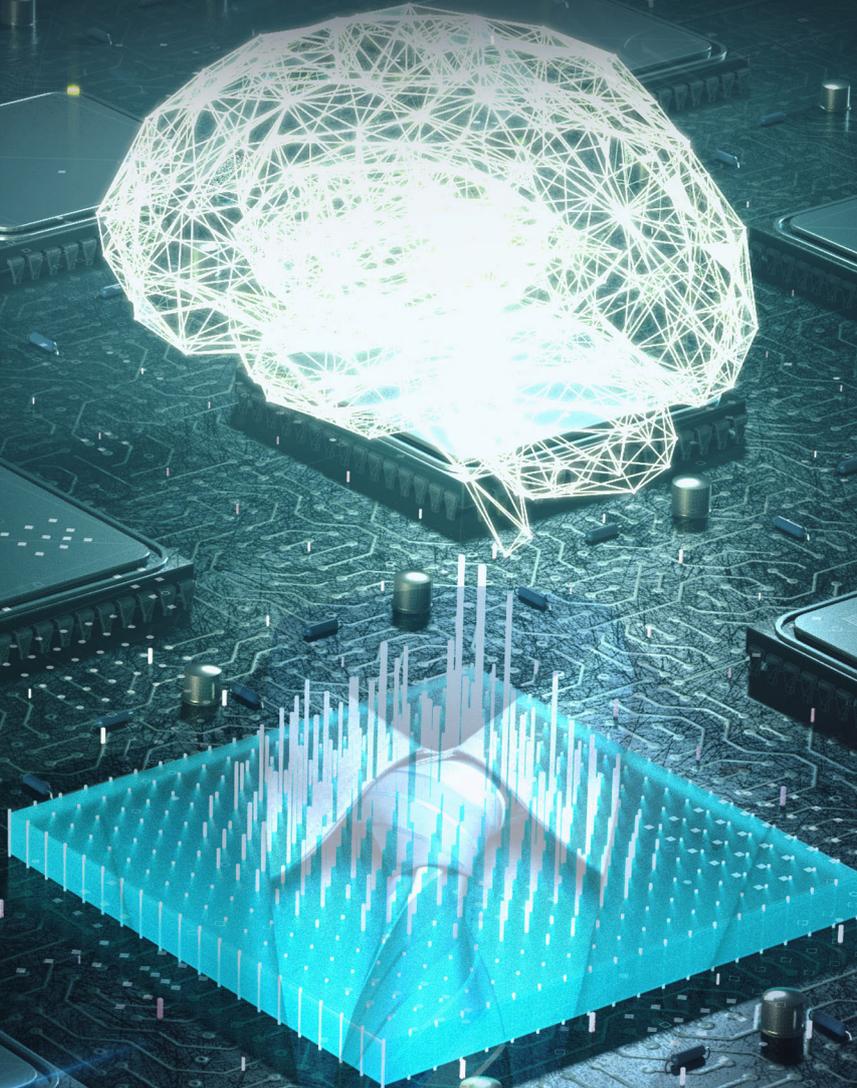




Executive Certificate Program in
**MACHINE LEARNING
FOR MANAGERS**

From IIM Raipur



TALENTEGE 

Live & Interactive Digital Learning

Program Objectives

“Machine Learning is the new SQL for Big Data”

Machine Learning is no longer just a niche subfield of computer science, but every business has now begun to leverage its capabilities for its benefit. Machine learning algorithms power Flipkart and Amazon product recommendations, ride fares at Uber, fraud detection at banks and financial institutions, content that we see on social media feeds or Google News, and much more. Machine learning products are being used daily by us, perhaps without even realizing it. The future of machine learning is already here, and its algorithms are being used everywhere, from email to mobile apps to marketing campaigns. All this makes it extremely crucial for Managers and Leaders to understand its usage and significance in the 21st century.

Hence, the Executive Certificate Program in Machine Learning for Managers specifically aims:

- To investigate problems and recommend solutions to typical issues faced in Operations and Supply Chain Management
- To express data set in visual form and interpret in business contexts
- To understand the critical roles of machine learning in today’s business context
- To learn supervised and unsupervised learning methods in the context of typical business problems
- To enable participants to have a good understanding of past data and select potential analytics and machine learning techniques to have a superior understanding of the past and more accurately predict the future
- To gain hands-on experience with R, Python, and Spreadsheet Solver

Program Benefits



Certificate of Completion from IIM Raipur

On successful completion, you will receive a certificate of completion from IIM Raipur



Practical Approach towards Learning

Knowledge imparted through hands-on exercises, discussions and case analysis to develop practical skills that can be applied to real-life scenarios



Make Data Driven Decisions

Enhance your professional effectiveness and performance by applying data driven decisions



