

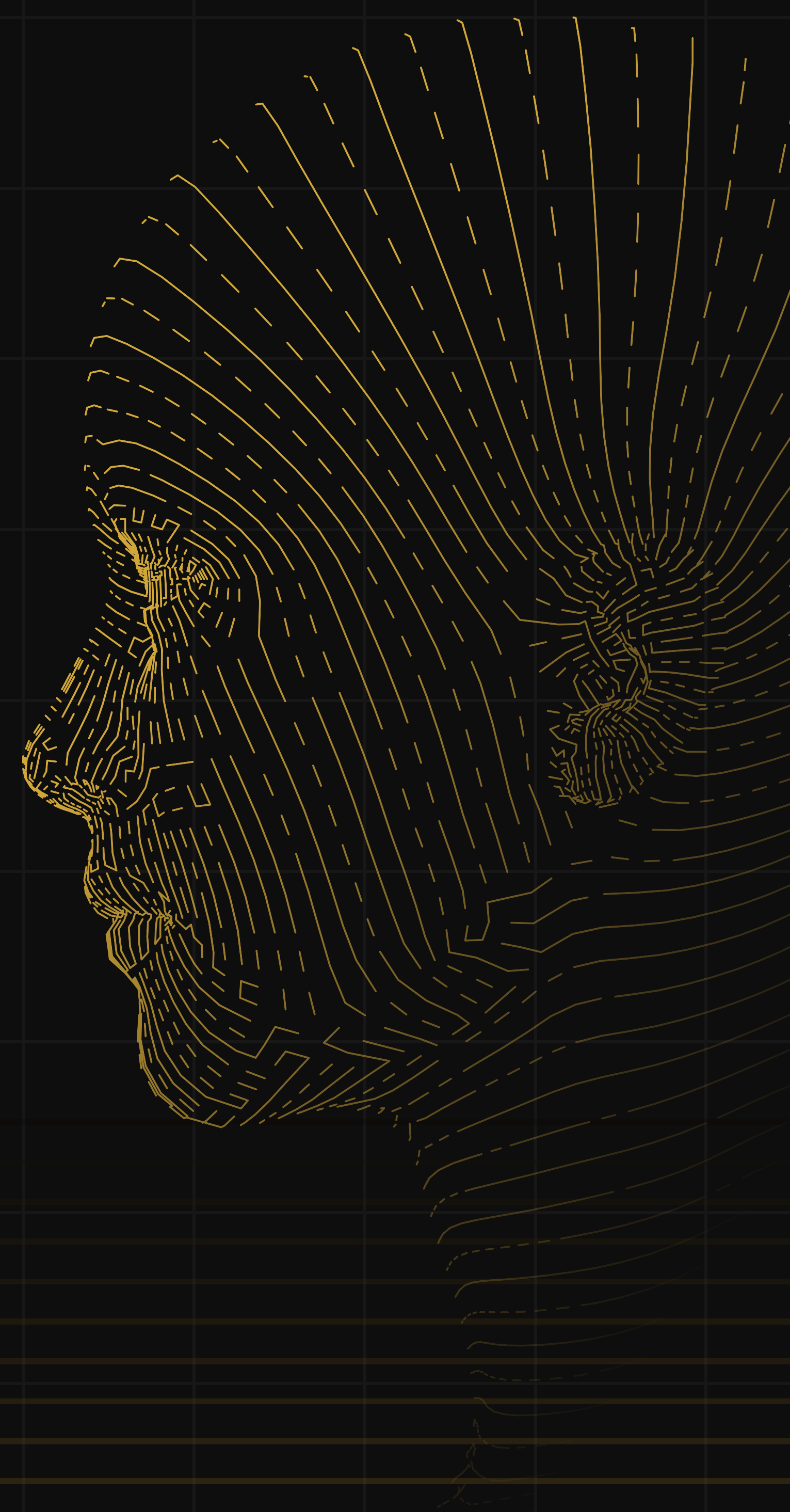


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PG Certification in AI and ML

Indian Institute of Technology, Jodhpur





Context of the Program

As investments in Artificial Intelligence (AI) and Machine Learning (ML) continue to increase, the demand for AI talent in India is also expected to grow at 15% CAGR by 2027.

The past few years have seen astronomic growth in AI, ML, and various emerging technologies, fueled by multiple factors including increasing enterprise tech spending and a significant increase in AI investments. The technology industry in India is already seeing more than 15% growth in AI/ML jobs over the past 12 months with positions such as AI engineers growing at 67% YoY.

Currently, AI and ML specialists are amongst the highest-earning professionals in the tech industry. AI and ML competencies can accelerate the career path of professionals in various directions, with substantial earning opportunities.



About PG Certification in AI and ML

The IIT Jodhpur Post Graduate Certification program is designed and curated by IIT Jodhpur in collaboration with industry experts to build the competencies relevant to the growing gamut of AI and ML job roles in India. The courses in the Certification program have a robust balance of conceptual understanding as well as extensive hands-on and application experience.

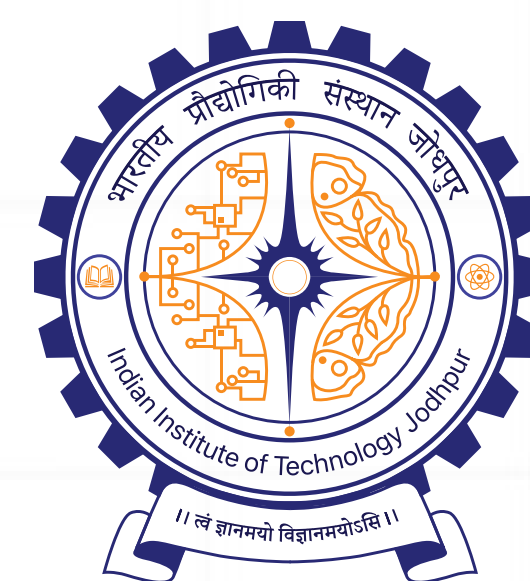
IIT Jodhpur is one of the pioneer institutions in India in AI and emerging technologies knowledge, and the program leverages the deep expertise and research capabilities of the institute and its esteemed faculties to provide the learners with a solid head start into building AI and ML-driven solutions.

