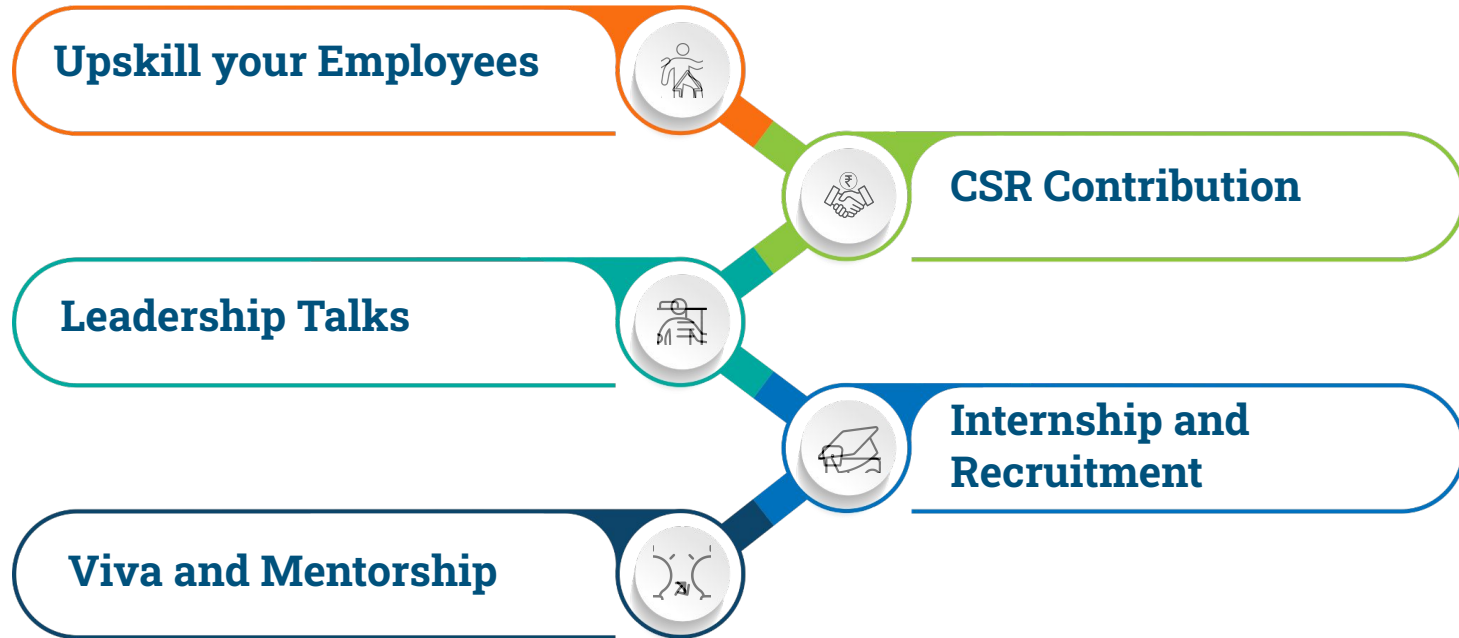
7.1 Upskilling/Cross skilling your employees

Working Professionals can pursue
- Web-enabled MTech Program - 11 programs available
- Diploma in Data Science/Diploma in Programming
- Executive Education Program - 14 programs across domains
- NPTEL courses - can also be taken as part of onboarding freshers/before joining

- Industry experts are invited to share industry insights with the student community through Live sessions

- Senior management professionals or technologists from your company with 10+ years of experience in relevant fields (Data Science & Programming domain) can deliver talks