Gain in-depth Understanding of Analytics and ML Techniques and Algorithms

Learn not only theoretical underpinnings of analytics and machine learning techniques but also gain the know-how needed to quickly understand new problems and apply techniques to solve those problems

Eligibility

For Indian Participants

Graduates (10+2+3) or Diploma Holders (only 10+2+3) from a recognized university (UGC/AICTE/DEC/AIU/State Government) in any discipline

For International Participants

Graduation or equivalent degree from any recognized University or Institution in their respective country

Work Experience

Professionals with a minimum of 2 years of work experience

Who Should Attend

- Business Managers and Department Heads who need hands on exposure to ML tools to stay abreast with the advancement in the area of analytics
- Senior Leaders who depend on inferences from analyzing complex chunks of data for effective decision making
- Business Analysts and Data Analysts who are responsible to churn through large databases and handle big data based projects
- Marketing Managers who leverage data to predict market trends
- Working Professionals and Executives looking for career growth opportunities in the area of applied Machine Learning

Pedagogy

The primary method of instruction will be through LIVE lectures that will be beamed online via Internet to student desktops/laptops or classrooms. To meet the desired objectives of the course, the pedagogical methods will include, but not limited to, live discussions on the online platform, problem solving, case analysis etc. All enrolled students will also be provided access to our SLIQ Cloud Campus through which students may access other learning aids, reference materials, assessments, case studies, projects and assignments as appropriate. Throughout the duration of the course, students will have the flexibility to reach out to the professors, real time during the class or offline via our SLIQ Cloud Campus to raise questions and clear doubts.

Syllabus

Section 1 - Foundation Module

1.1 Data Science using Excel and SPSS

- a. Basic Statistics
- b. Describing Data
- c. Inferential Statistics
- d. Hypothesis Testing
- e. Testing of Relationships

1.2 Linear and Multiple Regression using R

- a. Linear Regression
- b. Multi-Linear and Non-linear Regression
- c. Logistic Regression
- d. Neural Networks

1.3 Data Visualisation using R and descriptive analysis

- a. Normal Visualization
- b. Business Intelligence
- c. Creating Interactive Visualizations
- d. Clustering and association

1.4 Time Series Analysis and Forecasting using R

- a. Using Regression
- b. Using smoothing techniques

1.5 Decision Modeling under Uncertainty

- a. Decision Making Rules
- b. Decision Tree

Section 2 - Advanced Module

2.1 Stochastic and Markovian processes

- a. Markov and stochastic classification
- b. Markov chain
- c. Decisioning making under Markovian

2.2 Python and Machine Learning

- a. Introduction to Python
- b. Handling data using basic python datatype
- c. Reading datafiles and using Matplotlib
- d. Python packages for ML
- e. Advantages of Python in ML

2.3 Introduction to Machine Learning

- a. Supervised, unsupervised, and reinforcement learning

2.4 Classification Modeling

- a. Naïve Bayes
- b. K-Nearest Neighbors
- c. Decision Trees
- d. Logistic Regression
- e. Support Vector Machine
- f. Neural Networks (Deep Learning)
- g. Classification accuracy metrics

2.5 Ensembling and Unsupervised Learning

- a. Bagging and Boosting
- b. Random Forest

Faculty



Prof. (Dr.) Sumeet Gupta

Ph.D. (School of Computing, NUS Singapore), MBA
(NUS Business School, NUS Singapore)

Area: IT & Systems

Prof. Sumeet Gupta is affiliated as Professor in the Dept. of Information Technology and Systems at IIM Raipur. He received his Ph.D. (Information systems) as well as MBA from National University of Singapore and BE (Mining) from GEC Raipur. He has a total of 16 years of work experience in Industry, Teaching and Research, during which he worked with L&T India, The Logistics Institute-Asia Pacific, Singapore and SSGI Bhilai before joining IIM Raipur. He participated in Global Colloquium at Harvard Business School in 2015. He has held visiting faculty assignments with IIT Naya Raipur as well as Huazhong University of Science and Technology, Wuhan, China. He has been accredited by AIMA as an Accredited Management Teacher and was awarded Prof. Manubhai M Shah Memorial Award by Indian Commerce Association for the year 2017. He was also awarded President Graduate Fellowship at National University of Singapore. He has published more than 50 papers in top-ranked International Journals (DSS, Omega, P&M, I&M, IJIM, EJOR etc.) and more than 30 papers in International Conferences (ICIS, ECIS, PACIS, AMCIS, AOM, POMS etc.) and his publications count exceed 100. He has also edited two books in the area of Humanitarian Logistics and Supply Chain. His research interests include Electronic Governance, E-Commerce and Business Analytics. He has conducted several consultancy projects with both Private and Govt. bodies in India and abroad and has conducted many training programs.