Some key features of the Certification program are:

01

Globally Relevant Curriculum

This program is meticulously designed to align with global industry trends and technological advancements, ensuring the learners are prepared to navigate the dynamic landscape of AI solutions and data-driven decision-making.



02

Hands-On Experience

Through hands-on projects and real-world simulations, learners develop the skills needed to extract insights from complex data sets, empowering them to make informed business decisions.

03

Interdisciplinary Learning

By fostering collaboration between business, science, technology, engineering, and mathematics, this program equips learners with a diverse skill set essential for success in today's interconnected business landscape.

04

Future-Ready Skills

Graduates of this program emerge as dynamic professionals equipped to tackle the complex and dynamic challenges and opportunities in the corporate world.

The IIT Jodhpur Post Graduate Certification in AI and ML is your opportunity to harness the power of AI-ML-driven solutions and data-driven decision-making. Elevate your career trajectory, foster innovation, and take the reins of your career success into your hands.



Who is the — Program for you

If you aspire for a high growth career in AI or ML field, either in the data science, ML track or in the AI and ML Ops track, this program will provide you with the right knowledge, tools, technologies and a prestigious IIT PG Certification credential to accelerate your career.

If you are an aspiring or a current software and technology professional, this PG Certification program will help you hone high in-demand skills such as Data Mining, Data Science, AI, and Machine Learning.

Eligibility

The eligibility criteria prescribed below are the absolute minimum with no possible exceptions:

- **3 or 4 Years** of graduation degree in BTECH. or STEM fields (4 years BTech. or STEM candidates will be preferred)
- Minimum marks in **50%** Under Graduation or Post Graduation





Program — Objectives

The Post Graduate Certification in AI and ML program has been designed with the following objectives:

1

Master ML Techniques and Tools

Acquire proficiency in utilizing advanced mathematical and statistical techniques, programming languages such as Python, and various ML techniques as well as optimization methods to work on complex data sets.

2

Build AI Foundations

Build expertise in areas such as Computer Vision and AI as well as their applications in building innovative solutions across domains.

3

Build Data Science Expertise

Develop the ability to make informed business decisions by interpreting and analysing data through regression analysis, timeseries decomposition, outlier detection, and hypothesis testing.

4

Effective Data Visualization

Learn to create impactful data visualizations, enabling effective communication of complex information to both technical and non-technical stakeholders.

5

Strategic Business Insight

Cultivate a deep understanding of business analytics life cycle, honing the skills needed to handle real-world business challenges across domains and industries.

6

Data Management Expertise

Gain proficiency in designing and managing relational databases, applying normalization techniques, and utilizing SQL for data manipulation and querying.

7

Holistic Problem-Solving

Develop a holistic perspective on operations management, applying decision science principles to optimize processes, manage inventory, and enhance supply chain strategies.

Program — Outcomes

- Analyse and explore data using statistical techniques.
- Apply statistical reasoning, problem-solving in statistical terms, exploratory data analysis using graphical and other methods, and a variety of formal inference techniques.
- Apply various data mining techniques, such as decision trees, neural networks, and genetic algorithms.
- Demonstrate proficiency in designing, implementing, and analyzing algorithms relevant to AI and ML tasks.
- Create effective data visualizations using different tools and techniques and select appropriate visualizations to convey and communicate different types of insights.
- Apply database design considerations, such as data types, precision, integrity constraints, and naming conventions.
- Apply supervised and unsupervised machine learning techniques.
- Develop a solid understanding of AI concepts and techniques.
- Explore ethical considerations and responsible AI practices.
- Design, train, and evaluate deep learning models for computer vision tasks.





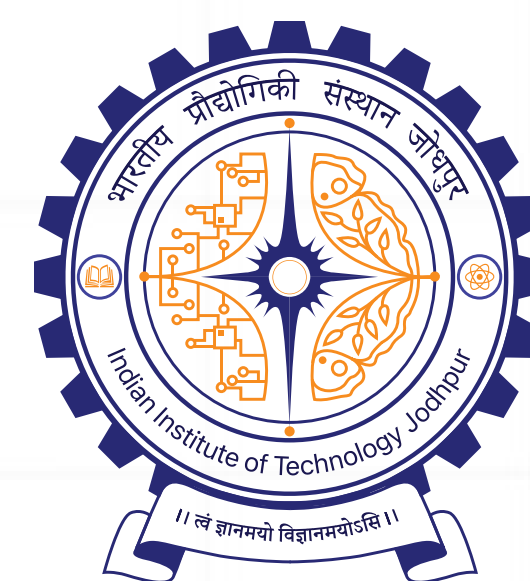
Program —

Curriculum

Students need to complete 12 credits from the list of courses given below and assigned to them by the Program Directors, to be eligible for the Certification.

Courses	Credits
Machine Learning	3
Applied Mathematics and Statistics	3
Advanced Programming	3
Database and Design Modeling	3
Artificial Intelligence	3
Fundamentals of Data Science	3





