

BUSINESS ANALYTICS



From Data to Insights and Decision Making

Course Schedule:

February 11, 2023 – March 19, 2023

(5:00 PM – 7:30 PM IST | Saturday & Sunday) 30 hours duration

Registration Deadline:

February 7, 2023

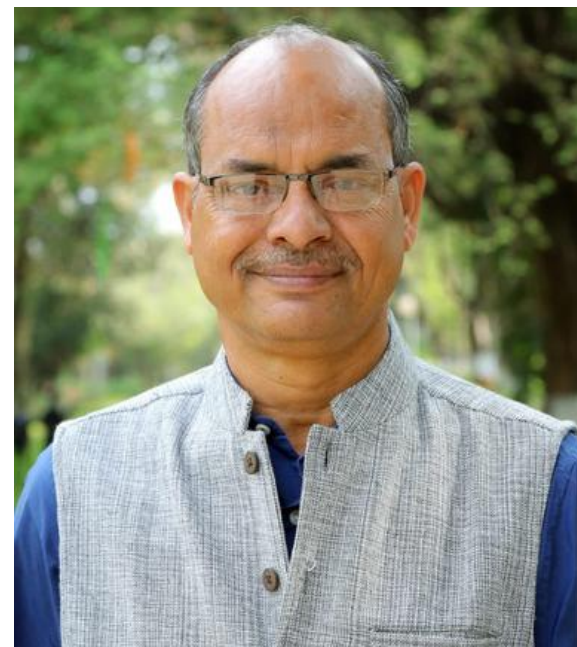
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Marketing Partner



Prof. David Simchi-Levi

Professor – Business & Supply Chain Analytics
Director, Data Science Lab
MIT, USA



Prof. Manoj Kumar Tiwari

Director, NITIE Mumbai



Course Instructors

Reputed and world-renowned personalities are taking charge of the course to deliver in a best-suited manner. Catering to the requirement of current industry needs concerning data analytics in the domain of supply chain and analytics in the most lucid way possible.

Leaders in higher-education institutions generally understand that using advanced analytics can significantly transform the way they work by enabling new ways to engage current and prospective students, increase student enrolment, improve student retention and completion rates, and even boost faculty productivity and research.

About the Course



Overview

Business Analytics refers to the ways in which enterprises such as businesses, non-profits, and Governments can use data and analytics to gain insights and make better decisions. Business analytics is applied in operations, marketing, finance, and strategic planning, among other functions. The ability to use data effectively to drive rapid, precise and profitable decisions has been a critical strategic advantage for companies as diverse as Walmart, Google, Nike, Capital One, and Disney.

For example, Capital One uses sophisticated analytic capabilities to match credit card offerings to customers more accurately than their competition. WalMart uses data and analytics to monitor and update its inventory in a way that allows it to serve its customers at an exceptionally low cost. In addition, many current and recent start-ups such as Palantir and Splunk are based on the application of analytics to large databases.

Success of Previous Courses

- NITIE has successfully completed 7 versions of the Global Online Certification Course on Supply Chain Digitization & Management, End-to-End Supply Chain Transformation through digitization and Business & Operations Analytics in association with **Prof. David Simchi- Levi** since 2021.
- The courses received an overwhelming response with **12000+** individuals from reputed national and international organizations. Some prominent academic institutions include the IITs, IIMs, IIFT, University of London, University of Warwick and some eminent organizations include P&G, HUL, GE, ITC, Amul, Deloitte, General Mills, IBM, Titan, Reliance, PwC and many more.



Participants

12000+

Countries

20+

Organizations

710+

Industry Professionals

1900+

IITs & IIMs Students

900+

List of Previous Courses

- Supply Chain Digitization and Management
- Business and Operations Analytics 2021 and 2022
- End-to-End Supply Chain Transformation through Digitization
- AI-Powered Supply Chain 2022
- Supply Chain & Demand Analytics
- Data-Driven Supply Chain Transformation

Participated Organizations



Educational Institutes

Corporates



Course Focus and Outcomes



Focus

- The Journey for Data Driven Transformation
- Optimizing Complex Decisions
- Machine Learning Techniques
- Model selection and integration of techniques

Benefits

- Develop Critical thinking about the data and the analyses
- Identify opportunities for creating value using business analytics
- Estimate the value created using business analytics to address an opportunity





Introduction to
Business Analytics

Feb 11-12, Week - 1



Predictive Analytics

Feb 25-26, Week - 3



Case Study - I

Mar 11-12, Week - 5



Course Timeline



Prescriptive Analytics

Feb 18-19, Week - 2



Integrated Analytics

Mar 4-5, Week - 4



Case Study - II

Mar 18-19, Week - 6



Lecture Flow

(every week two lectures):

Week 1

- * **Course Overview**
- * **Introduction to Business Analytics**
- * **Digital Transformation**

Week 2

- * **Optimizing Complex Decisions**
- * **Linear Programming Formulation**
- * **Demonstration of the Spreadsheet Optimization Method**
- * **Shadow Price**
- * **Sensitivity Analysis**

