



Executive Certificate Program in  
**Supply Chain Analytics and Management**

Program by  
**IIM MUMBAI**



as per THE Impact  
Rankings (India) 2022



as per IIRF  
Rankings 2023



as per Management  
Category By  
NIRF Rankings 2023



Marketing Partner

**jaro education**



## Navigate the Future of SCM: Market Insights

***“By 2026, more than 75% of commercial SCM application vendors will deliver embedded Advanced Analytics (AA), Artificial Intelligence (AI), and Data Science”***

*\*Times of India*

***“In India, the SCM Industry is expected to reach 32.5 billion at a CAGR of 12.9%, by 2025”.***

***“57% of companies believe that supply chain management gives them a competitive edge”.***

*\*ACSM Houston*

***“The Global Supply Chain Analytics market is poised to grow at a CAGR of 17.8% from 2023 to 2030”.***

*\*Grand View Research*



*“World Economic Forum (2016) claimed that the digital transformation of the global logistics sector could translate into a value of US\$ 1.5 trillion for the participants and an additional US\$ 2.4 trillion worth of societal benefits by 2025.”*

*“The logistics sector in India is predicted to account for 14.4% of the GDP. A significant factor fueling this growth is expected to stem from the burgeoning logistics sector in India, a critical lifeline for numerous industries and currently employing a workforce of 22 million individuals. As of 2021, the estimated value of India's logistics industry stood at US\$ 250 billion, and market forecasts indicate a remarkable trajectory, with expectations of reaching an impressive US\$ 380 billion by 2025. This expansion is anticipated to be sustained at a robust year-on-year growth rate of 10% to 12%.”*

*\*IBEF*



# Why Pursue Career in Supply Chain Management



Supply Chain 4.0 represents a significant shift in the way businesses manage their logistics and inventory processes. It is characterized by speed, flexibility, granularity, and accuracy, all driven by the integration of cutting-edge technologies like the Internet of Things (IoT) and Artificial Intelligence (AI). These technological advancements are reshaping key aspects of supply chain management, including inventory control and manufacturing, leading to transformative changes. The impact of Industry 4.0 on Supply Chain Management (SCM) cannot be overstated, with estimations suggesting potential savings of up to 30 percent in transport and warehousing costs and an astonishing 80 percent reduction in administration expenses.

In parallel, the job market landscape is evolving rapidly. According to LinkedIn's Workforce Confidence Index, a significant 64 percent of Indian professionals are actively considering upskilling themselves to stay competitive in an increasingly challenging job market. Companies are now prioritizing highly skilled individuals over those with traditional qualifications. Recognizing this shift, many universities in India and around the world have revamped their logistics and supply chain programs to equip executives with the knowledge and skills needed to navigate the evolving industry landscape and stay ahead of emerging trends. This shift in education aligns with the changing demands of the industry and emphasizes the importance of staying current in an era defined by Supply Chain 4.0.