Student —

Journey



Submit Documents



Review of Student
Background, Document and
Pre-Screen Exam Scores



Offer Letter from IIT



Strengthen your Foundations through
Futureense Bridge Course

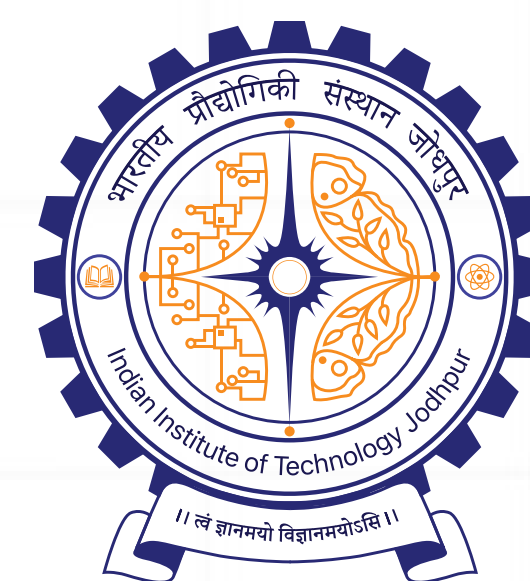


Begin your IIT Jodhpur PGC in AI and ML



Become Certified





Career — Opportunities

Potential Job Roles

Data Science
Manager

AVERAGE SALARY

₹28L +

Data Architect

AVERAGE SALARY

₹30L +

Business Analyst
Manager

AVERAGE SALARY

₹18L +

Data Scientist

AVERAGE SALARY

₹20L - 50L

Big Data
Developer

AVERAGE SALARY

₹7L - 20L

Data Visualization
Specialist

AVERAGE SALARY

₹7L - 20L

Data Mining

AVERAGE SALARY

₹12L - 25L

Machine Learning
Engineer

AVERAGE SALARY

₹15L - 50L

Business
Intelligence Analyst

AVERAGE SALARY

₹10L - 20L

Research
Scientist

AVERAGE SALARY

₹10L - 20L

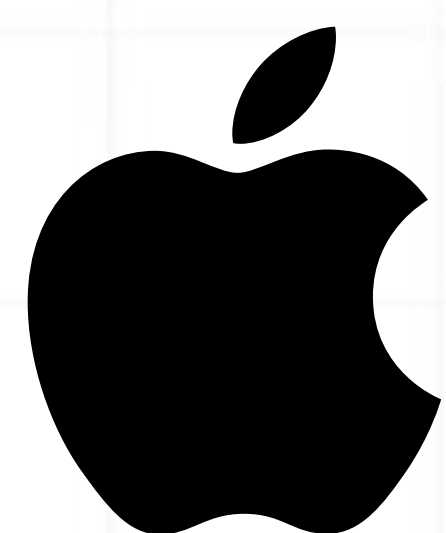
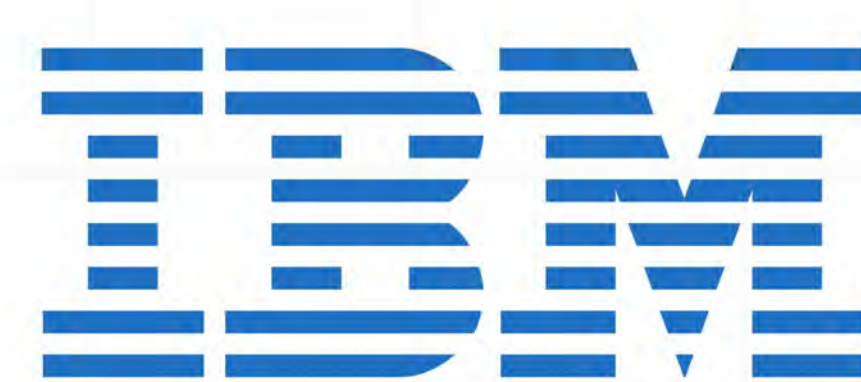
*Salary Source: Glassdoor

*Futureense does not offer any employment



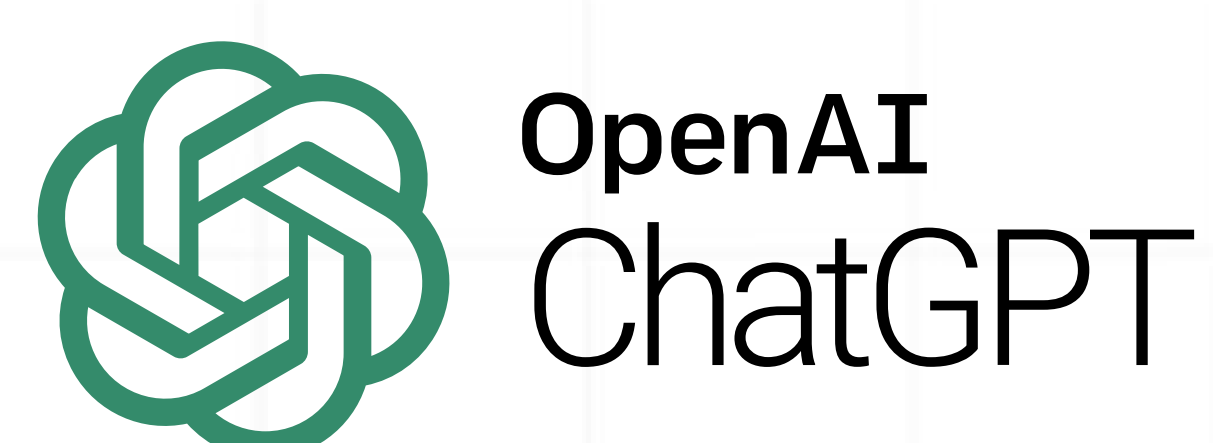
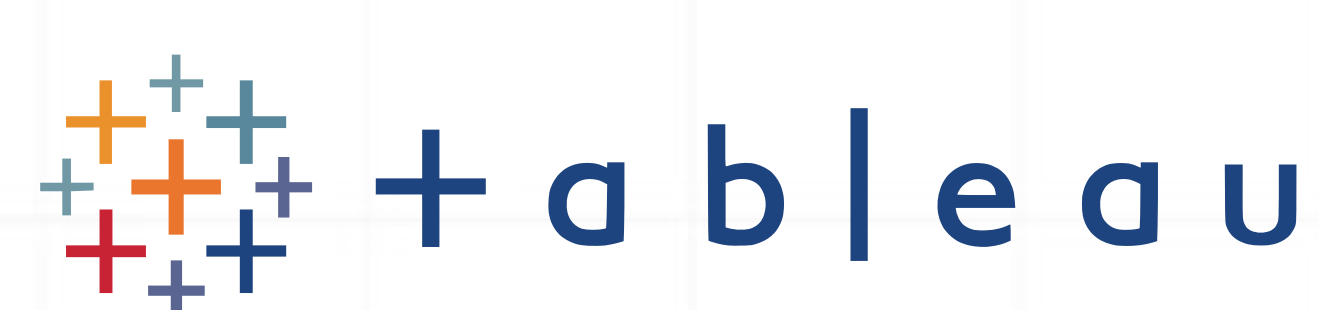
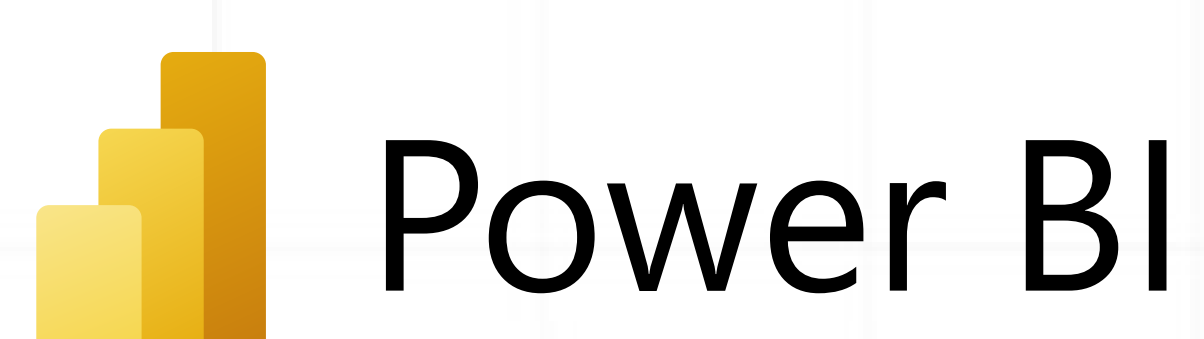
Potential Recruiters

