भारतीय प्रौद्योगिकी संस्थान गुवाहाटी
Indian Institute of Technology Guwahati

IITG

Bachelor of Science (Hons.) in
**Data Science &
Artificial Intelligence**

ONLINE DEGREES

ADMISSION | SEPTEMBER 2026

Prepare yourself for the evolving tech landscape

Learn cutting-edge topics including advanced AI applications and generative AI models from renowned faculty and industry experts.

Enhance your employability

Acquire in-demand skills through industry oriented curriculum, application-based learning, internships, and projects to accelerate your career growth and employability.

Take control of your academic journey

Learn at your own pace and earn credentials at every milestone to shape your education in a way that aligns with your career aspirations.

Immersive Learning

Attend weekly live online lectures, receive tutor support, and work on projects with faculty during campus immersions.

Graduate from India's top technology institute

Earn a recognised degree from a globally renowned institution and become part of a global network of influential alumni.

IITG
BSc DSAI
KEY DATES

Application Opens:
10 March 2026

Application Closes:
30 April 2026

Programme Starts:
07 September 2026

Indian Institute of Technology Guwahati

IIT Guwahati is renowned for its exceptional education and research standards. With state-of-the-art infrastructure and a vibrant campus atmosphere, IIT Guwahati offers a wide array of undergraduate, postgraduate, and doctoral programmes that provide students with a well-rounded education that fosters innovation, leadership, and entrepreneurship. Through a strong emphasis on interdisciplinary learning, cutting-edge research, and industry exposure, students are empowered to excel in their chosen fields and make meaningful contributions to the society.

In today's landscape, with numerous opportunities emerging in the fields of data science and artificial intelligence, expertise in these domains has become highly sought after. In light of these developments, IIT Guwahati established the **Mehta Family School of Data Science and Artificial Intelligence** as a dynamic centre committed to nurturing a pool of highly qualified professionals in this emerging field. The school serves as a hub for Data Science and Artificial Intelligence related research, fostering collaboration between industry and academia. This 4 years bachelor's degree programme is offered by the school at IIT Guwahati.

Who is this degree for?

This degree programme offers you a great way to launch or advance your career in data science and artificial intelligence.

The comprehensive curriculum spans entry-level to specialised topics, ensuring you gain current knowledge and practical applications of Data Science and Artificial Intelligence.

The degree programme is flexible and you can tailor it to accommodate your work, family, and other commitments, allowing you to study online at your own convenience and pace.

The programme is suitable for

- High school graduates (from science or non-science backgrounds) who want to build a career in Data Science and Artificial Intelligence.
- Students who are looking to pursue two parallel degrees and enhance their qualifications by earning a second degree from a prestigious institution.
- Working professionals & young entrepreneurs who want to upskill while maintaining their lifestyle and schedule.
- Anyone looking to transition into a new professional career or acquire valuable knowledge in the field.

Current Enrollments: More than 3100

Students from over 70 countries

Indian Students — From all over the country
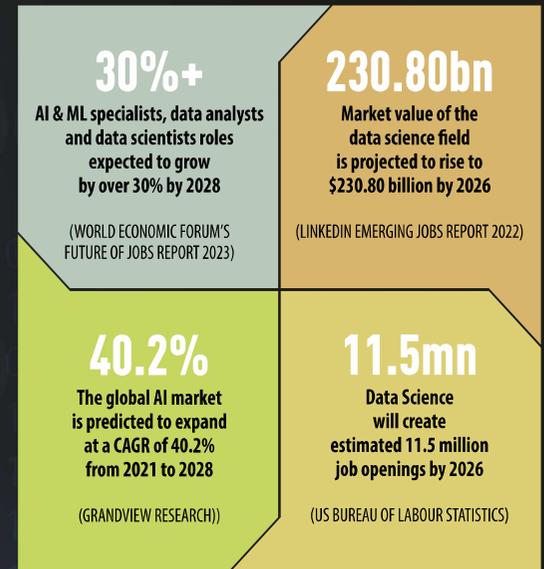25% students are JEE qualified

International Students — Mostly from United States, Canada, China, UAE, Singapore, United Kingdom, Bangladesh, Saudi Arabia, Nepal & Japan

40% students are pursuing dual degree

25% are working professionals — Including doctors and professionals employed in renowned corporates like HCL, Deloitte, Amazon, Marriott International, Maruti Suzuki, and the Indian Army

Why pursue a degree in Data Science & Artificial Intelligence?