# SCM Technology Trends: 2023



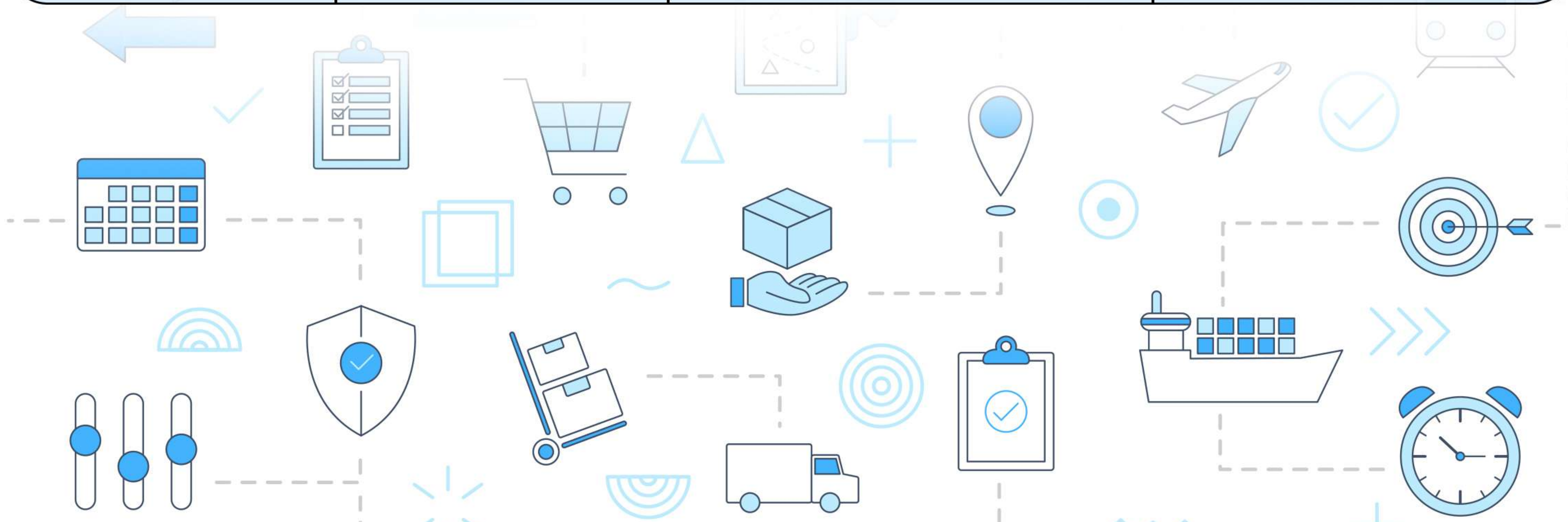
Gartner.





## Projected Career Trajectory in SCM

Career Level	Profiles	Responsibilities	Key Skills
Entry Level	Procurement Assistant	Assist with purchasing, supplier communication, and order processing.	Data analysis, attention to detail, communication skills.
Junior Level	Inventory Coordinator	Manage inventory levels, track shipments, and optimize stock levels.	Inventory management, data analysis, problem-solving.
Mid-Level	Supply Chain Analyst	Analyze supply chain data, forecast demand, and identify cost-saving opportunities.	Data analytics, demand forecasting, cost analysis.
Senior Level	Supply Chain Manager	Oversee supply chain operations, optimize processes, and lead a team.	Leadership, process optimization, project management.
Managerial Level	Director of Supply Chain	Set strategic direction, manage budgets, and ensure supply chain efficiency.	Strategic planning, financial management, leadership.
C-Level	Chief Supply Chain Officer/Vice President	Develop and execute supply chain strategies, that align with organizational goals.	Strategic leadership, global supply chain management.





# Top Career Profiles in the Supply Chain Industry



\*6figr



# Top-Rated Challenges Faced by Supply Chain Professionals in 2023



**57%**

Hiring and Retaining  
Qualified Workers



**56%**

Talent  
Shortage



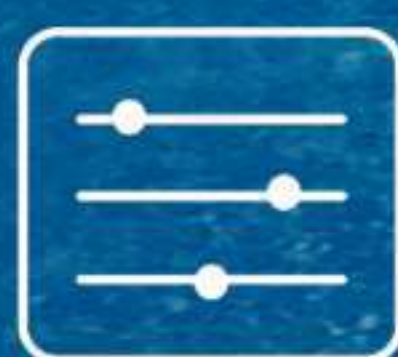
**54%**

Supply Chain  
Disruptions or  
shortage



**52%**

Out-of-Stock  
Situations



**52%**

Customer Demands  
For Customization

\*MHI and Deloitte Report, 2023



## Program Overview

As the competition between businesses to satisfy the needs of the customers is sloping upwards, the need to integrate the supply chain with today's problem-solving technologies has become essential. So, to equip seasoned professionals with the right knowledge and skills at the right time, IIM Mumbai (NITIE) has designed an Executive Certificate Program in Supply Chain Analytics and Management. This program covers the most integral aspects that are currently required in the industry such as the application of digital technologies and analytics, critical SCM tools, etc., with the help of case studies, projects and assignments.

