

INDIAN INSTITUTE OF MANAGEMENT, LUCKNOW

EXECUTIVE PROGRAMME IN DATA SCIENCE

9 Months, Live Online & On-campus Immersion IIM Lucknow Executive Alumni Status



Overview

In today's business landscape, technological developments have led to digitising everything around us, producing unlimited data. Across sectors and businesses, data science has established itself as a pre-requisite for developing effective data-driven decisions and insightful business strategies. The **Executive Programme in Data Science** from IIM Lucknow, provides a cutting-edge curriculum with an emphasis on the tools and techniques used for handling, managing, analysing and interpreting data. This intensive nine-month programme is delivered via engaging live online sessions and a three-day on-campus immersion at the IIM Lucknow campus. Joining this programme will help you build a robust foundation in practical business decision-making using statistics and in-demand data science tools and techniques used R.



By 2022, data scientists and analysts will become the number one emerging role in the world.

Source: World Economic Forum, 2019



Over 93,500 data science jobs went vacant in India at the end of August 2020.

Source: Business Standard, 2020



The Indian analytics market stands at \$3.03 billion in size and is expected to double by 2025.

Source: The Week, 2020

STARTS ON September 29, 2021

Duration 9 Months

PROGRAMME FEE INR 1,95,000 + GST



WHO IS THIS PROGRAMME FOR?

Data has rightfully emerged as the new global currency and becoming industry-ready in data science will make you a sought-after professional across sectors. Advance your data science career with an industry-recognised certificate and be eligible for the Executive Alumni Status from one of India's leading B-Schools.

This programme is ideal for:



PROGRAMME HIGHLIGHTS



Receive a certificate of completion from one of India's top B-Schools (NIRF, 2020)



Experience a three-day on-campus immersion at the IIM Lucknow campus



Receive hands-on exposure and learning to make effective data-driven business decisions



Become industry-ready with real-world case studies, a project and tools using Excel and R



Gain a global outlook with insights from IIM Lucknow faculty and international industry experts



Expand your professional network and interact with experienced peers

Leaders will drive business outcomes by applying sophisticated analytics across disparate data sources within the organisation.

Arvind Shetty
 Director, IBM Analytics

PROGRAMME DIRECTORS



Prof. Sonia Singh

Professor, Decision Sciences

Prof. Sonia Singh teaches optimisation, statistics and managerial mathematics. She has also been a Visiting Associate Professor at NTU, Singapore. She has a PhD (Operations Research) from IIT Delhi and an M.Sc (Applied Mathematics) from IIT Roorkee. Her research interests include transportation & assignment problems, network flow problems, and multi-criteria decision-making problems, among others.

> **Prof. Gaurav Garg** Associate Professor, Decision Sciences



Prof Gaurav Garg teaches quantitative analysis for management, business statistics, and advanced data analysis. He has a PhD, M.Phil, and M.Sc in Statistics. His research areas include linear models, measurement error models and restricted regression.

Note: Programme Directors might change due to unavoidable circumstances, and revised details will be provided closer to programme start date.

The amount of data created over the next three years will be more than the data created over the past 30 years.

Source: IDC, 2020



GLOBAL FACULTY



Mr. Himanshu Vaidya

Information Technology Engineer, Entrepreneur, Developer & Trainer

Himanshu Vaidya had over 5 years of experience experience in Software Design and Development using Java, Android, PHP, & Hands on Technologies like Image Processing, Augmented Reality, Machine Learning & Artificial Intelligence using Python. He is a Senior Data Science Consultant & Machine Learning Architect with expertise in conceptualising and solving complex problems using Machine Learning and Deep Learning techniques.

Note:

- Global Faculty is subject to change and will be confirmed closer to the programme start date.

- Global Faculty sessions could be scheduled on a different time zone, depending on speaker availability.

PROGRAMME MODULES

MODULE 1

• DATA SCIENCE BASICS

- Basics
- Data Science Life Cycle
- Motivation and Applications
- Introduction to Version Control
- GitHub
- R
- Cloud technologies

DESCRIPTIVE ANALYTICS

- Data Visualization using R and Tableau (Public)
- Basic Statistical Measures
- Probability and Random Variable
- Binomial and Normal Distributions

DATA COLLECTION AND PREPARATION

- Data Collection from the Web
- APIs
- Database
- Data Cleaning
- Handling Missing Data and Outliers
- Normalisation and Standardisation

MODULE 2

PREDICTIVE ANALYTICS

- Hypothesis Testing
- Chi Square Tests
- Analysis of Variance
- Linear and Logistic Regression

MACHINE LEARNING

- Supervised and Unsupervised Machine Learning
- Hierarchical and k-means Clustering
- Principal Component and Exploratory Factor Analysis
- Decision tree and Random Forest
- Support Vector Machine
- NLP: Text, Web, Social, Image