World's leading companies are hiring for the most in-demand data job roles!



& more

Tech Stacks



*Futureense does not offer any employment



Futureense — Bridge Course

Prepare for your IIT Jodhpur PG Diploma in Data Engineering with the Futureense Bridge Course.

This foundational program, offered at no extra cost, equips you for success. It includes live online training with an industry expert. These interactive sessions provide valuable insights and knowledge. Beyond the live training, access 30+ hours of self-guided learning materials to master core concepts. The course concludes with an assessment to validate your knowledge. With the Futureense Bridge Course, get ready to excel in your academic journey

Weekly 4 hours of live online training and 30+ hours of self guided learning

01 — MATHEMATICAL FOUNDATIONS

02 — MYSQL DATABASE ESSENTIALS

03 — AGILE AND SCRUM FROM
PROJECT MANAGEMENT

04 — PROMPT ENGINEERING WITH CHATGPT

05 — PYTHON PROGRAMMING BASICS





Program — Directors



Prof. Dip Sankar Banerjee

Associate Professor
IIT Jodhpur

Dr. Dip Sankar Banerjee is an Associate Professor at IIT Jodhpur since December 2020. He completed his PhD. in Computer Science and Engineering from the Indian Institute of Information Technology Hyderabad in 2014. He was a postdoc at the Ohio State University from 2015-2016. His research interests are broadly in the area of High Performance Computing, Computing Systems, Computer Architecture, and Data Analytics.

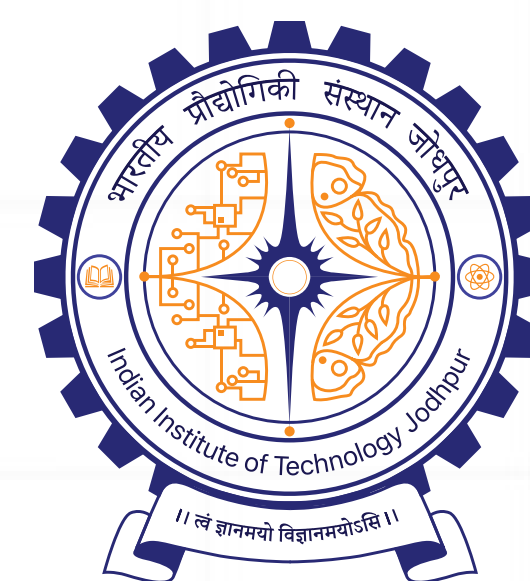


Prof. Subhash Bhagat

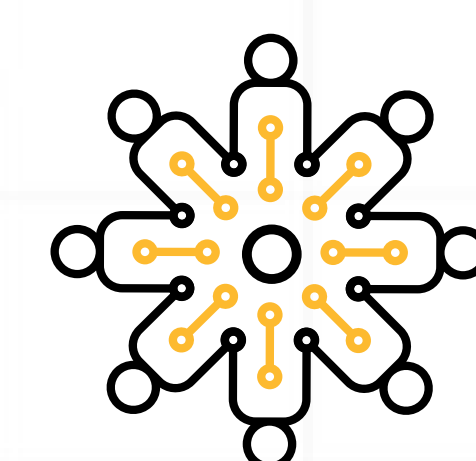
Assistant Professor Department of Mathematics
IIT Jodhpur

Dr. Subhash is an Assistant Professor in the Department of Mathematics at IIT Jodhpur in Rajasthan, India. Prior to this position, he held postdoctoral fellowships at the University of Quebec in Outaouais and the University of Ottawa in Canada. He received his PhD from the Advanced Computing and Microelectronics Unit at the Indian Statistical Institute in Kolkata under the supervision of Prof. Krishnendu Mukhopadhyaya. His research interests are in the areas of distributed systems and algorithms, specifically focused on distributed algorithms for Swarm Robots and Autonomous Multi-Agent systems, Internet of Robotic Things (IoRT), autonomous mobile robotic sensors, and security in distributed computing.