## Program Highlights



**Live Interaction with Academic and Industry Experts**



**Application of Digital Technologies and Analytics**



**Special Hands-on Sessions**



**3 Days Campus Immersion**

**Executive Alumni Status**



**Opportunity to Work on Real-life Industry Projects**



**Rigorous Pedagogy**





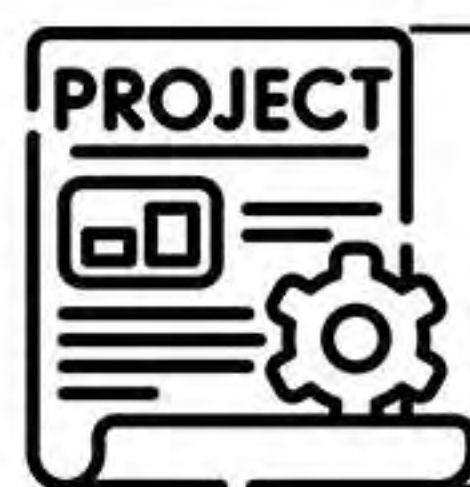
## Methodology



Online Assessment



Assignments



Capstone Project Presentations

Note: A minimum of 75% attendance is a prerequisite for the successful completion of this program. The participants will have to secure the minimum passing marks in the evaluation components specified by the faculty.

## Admission Criteria

- ◆ Selections will be based on a detailed profile of the candidate in his own words elaborating his Academic record, Profile, Designation, Salary, Roles, Responsibilities, Job Description, and a write-up on **“Expectations from the Program”**.
- ◆ A short test might be conducted to test the aptitude of the participants.





# Program Content

## Module 1

Course Title	Sub-topics
Operations Management	<ul style="list-style-type: none"> <li>The Strategic Role of Operations, Major Operations decisions, Concept of a product-process matrix, and Process choice</li> <li>Demand Forecasting, Introduction to Inventory Planning</li> <li>Aggregate Production Planning, Material Requirements Planning, and Operations Scheduling</li> </ul>
Inventory Planning and Management	<ul style="list-style-type: none"> <li>Introduction to Inventory Management, ABC Analysis, XYZ Analysis, VED Analysis, FSN Analysis – applications to various industries/sectors</li> <li>Deterministic Inventory Models: EOQ, Quantity Discounts, EPQ, Shortage</li> <li>Dynamic Inventory Models: Wagner-Whitin Model, Other Heuristics, Multi echelon inventory models and heuristics</li> <li>Probabilistic Inventory Models – Multi-period and single period, Application of newsvendor problem, Multi-period stochastic models with backlogging and lost sales</li> </ul>
Statistics for Management	<ul style="list-style-type: none"> <li>Scales of measurement, Descriptive Statistics, Basic data visualization tools</li> <li>Random variables, Probability, Probability Distributions</li> <li>Sampling, Distribution of Sample Mean, Central Limit Theorem</li> <li>Estimation and Confidence Intervals</li> <li>Hypothesis testing, Tests for Mean and Variance for 1-sample and 2-sample</li> </ul>
Supply Chain Management	<ul style="list-style-type: none"> <li>Introduction to supply chain management, Parameters in supply chain management context</li> <li>Supply chain integration, Role of IT in SCM</li> <li>Bullwhip effect in the supply chain, Role of inventory management in the supply chain, Trade-off analysis in supply chains</li> <li>Transportation in supply chain networks, Transportation models Evaluation and Analysis, Location decision in supply chains</li> </ul>



# Program Content

Module 1	
Course Title	Sub-topics
Demand Planning and Forecasting Techniques	<ul style="list-style-type: none"><li>• Forecasting decisions, Analysis for – Trend, Seasonality, Cyclic, and Randomness</li><li>• Qualitative Forecasting Models</li><li>• Quantitative Forecasting Models</li><li>• Time series analysis</li><li>• Forecasting errors and Tracking signals</li></ul>
End Module Examination	