- Duration: 45 minutes to 60 minutes. The Session video will be recorded and archived for future use (upon your consent) if not we would not record the sessions.
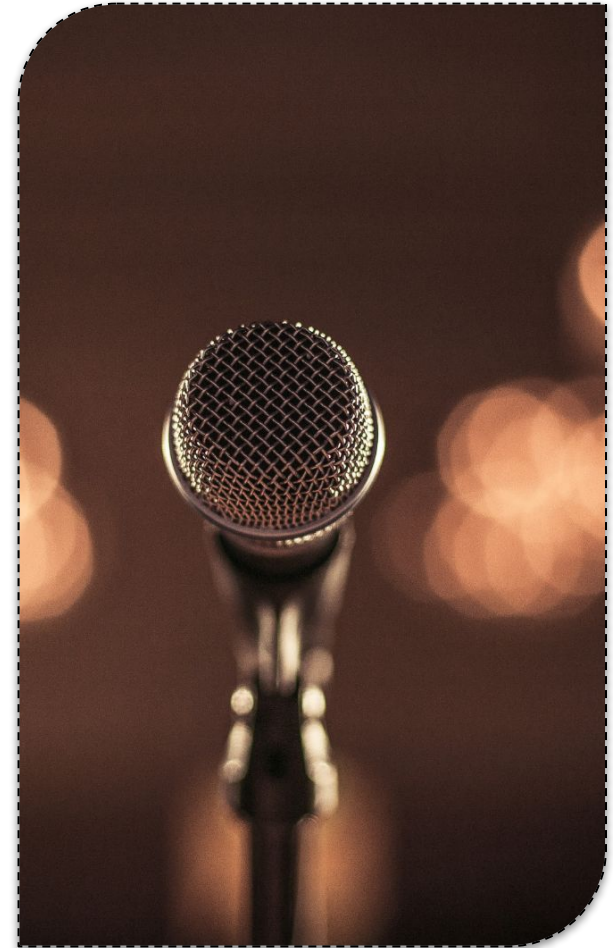
- We are pleased to invite members from your esteemed organization to collaborate with the IIT Madras BS Degree in Data Science & Applications as viva examiners. This is a great opportunity to engage with our talented student community and contribute to their academic and professional development.

- As part of this effort, your team members would conduct vivas and serve as examiners. We will be offering an honorarium for each viva conducted, along with a certificate of appreciation for their valuable contribution.

- **NPTEL:**
  - Sponsor exam fees for students in Tier 2 and Tier 3 cities, female students pursuing STEM courses
  - Support Pre-Doctoral Fellowships to provide a pathway for NPTEL Stars to pursue advanced research opportunities
  - Support NPTEL topper students to pursue Internship with course offering faculty. This provides students with research experiences with the faculty from IITs/IISc/IISER/IIIT/other course offering institutes
  - Support NPTEL to train students to develop soft skills and get them job-ready

- **BS Programs:**
  - Sponsor tuition fees for students with family income < 5LPA
  - Provide laptop support to students pursuing BS Program

7.5 Hire from the BS program

Placements, Internships & Apprenticeship
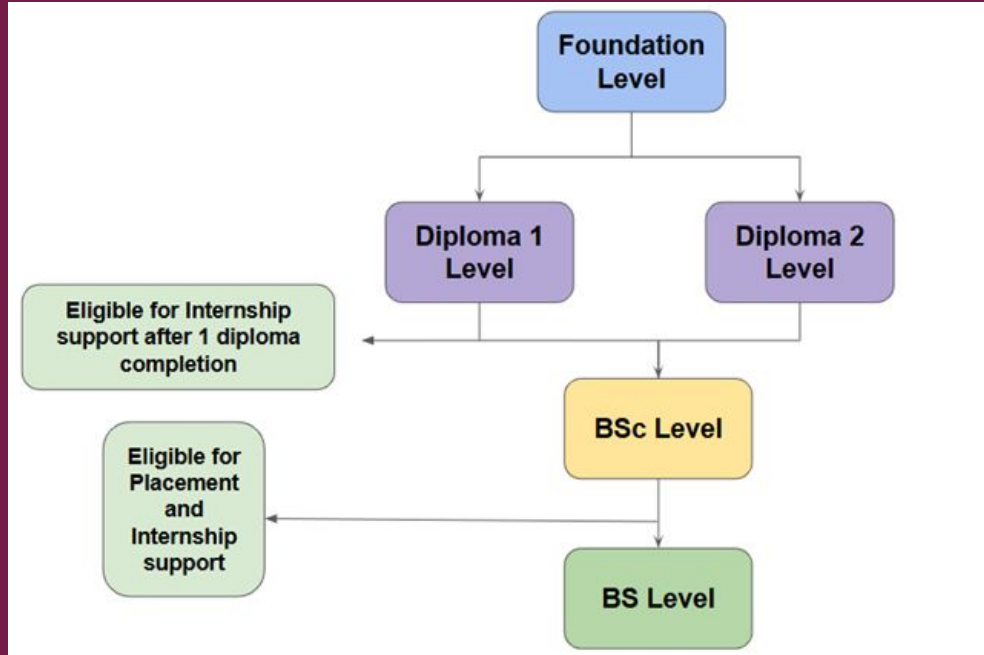
- Throughout the year student availability
- Students across locations
- Specialised Skills
- Average Internship Stipend **28000 PM**
- Average Placement CTC **8.5 LPA**
- Interviews Facilitated
- **3187**+ offers accepted
- Internship Duration: **3 to 6 Months**
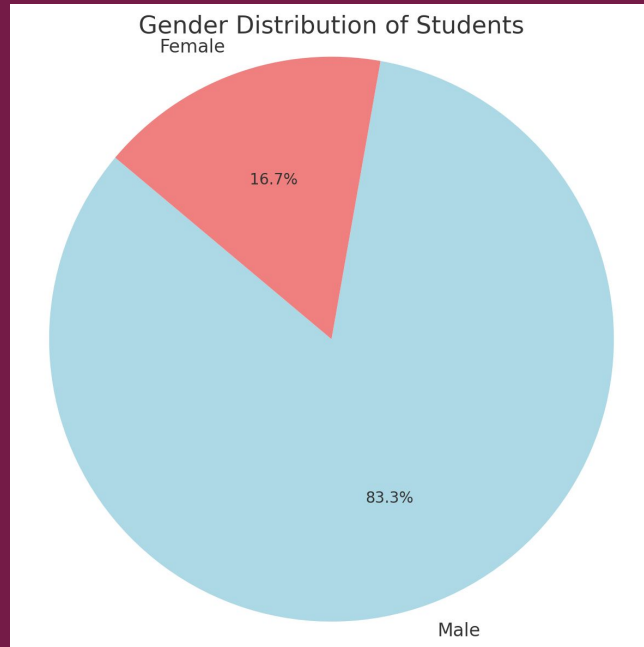- Apprenticeship Duration: **8 Months**