Week 3

- * **Linear Regression**
- * **Logistic Regression**
- * **Classification & Regression Trees**
- * **K-Nearest Neighbors**
- * **Bayesian Analysis**
- * **Error Types**



Lecture Flow

(every week two lectures):

Week 4

- *Neural Network
- *Variable Selection Techniques
- *Categorical Variables
- *Model Selection
- *Integration of Techniques

Week 5

- *Case study: Supply Chain
- *Unified View of Demand
- *Supply Chain Segmentation
- *Smart Planning & Execution
- *Supply Chain Resiliency

Week 6

- *Case study: Pricing
- *Online and Offline Retailer examples
- *Estimating Lost Sales
- *Price Elasticity of Demand
- *Error Estimates
- *Pricing Decisions
- *Course Summary

About NITIE



- National Institute of Industrial Engineering (NITIE), established in 1963 by the Government of India with the assistance of United Nations Development Project (UNDP) through the International Labour Organization (ILO), is one of the leading institutes for Management education.
- NITIE, a pioneer in Industrial Management has been positioned 9th amongst management schools in India by National Institutional Ranking Framework (NIRF) in 2022.
- NITIE, widely known as the leading Institute in Supply Chain and Operations, holds a purpose in advancing the transformative education and industry inspired research in different domains thus dedicating itself to help Indian businesses to make their presence felt globally. The institute has a strong linkage with private and public sectors, national research institute, other academic institutions, universities, government organizations, and communities.
- NITIE is dedicated to help Indian businesses to make their presence felt globally. NITIE has decided to act as driving force not only in manufacturing sector but all dynamic sectors of the Indian economy. It has aligned its vision and activities in line with the current and future needs of the Indian economy and its vibrant and growing sectors.



About Prof. David Simchi-Levi



- Prof. David Simchi-Levi is the most renowned Professor and Thought Leader in the field of Supply Chain Management and also serves as the Editor-in-Chief of Management Science. He is the recipient of the prestigious INFORMS Impact Prize 2020 for his work on Supply Chain Resilience. His book, "Designing and Managing the Supply Chain" (with P. Kaminsky and E. Simchi-Levi) is a staple across B-schools for their Supply Chain Management courses.
- He is the founder and chairman of LogicTools which provides software solutions and professional services for supply chain optimization. The company has provided decision support systems to clients such as Caterpillar, ConAgra, Kraft Foods, Mercer Management, Ryder, SC Johnson, UPS, U.S. Postal Service, Walgreens, etc. and was acquired by IBM.
- Prof. David Simchi-Levi had associated with NITIE for the Global Online Certification Courses on Supply Chain Digitization and Management as well as Business & Operations Analytics, which were highly successful courses with over 2500 participants from all over the world in each course.
- Profile on MIT website - https://cee.mit.edu/people_individual/david-simchi-levi/
- LinkedIn Profile - <https://www.linkedin.com/in/david-simchi-levi-3045026/>



Prof. David Simchi-Levi

Massachusetts Institute of Technology, USA

About Prof. Manoj K. Tiwari

- Prof. Manoj K Tiwari, Director-NITIE, is on-lien from his post as Professor, Department of Industrial and Systems Engineering at Indian Institute of Technology, Kharagpur.
- He has been ranked 1 among top 100 individual researchers across the world who had published research articles in International Journal of Production Research (1985-2010), the top leading author for Supply Chain Analytical Techniques (Computer & Industrial Engineering), among Top 20 most productive authors in the area of Production and Operations Management in the last 50 years (Int. Journal of Production Economics, 2009) and rated 2nd among many researchers working in Logistics and Supply Chain Management in India (Analysis of the logistics Research in India-White paper published in TU Dortmund University, Dortmund Germany-2012).
- He is the recipient of “Most Influential Researcher Award” in the domain of Operations and Supply Chain Management.
- Optimization, Simulation and Computational Intelligence are the main techniques adopted by Prof. Tiwari to automate the decision support system for complex and large-scale problems in Manufacturing and Logistics System.
- Profile on NITIE Website - <https://www.nitie.ac.in/about-director>
- LinkedIn Profile - <https://www.linkedin.com/in/manoj-tiwari-5050a634/>



Prof. Manoj K. Tiwari
Director, NITIE Mumbai



For Registrations:

Course Fees



Category	Fee Category	Registration Fee (incl. of all)*
Participants from India	Student	INR 10,000/- per participant
Participants from India	Academician / Faculty	INR 18,000/- per participant
Participants from India	NITIE Alumni	INR 22,000/- per participant
Participants from India	Industry Professionals / Others	INR 24,000/- per participant
Foreign Participants	Any	USD 450/- per participant
Bulk Participants	Student (>10)	INR 9,000/- per participant
Bulk Participants	Industry Professionals (>10)	INR 20,000/- per participant

REGISTER

*Convenience fees may apply

ANALYTICS 2023 COORDINATING TEAM



[Click Here](#) For FAQs

For all queries, please email to goc@nitie.ac.in or contact :

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■ Mr. Sadham Ukkashi A M

■ Mr. B N S V Kaustubh

■ Mr. Harsh

■ Mr. Akash Bhatia

■ Mr. Manthan Tyagi

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