30%+
AI & ML specialists, data analysts and data scientists roles expected to grow by over 30% by 2028

(WORLD ECONOMIC FORUM'S FUTURE OF JOBS REPORT 2023)

230.80bn
Market value of the data science field is projected to rise to $230.80 billion by 2026

(LINKEDIN EMERGING JOBS REPORT 2022)

40.2%
The global AI market is predicted to expand at a CAGR of 40.2% from 2021 to 2028

(GRANDVIEW RESEARCH))

11.5mn
Data Science will create estimated 11.5 million job openings by 2026

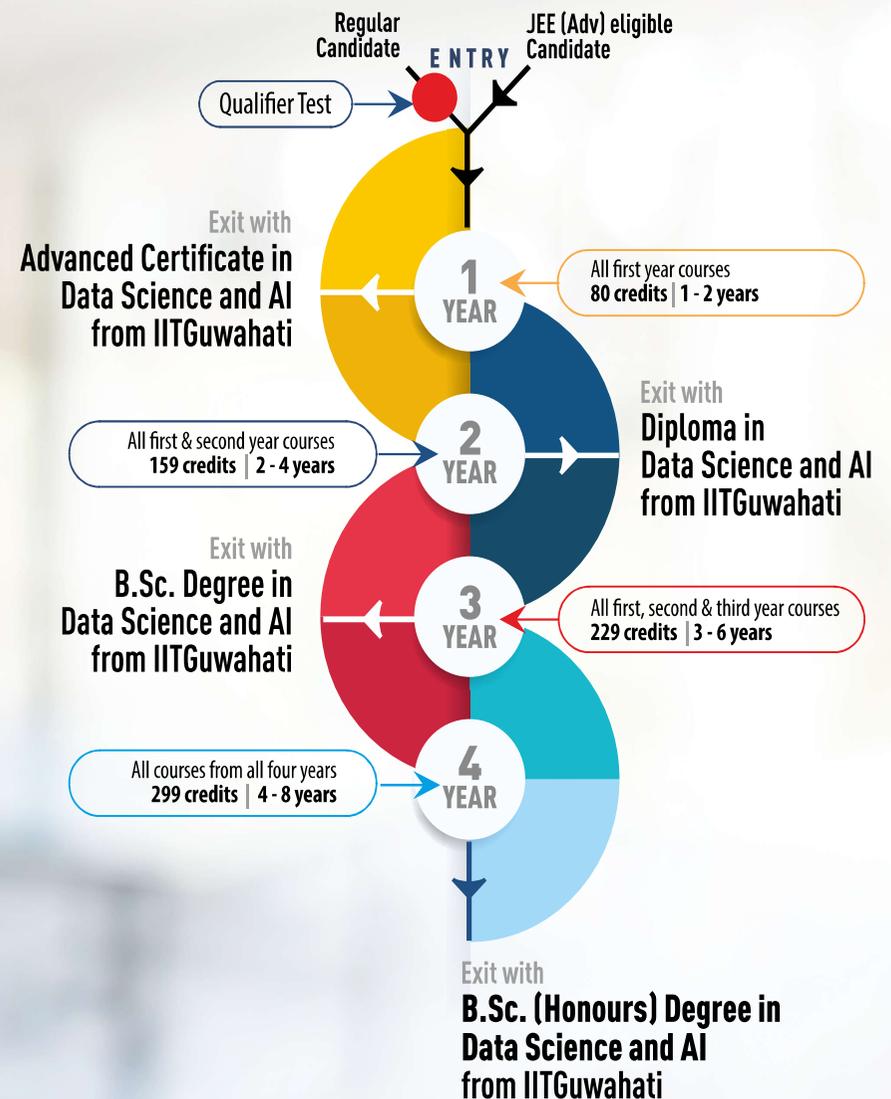(US BUREAU OF LABOUR STATISTICS)

Job Roles

The programme opens up diverse career opportunities in computational and mathematical roles across various industries, including business, finance, education, medicine, engineering, and science.

Engaging in hands-on projects exposes you to cutting-edge industry developments, ensuring you're ready to tackle real-world challenges.

Data Scientist

Machine Learning Engineer | Data Analyst

AI Engineer | Business Intelligence Analyst | Data Engineer

Big Data Engineer | AI Research Scientist | Data Architect | Data Consultant

Programme Design

- This 4-year B.Sc. (Honours) degree is designed to accommodate busy professionals or students pursuing two degrees simultaneously, and offers you the flexibility to complete the programme in up to 8 years.

- The degree comprises a total of 299 credits, which includes fundamental and industry-oriented courses, an industry internship or term projects, and a capstone project.

- There are three terms in a year, and each trimester features 4 courses, with the exception of the final year's trimesters. Trimesters are separated by approximately 2 weeks.