PRESCRIPTIVE ANALYTICS AND FORECASTING

- Linear and Nonlinear Optimisation
- Simulation
- Time Series Analysis and Forecasting
- Nowcasting

MODULE 3

• BIG DATA

- Data Scraping: Extracting Data from Twitter, Instagram
- Data Storage: No SQL and Hadoop
- Ecosystem
- Data Processing: PIG, HIVE, Spark and In Memory Analytics

COGNITIVE ANALYTICS

- Artificial Intelligence
- Deep Learning: Backpropagation
- RNN
- CNN
- Recommender Systems

Note:

- Modules/ topics are indicative only, and the suggested time and sequence may be dropped/ modified/ adapted to fit the participant profile & programme hours. -The programme curriculum includes individual assignments, simulations, group projects & presentations to apply and demonstrate classroom learnings.

LEARNING OUTCOMES

The Executive Programme in Data Science will equip you with the in-demand skills needed to tackle real-world data analysis challenges. You will gain a managerial understanding of the machine learning concepts and techniques required to develop algorithms. After the completion of this programme, you will have:



PAST PARTICIPANT PROFILES





*Others include Marketing, Sales, FMCG, Hospitality etc.



PARTICIPANT TESTIMONIALS



Swati Vivek Kumar

Associate General Manager Delhi International Airport Ltd.

⁶⁶With fast tech industry changes and innovations, Data Science is one of the great niches to start learning.

Thanks to the IIM Lucknow faculty, Eruditus Executive Education, my project teammates, my family, and all the batchmates for making this a wonderful learning journey.

This gave me a very good overview of data science and what I should learn next. I have developed a problem-solving attitude during this time. Way to go

> **Pritish Ranjan** Senior Engineer Tata Consultancy Services



Feeling proud and privileged to have gotten a chance to learn from some prolific teachers. Can't thank you enough, Prof. Gaurav Garg, Prof. Vivek Gupta, Prof. Pradeep Kumar, Mohit Bhatnagar and Deepak Sharma. Your lectures were as inspiring as they were enlightening.

Finally, I thank Eruditus Executive Education for providing me such a platform to connect with and learn from such professionals.

PARTICIPANT TESTIMONIALS



Sandeep Vaishya

Senior Business Analyst Lead, Tata Motors Finance Ltd.

⁶⁶I would like to share with you all an achievement of sorts in this period of pandemic.

I got an opportunity to enhance my competencies and improve my learning in the field of data. I will cherish being a part of this course, & I'd like to thank all my professors and rest of the faculty members.

My sincere appreciation for the professors of IIM Lucknow for pushing me beyond boundaries and for their needful guidance. And this would not have been possible without my batchmates' support and motivation. **99**

> Mayank Tripathi Senior Associate Cognizant



66 Months of hard work along with intellectual as well as moral guidance from professors have made this possible. Thanks to all the professors and fellow batchmates. It was great to be part of such a talented cohort. 99

CERTIFICATE

On successful completion of the programme, with a minimum 75% attendance and satisfactory academic performance, participants will be awarded a certificate of completion and will be eligible for the IIM Lucknow Executive Alumni Status.



Note: All certificate images are for illustrative purposes only and may be subject to change at the discretion of IIM Lucknow.



IIM LUCKNOW EXECUTIVE ALUMNI BENEFITS

Upon completion of the programme, participants will need to register with a one-time registration fee of INR 10,000 + GST to receive the prestigious IIM Lucknow Executive Alumni Status. The benefits include:

- Executive Alumni status of the Indian Institute of Management Lucknow
- Receipt of all programme brochures and newsletters from IIM Lucknow (MDP Office)
- Details of Souvenirs available with MDP office
- Lifelong access to a network of distinguished IIM Lucknow Executive Alumni
- Access to the IIM Lucknow Campus Library (onsite access)
- 10% discount in fee for any additional program (Open program, Online) at IIM Lucknow (Lucknow and Noida campus)
- 10% group discount on the fee for referring participants (minimum group of five)



APPLICATION REQUIREMENTS

Experience Documents:

- For Previous Organisation(s): Relieving letters
- For Current Organisation: Current Salary Slip or Bonafide Certificate from the HR department on company letterhead

Graduation and Post-Graduation Education:

- Marksheet Individual or consolidated (all semesters)
- Passing Certificate If Any
- Diploma/ Degree/ Doctorate

ID Proof:

• Any Government issued photo ID like PAN Card/ AADHAAR Card, Driving License/ Passport, etc.

