

Executive Development Programme in

# ADVANCED SUPPLY CHAIN MANAGEMENT & ANALYTICS

# About IIM Kashipur

The Indian Institute of Management Kashipur is set up with the mission to drive academic excellence using innovative teaching methods, promoting research and practice of sustainable leadership. The institute commenced operations in July 2011 with a vision to become, over the next 10 years, one of the top business schools in India developing leaders who can perform globally. The fraternity diligently follows the core values of mutual respect, lifelong learning, the pursuit of excellence, transparency, and integrity.

The flagship program of the institute are Master of Business Administration (MBA) and Master of Business Administration (Analytics) which are full time, two-year residential programs. The institute also offers a two-year weekend Executive Master in Business Administration (M-BA-WX) for working executives. Doctoral Program - PhD and Executive Fellow Program (EFPM) are the two doctoral programs launched in 2015 and 2014 respectively. The faculty at IIM Kashipur represents one of the best mixes of academic and industrial experiences.



# About VALUE VIDYA

Value Vidya is one of the leading Ed-Tech startups in India. We partner with top IIMs and global business schools to curate and deliver the best and most relevant executive programs for working professionals. We deliver best-in-class service to our students, which is accomplished by our constant focus on quality, integrity, consistency and customer focus. Our state-of-the-art Learning Management System (LMS) ensures a smooth and high quality learning experience for professionals. Learn from anywhere and take your career to the next level with Value Vidya.

We carefully trace the needs of individuals and organizations in the light of changing and evolving industrial landscape, referring to our study & meticulously craft courses in association with Premium Institutes and the brightest minds of the nation, to deliver them to working professionals and fresh graduates who are willing to adapt to the change. The network of Nulearn extends across an array of India's most prestigious academies astride a slew of collaborations with top-notch institutions including the Indian Institute of Management. Courses from premium institutes are delivered through our plug-n-learn technology during weekend with little or no disruption to work schedules.

# About the Program

Commodity volatility, changing demand forecasts, and supplier-specific challenges have affected nearly every organization—including those with the leading managed supply chains in the world. Even top supply chain performers have faced embarrassing stock-outs during periods of unanticipated demand in recent years. A big reason for this kind of underperformance is the fact that supply chain visibility and analytical models are typically grounded in hindsight. Making decisions based only on what happened in the past no longer provides competitive advantage. Supply chains typically generate massive amounts of data. Supply chain analytics helps to make sense of all this data — uncovering patterns and generating insights. Supply Chain Analytics aims to improve risk management by identifying known risks and predicting future risks based on patterns and trends throughout the supply chain, increase planning accuracy by analyzing customer data, improve order management by consolidating data sources to assess inventory levels, predict demand and identify fulfillment issues, streamline procurement, and increase working capital. It encompasses virtually the complete value chain: sourcing, manufacturing, distribution and logistics

The Executive Programme in Supply Chain Management & Analytics for executives is designed to impart skills that are necessary in today's dynamic world of supply chain management. Moreover, this programme will equip participants with the competencies in terms of improve forecasting, identify inefficiencies, respond better to customer needs, drive innovation and pursue breakthrough ideas. After completion of this programme, participants are expected to have real-time analysis based on interpretation of the data, better decision-making capabilities, and understanding of supply chain intelligence to avoid disruptions while supporting new business models. The programme uses different pedagogical tools such as case studies, optimization problems, and exercises to best deliver the course content.

The programme aims to impart analytical and problem-solving skills necessary to develop solutions for a variety of supply chain management and design problems and develop an understanding for use of information technology in operations & supply chain optimization. The programme highlights how supply chain can make significant contribution to business results and how to cope up with uncertainties in supply chains.