## Program Content

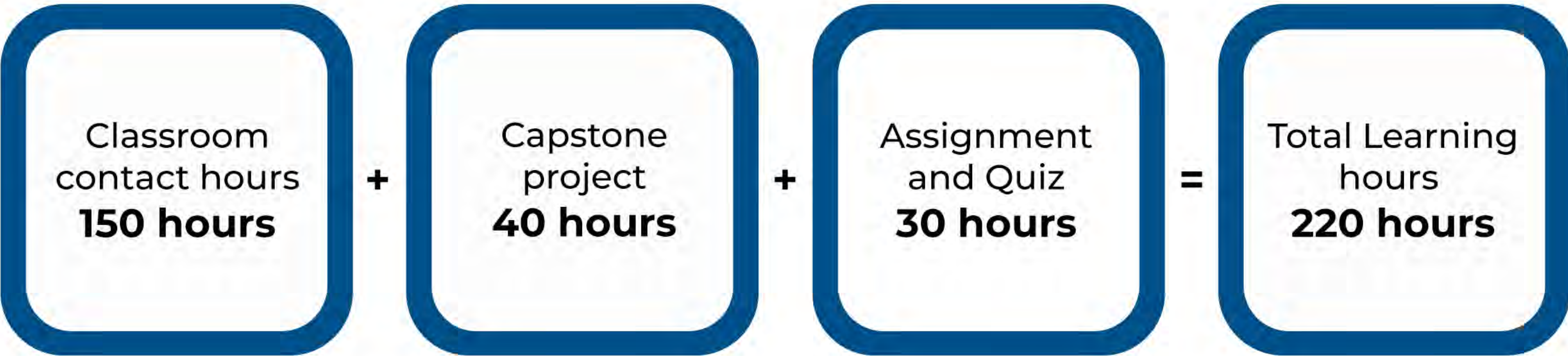
Module 2	
Course Title	Sub-topics
Supply Chain Finance	<ul style="list-style-type: none"> <li>• Introduction to Supply Chain - Collaborative Supply Chain, Financing Operations and Inventory Supply Chain Efficiency and Firm Performance</li> <li>• Trade Cycle Analysis - Estimating Working Capital in Manufacturing Vs. Trading Firm</li> <li>• Review of Bank Finance, Trade Finance, and Instruments of Finance, Analysis of Firm Performance and Its Relevance to Supply Chain Finance. Supply Chain Content</li> <li>• Finance Options - Institutional Finance Vs. Instruments, Trade Finance. Supply Chain Finance in a Global Setting – Financing Foreign Trade, Understand the Forex Risk</li> </ul>
Economics for the Operations and Supply Chain Management	<ul style="list-style-type: none"> <li>• Understanding the Market Environment for Supply Chain Management</li> <li>• Demand Supply and Elasticity</li> <li>• Market Structure</li> <li>• Cost Structures</li> <li>• Demand Elasticity and Price Structure</li> <li>• International Trade in Supply Chain</li> </ul>
Global Logistics and Compliance	<ul style="list-style-type: none"> <li>• Importance of Global Logistics in a contemporary setting, Modes for global logistics – ocean, air, pipeline, road, rail</li> <li>• Detailed infrastructure analysis and Logistics network cost analysis</li> <li>• Financial decisions in Global logistics - Owning vs outsourcing, Service level optimization</li> <li>• Compliance – Documentation, Customs, Taxes, waste management, carbon footprint</li> </ul>
AI and Machine Learning in Supply Chain	<ul style="list-style-type: none"> <li>• Introduction to Data Science and AI and ML</li> <li>• Application of AI tools and ML tools for specific functions like forecasting, inventory allocation, etc.</li> </ul>



Program Content

Module 2	
Course Title	Sub-topics
	<ul style="list-style-type: none"><li>• Use of advanced tools using image and text mining</li><li>• Integrating different tools for end-to-end supply chain analytics</li></ul>
Industry 4.0 Technologies	<ul style="list-style-type: none"><li>• What is Industry 4.0 (Fundamentals), the evolution of Industry revolutions, Introduction to terms and terminologies – IoT, smart manufacturing, Modular design, 3D printing, Strategic view of Industry 4.0</li><li>• Product family design and analysis for Industry 4.0, Modular design</li><li>• Smart manufacturing and 3D printing</li><li>• IoT, Cyber-physical systems, Next-Gen systems</li><li>• Building a strategic roadmap for Industry 4.0, What next – Industry 5.0</li></ul> <p>*Demo software to be explored.</p>
	Mini Project
End Module Examination	

Module 3
Project





## Pedagogy



## Key Learning Objectives

- Comprehend the importance of operations and supply chain management decisions in developing a business strategy for a firm.
- Gain foundational knowledge in operations and supply chain management and its core pillars, including logistics management, operations management, and international trade and logistics.
- Get well-versed with the knowledge of critical operations and supply chain management issues and tools vital in analyzing supply chain decision problems in the era of Industry 4.0, AI-ML, Digital Twins, etc.





