IIT MADRAS NON-CAMPUS

BS DEGREE PROGRAMS

Accessible. Affordable. Authentic

study.iitm.ac.in

Why IIT Madras BS Programs?

An IIT Education, Reimagined for Today's Learners

Indian Institute of Technology Madras has, for decades, represented the highest standards of academic excellence, rigorous training, and meaningful research in India. For many students and parents, an IIT education has always been a powerful aspiration, but also a limited opportunity, accessible ONLY through a single high-stakes exam and the costs of coaching.

But what if the opportunity to learn what you are passionate about from IIT Madras was ***NOT RESTRICTED*** by these constraints?

The BS Programs are IIT Madras' answer to this question. They are designed to take the same quality of teaching, the same academic depth, and the same evaluation standards beyond the campus, so that students across the country can access an IIT education without leaving their homes. What makes this truly different is that **access is expanded while maintaining the same academic standards.**

Admissions

A key highlight of these programs is the flexibility in admissions, viz., two distinct paths for applicants **with and without JEE scores.**

- **Admission without JEE:** Candidates must go through a structured and self-contained 4-week Qualifier Process, which includes recorded lectures, live interactive sessions, and weekly assignments. Candidates who qualify are admitted. This process ensures a fair, transparent, and merit-based pathway without the need for external coaching.
- **Admission based on JEE:** Students who have qualified for JEE Advanced in the current or previous year are eligible for direct admission.

To further widen access, admissions are offered three times a year in January, May, and September, giving learners multiple opportunities to begin their IIT journey at their convenience.

Dual Degree Option

With online content delivery, a flexible program structure, and exams scheduled on Sundays, students can seamlessly pursue IIT Madras' BS degree alongside a traditional on-campus degree, enhancing their learning, broadening their perspectives, and amplifying their future career prospects.

IIT Madras' Vision

At its core, this initiative is built on a simple belief: **talent is everywhere, but opportunity is not.** Many capable students are left out, not because they lack ability, but because of limitations like geography, financial constraints, or dependence on a single exam.

Recognizing this gap, IIT Madras has taken a deliberate step to rethink access to high-quality education.

> **To democratize top-tier technical education by removing the entrance and cost barriers**

Instead of one exam deciding everything, the program **allows students to prove themselves over time,** through learning, effort, and performance, while providing the support and access they need to maximize their potential. However, expanding access raises a natural concern for parents and students alike.

Does Quality Remain the Same?

The answer to this question is a resounding 'YES!'. Quality is ensured through a carefully structured, multilevel learning model that builds depth step by step and rigorous monthly in-person assessments and labs.

Multilevel Program Structure

The program is designed as a progressive learning journey, where the student earns valuable credentials upon completing each level.

Foundation Level: Establishing strong fundamentals

Develops a solid base in mathematics, programming, analytical thinking, and core subjects. This level bridges the gap for students from diverse academic backgrounds and ensures a smooth transition into studying from IIT Madras.

Credential earned: Foundation Certificate from IITM CODE

Diploma Level: Imparting industry-relevant skills

Students develop cutting-edge skills through advanced, hands-on courses and individual projects that showcase their problem-solving abilities. Each project is assessed through 1-on-1 vivas by instructors and industry experts, ensuring strong practical learning. By the end of this level, they are well-prepared for internships in industry or research labs while continuing their studies.

> **Projects, expert vivas, and hands-on learning - designed for career readiness.**

