



Centre for
Machine
Intelligence &
Data Science
C-MINDS • IIT Bombay



EXECUTIVE POST-GRADUATE DIPLOMA IN ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

- DESIGNED AND DELIVERED BY IIT BOMBAY FACULTY
- IIT BOMBAY DIPLOMA CERTIFICATE AND ALUMNI STATUS
- INDUSTRY-FOCUSED CURRICULUM

Programme offered by Centre for Machine Intelligence and Data Science (C-MINDS), IIT Bombay



ABOUT THE PROGRAMME

The **Executive Post-Graduate Diploma in Artificial Intelligence and Data Science** from IIT Bombay provides professionals with advanced AI and Data Science expertise through a comprehensive, three-semester curriculum. Designed and delivered by IIT Bombay's renowned faculty, this synchronous program builds a solid foundation in Data Science, followed by in-depth exploration of advanced topics such as Machine Learning (ML), Deep Learning, Generative AI, and Natural Language Processing (NLP). With a strong emphasis on hands-on learning, the curriculum includes practical assessments to reinforce key concepts. The program also includes in-person final exams on the IIT Bombay campus. As an accredited, credit-bearing diploma, the program awards up to 36 credits that can also be applied towards higher degrees at IIT Bombay, opening further academic opportunities.



1

ACCREDITED PROGRAMME

Executive PG Diploma - an accredited programme from IIT Bombay

2

IIT BOMBAY CREDITS

Earn up to 36 Credits from IIT Bombay, transferable towards higher degrees

3

WORLD CLASS FACULTY

Designed and delivered by IIT Bombay faculty

4

GRADUATION AT IIT BOMBAY

In-person graduation ceremony at IIT Bombay campus

5

ALUMNI STATUS

IIT Bombay alumni status

6

INDIVIDUAL COURSE CREDITS

Individual Course Credits can be saved in the Academic Bank of Credits (ABC)

7

LATERAL HIRING

Access to IIT Bombay's Lateral Hiring Group

PROGRAMME HIGHLIGHTS



Centre for
Machine
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C-MINDS - IIT Bombay



**Accredited Executive
PG Diploma from
IIT Bombay**



**Earn IIT Bombay
credits which are
transferable to higher
degrees at IIT Bombay**



**Designed and delivered
by IIT Bombay faculty**



**Individual Course
Credits can be saved in
the Academic Bank of
Credits (ABC)**



**Online synchronous
3-semester programme
designed for working
professionals**



**Participate in
peer-to-peer learning
and expand your
professional network**



**Hands-on
learning through
industry-relevant tools**



**In-person graduation
ceremony at IIT
Bombay campus**



**Academic support
for prompt query
resolution**



**IIT Bombay
alumni status**



**Personalised
assistance with a
dedicated Programme
Manager**



**Access to IIT Bombay's
Lateral Hiring Group**

WHO IS THIS PROGRAMME FOR?



Centre for
Machine
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Data Science
C-MINDS - IIT Bombay

Early and mid-career professionals aiming to gain a competitive edge and advance their career in AI, Machine Learning and Data Science.

KEY LEARNING OUTCOMES



LEARN FROM WORLD CLASS IIT BOMBAY FACULTY



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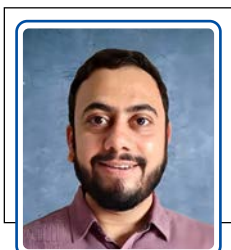
BIPLAB BANERJEE

Associate Professor

Centre of Studies in Resources Engineering (CSRE)

Ph.D. | IIT Bombay

Research Interests: Computer Vision, Image Processing, Satellite Image Analysis, Deep Learning, Advanced Machine Learning



SUDEEP BAPAT

Assistant Professor

SJM School of Management

Ph.D. | University of Connecticut

Research Interests: Sequential Analysis, Change Point Detection, Time Series, Statistical Inference, Linear Models, Survival Analysis



PUSHPAK BHATTACHARYYA

Professor

Department of Computer Science and Engineering

Ph.D. | IIT Bombay

Research Interests: Machine Learning and AI Algorithms, Natural Language Processing, Text Analytics and Search



ABIR DE

Assistant Professor

Department of Computer Science and Engineering

Ph.D. | IIT Kharagpur

Research Interests: AI and Society, Social Networks, Machine Learning



VINAY KULKARNI

Adjunct Professor

Centre for Machine Learning and Data Science (C-MINDS)

Ph.D. | IIT Bombay

Research Interests: Big Data Technologies and Engineering Applications of Machine Learning and AI