### This programme aims to meet the following objectives: 14 comprehensive modules (equivalent to 75 hours)

- Data Analytics (i.e., Descriptive, Predictive, & Prescriptive Analytics) in SCM
- Introduction and application of Multi-criteria Decision Making (MCDM) techniques
- Emphasis on Emerging Issues in SCM (e.g., Digital transformation, Blockchain technology, Supply Chain 4.0, Sustainable SCM, etc.)
- Supply Chain Risk Analytics

# Learning Outcomes

Upon completion of the programme participants should be able to:

- Describe the basic concepts of supply chain (SC) analytics: Descriptive, Predictive, Diagnostic and Prescriptive analytics
- Apply analytic techniques to solve different SC problems.
- Develop the understanding related to SC risk analytics.
- Application of quantitative techniques in Supply Chain Analytics- time series analysis and forecasting' and 'regression analysis
- Use of optimization techniques as part of Supply Chain Analytics
- Introduce the application of Big Data in supply chain management



34% percent of supply chain leaders say that adapting to new technology is the most important strategic change supply chain organizations will face five years from now. - Gartner

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### **Who Should Attend**

There is a rising demand for 'supply chain professionals with data analytics skills' across different industries and management levels. Whether you are an experienced professional or a small business owner, this programme will facilitate to improve your SCM skills sets for informed decision-making. Participants can easily gain expertise and advance their current knowledge levels. This programme will be more beneficial for:

- Managers who want to gain a comprehensive understanding of multiple aspects related to new age Supply Chain management and willing to develop the ability to make data-driven decisions using Analytics.
- **SC professionals** seeking to develop competencies using Analytics tools and techniques to make smarter, quicker and more informed decisions.
- Young executives aspiring to enter and grow their careers in the Supply Chain domain and want to understand how to synchronize supply chain planning and execution by improving real-time visibility into these processes and their impact on customers and the bottom line.
- **Working professionals** in the SC domain who are keen to understand how to improve efficiency and be more responsive to customer needs which can lead to cost-saving adjustments in inventory and faster delivery.
- Business analysts who want to enhance their skills for informed decision-making in SCM.
- **Consultants** who are driving client projects and looking for cutting edge analytical tools & techniques for informed decision-making in SCM
- Entrepreneurs who want to leverage supply chain and data analytics capabilities as a competitive advantage to scale their business.





# Program Highlights



#### **CERTIFICATION FROM IIM KASHIPUR**

Opportunity to earn certificate of Completion in Advanced Supply Chain Management & Analytics from Indian Institute of Management Kashipur.



#### **WEEKEND ONLINE & INTERACTIVE CLASSES**

Classes are held on weekends so that learning and work can go side by side and it's easy for working professionals to attend lectures.



#### **INDIA'S TOP FACULTY PANEL**

Participants get to learn from some of the best IIM faculty members and industry experts who are highly qualified and experienced in the field of Supply Chain.



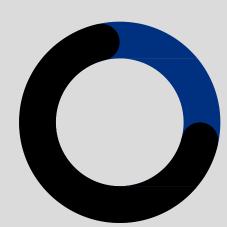
#### **CASE BASED SESSIONS**

Real life case-based study pedagogy to enhance implementation of theoretical concepts to real life problems.



### INSIGHTS INTO STRATEGIC SUPPLY CHAIN MANAGEMENT & ANALYTICS.

This course is full of hands-on exercises and case studies to get an in-depth understanding of advanced techniques & tools that can help the participant to face real world Supply Chain scenarios.



#### **CAMPUS IMMERSION**

The course includes 2 days campus visit at IIM Kashipur campus.

### Program Outline

#### Module 1: Introduction to SCM & Inventory Management

Introduction to Supply Chain Management

Supply Chain Drivers and Metrics

Role of Cycle Inventory in a Supply Chain

Lot Sizing for a Single Product – The EOQ MODEL

The Role of Safety Inventory

Cycle service level (CSL)

Impact of Supply Uncertainty on Safety Inventory

Newsvendor model

#### Module 2: Forecasting

Demand Forecasting in a Supply Chain
Classification of forecasting methods, Measures of forecast error

