IIM RANCHI
बहुमुखविकासो गन्तव्यः

EXECUTIVE CERTIFICATION PROGRAMME IN

BUSINESS ANALYTICS AND AI FOR ASPIRING MANAGERS

FROM IIM RANCHI

About IIM Ranchi

The Indian Institute of Management Ranchi (IIM Ranchi) is a nationally recognised management school that develops ethically grounded, innovation-minded leaders through a blend of rigorous academics, applied research, and industry partnerships. The institute emphasises experiential learning, multidisciplinary perspectives, and entrepreneurship to prepare graduates for complex, global business challenges.

Key Highlights:

- **NIRF 2025:** Ranked 18th nationally, reinforcing IIM Ranchi's position among India's top management institutions.
- **Entrepreneurship & Social Impact:** Drives innovation and social responsibility through E-Cell, initiatives, and collaborations supporting Jharkhand's start-ups.
- **Future-Focused & Multidisciplinary:** Offers NEP-aligned multidisciplinary learning integrating analytics, HR, policy, and strategy for future-ready leadership.
- **Research & Global Outlook:** Strengthens thought leadership through research centres and international collaborations, shaping globally aware, analytical managers.



Why Choose This Course?

- **Prestigious Certification*:** Receive a Certificate of Completion from IIM Ranchi, validating your Business Analysis expertise and strengthening your professional credibility.
- **Future-Proof Career Gateway:** Launch a high-growth career in Business Analytics skills that leading companies actively seek.
- **Case-Based Learning:** Engage in case-driven sessions that bridge the gap between theory and real product challenges, from feature design to growth optimisation.
- **Industry Relevant Tools:** Build proficiency in industry-standard analytics tools — Python, SQL, Power BI, Tableau, and Excel — used by top data-driven organisations.
- **Hands-On Projects:** Build end-to-end analytics and AI case studies, including business dashboards, analytical reports, data interpretation exercises, and AI-enabled decision scenarios that demonstrate practical managerial insight and strategic impact.
- **Placement Assistance:** Eligible students will receive 1 year of placement assistance, along with resume review and interview coaching sessions facilitated by Masai. (Eligibility: 75% live attendance & overall 70% marks)

**Certificate Eligibility: Minimum 70% overall attendance and 40% marks in cumulative evaluations score.*

What Will You Learn?

This programme equips managers with strategic foundations in business analytics and AI to enable data-driven decision-making. Participants learn to interpret analytical insights, oversee responsible AI use, communicate findings through effective storytelling, and lead analytics initiatives that support digital transformation and sustainable business value across organizations

Toolkit

python™ tableau SQL

Course Details

Course Duration 6 Months	**Time Commitment** 8-10 hours per week	**Certification** From IIM Ranchi

Course Curriculum

Module 1: Data Management, SQL & Python for Analytics

This module introduces managers to how data is stored, integrated, and accessed within organisations. Participants gain a conceptual understanding of databases, data warehouses, and data lakes, along with hands-on exposure to querying data using SQL and Python. The emphasis is on asking the right questions of data, understanding query logic, and interpreting outputs rather than becoming programmers. Participants also see how ETL and integration tools support analytics workflows.

Module 2: Data Understanding, Preparation & Governance

This module focuses on the often-overlooked foundations of analytics success—data quality, structure, and governance. Participants learn how business questions translate into data requirements, how poor data quality affects insights, and how features are conceptualised from a managerial perspective. The module also addresses ethical use of data, privacy regulations, and governance frameworks, enabling participants to balance innovation with responsibility and compliance.

Module 3: Data Visualisation & Storytelling for Managers

This module develops the ability to convert analysis into insight and insight into action. Participants learn principles of effective data visualisation and how dashboards support managerial decision-making. Through demonstrations using Power BI, Tableau, and Python, the module shows how to design dashboards that highlight trends, comparisons, and anomalies. Special focus is placed on storytelling—how managers can frame insights, avoid misleading visuals, and communicate recommendations clearly to stakeholders.

Module 4: Business Analytics & AI for Managers

This module provides a strategic foundation for understanding how analytics and AI create business value. Participants explore how organizations use data to build competitive advantage, enable digital transformation, and design new digital business models. The module clarifies the differences between traditional analytics and AI, introduces analytics and AI maturity models, and highlights leadership responsibilities in driving data-driven change. Emphasis is placed on accountability, governance, and cultural readiness so that managers can lead analytics initiatives responsibly and effectively.