GOPALAKRISHNAN SHIVASUBRAMANIAN

Associate Professor

Department of Mechanical Engineering, IIT Bombay

Ph.D. | University of Massachusetts - Amherst

Research Interests: Numerical Methods, Computational & Geophysical Fluid Dynamics, Higher Order Methods, Parallel Algorithms for CFD, Computing

Note: This is an indicative list of faculty and is under the purview of IIT Bombay

This Executive PG Diploma will offer up to 36 IIT Bombay credits through a mix of mandatory and elective courses. The courses offered are:

Programming for Machine Learning and Data Science

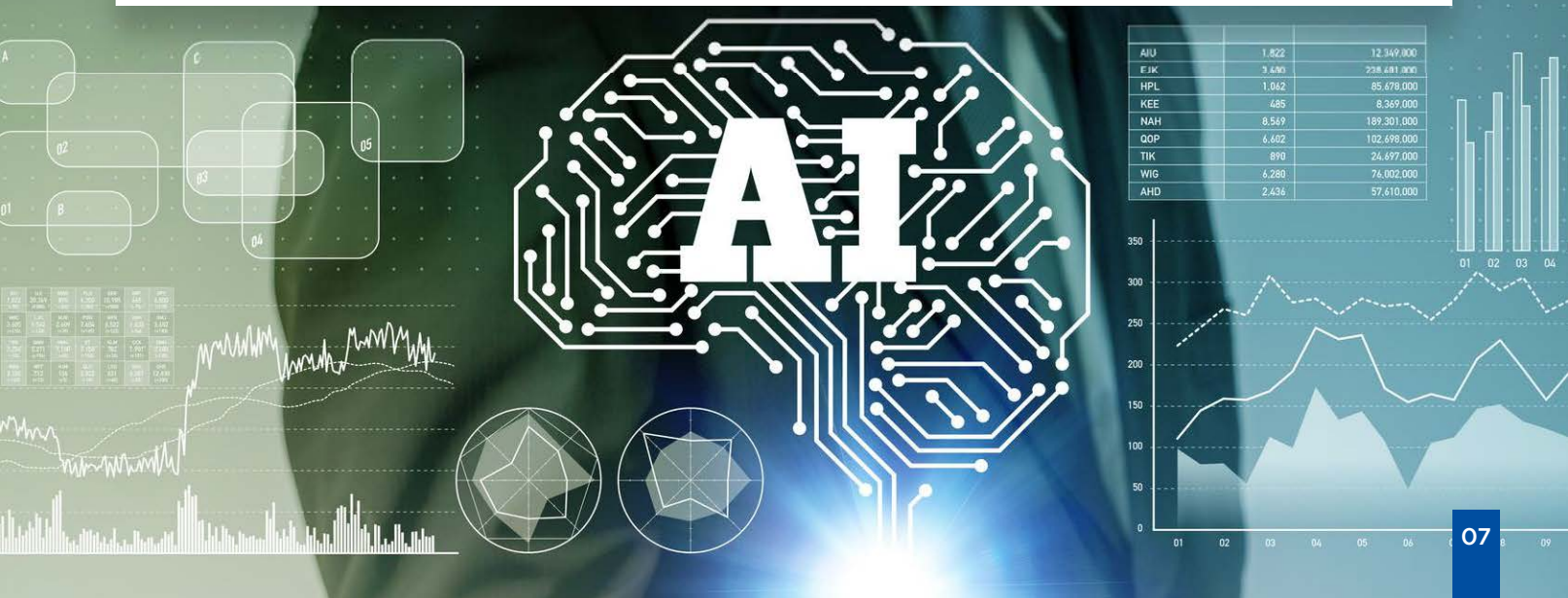
In this course, you will develop programming skills with Python and apply them for data exploration, visualization and pre-processing. You will use Python to explore Machine Learning concepts, and apply them to build and evaluate models with suitable metrics. Additionally, you will learn Feature Engineering, and understand data handling across different scales.

Statistical Foundations of Machine Learning

In this course, you will learn the fundamental statistical concepts, develop skills in data analysis and interpretation through graphs and summary measures, understand probability, probability distributions, estimation, testing of hypotheses, basics of matrix theory and regression analysis. You'll also gain experience to apply these concepts in practical applications and in communicating statistical findings.

Machine Learning

In this course, you will learn various Machine Learning techniques, including linear regression, classification models, decision trees, ensemble methods, and clustering algorithms. Additionally, you will explore advanced topics such as neural networks, deep neural networks, and generative models.