Futureense Leadership Council



futureense
leadership
council



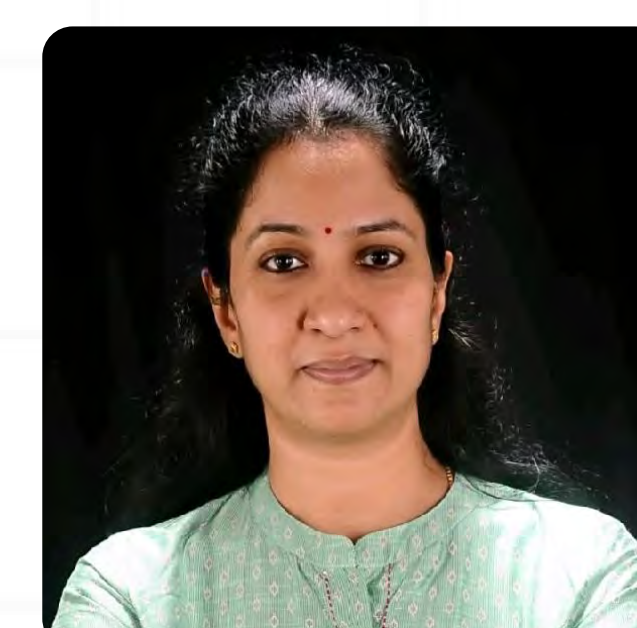
Divesh Singla

Vice President, Global
Operations and Head, APAC



Kaushik Das

Transformation | Strategy |
Operations | Analytics



Nithya Subramanian

Head of Data &
Analytics - AMEA



Anupam Gupta

VP Enterprise Data
and Analytics



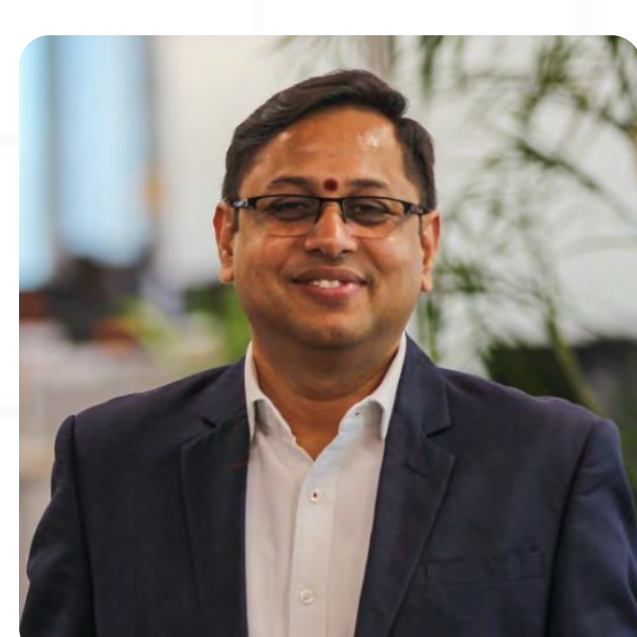
Pankaj Rai

Group Chief Data and Analytics
Officer



Ishu Jain

Head of Analytics



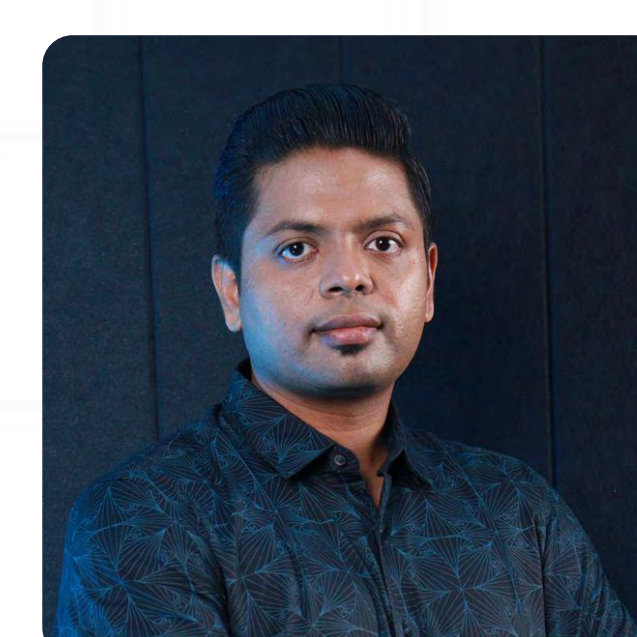
Nitin Srivastava

Data & Analytics India
Lead



Shrisha Ray

Director of
Engineering



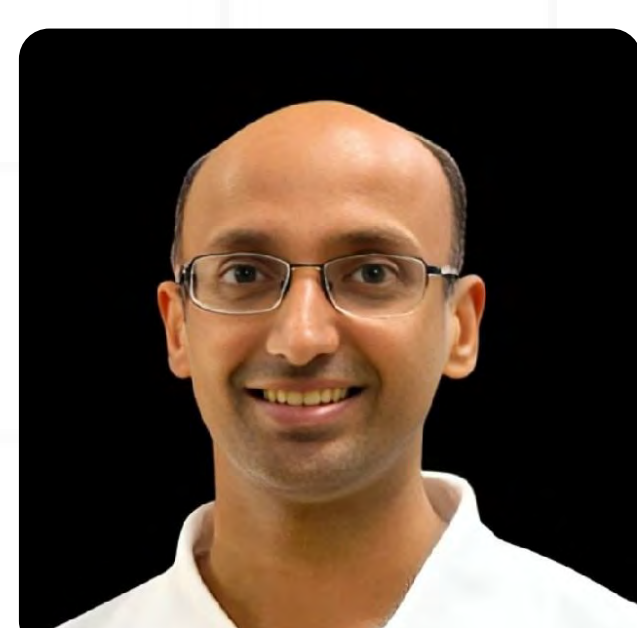