#### Module 3: Sales and Operations Planning

Developing Sales and production plans

New product development

Inventory planning and strategic initiatives related to supply chain

#### Module 4: Strategic Sourcing & Logistics Management

Introduction to Sourcing and its contribution to business performance

Sourcing Function and how it works

Purchasing Policy and Procedures

Supplier Selection and Evaluation

Supplier governance & risk management

E-Procurement / Reverse auction

Managing the contract and supplier Relationship

Global Sourcing

#### Module 5: Service Supply Chain Management

Introduction to Service Operations Management

Service Supply Relationships

Introduction to Service Operations Management

Service Supply Relationships

Forecasting Demand for Services

Service Design

Service value proposition

Delivering service guarantee

Services and branding

### Program Outline

#### Module 6: Supply Chain coordination and contracts

Double-marginalization in a supply chain
Wholesale price contract, Buyback contract, Quantity discount contract
Revenue-sharing and Cost-sharing contracts
Portfolio contracts and risk trade-offs

#### Module 7: Lean Supply Chain Management

Lean, Waste, Toyota Production System, Just-in- Time (JIT)
Single Minute Exchange of Die, Kaizen, Kanban
Strategies for designing a lean supply chain
Risk Pooling
Agile & Resilient SC

#### Module 8: Descriptive Analytics for Supply Chain Management

Analysis of historical and current trends Report generation, dashboards and KPIs Visualization techniques in supply chain

#### Module 9: Prescriptive Analytics-I: Optimization Techniques for Supply Chain Analytics

The Concepts of Descriptive, Predictive, and Prescriptive Analytics in Supply Chain Management

Introduction to Generic Parameters of a Decision-making Problem

Introduction to Linear Programming and its Applications

Sensitivity Analysis and its Significance

Formulation and Solution to Transportation problems

Introduction to Integer Programming and its Applications

#### Module 10: Prescriptive Analytics-II: Distribution Network Optimization, Goal Programming

Prescriptive Analytics for Distribution Network Optimization

Goal Programming for Supply Chain Optimization, Multi-objective vs. Single-objective Optimization Problems

Managing Information Flows and Bullwhip Effect in Supply Chains: Analyzing the Effect of Service Level and Centralized Information

### Program Outline

#### Module 11: Introduction and application of MCDM techniques

Introduction to Multi-criteria Decision Making
Introduction to Analytic Hierarchy Process (AHP)
Supplier selection using AHP
Supply Chain Risk Analytics

#### Module 12: Predictive Analytics for Supply Chain Management

Solving prediction problems using Linear Regression and Regression Trees Solving classification problems using Logistic regression, Classification trees Solving clustering problems using k-means clustering

#### Module 13: Advanced Supply Chain Analytics using Big Data

Building Predictive Models

Optimization techniques for Supply Chain Analytics

Big Data Analytics for Supply Chain Management

#### • Module 14: Emerging Issues in Supply Chain Management

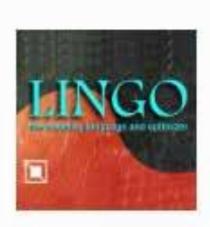
Current trends in Digital Supply Chain Supply Chain 4.0 and its benefits Industry 4.0 trends
Use of Blockchain technology
Sustainable supply chain

### Tools Used









# Eminent Faculty Panel



**Prof. Abhishek Srivastava**Ph.D. (IIM Kozhikode)

Abhishek Srivastava holds Ph.D from Indian Institute of Management Kozhikode in the area of Quantitative Methods and Operations Management. Prior to joining his doctoral program, he worked as Assistant Professor at National Institute of Technology Jalandhar. He had completed his Master's in Fiber Science & Technology from Indian Institute of Technology Delhi. He received All India 2nd Rank in Graduate Aptitude Test in Engineering (GATE) 2012. He is a recipient of prestigious POMS Emerging Economies Doctoral Student Award (EEDSA) 2019, Emerald Best Paper Award at Society of Operations Management Conference 2019, and Highly Commended Paper Award at Indian Subcontinent Decision Sciences Institute Conference 2018. His research focuses on unauthorized selling under gray markets and impact on profitability, strategies to cope with gray markets, buyer-supplier relationship in a supply chain, supply chain coordination, and pricing in game theoretic environments. He has published in Decision Sciences journal. He has also published several interesting teaching case studies in Emerald and Ivey publishing.