Deep Learning and GenAI

In this course, you will learn the essentials of deep learning, including building and training neural networks, and delve into Generative AI frameworks, transformer models and large language models (LLMs). Additionally, you'll explore practical applications of Generative AI in text, images, and code and gain skills in fine-tuning pre-trained large language models for diverse use cases.

AI-ML in Practice

In this course, you will learn to deploy and scale models on cloud platforms using Docker and Kubernetes and apply transfer learning and fine-tuning techniques. Additionally, you'll explore ensemble methods like bagging and boosting, and analyse case studies from various industries such as healthcare, finance, and e-commerce.

You will also work on a Capstone Project which will offer you an opportunity to apply the knowledge and skills acquired throughout the programme to a real-world problem in a structured manner.

Elective Courses

Elective courses will be offered in specific areas of artificial intelligence and Data Science. You can select any elective of your choice. Some of the areas covered in these courses are Natural Language Processing (NLP), Internet of Things (IoT), and Machine Learning (ML) for various applications such as Computer Vision, Finance, Speech Processing, Manufacturing, etc.



Note: Curriculum review and changes are under the purview of the Senate, IIT Bombay and would be undertaken from time to time to ensure the programme coverage is in line with industry requirements.

SAMPLE PROJECTS



Centre for
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Analyse Consumer
Behaviour Using
Survey Data



Identify Related Stocks
Based on Stock Market
Activity



Predict House Prices
Based on Location and
Features



Build Business
Applications Using
Language Models



Predict Credit
Card Default



Computer Vision

LANGUAGES AND TOOLS COVERED



Transformers



and many more

Note: Languages and tools used are under the purview of the faculty and a thorough review would be undertaken from time to time to ensure the programme coverage is in line with industry requirements.

SAMPLE EXECUTIVE POST-GRADUATE DIPLOMA



Centre for
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भारतीय प्रौद्योगिकी संस्थान मुंबई

विद्यार्थी का नाम

को एतद्वारा (कार्यक्रम का नाम) में

कार्यपालक स्नातकोत्तर डिप्लोमा

की उपाधि प्रदान करता है।

अभिषद की अनुशंसा पर संस्थान की मुद्रांकित यह उपाधि
विनियमों में विहित पाठ्यक्रमों को सफलता पूर्वक पूर्ण करने पर
मुंबई, भारतीय गणराज्य में आज 10 अगस्त, 2024 को दी गई है।

Indian Institute of Technology Bombay

upon recommendation of the Senate hereby confers the

Executive Post-Graduate Diploma

in (Programme name) on

Name of the student

who has successfully completed
the courses of study as prescribed under the regulations.

Given this day, under the seal of the Institute at Mumbai in the
Republic of India, the 10th day of August 2024.

SEAL

अध्यक्ष, अभिषद
Chairperson, Senate

कुलसचिव
Registrar

अध्यक्ष, शासी मंडल
Chairperson, Board of Governors

Note: Individual course completion certificates
can be issued on request for all completed courses.

ELIGIBILITY CRITERIA

The eligibility criteria for the Executive Post-Graduate Diploma in Artificial Intelligence and Data Science are as follows:

- The minimum requirement to apply for the programme is either a recognised 4-year undergraduate degree or a recognised 3-year undergraduate degree with at least one year of work experience. Post-graduate and doctorate students can also apply.
- Understanding of Mathematics and Statistics at the undergraduate level.

SELECTION PROCESS

Step 01

Application

Interested candidates can apply for Executive PG Diploma by filling out a simple online application form.

Step 02

Online Test

Applicants must take an online test to assess their foundational knowledge and suitability for the programme.

Step 03

Screening

After completing the online test, applicants will go through a mandatory screening call with the Admission Director's Office.

Step 04

Admission Offer and Enrolment

The selected candidates will receive an offer letter to join the programme. They will need to pay the admission fee to secure their seat and complete enrolment.