Credential earned: Diploma(s) from IIT Madras

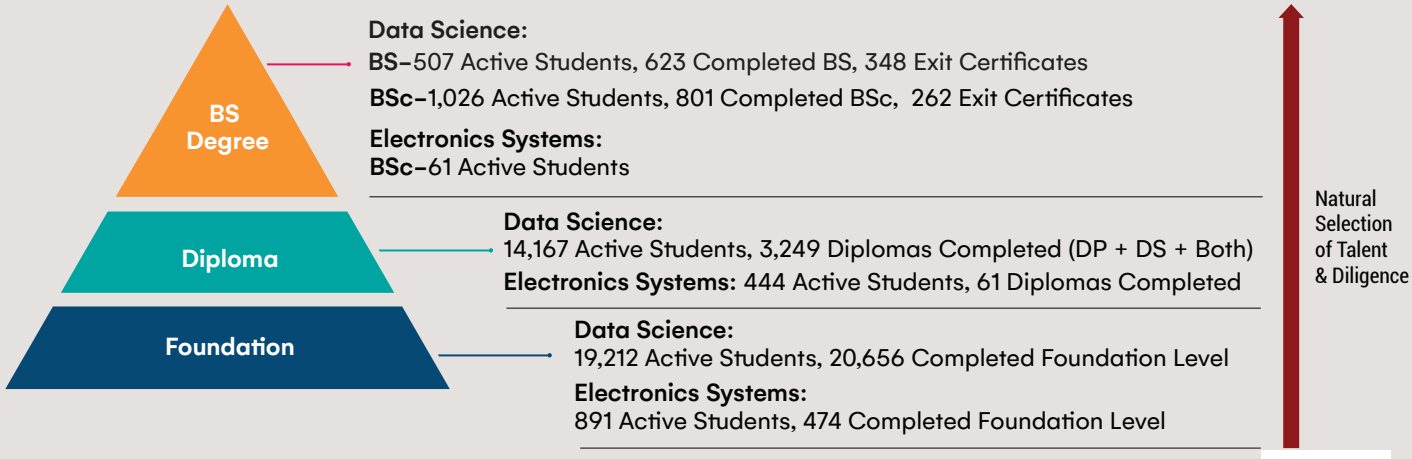
Degree Level: Building expertise for advanced careers

Courses at this stage are designed to enhance technical knowledge, preparing students for higher-level roles in the industry, specialization in their areas of interest, and Master's programs.

Credential earned: BS Degree from IIT Madras

This carefully designed structure offers flexibility to align with students' goals while ensuring strong academic rigor and meaningful outcomes, even as access is expanded.

How Program Progression Works: In Numbers



*Data as of March 2026

For more details visit: **study.iitm.ac.in/**

How Does IIT Madras Ensure Quality & Credibility?

The answer lies in how the program is designed and governed.

- **Approved by the IIT Madras Senate** - The exact same evaluation, approval, and recognition as any campus degree program at IIT Madras
- **Structured, rigorous curriculum** aligned with industry needs
- Designed and taught by **some of the best faculty from Top/Premium Institutions including IITs and IISc**
- **Proctored in-person examinations**
- **1-1 Viva for project evaluations**
- **Merit-based progression at every stage**

Every student who progresses in the program does so by meeting clearly defined academic standards. This ensures that the degree you earn carries the **same credibility and respect associated with IIT Madras.**

What Will Learners Actually Do in the Program?

Blended Learning Model: Learners in the program follow a structured yet flexible routine that focuses on learning, practice, interaction, and evaluation.

Lectures by IIT Faculty

Learn through high-quality online lectures designed and taught by IIT Madras faculty. These lectures can be accessed anytime, allowing learners to study at their own pace while following a structured curriculum.

Assignments for Continuous Learning

Apply concepts through structured assignments that reinforce understanding and track progress. These ensure that learning is consistent and concepts are clearly understood.

Doubt Clearing & Interactive Support

Engage in live sessions and discussion forums to ask questions, clarify doubts, and interact with instructors and peers, creating a collaborative learning environment.

Quizzes & Proctored Exams

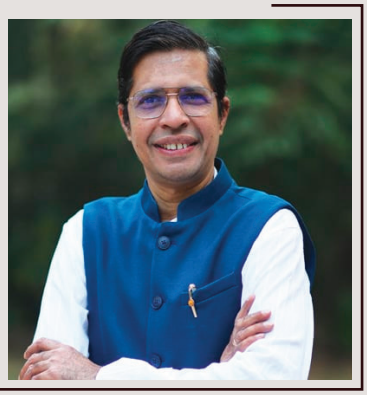
Test your understanding through quizzes and formal evaluations. In-person, proctored exams are conducted across India and select international centers to ensure fairness and maintain high academic standards.

Flexible Learning with Academic Rigour

- Structured Yet Flexible Learning – Follow a term-wise schedule with the flexibility to plan your learning within the week
- Anytime Online Learning - Access digital content whenever it suits you
- Rigorous Assessments – Experience credible evaluations similar to on-campus programs
- Intermediate milestones – Stay motivated with milestone achievements that mark steady progress
- This model ensures learners study with flexibility while maintaining discipline, consistency, and academic excellence.

Message from the Director

Prof. V. Kamakoti
Director, Indian Institute of Technology Madras



"The BS Degree Programs at IIT Madras are designed to **democratize access to high-quality IIT education.** Through technology-enabled learning and flexible pathways, we aim to reach talented learners across the country and provide them with the opportunity to acquire world-class knowledge and skills."

The BS Degree Programs at IIT Madras represent a pioneering effort to expand access to high-quality technical education beyond the traditional campus model. By combining rigorous academic standards with technology-enabled learning and in-person assessments, the institute has created a flexible pathway that allows students from diverse academic and professional backgrounds to pursue an IIT-level education.