A V Rahul

Director, Analytics



Ankit Mogra

Director - BI &
Analytics



Saurabh Agarwal

Chief Executive
Officer



Madhu Hosadurga

Global Vice President,
Enterprise AI



Anand Das

Chief Digital & AI
Officer



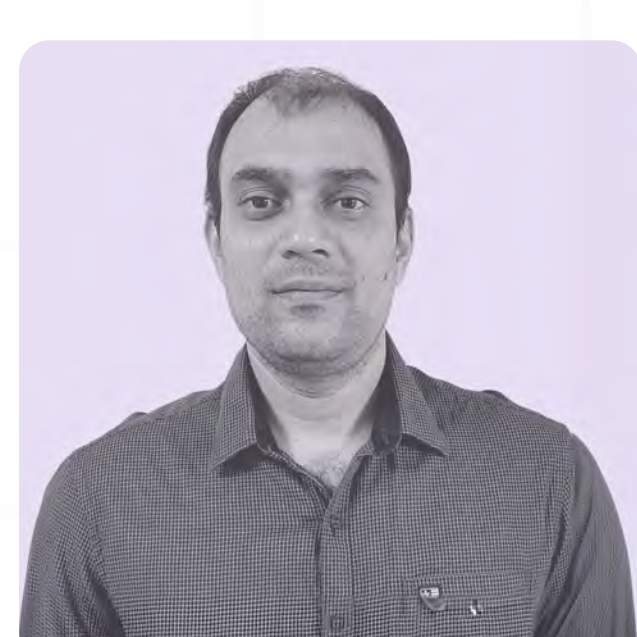
Ashish Dabas

Vice President



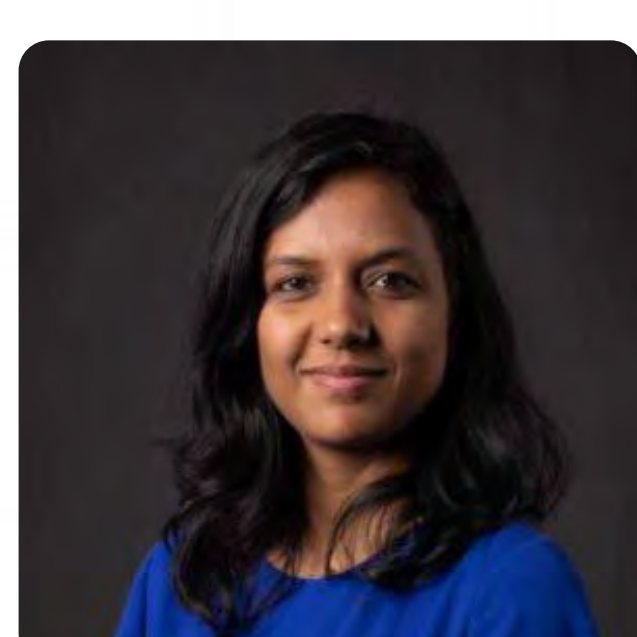
Bhargab Dutta

Chief Digital Officer



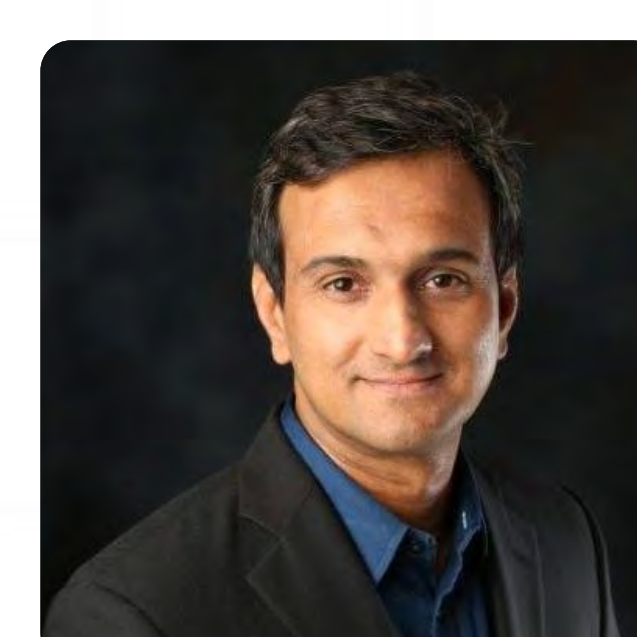
Alok Tiwari

Vice President - Data



Muthumari S

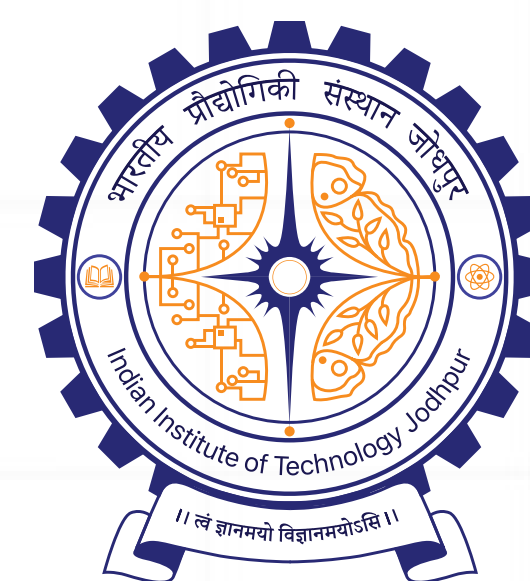
Global Head of
Data & AI Studio



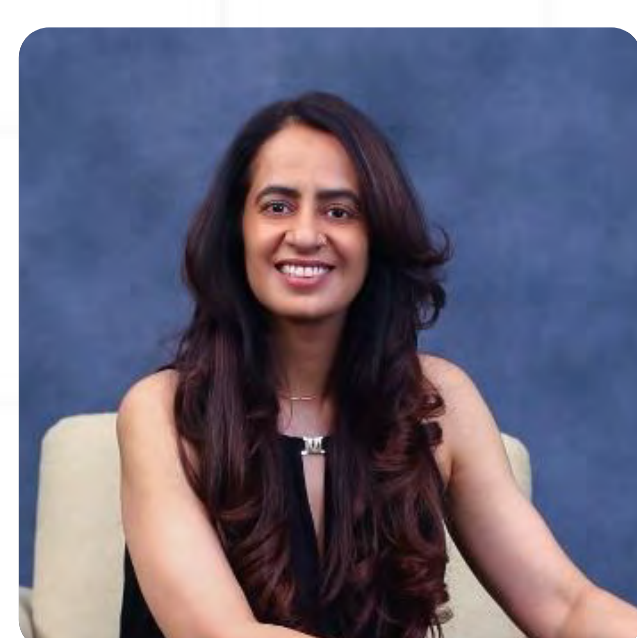
Aditya Khandekar

President