Prof. (Dr.) Mohit Goswami

Ph.D. (IIT, Kharagpur), M.S. (Missouri University of Science and
Technology, Missouri USA)

Area: Operations and Quantitative Methods

Prof. Mohit Goswami is a unique amalgam of academics and industry. Prof. Goswami, prior to joining academia, was associated with global fortune 500 manufacturers/groups including Caterpillar Inc. (Decatur, Illinois, USA), Tata Motors Ltd. (Pune and Jamshedpur) and Tata Hitachi Construction Machinery Co. Ltd. (Jamshedpur) in various engineering and technology management roles. At IIM Raipur, he teaches courses both at MBA and PhD programs. His research interests include new product development, supply chain design, product line management, risk modeling in supply chain. His research has been published in reputed journals such as International Journal of Production Research, Journal of Intelligent Manufacturing, International Journal of Advanced Manufacturing Technology, etc. He is one of the select few individuals whose Ph.D. at IIT Kharagpur got awarded in around 2 years 6 months' time. He is currently heading the working executive PGP program at IIM Raipur.

Faculty



Prof. (Dr.) Gopal Kumar
Ph.D. (IIT Kharagpur), M.Tech. (IIT Kharagpur)
Area: Operations & Quant. Methods

Prof. Gopal Kumar is an Assistant Professor of Operations Management at the IIM Raipur. He received his Ph.D. in supply chain collaboration from IIT Kharagpur. He carried postdoctoral research at Dublin City University (DCU), Ireland where he worked on facilitating easy access of advanced predictive modelling for improving productivity of SMEs in Europe in collaboration with various European SMEs—Ceramicx Ireland, Vistakon, ICMR—and University of Edinburgh, UK. He also has experience in ERP development. Based on open source philosophy, he developed a commercial tool, for European Union, which largely streamlined the expertise and time required for predictive modelling along with process optimization. His research articles are published in various prestigious peer reviewed journals. He presented his research work at several globally recognized Operations and Supply Chain Management forum. His primary research interests include supply chain collaboration, sustainable and green supply chain collaboration, sourcing, product-service system, big data analytics, business process automation, and information technology application in improving and optimizing operations of SMEs.

Assessment & Certification

Evaluation methodology is the discretion of the faculty. A minimum of 70% attendance is a prerequisite for the successful completion of this program. The program may require participants to work on individual/group assignments and/or projects. The main objective of such assignments/projects will be to help the participants apply their conceptual learning in the program to actual real time scenarios. Assessment and evaluation will be done based on Quizzes with a 70% weightage and Assignment and presentation with 30% weightage.

Participants who successfully complete the same and satisfy the requisite attendance criteria, will be awarded a certificate of completion. Participants who are unable to clear the evaluation criteria but have the requisite attendance will be awarded a Participation certificate.



About IIM Raipur



Indian Institute of Management (IIM) Raipur was set up by the Government of India, Ministry of Human Resource Development in 2010 at Raipur, the capital of Chhattisgarh.

Ranked 19th amongst B-Schools in India by Govt of India MHRD-NIRF Rankings 2019, IIM Raipur offers flagship 2 years full-time Post-Graduate Program in Management (MBA) as well as the Post Graduate Program in Management for Working Executives (PGPMWE). IIM Raipur believes in preparing ethical leaders who are not only committed to business, commerce and industry but are also socially conscious towards their contribution in nation-building and bring in name for the country globally. IIM Raipur is also committed to excellence in research and has a strong doctoral (Ph.D.) program along with a supportive ecosystem promoting research within the faculty fraternity.

IIM Raipur has strong international collaborations for student exchange programs with prominent universities and institutes in 13 countries across the globe including Australia, Chile, Germany, France, Greece, South Korea, Mexico, New Zealand, Austria, Peru, Russia, Slovakia and Thailand.

IIM Raipur Online also offers consulting services to design and implement policies, systems and processes in functional and cross-functional areas of business. Besides, regular in-campus and in-company training programs are conducted by IIM Raipur faculty members for supporting industry requirements.

IIM Raipur started functioning out of its sprawling new campus in Atal Nagar, Raipur from 2018. The new campus spread over 200 acres is a state-of-the-art campus offering a blend of modern architecture, culture and heritage of Chhattisgarh.

Program Details

Program Commencement 20 June 2021

Schedule of Classes Sundays from 02.00 p.m. to 05.15 p.m. IST (3 Hrs)

Duration 5 months

Program Fees

For India Residents INR 75,000 + GST

For International Residents USD 1700

For More Details

Visit: www.talentedge.com

Write to - enquiry.dtd@talentedge.in or **call at** + 91 - 8376000600