These programs reflect IIT Madras' broader vision of inclusive and future-ready education. Through interdisciplinary curricula, strong industry relevance, and mentorship from experienced faculty, the BS degrees equip learners with analytical, technological, and managerial skills required to succeed in an increasingly data-driven and innovation-focused world.

Faculty Coordinators

BS IN DATA SCIENCE AND APPLICATIONS

Prof. Andrew Thangaraj

Prof.Vignesh Muthuvijayan

BS IN ELECTRONIC SYSTEMS

Prof. Sankaran Aniruddhan

Prof. Boby George

BS IN AERONAUTICS AND SPACE TECHNOLOGY

Prof.Murthy Haradanahalli S.N.

Prof. Sriram Rengarajan

BS IN MANAGEMENT AND DATA SCIENCE

Prof. Vipin B

Prof. G. Arun Kumar

For more details visit: **study.iitm.ac.in/**

BS in Data Science & Applications

When launched in 2020, this program became the World's First 4-year BS Degree in Data Science and Applications offered by India's top technical institute. This pioneering undergraduate program is designed to build strong expertise in Full stack development, Data Science, Artificial Intelligence, and Computing Systems, preparing learners for the fast-evolving global data economy.

Why does this course matter today?

We are living in a data-driven world, where data is at the core of decision-making across industries like finance, healthcare, technology, retail, and governance.

Data science roles are expected to grow by over 30–36% in the coming decade

India alone is projected to see millions of opportunities (up to 11 million jobs) in data-related fields

Program Structure:

1. Foundation Level: Building Strong Basics
- Mathematics & Statistics for Data Science
- Python Programming
- Data Science Fundamentals

Practical Exposure:
- Introductory programming exercises
- Problem-solving assignments
- Basic data analysis

2. Diploma Level - Developing Job-Ready Skills
- Machine Learning (ML) techniques & libraries
- Databases
- Programming & Algorithms
- Application Development
- Basics of Deep Learning (DL) & Generative AI (GenAI)

Practical Exposure:
- Hands-on labs, real-world assignments
- 4 MAJOR PROJECTS (2 ML, 2 App Dev)
- 1-on-1 VIVA

3. BSc Level - Learning Advanced Concepts
- Deep Learning (DL)
- Foundations of AI
- Software Engineering & Testing
- Big Data

Practical Exposure:
- Advanced labs
- Simulation-based learning
- System-level project work with real-world datasets

4. BS Level - Specializing & Gaining Expertise
- Large Language Models (LLMs), Data Visualization
- Computer Vision, NLP & Reinforcement Learning
- Economics/Finance courses
- Advanced Algorithms, Advanced Math & Stats
- Math Foundations of GenAI, MLOps

Practical Exposure:
- Research-oriented problem solving
- Real-world problem statements
- Advanced tool application

Career opportunities after this course

Data Science – Data Scientist, Data Engineer, ML Engineer

Analytics – Data Analyst, Business Analyst

Programming – Software Developer, Full Stack Developer

For more details visit: **study.iitm.ac.in/ds/**

BS in Electronic Systems

This rigorous, industry-aligned 4-year Bachelor of Science program is designed to build strong foundations in Electronics, Embedded Systems, Testing, Communications, Control Engineering, and System Design.

Why does this course matter today?

Electronics and semiconductor systems form the backbone of modern infrastructure, from communication networks and automobiles to healthcare devices and industrial automation. With increasing reliance on chips, embedded systems, and connected devices, the need for skilled engineers who can design, build, and test these systems is growing rapidly.

- The global **semiconductor industry** is projected to exceed **$1 trillion by 2030**
- India has launched a **$10 billion Semiconductor** Mission to boost chip manufacturing and design
- Rapid growth in sectors like **automotive electronics, telecom (5G/6G), IoT, and consumer electronics**

Program Structure:

1. Foundation Level - Fundamentals
- Mathematics
- Basic Electronics
- Linux and C Programming
- Digital Systems
- Embedded C

Practical Exposure:
- Introductory labs in Electronics & Programming

2. Diploma Level - Systems & Design
- Signals & Systems
- Analog & Digital Design
- Sensors
- Python Programming
- Computer Organisation
- VLSI Testing

Practical Exposure:
- Analog and Digital Systems Lab
- Sensors Lab

3. BS Degree (Core) - Advanced Courses & Embedded Systems
- Control Engineering
- Embedded Linux using FPGA
- Electronic Product Design
- Advanced Mathematics