- The credit load per trimester ranges from a minimum of 0 to a maximum of 43 credits. Expect to dedicate an average of 18-20 hours per week to this programme.

- Each course spans 12 weeks and contains 36 hours of learning with engaging videos, insightful case studies, hands-on projects and live lectures by faculty and industry experts.

- Interactive discussions, assignments and internships help you enhance your learning.

- Group assignments and campus visits help you engage with faculty and peers.

- The mandatory capstone project spans three trimesters in the final year.

- The degree rewards learning throughout, with the opportunity to earn credentials after each year. Although the programme's entry point is the same for all students, you may choose to exit at different stages by earning the corresponding certificate upon successful completion of the required coursework.

Regular Candidate
JEE (Adv) eligible Candidate

ENTRY

Qualifier Test

Exit with
Advanced Certificate in Data Science and AI from IITGuwahati

1 YEAR

All first year courses
80 credits | 1 - 2 years

2 YEAR

All first & second year courses
159 credits | 2 - 4 years

Exit with
Diploma in Data Science and AI from IITGuwahati

Exit with
B.Sc. Degree in Data Science and AI from IITGuwahati

3 YEAR

All first, second & third year courses
229 credits | 3 - 6 years

4 YEAR

All courses from all four years
299 credits | 4 - 8 years

Exit with
B.Sc. (Honours) Degree in Data Science and AI from IITGuwahati

Rejoin when you're ready

Students who exit the programme after completing a Certificate, Diploma, or B.Sc can rejoin at the appropriate stage after a one-year gap.

Learning Experience

Immerse yourself in an engaging and supportive learning environment, featuring numerous opportunities to interact with faculty, alumni, and peers.

Get a personalised learning experience through courses that include recorded videos, online live sessions, and a discussion hour every week.

Learn from working on projects, with unparalleled access to high-performance computing facilities of two of India's most powerful supercomputers - PARAM Kamrupa and PARAM Ishan.

Coursera Labs

Instantly work on programming assignments using today's most in-demand tools like Jupyter Notebook, RStudio, VS Code, cloud software consoles, and almost any native desktop application.

Coursera Labs allows you to seamlessly work on projects and assignments in a browser without any environment setup or software downloads

Online Live Sessions

Live online lectures by IIT Guwahati faculty and industry experts give an overview of key concepts and complement the recorded video lectures in every course, accompanied by an interactive transcript.

Participate in weekly discussion sessions designed to help you resolve your doubts and gain a stronger understanding of key concepts

Campus Visits

Throughout the programme, you will have the opportunity to visit the IIT Guwahati campus for up to 4 weeks, which can be scheduled over a maximum of 4 visits.

During optional campus visits, you will:

- have an opportunity to meet experts and experience campus life,
- receive hands-on training in various relevant fields,
- consult with faculty members to discuss their project work,
- discuss internship opportunities.

Programme Curriculum

Specialise in cutting-edge topics

- This degree curriculum offers a wide range of courses covering both foundational and advanced topics in Data Science and Artificial Intelligence.
- You will have the opportunity to specialise in cutting-edge tools and their real-world applications, access industry and academic case studies and execute hands-on projects on real-world problems that will help you develop your technical skills and sharpen your problem-solving abilities.

Internships or Term Projects

- Internships can be completed in online or offline mode, while projects will be online only. You may visit the campus during projects or internships work.
- Internships/term projects have a total of 18 credits.
- Projects and internships can be pursued alongside regular trimester courses.
- Internships can begin from the third year onwards, after completing all courses up to the 6th trimester.

Capstone Project

- Gain hands-on experience with real-world projects and tools while collaborating with peers and researchers on innovative projects that prepare you for diverse career paths.
- The total credits for capstone projects is 36, and you can undertake a single project or multiple small projects. You can undertake the Capstone Project and Internship/Term-Project either individually or in a pair.
- Capstone projects can begin only in the fourth year, after completing all courses up to the 9th trimester.
- Both internships/term projects and capstone projects are mandatory for a B.Sc. (Hons.) degree.

Assessments

- Continuous Assessments throughout the trimester will consist of practice assignments, graded assignments, quizzes and term projects.
- Summative Assessment at the end of each course in online or offline mode.
- Provision of supplementary examinations if student fails any course.