Prof. Devendra Kumar Pathak

Ph.D. (IIT Delhi)

Dr. Devendra Kumar Pathak holds Ph.D degree from Indian Institute of Technology Delhi in Operations and Supply Chain Management. He also earned his M.Tech from IIT Delhi. During the course of his Ph.D studies, he spent two months at School of Business and Economics, Loughborough University, UK as a visiting research scholar. In his earlier stint, he has worked as an Assistant Professor at Institute of Management Technology Ghaziabad. His areas of interest include sustainable supply chain management, operations management, multi-criteria decision making, and performance management for sustainable logistics. His publications have appeared in peer-reviewed journals including Technological Forecasting and Social Change, International Journal of Production Research, Transportation Research Part E: Logistics and Transportation Review, OPSEARCH. He has been conferred 'Best Paper' award in three International Conferences.





Duration: 6 Months blended Delivery mode: Plug n Learn Frequency: Once in a week



#### **Course Schedule**

3 hrs on every Sunday: 3:30 PM - 6:45 PM (15 minutes break between sessions)

Course Commencement Date: Will be updated

2 days of Campus Visit



#### **Course Pedagogy**

Programme is a blended programme comprising both online and on-campus modules. For the online modules, the primary method of instruction will be through LIVE lectures that will be delivered online via the internet to participants' desktops/laptops or classrooms. The lectures will be delivered by eminent faculty from IIM Kashipur and expert(s) from the industry (If any). The programme will be primarily taught through a combination of class exercises, presentations, take-home exercises, simulation and case studies. The course contents are organized in a way to provide the participants with an introduction on the application of content to various business aspects. The on-campus module will be delivered in classrooms at IIM Kashipur.

Each participant will do a project under the guidance of one of the course faculty.



#### **Eligibility**

- Diploma (10+2+3)/ Bachelor's Degree or equivalent (10+2+3 or 10+2+4)/ 2 Years Masters Degree or Equivalent/ from a recognized university (UGC/AICTE/DEC/AI-U/State Government) in any discipline.
- 5 years experience is preferable.
- Participants who fulfil the above criteria but are not working currently are eligible for the programme



#### **Payment Mode**

Online payment or DD in favor of "VALUE VIDYA LLP" payable at "Bengaluru".



#### **Assessments**

There are periodic evaluations built in throughout the duration of the course. These may be in the form of a quiz, assignment, Main Business Plan, case study or other objective/subjective assessment. The evaluations are designed to ensure continuous student engagement with the course and encourage practical learning. Students who successfully clear the same along with the requisite attendance criteria will be awarded a Certificate from IIM Kashipur as appropriate.

### **How To Apply**

To apply, working professionals can register at https://www.ValueVidya.com or call at +91 63661 25554.

#### Sample Certificatee





#### **NOTE:**

This is sample certificate. Subject to be changed.

Certificate of Completion/Participation will be given to participants on the basis of Assessments.

### Fee Structure & EMI Plan

#### Program Fee:

For Indian Residents INR 75,000+ GST\*

**INR 72,500+ GST\* (Limited time offer)** 

For International Students \$1,500

\*Application Fee of 1000/- INR to be paid at the time of registration

Note: - Application fee is non-refundable even if the application is rejected or enrollment is cancelled.

#### Installment Schedule:

1st INR 22,500 + GST\* / \$500 Immediate Payment

2nd INR 25,000 + GST\* / \$500 3rd INR 25,000 + GST\* / \$500

No Cost 6 Months EMI Option available by our loan partner:

Pay as Low as 12,084+ GST\* per month.

 $(12,084 + GST* \times 6 = 72,500 + GST*)$ 

- \* Loan option with interest available in 9 & 12 EMIs
- \* EMI dates may vary on a case to case basis
- \* 1% + GST\* processing fees will be charged by loan partner in 6/9/12 months EMI.