Practical Exposure:
- Advanced system implementation exposure

4. BS Degree (Electives) - Specialization & Application
- Communications
- VLSI
- IoT
- AI/ML
- Management Courses

Specialization:
- Apprenticeship / Industry-linked learning

Career opportunities after this course

Core Roles – Embedded Systems Engineer, VLSI Engineer, Hardware Design Engineer

Testing & Systems – Test Engineer, System Engineer, Control Systems Engineer

Emerging Areas – IoT Engineer, Robotics Engineer, Semiconductor Design Engineer

For more details visit: **study.iitm.ac.in/es/**

BS in Aeronautics & Space Technology

(NEW PROGRAM LAUNCHED IN FEB 2026)

The program is designed to take learners step by step from the fundamentals of aerospace engineering to advanced aerospace system design.

Why does this course matter today?

The aerospace sector is entering a phase of rapid growth, driven by advancements in aviation, defense, and space exploration, leading to a rising need for skilled professionals.

- The **global aerospace and defense market** is expected to exceed **$1 trillion in the coming decade**
- India's space sector is projected to grow to **$40 billion by 2040,** supported by policy reforms and private participation
- Organizations like **ISRO and private space startups** are expanding opportunities in satellite technology and launch systems

Program Structure:

1. Foundation Level - Engineering Basics

- Mathematics
- Engineering Mechanics
- Programming
- Introduction to Aerospace
- Drafting
- Electronics

Practical Exposure:
- Foundational problem-solving

2. Diploma Level - Fundamentals of Aeronautics & Aerospace

- Thermodynamics
- Aerodynamics
- Flight Dynamics
- Structures
- CFD/FEA

Practical Exposure:
- Labs
- Simulation & Design Projects

3. BS Degree (Core) - Advanced Level Courses

- Aircraft & Spacecraft Dynamics
- Propulsion
- Control Systems

Practical Exposure:
- Advanced Labs
- System Applications

4. BS Degree (Electives) - Integration & Specialization

- UAV/MAV Design
- Advanced Aerospace Topics

Specialization:
- Complete System Design & Validation

Career opportunities after this course

Graduates of this program can pursue specialized roles such as **Aerospace Engineer, FlightDynamics Engineer, Structural Analyst, Propulsion Engineer, and Space Systems Engineer,** with opportunities across aviation, space research, defense, and advanced engineering industries.

For more details visit: **study.iitm.ac.in/ae/**

BS in Management & Data Science

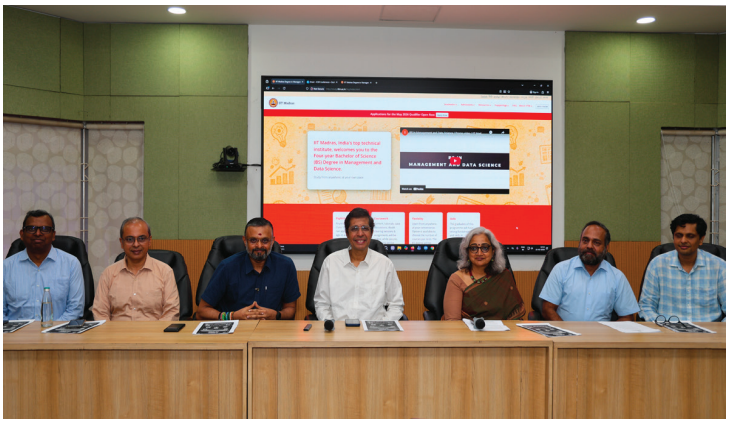
(NEW PROGRAM LAUNCHED IN FEB 2026)

An interdisciplinary 4-year undergraduate degree that blends business strategy, management expertise, and data analytics across various business domains, designed to prepare future-ready leaders for the data-driven business world.

The global business analytics market is expected to cross $650 billion by 2030, reflecting how critical data-driven decision-making has become.

Why does this course matter today?

Today's organizations are not just adopting data, they are rebuilding their entire decision-making around it. From startups to global enterprises, there is a growing need for professionals who can understand business problems and solve them using data, analytics, and technology.