# Program Details

Duration	<ul style="list-style-type: none"><li>11 Months</li></ul>
Mode	<ul style="list-style-type: none"><li>Blended Mode (Live Online + Campus Immersion)</li></ul>
Eligibility	<ul style="list-style-type: none"><li>Graduate (10+2+3) with at least two years of work experience in the industry or any other field experience. (Minimum 50%)</li><li>Diploma (10+2+3) holders with at least three years of experience. (Minimum 50%)</li></ul>
Session Timings	<ul style="list-style-type: none"><li>Classes: Sunday from 2:00 pm to 5:00 pm</li><li>Learning Hours: 03 hours per week, 03 modules, and one field project</li><li>Weekend engagements: 12 hours per month</li></ul>
Commencement Date	<ul style="list-style-type: none"><li>22<sup>nd</sup> January 2024</li></ul>
Application Closure Date	<ul style="list-style-type: none"><li>15<sup>th</sup> January 2024</li></ul>
Campus Immersion	<ul style="list-style-type: none"><li>Campus Immersion will be of 3 days (towards the end of the program)</li></ul>

Note:  
The campus immersion will be held at the end of the program.  
The travel + stay + food has to be borne by the participants.





# Program Fee Details

Fee Structure	
Particulars	Amount
Application Fee	INR 1,000/- + GST
Total Fee (excluding application fee)	INR 1,40,000/- + GST

Instalment Pattern	
Particulars	Amount
Instalment 1	INR 80,000/- + GST as per the offer letter
Instalment 2	INR 60,000/- + GST April 10, 2024

Note: The above fee is exclusive of GST







# Indian Institute of Management Mumbai

AWARD THIS CERTIFICATE TO

**NAME**

in recognition of the Executive Certificate Program in

**“Supply Chain Analytics and Management”**

Organized and conducted by the Institute during the period  
DD/MM/YYYY - D/MM/YYYY



**Course Co-Ordinators**

**Director**

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





## Message from Director



**Prof. Manoj K Tiwari**  
Director, IIM Mumbai (NITIE)

**Dear Aspirants,**

The IIM Mumbai erstwhile known as NITIE retains its legacy of solid Industry connections and offers courses blending contemporary management techniques evolving with emerging needs in the market. I am pleased to announce that IIM Mumbai will launch online Executive Programs using digital platforms for working executives across contemporary management disciplines.

In this era of hyper-competition and churning market dynamics, one must constantly upgrade skills in the recent management tools and techniques and be knowledgeable with the current ideas to remain relevant in the market. IIM Mumbai provides this opportunity by offering the most up-to-date online executive courses embracing recent concepts and techniques in management disciplines.

I invite you all to leverage the opportunities that IIM Mumbai will offer by enrolling in the courses, growing in your career by upskilling your knowledge base, and being ready for the market's current and future demands.





## Message from Dean SRIC



### **Prof. Vivekanand B. Khanapuri**

B.E. (Mechanical), M.B.A., Fellow of NITIE (Equivalent to Ph.D.)  
Professor & Dean (Sponsored Research & Industrial Consultancy)  
Operations and Supply Chain Management, IIM Mumbai (NITIE)

The IIM Mumbai (NITIE), with sixty years in Executive Education and Industrial Consultancy, is glad to launch online executive programs leveraging digital platforms to provide opportunities for different layers of cross sections of industry executives and be future-ready by leveraging the contemporary bodies of knowledge in analytics, supply chain, and sustainability.

As individual and corporate executives, you need to sharpen your skills and propel your careers on a fast track. I urge you to leverage the opportunities offered by the Institute.