Curriculum

FIRST YEAR	Trimester I	FIRST YEAR	Trimester II	FIRST YEAR	Trimester III
Course	Credits	Course	Credits	Course	Credits
Basic English	6	Linear Algebra	6	AI Basics	6
Data Analysis Basics	8	Data Science: An Introduction	6	Data Structures	6
Introduction to Statistics	6	Computer System Tools	6	Algorithm Design & Analysis	6
C Programming	8	Python Programming	8	Introduction to R	8
	28		26		26

SECOND YEAR	Trimester I	SECOND YEAR	Trimester II	SECOND YEAR	Trimester III
Course	Credits	Course	Credits	Course	Credits
Relational Database Management Systems	9	Data Mining & Warehousing	6	Data Modeling & Visualization	6
Java Programming	8	Statistical Inferencing	6	Time Series Analysis & Forecasting	6
Optimization	6	Signal and Systems	6	Machine Learning Fundamentals	6
Basic Econometrics	6	Social Media Tools and Techniques	8	Recommender Systems	6
	29		26		24

THIRD YEAR	Trimester I	THIRD YEAR	Trimester II	THIRD YEAR	Trimester III
Course	Credits	Course	Credits	Course	Credits
Cloud Computing	6	Ethics in AI	6	Soft Skill Enhancement	4
Deep Learning Essentials	6	Elective 2	6	Elective 4	6
Elective 1	6	Elective 3	6	Elective5	6
Internship-I / Term-Project-I	6	Internship-II / Term-Project-II	6	Internship-III/ Term-Project-III	6
	24		24		22

FOURTH YEAR	Trimester I	FOURTH YEAR	Trimester II	FOURTH YEAR	Trimester III
Course	Credits	Course	Credits	Course	Credits
Big Data Analytics	6	Basics of Reinforcement Learning	6	Entrepreneurship and Startup	4
Elective 6	6	Elective 7	6	Elective 8	6
Capstone Project - Phase I	12	Capstone Project - Phase II	12	Capstone Project - Phase III	12
	24		24		22

Electives

Applied Theory Electives

Natural language Processing
Social Media & Text Analytics
Speech Processing & Recognition
Vision Intelligence
Advanced Applications in AI
AI Based Wireless Communication Systems
Deep Learning for Computer Vision
Hardware-Aware Deep Learning

Business Application Electives

Banking & Financial Service Analytics
Business Variables Analysis
Analytics in Securities & Insurance
Analytics & ML in Financial Technologies
Financial Valuation and Portfolio Analytics

Systems Electives

Machine Learning Framework
NoSQL
Big Data on Cloud
AI Tools and Applications

Open Electives

Design Thinking
Innovation & Entrepreneurship
Leadership Essentials
Business Research Methods
Agile Development Methods
Data Driven Digital Manufacturing

Programming Languages, Tools, Libraries & Repositories

- Statsmodels
- OpenCV
- Rest-api
- Flask
- Heroku
- SpaCy
- mongoDB
- Shiny
- Apache HBASE
- Sqoop
- Hive
- Flume
- PySpark

- Apache Spark
- Apache Airflow
- MapReduce
- SQL
- Kafka
- Pandas
- Matplotlib
- NumPy
- NLTK
- Seaborn
- Scikit
- Kubernetes
- Docker

- AWS
- Excel
- TensorFlow
- Keras
- MySQL
- Python
- Tableau
- PowerBI
- R Studio
- GCC (GNU Compiler Collection)
- Visual Studio Code
- Ubuntu OS
- Windows OS

- C/C++
- XAMPP
- JAVA Virtual Machine
- GNU Octave
- Jupyter Notebook
- Anaconda
- PyTorch
- CUDA toolkit
- GitHub
- Bitbucket
- Latex Documentation
- GCP
- Hugging Face (Generative AI tool)

Alumni Benefits & Networking Opportunities

Celebrate your achievement by receiving your degree during the convocation ceremony at the campus.

As a graduate, you will join an exclusive global community of IIT Guwahati alums consisting of successful engineers, scientists, entrepreneurs, industry leaders, and academics, while enjoying a host of benefits.

You will expand your network through global student chapters, gain access to exclusive job boards to explore new opportunities and advance your career, and participate in events to broaden your knowledge and garner industry insights.

You can interact under the aegis of SAIL (Student Alumni Interaction Linkage) and get guidance on navigating diverse career paths through mentorship programmes and networking events.