Program Structure:

1. Foundation Level - Basics of Business & Data

- Mathematics & Statistics
- Economics & Accounting
- Management Fundamentals

Practical Exposure:

- Introductory-level analysis of data, understanding organizational financials and economic data

2. Diploma Level - Managing Business Using Analytics

- Organisational Behavior
- HR Analytics • Marketing & Finance Analytics
- Operations Management • Economic Data Analysis
- Python for Data Analytics • Supply Chain Analytics

Practical Exposure:

- Exposure to real-world business cases and economic data analysis
- Application of data analytics to business problems
- TWO INDUSTRY PROJECTS using real-world business data

3. BS Degree (Core) - Advanced Management & AI

- GenAI for Business
- Logistics and Supply Chain
- Digital Marketing

Practical Exposure:

- Advanced management and analytics with AI for business
- Real-world case studies, simulations of business scenarios, optimization techniques

4. BS Degree (Electives) - Specialization

- Digital Marketing
- Responsible AI
- Design Thinking
- Game Theory for Business
- Sustainable Operations
- Math Foundations of GenAI, MLOps

Specialization & Sustainability:

- Specialization in key business areas, focusing on data -driven decision making and sustainable practices.

Career opportunities after this course

Graduates can pursue careers such as **Business Analyst, Management Consultant, Operations Strategist, Product & Strategy Analyst, and Business Consultant,** where they work on solving real business problems using data and insights.

For more details visit: **study.iitm.ac.in/mg/**

Affordable, Inclusive, and Flexible Education

> **Students from certain social and economic categories are given a 50%–75% fee waiver by IITM, ensuring that financial constraints do not limit interested candidates from joining the program**

The IIT Madras BS programs are designed to provide affordable and inclusive high-quality education for learners from all backgrounds.

In addition, the program offers a high degree of flexibility, enabling learners to pursue quality education alongside other commitments such as college, work, or personal responsibilities. With a modular structure and self-paced progression, learners can tailor their academic journey based on their goals and timelines.

Key Highlights:

- Affordable fee structure with the pay-per-course model reduces upfront cost and financial pressure
- Low foundation-level fees ensure that the program is accessible to all aspiring learners
- 75% fee support for all students with an annual family income less than ₹1 lakh
- 50% fee support for all SC/ST/PwD students and other students with annual family income between ₹1 lakh and ₹5 lakhs

Flexibility & Learning Pathways:

- Multiple entry and exit options (Foundation, Diploma, Degree) based on learner progress
- Ability to learn at one's own pace with flexible course load per term
- Option to pursue the program alongside another degree or full-time job
- Online lectures with recorded content, allowing anytime learning access
- Periodic in-person assessments combined with remote learning convenience

Education without Boundaries

The program is built to be inclusive and accessible to learners of all ages and locations. There is no age restriction, and anyone who has completed Std XII or equivalent can apply, making it suitable not only for students but also for working professionals and lifelong learners.

The program also removes geographical limitations, allowing students from anywhere in India or across the world to access IIT-level education. This creates a diverse learning community, where students from different age groups and backgrounds learn together and grow.

The program has seen strong participation across different learner categories, including students, dual-degree candidates, and working professionals.

Program Outcomes: Your Pathway to Success

The IIT Madras BS Degree in Data Science and Applications is more than just a pioneering academic qualification; it is a gateway to high-growth career opportunities, valuable industry experience, and prestigious higher education pathways.

Below is an overview of our learners' outstanding achievements in placements, internships, and higher education.

Placement and Internships

The program's rigorous curriculum equips students with the exact skills sought by modern employers. Our learners are successfully securing both internships and full-time positions, either independently or through the dedicated IIT Madras BS Placement Cell (IIC).

Key Placement Highlights*:

Highest Salary Package: ₹20,00,000 per annum

Average Salary Package: ₹7,50,000 per annum

Median Salary Package: ₹6,00,000 per annum

Through the IITM BS Placement Cell, 159 companies participated in the recruitment drives, offering hundreds of positions. Students across all levels, Foundation, Diploma, and Degree, have actively and successfully transitioned into the workforce, with Diploma-level students seeing exceptionally high placement rates.