**My best wishes in your endeavor for your career growth.**





## Know The Facilitators



### **Prof. Rakesh D. Raut**

Associate Professor,  
IIM MUMBAI (NITIE)

Prof. Rakesh D. Raut is an accomplished Associate Professor at IIM Mumbai (NITIE) with a rich academic background. He holds a Post Doctorate from EPFL, Switzerland, specializing in Operations and Supply Chain Management. He earned his M.Tech. and B.E. degrees in Mechanical and Production Engineering from Nagpur University, respectively. Recognized as one of the top 2% scientists globally by Stanford University, he has also received numerous awards for his exceptional research contributions, including the prestigious the Best Research Paper Awards.



### **Prof. Ravindra S. Gokhale**

Associate Professor,  
IIM MUMBAI (NITIE)

Prof. Ravindra S. Gokhale holds a B.E. in Production from Mumbai University, an M.Tech. in Industrial Engineering and Operations Research from IIT Bombay, and a Ph.D. from the Indian Institute of Science. His research focuses on Production Planning and Control, as well as Transportation Logistics. He received the Indian Economic Association Medal and the M.N. Gopalan Award for his exceptional Ph.D. thesis. Prof. Gokhale has contributed to numerous publications in reputed journals, exploring various aspects of supply chain management and production optimization.



## About IIM Mumbai

IIM Mumbai erstwhile known as NITIE established in 1963 by the Government of India with the assistance of the United Nations Development Project (UNDP) through the International Labour Organization (ILO), is one of the leading institutes for Management education. IIM Mumbai, a pioneer in Industrial Management, has been positioned 7th amongst management schools in India by the National Institutional Ranking Framework (NIRF) in 2023.

The institute aims to advance transformative education and industry-inspired research in different domains. With a focus on boosting Indian businesses globally, IIM Mumbai acts as a catalyst in the manufacturing and dynamic sectors of the Indian economy, aligning its vision with the nation's evolving needs.



# IIM MUMBAI



# Career Assistance

## Profile Building

Rigorously building the candidate’s profiles and resume scrutinizing with their LinkedIn profiles. Jaro Education enables personalised feedback to boost overall virtual presence.

## Resume Review

Moving forwards with carefully curated resumes reviews that ensures you are interview-ready for the workplace of tomorrow.

## Placement Assistance

Get Career assistance as per the profile and preferences. On an average, get 5-6 job recommendations to enhance quality employment opportunities.

## Career Enhancement Sessions

Bridging connectivity to link the best talent with organizations through eminent sessions from top-class industry speakers.

## Top Companies and Profiles Onboarded by Jaro Education for Interview Opportunities



Internal Auditor

Branch Manager

Area Manager

Import Coordinator

Shift Manager



Operations Role

Hub Manager

Warehouse In-charge

Logistics Manager

Manager Finance & Accounts

### Note:

- All company names are trademarks or registered trademarks of their respective holders. Use of them does not imply any affiliation with or endorsement by them.
- Past performance records do not guarantee any future opportunities and the above list is partial.
- IIM Mumbai or Jaro Education do not guarantee or promise you a job or advancement in your existing position. Career Services is simply provided as a service to help you manage your career in a proactive manner. Jaro Education provides the Career Services described here. IIM Mumbai is not involved in any way with the Career Services described above and offer no commitments.



## About Jaro Education

**“INDIA’S MOST TRUSTED**  
ONLINE HIGHER  
EDUCATION COMPANY”

**1000+**

Corporate Associations

**3,00,000+**

Careers Transformed

**2009**

Enhancing Career Since



**2022**  
EdTech Leadership Award



**2022**  
National Best Employer Accolade



**2019**  
Economic Times Award



**2018**  
ABP Education Award



**2017**  
Modi Award

Jaro Education has been India’s most trusted online higher education company and a pioneer in the Executive Education space since July 2009. The company aims to nurture entrepreneurs and working professionals from entry-level to C-suite levels in every field and industry by providing executive programs that meet their needs and requirements.

IIM Mumbai (NITIE) is associated with Jaro Education for promotion and admission support for its highly valuable and industry-oriented executive certificate programs.

## Get in Touch with Our Program Expert

Mr. Mrinal Modak

 **9769395935**

 **mrinal.modak@jaro.in**

 **www.jaroeducation.com**

## Jaro Education’s Presence

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Chandigarh | Hyderabad | Jaipur | Kolkata | Mumbai | Nagpur | Pune