Module 5: Managerial Statistics &Quantitative Thinking

This module develops the statistical intuition required for effective managerial decision-making using Excel, Python, and Generative AI tools. Instead of emphasising mathematical derivations, the focus is on interpretation, analytical judgment, and business relevance. Participants learn to summarise and visualise data, understand variability and uncertainty, test hypotheses, and distinguish correlation from causation. Regression analysis is introduced as a decision-support tool, with Excel- and Python-based illustrations and GenAI-assisted interpretation to help managers draw meaningful, actionable insights from data while retaining oversight and validation.

Module 6: Machine Learning for Business – Foundations

This module demystifies machine learning for managers by connecting models directly to business problems. Participants learn how predictive and prescriptive analytics differ from descriptive analysis and how business objectives translate into ML tasks. Core concepts of supervised and unsupervised learning are introduced, including regression, classification, clustering, and recommendation systems. The focus is on understanding model outputs, limitations, and business implications rather than technical model building.

Module 7: Advanced Analytics, AI Applications & Leadership

This module expands the managerial lens to advanced AI applications such as deep learning, natural language processing, and generative AI. Participants explore how AI systems move from prediction to prescription and how organisations operationalise AI at scale. Critical issues such as explainability, bias, trust, and governance are discussed in depth. The module concludes with a leadership perspective on AI strategy, innovation, and sustaining competitive advantage in an AI-driven economy.

Module 8: Campus Immersion

The campus immersion module provides an integrated learning experience that consolidates concepts from across the programme. Through discussions, demonstrations, and interactions, participants reflect on how analytics and AI can be applied within their own organisational contexts. This module strengthens peer learning, reinforces strategic thinking, and helps participants develop an actionable roadmap for applying programme insights after completion.

Projects

PDP Conversion Critique & A/B Test

Blinkit's ops director sees the sub-10-minute delivery compliance rate dropping in Mumbai and Bengaluru. Using the public quick-commerce dataset, you build a Python notebook that segments delivery times by hour, dark-store cluster, and product category, identify the top 3 bottleneck patterns, and ship a Power BI dashboard for the regional ops review.

Decision Output: Bottleneck diagnosis with three prioritised, defendable fixes for the regional ops review.

Performance-Marketing Optimisation

Zepto's category leads need an SKU-level demand forecast for the next four weeks for festive planning. You build a Python forecasting pipeline (Prophet or ARIMA), validate with backtesting, deploy as a Streamlit app, and write a model card explaining accuracy bounds, drift risks, and limitations — the kind of work that gets you past the senior-analyst interview round.

Decision Output: Four-week SKU demand forecast that category planning can defend against last year's actuals.

Programme Directors



Prof. Rajeev Ranjan Kumar
Assistant Professor, Operations Management, IIM Ranchi

Prof. Rajeev Ranjan Kumar is a unique blend of academics and industry. Prior to joining the academia, Prof Kumar was associated with Tata Motors and had around seventeen years of industrial experience in various fields of operations like quality management systems, supply chain management, project management, new product introduction, six-sigma implementation, world-class quality transformation, and so on. Prof Kumar is a fellow of XLRI-Jamshedpur and has awarded with XLRI medal for outstanding FPM student. His research interest includes electric and autonomous vehicles problems, supply chain design, sustainability, blockchain, and big data analytics. His research has been published in reputed journals like Transportation Research Part E, Energy Economics, Journal of Operations Research Society, Energy, Journal of Cleaner Production, etc.



Prof. Ranit Sinha
Assistant Professor, Operations Management, IIM Ranchi

Prof. Ranit Sinha is an Assistant Professor in Operations Management at the Indian Institute of Management Ranchi. His expertise spans supply chain modelling, operations research, and operations management, with prior industry experience at PwC, KPMG, Huawei Technologies, and TAL Group. He holds a PhD from IIM Kozhikode, an MS in Supply Chain Management from the University of Luxembourg, and an MBA in Finance from the Chinese University of Hong Kong. His research interests include supply chain modelling, circular economy, and sustainable supply chain practices.

Due to the evolving nature of the industry expectations and partner institute feedback, some syllabus aspects may change. Any updates will be communicated during the Inauguration Session(s) or at the start of the relevant module". The project deliverables or case studies for your batch may differ, as per the decision of the Institute or Course Faculty

Admission Process

Submit Application
Complete application form to showcase your motivation and goals

Complete Selection and Enrolment Session
Only shortlisted candidates go through the counselling process

Start Learning
Learn from India's top educators and stand out from the crowd

Fees Structure

Application Fee (Non-refundable)	**₹100**
Registration Fee	**₹4,000**
Program Fee	**₹66,000**
Total Fee	**₹70,000** + GST

Pay Your Preferred Way

Upfront Payment
Pay once, save more
₹78,600*

Pay In Parts
Instalment 1 **₹35,000**
Instalment 2 **₹43,600**

EMI via NBFC Partners
₹14,672*
per month x 6

**Inclusive of GST*

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