IIT Madras BS Placement Industry Partners

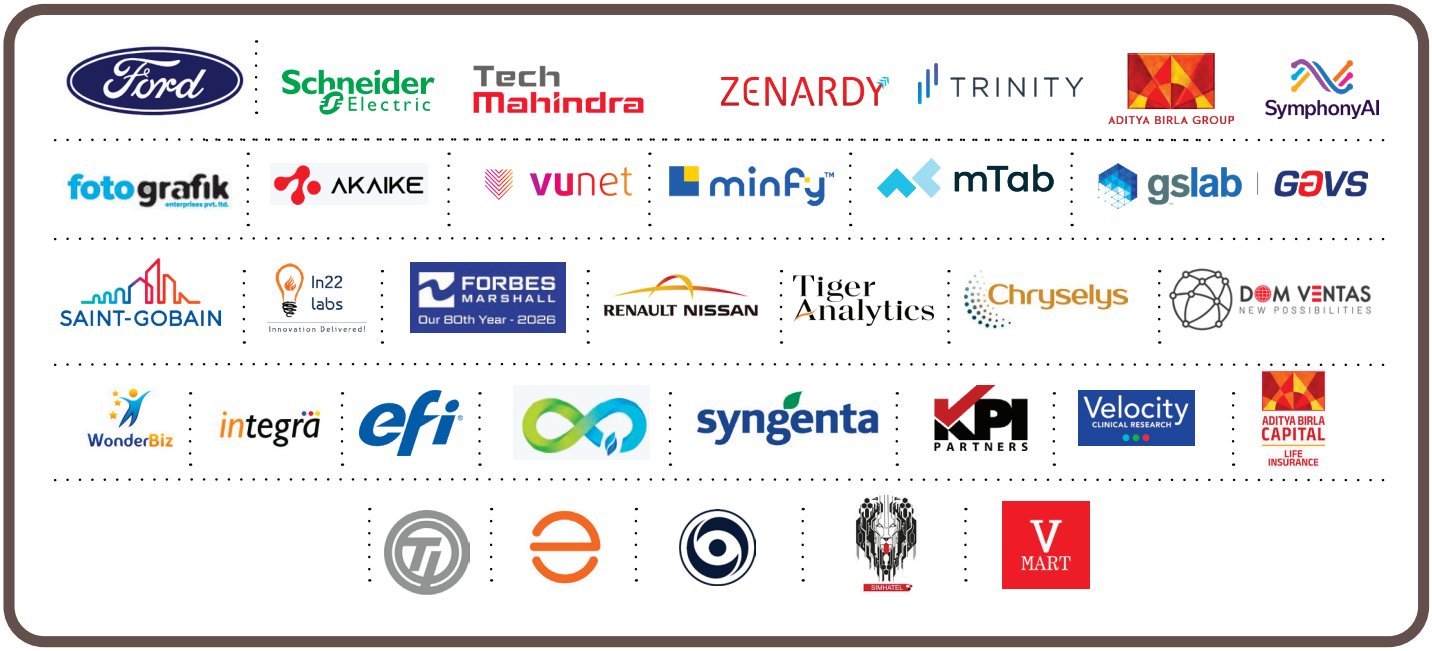


Table 1: Career Success - Internships, Jobs, and Salary Outcomes

Outcome Metric	Jan 2025	May 2025	Sep 2025	Jan 2026	Key Highlight
Self-secured internships	864	987	1609	1115	4,575 internships across 4 terms
Self-secured jobs	473	360	425	379	1,637 jobs across 4 terms
Internships through IITM IIC	29	37	43	-	Strong institutional support
Jobs through IITM IIC	8	18	49	-	Rising placement success
Internship median stipend	₹20K	₹20K	₹20K	₹20K	Up to ₹83,333/month
Job median salary	₹6 LPA	₹6 LPA	₹6 LPA	₹6 LPA	Up to ₹20 LPA
Job mean salary	₹7.5 LPA	₹7.5 LPA	₹7.5 LPA	₹7.5 LPA	Strong early-career outcomes

*IIC - IIT Madras BS Placement Cell

Table 2: Long-Term Success - Higher Education & Career Readiness

Success Pathway	Jan 2025	May 2025	Sep 2025	Jan 2026	Total
Higher studies abroad	69	100	92	73	334
Admissions to IITs / IISc / IISER / IIMs	113	62	142	83	400
Admissions to other Indian universities	402	278	413	302	1,395
Total reported higher education admissions	584	440	647	458	2,129

Scan QR for Full Report

IIT Madras BS Learner Achievements that Speak for Themselves

The quality of the IIT Madras BS Programs is reflected through the achievements of its learners across academics, innovation, and global platforms. From excelling in competitive exams to securing top positions in national and international challenges, students consistently demonstrate strong problem-solving ability, technical depth, and real-world application of knowledge.

Key Achievement Highlights

Top Ranks in GATE (Data Science & AI) - Secured AIR 1, 7, and 10 in GATE 2025, showcasing exceptional academic strength and conceptual clarity.

Global Hackathon Recognition- Achieved **Top 12 and Top 32** positions in leading international competitions such as the J.P. Morgan Data for Good Hackathon.

National AI & Data Science Winners- Won **top positions in AI and analytics hackathons** conducted by premier institutions across India.

Google Gemini National Idea Grant- Recognized with a **prestigious national innovation grant** for impactful AI-driven solutions.

Real-World Innovation & Product Building- Developed **practical systems and prototypes,** including AI applications and hardware innovations.