IMPORTANT DATES



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Admission Window	Programme Orientation	Classes Begin
30 TH SEPTEMBER 2024 TO EARLY JANUARY 2025	JANUARY 2025	JANUARY 2025

PROGRAMME FEE

ADMISSION FEE	₹60,000	(To be paid within 7 days after receiving the offer letter to confirm enrolment)
FEE FOR 1 ST SEMESTER	₹1,80,000	(To be paid at the beginning of 1 st semester)
FEE FOR 2 ND SEMESTER	₹1,80,000	(To be paid at the beginning of 2 nd semester)
FEE FOR 3 RD SEMESTER	₹1,80,000	(To be paid at the beginning of 3 rd semester)

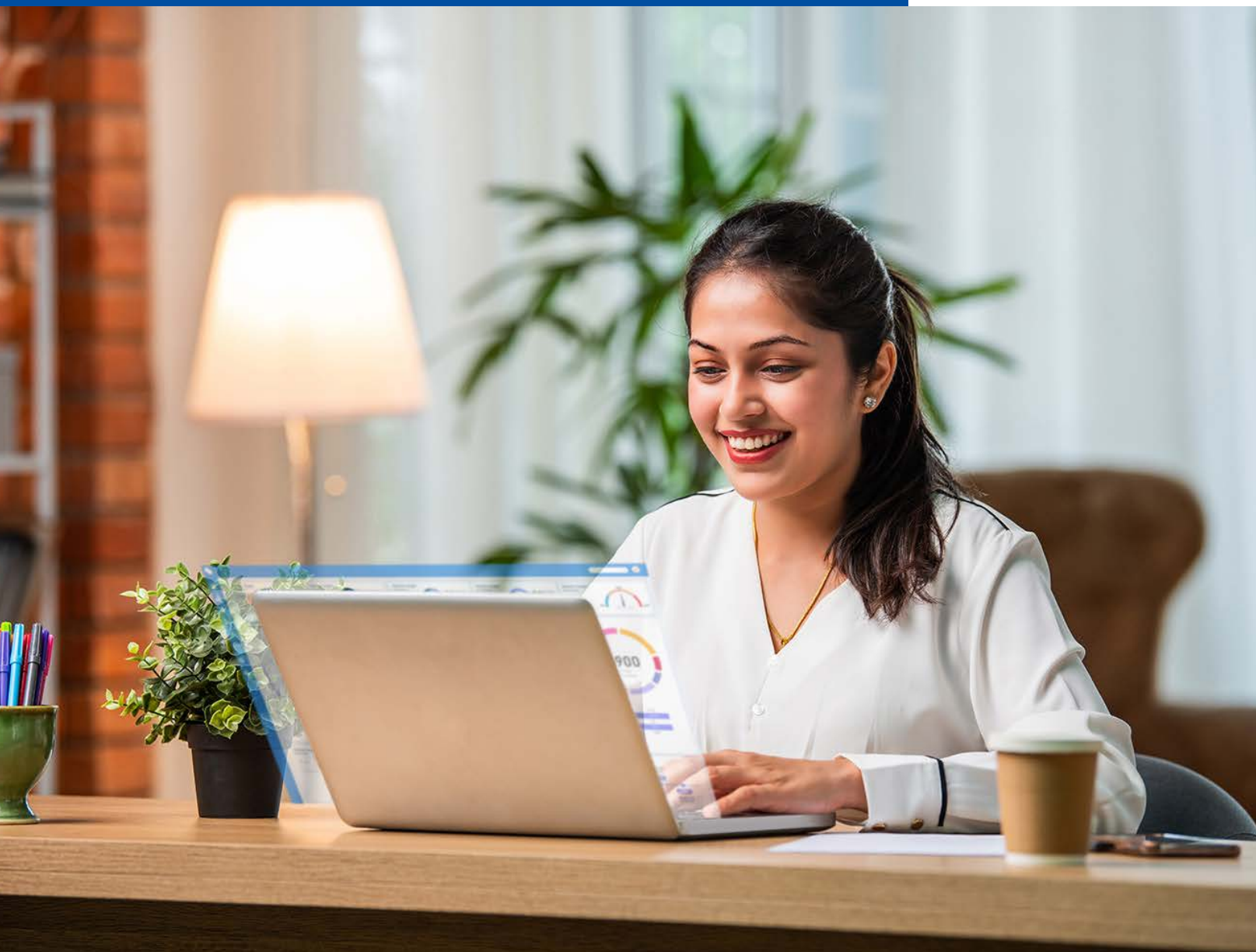
For more details on flexible fee payments, please contact a Programme Advisor.

FINANCIAL ASSISTANCE



***Conditions apply.** The Financial Assistance options are available through Great Learning.
Please reach out to the admissions office at 080 4718-8428 for more details.

READY TO ADVANCE YOUR CAREER?



CONTACT US

✉ iitb_epgd.ai_ds@greatlearning.in | epgd.ai-ds@eo.iitb.ac.in

☎ 080 4680 1702

APPLY NOW