SYSTEM REQUIREMENTS

This programme includes live online classes conducted on Zoom. To attend a live online class you will need to have a PC/ Laptop/ Mac with:

- Speakers and microphone: built-in or a USB plug-in or wireless Bluetooth
- Webcam: built-in or USB plug-in
- Processor: with Dual Core 2Ghz or higher (i3/ i5/ i7 or AMD equivalent)
- RAM: 4 GB or higher
- OS: Either MacOS 10.7 or higher OR Windows 8 or higher
- An internet connection: Minimum bandwidth of 3.0 Mbps (up/ down)
- Browser: IE 11+, Edge 12+, Firefox 27+, Chrome 30+
- Zoom software client installed on your PC/ Laptop/ Mac

We use the Zoom software application to conduct live online classes. Zoom works on a variety of PCs/ Laptops/ Mac systems and also on phones and tablets.

You can join your live online class from a phone or tablet if it supports the Zoom client.

We recommend that you attend classes from a PCs/ Laptops/ Mac.

PROGRAMME DETAILS

Programme Schedule

Duration	9 Months
Academic Orientation	Oct 10, 2021
Live Online Sessions	3 Hours, Once a Week Sunday, 6:45 PM to 9:45 PM
Attendance	 Attending the on-campus immersion is mandatory* Minimum 75% attendance in each of the modules

ELIGIBILITY

- Must be a Graduate
- Experience: Minimum 5 years to Maximum 20 years of work experience
- Screening & selection will be done by IIM Lucknow
- Should be familiar with high-school Math and should have a mathematical orientation

EVALUATION

- Examination / Evaluation shall be conducted by the Institute
- An examination will be held for every course.
 Participants will be given any one of the following grades: "Excellent", "Good", "Fair" and "Poor"

PROGRAMME APPLICATION LINK

<u>Click here</u> to apply to the programme.

Note:



^{- *} The in-campus modules are subject to the conditions that prevail at the point of time. These conditions pertain to the pandemic or other unavoidable reasons. In case the current situation maintains the status quo, adequate alternate options with regard to the in-campus modules will be made available via online sessions.

⁻ The actual programme schedule will be announced closer to the programme start.

PAYMENT SCHEDULE

Programme Fee INR 1,95,000 + GST

Instalment Schedule

	Remarks	Standard Fee
Booking Amount	Within 7 days of selection	INR 28,000 + GST
Instalment 1	Oct 05, 2021	INR 50,000 + GST
Instalment 2	Jan 05, 2022	INR 58,500 + GST
Instalment 3	Mar 05, 2022	INR 58,500 + GST

Round-wise Application Dates

	Dates	Application Fee
Round 1	Jul 30, 2021	INR 2500 + GST
Round 2	Aug 20, 2021	INR 3000 + GST
Round 3	Sept 29, 2021	INR 3500 + GST

Note:

- Programme fee is exculsive of 18% GST and Executive Alumni Benefit fee.

- Only limited seats are available. Kindly secure your spot at the earliest.

Finance options available. <u>Click here</u> to know more. For more information please email at <u>iiml.datascience@eruditus.com</u>



ABOUT IIM LUCKNOW

The Indian Institute of Management (IIM) Lucknow, is one of the premier national level institutes of management in India, involved in generating and imparting knowledge in the field of management. IIM Lucknow stands tall on the foundation of an excellent, committed and profoundly knowledgeable faculty, innovative pedagogical tools, as well as an electic and diverse student community that has a burning desire to make new paths of its own.



Best Business Schools in India (NIRF, 2020)

The Association of MBAs (AMBA) has accorded accreditation to the Institute's PGPM, IPMX, and WMP programmes. IIM Lucknow is amongst the five B-Schools in India to achieve the coveted dual accreditations by the Association to Advance Collegiate School of Business (AACSB) as well as the Association of MBAs (AMBA). World over, only about 5% of the institutes have acquired AACSB's accreditation.



ABOUT ERUDITUS

Eruditus Executive Education offers customised and open programmes in India, Singapore, Dubai and other global locations in collaboration with MIT Sloan, Columbia Business School, INSEAD, Harvard Business School (HBS), Kellogg Executive Education, Berkeley Executive Education, Wharton Executive Education, IIM Lucknow Executive Education, IIM Calcutta Executive Education and Emeritus. Our world-class executive education programmes, supported by eminent programme experts, provide an immersive learning experience integrated with actionable insights and practical business applications. The meticulously curated programmes are delivered in a different range of formats; in-class, online, as well as blended programmes. Our extensive portfolio also includes short 2-4 day in-class workshops, online courses of 2-3 months duration as well as comprehensive learning journeys that run over 6-9 months, customised to an organisation's requirement.



Apply for the programme here



For registration and any other information, please get in touch with us at iiml@eruditus.com

S WhatsApp an Advisor On +91 7208889990*

* This number does not accept any calls. Please message your queries

In collaboration with ERUDITUS EXECUTIVE EDUCATION