Top Performers at Scale- Ranked among the **best in competitions with thousands of participants,** proving consistency and competitiveness.

International Wins in Emerging Technologies- Secured victories in hackathons focused on **AI, machine learning, and next-gen tech domains.**

Recognition Across Premier Institutions- Achievements in competitions hosted by **IITs and other leading academic platforms.**

Global Exposure Opportunities- Earned fully sponsored international trips and showcases, gaining access to global innovation ecosystems.

These are some of our latest student achievements

For more please visit **our social media**

Student Life: A Vibrant & Connected Community

The IIT Madras BS Program proves that online learning goes far beyond virtual classrooms. Through Houses, student-led clubs, and regional meetups, learners build friendships, strengthen leadership skills, and become part of a thriving nationwide community.

1) Student Houses – Building Belonging

To foster identity, teamwork, and a sense of belonging, learners are organized into 12 Student Houses, each named after renowned Indian forests such as Bandipur, Gir, Kaziranga, and Nilgiri.

The House system creates opportunities for:

- Peer bonding
- Friendly competitions
- Leadership roles
- Collaborative learning
- Stronger student engagement

It ensures that every learner feels connected to a larger, supportive community.

2) Student Clubs & Societies – Passion Beyond Academics

Beyond academics, students actively participate in a vibrant ecosystem of student-run clubs and societies.

From Coding and Robotics to Drama, Entrepreneurship, Photography, and Debate, these clubs give learners opportunities to explore interests, showcase talent, and gain hands-on experience.

Community Highlights

- **600+ events hosted**
- Hackathons, workshops, debates, and competitions
- **30,000+ participants**
- Leadership and portfolio-building opportunities

These communities help students grow both personally and professionally.

3) Regional Meetups – Stronger Local Connections

A key strength of the IIT Madras BS community is its active network of regional meetups and city-based student gatherings.

With learners spread across the country, these meetups help transform online peers into real-world friends and collaborators through:

- Local study sessions
- Networking meetups
- House gatherings
- Community celebrations
- Peer support circles

Regional Impact

- **467+ in-person meetups**
- Across **109 cities**
- **10,610+ students engaged**

These meetups make the learning journey more connected, memorable, and deeply human.

For more details visit: **study.iitm.ac.in/**

Paradox – Campus Immersion

The online journey comes alive during **Paradox,** the IIT Madras BS Program's flagship **fully student-led annual campus immersion festival.** Every year, **5,000+ BS students** travel from across the country to the IIT Madras campus for an unforgettable **5-day experience** that goes far beyond academics.

From **high-energy tech competitions and innovation challenges** to **inspiring guest talks, live concerts, cultural performances, and community celebrations,** Paradox gives learners the opportunity to experience the vibrancy of campus life firsthand.

It transforms online connections into real friendships, strengthens the student community, and creates memories that define the IIT Madras BS journey.

Scan QR to Explore more on Paradox

Convocation

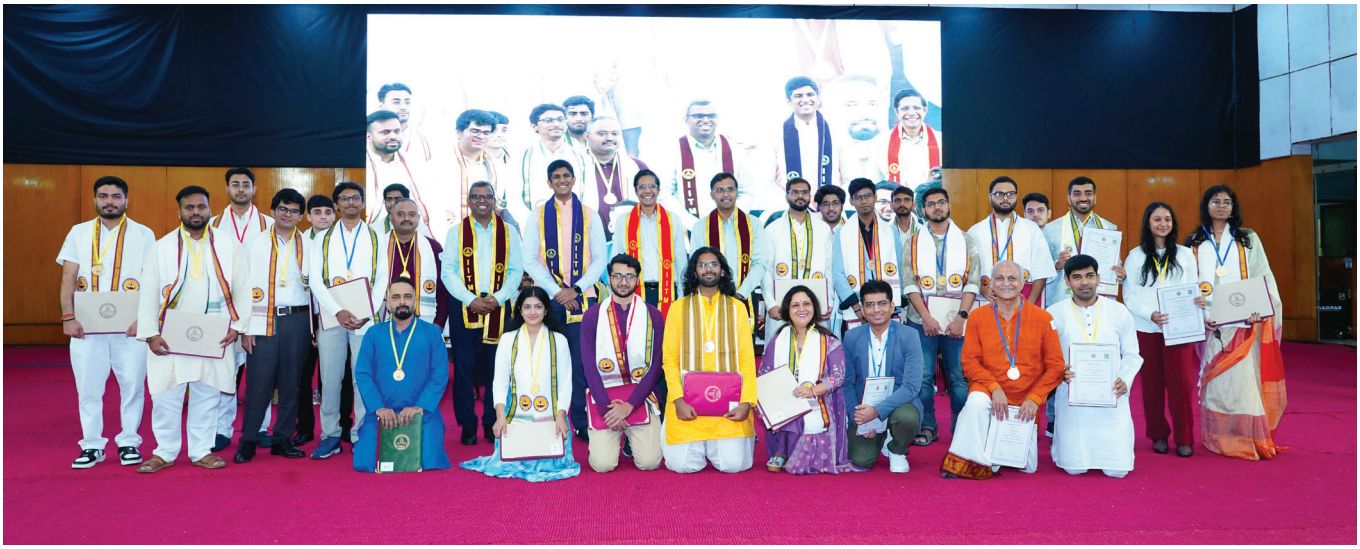
The **Indian Institute of Technology Madras (IIT Madras)** marked a historic milestone with the Convocation and **Certificate Distribution Ceremony for its BS Degree Programmes,** held on campus on **8 June 2025.** The ceremony celebrated the success of a rapidly growing learner community across India and abroad, reflecting IIT Madras' vision of making world-class education accessible to all.