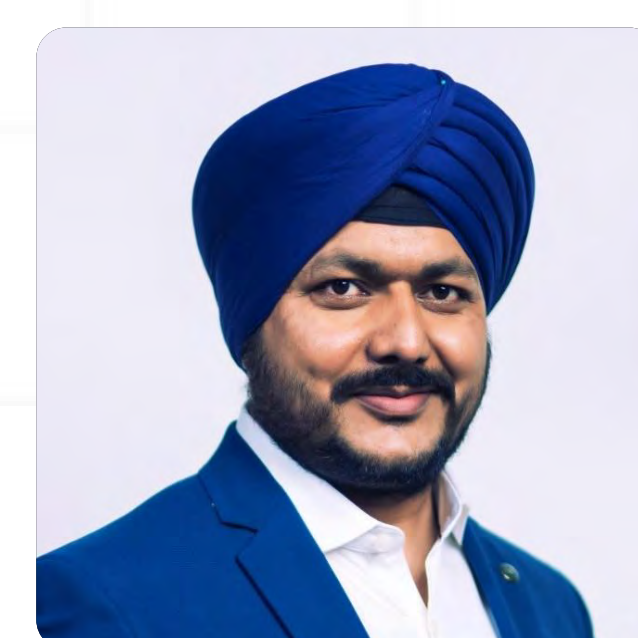





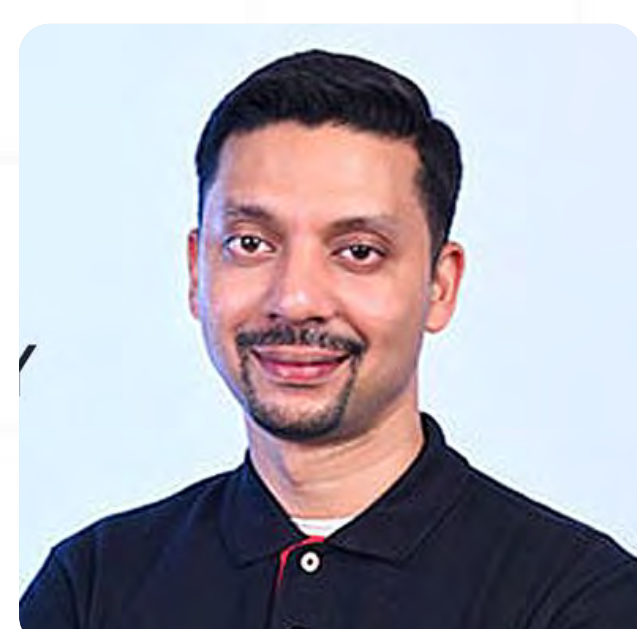
Pankaj Srivastava
SVP - Head of Credit Analysis
Unit Offshore

Supria Dhanda
Co-Founder & Managing
Partner

Saurabh Kumar
Director - Data
Engineering




Satyakam Mohanty
Founder & Managing
Partner




Sharmistha Chaterjee
Head of Software and Systems
Engineering




Arvind Balasundram
Executive Director,
Commercial Insights & Analytics




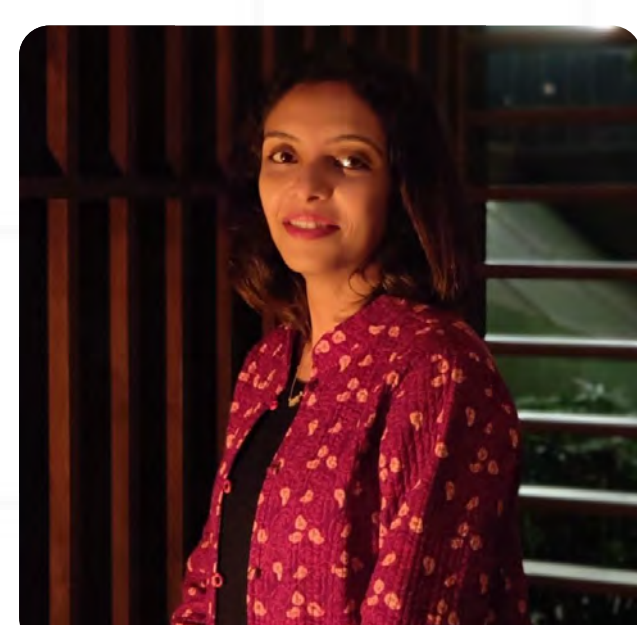

Praveen Sathyadev
Head Business Growth (VP)
Analytics, Insights and AI





Akshay Kumar
Research &
Analytics Leader




Anirban Nandi
Head of AI Products & Analytics
(Vice President)