Our Internship Partners

- Long Term Industrial Development Co. Ltd., Japan
- Qoherenz, India
- Genorrow Enterprises, India
- Stemonef, India
- IIT Guwahati TIDF, India
- Quiet Gesture, India
- Agmay Technologies Private Limited, India
- Sunitiq LLP, India
- NE AI Innovation Labs, India
- HyBionics Pvt. Limited, India
- Chaturtham AI Data Science Private Limited, India
- Bio Geo Explorer, India
- IIT Guwahati TIH, India
- Indian Shelter Finance Corporation Limited, India
- Coursera, United States
- Dripi, India
- Excel System Product Inc., Japan

Global Student Achievements & Innovation Highlights

Dhi-5B – 5B-parameter multimodal AI built at just INR 1.1L (~$1,200); showcased at AI Impact Summit 2026
NyayAI to Market – Advancing toward commercialization & IP licensing with leading Legal-Tech firms
National Champions – 1st Prize, India AI Impact Buildathon (GUVI & HCLTech) at AI Impact Summit 2026
Global Rank #37 – CSIRO Image2Biomass Kaggle Competition (13,894 participants)
100% International Scholarship – 6th Annual Nepal AI School (ANAIS 2025)
Global Internship 2026 – Tokyo, Japan | Excel System Product Inc.
Kaggle Grandmaster (World Rank #15) – 5 Gold & 5 Silver medals; First from IITG Online Degree Program
Industry Opportunities - Paid roles with global organizations (INR 10K-1.1L | $120-1200/month)

Career Support

Career opportunities are facilitated for the graduating students by the Online Career Development Centre.

A special career readiness program comprising curated courses, interactive workshops with industry veterans, and exclusive networking opportunities has been designed to equip you with the essential skills and knowledge needed to accelerate your career in today's competitive job market.

You will also get access to free mentorship sessions with more than 16,000 mentors worldwide.

You will be part of a skills-based recruitment service provided by Coursera Hiring Solutions, that matches industry-trained, job-ready talent with companies.

Entry Requirements

To be eligible to apply for this degree programme, you must have passed the Class 12 (senior secondary) examination or equivalent with a minimum score of 60% (overall / aggregate) from a recognised education board or University.

You must also have studied Mathematics as a compulsory subject at Class 12 (senior secondary) or equivalent level.

How to Apply

To apply: opadmission.iitg.ac.in
you need to complete the application form, pay the application fee and submit along with required documents ~ this takes less than 10 minutes.

Please refer to the dates & timelines for the current cohort that you are applying to.

For all Applications & Admission Queries, please write to: admissions_bsc_dsai@iitg.ac.in

Fees

Application Fee	INR 1000	You pay to apply to the programme
Qualifier test Fee	INR 3000	You pay if you are required to undertake the Qualifier Test for admission
Admission Fee	INR 50000	You pay to confirm acceptance of admission into the programme
Per Credit Tuition Fee	INR 1100	You pay fees based on the number of credits you choose to study
Continuation Fee	INR 6000	You pay if you do not register for any credits in a particular trimester

Annual Fee Breakup

Year	Credits	Fee (INR)
Admission Fee		50,000
Year 1	80	88,000
Year 2	79	86,900
Year 3	70	77,000
Year 4	70	77,000
Total	299	3,78,900*

* The fee is indicative and subject to revision as per institute policies.

Admission

Direct Admission | *Applicants who are eligible to appear for JEE Advanced*

You will be eligible for direct admission into the programme if you are eligible to appear in Joint Entrance Examination (Advanced) conducted by the Joint Admission Board (JAB) in any year.

Regular Admission | *Applicants who are not eligible to appear for JEE Advanced*

If you are not eligible to appear for JEE Advanced (in any year), you would be required to undertake an online qualifier test to qualify for the admission process. A preparatory online course has been specifically designed to help you prepare for this test.

You will be ranked using a composite score that will be based on your overall performance in Class 10 and Class 12 examinations, and the qualifier test.
Admission will be offered to you based on your rank.

All fees are non-refundable.

Fees will be charged per credit (INR 1100/credit). You will have the flexibility to select courses based on your workload.

Additional fee may be incurred in case of repetition of courses.

You have the option to learn at your own pace and can also register for fewer courses than prescribed in a given trimester.

There is no minimum credit requirement each trimester, however, if you plan to not register for any credit in a trimester, you need to maintain your active enrollment by paying a Program Continuation Fee of Rs. 6000 per trimester.

Computer Requirements

To get the most out of this degree, your computer needs to meet certain requirements. These can be found in the Student Experience' section at:
coursera.org/degrees/bachelor-of-science-data-science-ai-iitguwahati/student-experience

AI CONFLUENCE 2025

For further information on the program,
please visit our website: **iitg.ac.in/oes/odp/bsc**

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Head of the Section
Online Education and Skilling
Indian Institute of Technology Guwahati
Guwahati 781039, Assam, India

Online Enquiries: **admissions_bsc_dsai@iitg.ac.in**

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