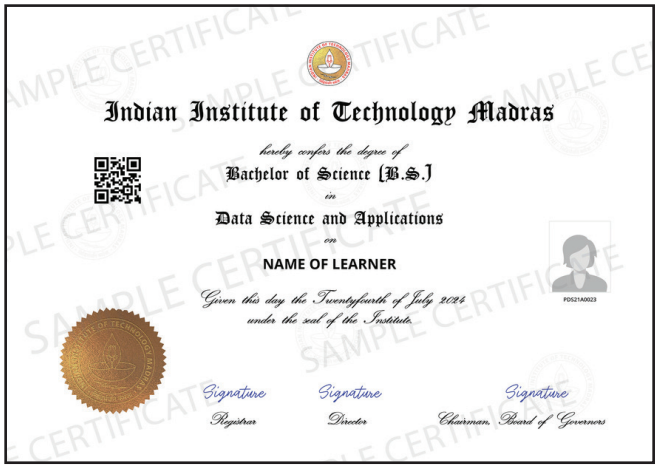
Congratulating all the graduating students of the BS Degree Program, Prof. V. Kamakoti, Director, IIT Madras, said, "This is the first batch graduating with the 4-year BS Degree. This year, 867 students are graduating with either a 3-year BSc Degree or a 4-year BS Degree. Out of these 867 students, close to 150 have a family income of less than Rs. 1 lakh per annum and another 100 students, less than Rs. 5 lakh per annum. (Further, 365 students are graduating with a diploma.)'IITM for All' or 'Annaivarakum IITM' is the inspiration for us to launch the BS (Data Science and Applications) and BS (Electronic Systems) courses. Over 38,000 students are currently enrolled in the program. This is truly the democratisation of Education that is necessary for Viksit Bharat 2047, as envisaged by our Hon'ble Prime Minister Shri Narendra Modi".

Key Highlights

867 graduates received either the **3-year BSc Degree or 4-year BS Degree**

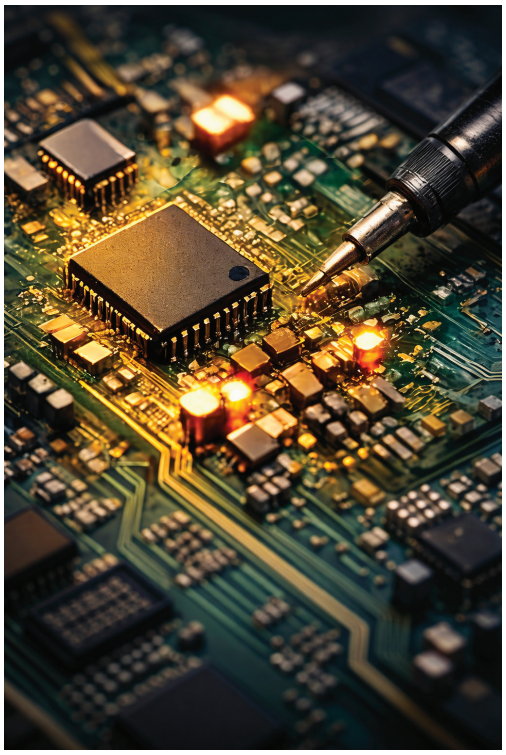
365 additional students graduated with Diplomas





*SAMPLE CERTIFICATE

Still have questions? Scan the QR code to explore our FAQ section.



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