Tools and Skills
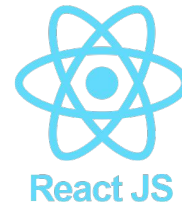
Current Eligible Student Diversity

Total Number of students available for Internship & Placement: 48

Number of students available for Internship - **31**

Number of students who are available for Full Time - **17**

Gender Distribution of Students

Female

16.7%

83.3%

Male

Number of Students by Degree Type

Number of Students

Type of Degree

Standalone

Dualdegree
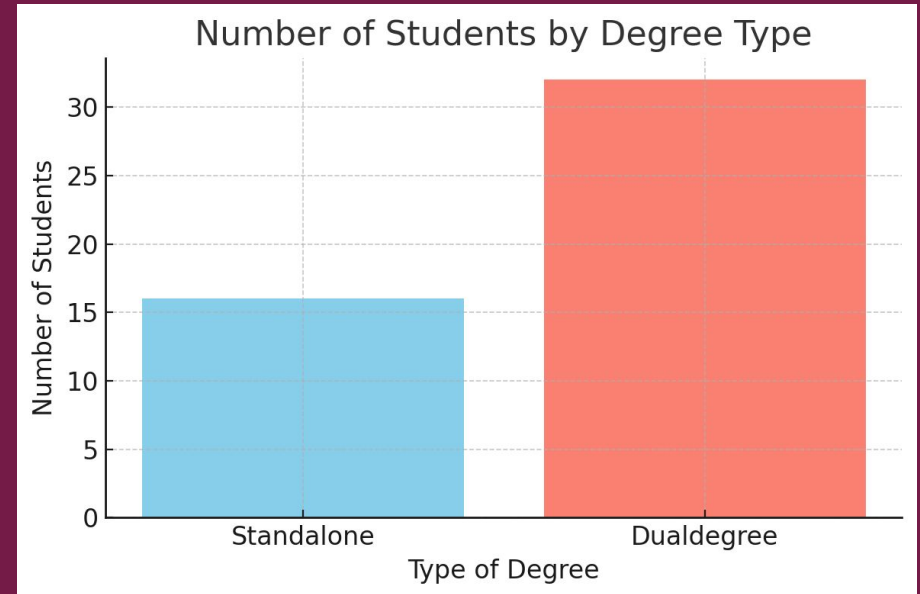
Candidates suitable for

Jobs

- Data Scientist
- Business Analyst
- Data Analyst
- Data Engineer
- Software Engineer
- Full Stack Developer
- Front End Developer
- ML Engineer
- R&D Software Engineer
- Python Developer

Internships

- Data Analyst Intern
- Data Science Intern
- Generative AI Intern
- HR Analytics - Intern
- Market Research Intern
- Software Developer Intern
- AI Engineer - Intern
- Machine Learning Intern
- AI Research Intern
- LLM Intern
- Strategy and Planning Intern

Prominent Recruiters

IIT Madras

Connect with us.

Email

office@code.iitm.ac.in

Address

CODE
3rd Floor, IC & SR Building
IIT Madras
Chennai - 600 036