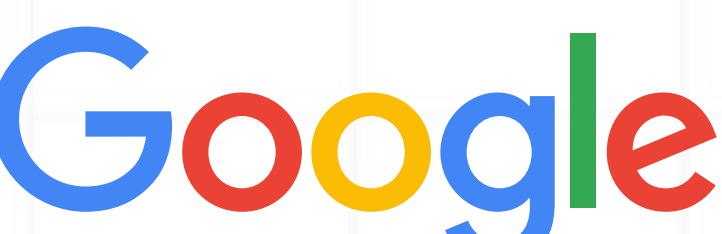


Indrani Goswami
Director of Analytics




Srini Oduru
Head of IT Delivery and
Operations



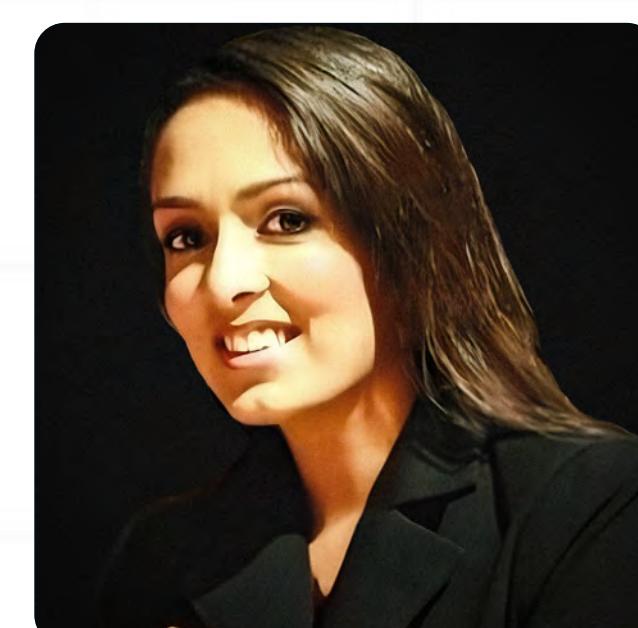

Tushar Sahu
Director Engineering


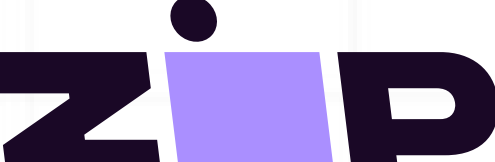


Sumon Mal
Director
Engineering




Vishal Nagpal
Data Science and
Analytics Leader

Aarti Krishan
Director
Head of Information Security





Monica S Pirgal
Managing Director &
Site head - Board member




Deepa Mahesh
Head of Strategy & Operations,
Board Member

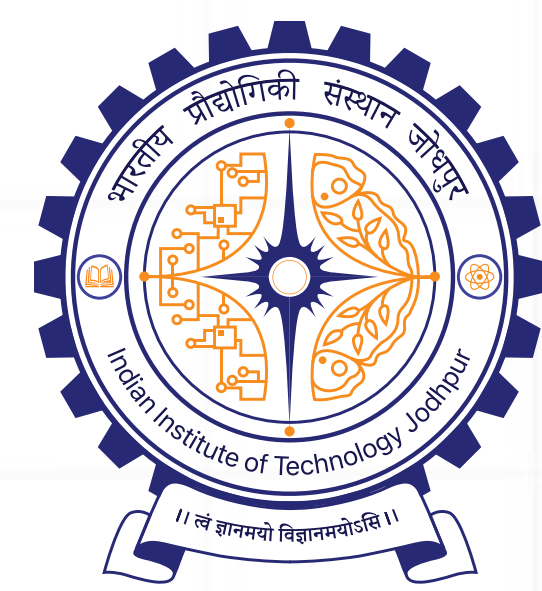



Jayati De
Analytics Leader




Krithika Muthukrishnan
Chief Data Science Officer



Program — Highlights

LAST DATE OF APPLICATION

12th October, 2024

BATCH START DATE

14th October, 2024

DURATION

3 Months

Post Graduate Certification in AI and ML by IIT Jodhpur

A student needs to complete a minimum 12 credits for successful completion of the program and certification

Live online sessions by IIT Jodhpur faculty and industry experts

180+ Hours of Overall Learning Experience*

Students are expected to do self-study, research, work on labs, projects, assignments, assessments, and other activities as per the requirements of each individual course.

PEDAGOGY

The pedagogy will be a judicious mix of lectures, case discussions, project work, term papers, assignments, etc.

Masterclasses by Industry Experts and top tech leaders discussing real-world problems and approaches.

The performance of participants will be monitored on a continuous evaluation basis through quizzes, labs, projects, assignments, tests, and examinations. The participant is required to score minimum marks/grades as decided by IIT Jodhpur from time to time to complete the course. Learners will be given the exact assessment plan and details after joining the program.

PROGRAM SCHEDULE

Classes late evenings on weekdays or over weekends

The class schedule will be determined based on the availability of faculty

*The program duration may be slightly extended due to unavoidable situations.

About —

IIT Jodhpur



The Indian Institute of Technology Jodhpur was founded in 2008 with a focus on technology education and research to promote the economic development of India. Its permanent campus is spread over 852 acres and has state-of-the-art facilities for research and academic activities. The institute is committed to a multidisciplinary approach to technology development and has organized its degree programs through departments and research activities through centers for technologies.

In addition to its focus on traditional education, IIT Jodhpur has been actively pursuing programs in executive mode for working professionals. The institute has been leveraging its academic expertise, industry collaborations, and infrastructure to create a range of high-quality programs that cater to the needs of today's professionals. Its faculty members, with extensive industry experience and academic expertise, bring a unique blend of theoretical knowledge and practical experience to the classroom.

To establish itself as a leader industry aligned programs for professionals, IT Jodhpur has been developing programs that are relevant and contemporary to the evolving needs of the industry. It has also established strong industry linkages to develop customized programs that cater to the specific needs of their employees. The institute has invested in state-of-the-art infrastructure, modern classrooms, well-equipped labs, a vast collection of books and research papers in the library, and online learning platforms and tools to provide an immersive learning experience to the participants.

About — Futureense Technologies





At Futureense, we build next-gen technology talent that hold the key to a smarter and tech savvy future.


Futureense - The Godfather of Talent, is a new-age tech talent organization that provides an ideal platform for tech talent to unlock its true potential through its career-accelerating ecosystem and enables Fortune 500 companies to access an untapped talent pool.

With a mission to democratize the playing field for the tech talent of the country, Futureense, under its new initiative Futureense.uni, aims to transform tech education, together with top educational institutions in the country. Futureense leverages the well-established educational ecosystem of universities and combines it with its own next-gen outcome-focused approach through immersive learning experiences and building future-proof careers.

Futureense — University Collaborations

University	College	Program name
 CASE WESTERN RESERVE UNIVERSITY ☺ Cleveland, OH	Weatherhead School of Management	Master of Business Analytics and Intelligence
 Drexel UNIVERSITY ☺ Philadelphia, PA	College of Computing Informatics	MS in Software Engineering MS in Artificial Intelligence and Machine Learning



University	College	Program name
FORDHAM UNIVERSITY 📍 New York, NY	Gabelli School of Business	MS in Information Technology
RUTGERS 📍 Newark, NJ	Rutgers Business School	Master of Information Technology and Analytics
 Stony Brook University 📍 Stony Brook, NY	College of Business	MS in Decision Analytics
WT WEST TEXAS A&M UNIVERSITY 📍 Canyon, TX	Paul and Virginia Engler College of Business	MS in Computer Information Systems & Business Analytics

Let's get in Touch

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Rajasthan, India.

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🌐 www.iitj.ac.in



CONTACTS