NITIE
National Institute of
Industrial Engineering
Mumbai - India

GLOBAL ONLINE CERTIFICATION COURSE ON
BUSINESS AND OPERATIONS ANALYTICS

In collaboration with

PROF. DAVID SIMCHI-LEVI

MIT Professor, Business & Supply Chain Analytics
Director, Data Science Lab
Massachusetts Institute of Technology, USA

PROF. MANOJ K. TIWARI

Director, NITIE Mumbai

Course Timeline:

3rd July to 5th Sep, 2021
(Saturday & Sunday)

5:00 PM to 6:30 PM IST

ABOUT THE COURSE

Business analytics refers to the ways in which enterprises can use data to gain insights and make better Operation decisions. 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 and WalMart uses analytics to monitor and update its inventory in a way that allows it to serve its customers at an exceptionally low cost.

NITIE is proud to present the Global Online Certification Course on '**Business and Operations Analytics**' in association with Prof. David Simchi-Levi (MIT, USA).

The course emphasizes that Business and Operations Analytics is not a theoretical discipline: these techniques are only interesting and important to the extent that they can be used to provide real insights and improve the speed, reliability, and quality of decisions.

We have three goals in this course. The first is to help you think critically about data and the analyses based on those data — whether conducted by you or someone else. The second is to enable you to identify opportunities for creating value using business analytics. The third is to help you estimate the value created using business analytics to address an opportunity.

With business analytics being an integral part of modern management, this course should provide you with the foundation to understand and apply analytical methods to drive value.

Global Online Certification Course on Business and Operations Analytics - 2021

NITIE

FOCUS

- Optimizing Complex Decisions
- Machine Learning Techniques
- Optimal Model Selection
- Integration of Techniques

COURSE OUTCOME

Learn basic analytics methods & analyze case studies on organizations that successfully deployed these techniques.

Identify, evaluate, and capture business analytics opportunities that create value

Estimate the value created using business analytics to address an opportunity

Develop critical thinking about the data and the analyses

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COURSE STRUCTURE

- 3rd July '21 – 5th September '21

- 5:00 PM - 6:30 PM IST || Saturday & Sunday

- 30 Hour Course - 10 weeks
  20 sessions (1.5 Hours/Session)

- Mode of Instruction - Live via WebEx

- Upon completion of the course, all registered participants will receive a Certificate of Completion from NITIE signed jointly by Prof. David simchi-Levi and Prof. Manoj K Tiwari

- Attendance & course participation would be the criteria for course completion

- Lecture Slides & Supplementary material will be shared after each session

COURSE CONTENT

Week 1
- Course Inauguration & Overview

Week 2
- Introduction to Business Analytics
- Digital Transformation

Week 3
- Optimizing Complex Decisions
- Linear Programming Formulation
- Demonstration of the Spreadsheet
  Optimization Method

Week 4
- Shadow Price
- Sensitivity Analysis

Week 5
- Linear Regression
- Logistic Regression
- Classification & Regression Trees

Week 6
- K-Nearest Neighbour
- Bayesian Analysis
- Error Types

Week 7
- Neural Network
- Variable Selection Techniques
- Categorical Variables

Week 8
- Model Selection
- Integration of Techniques

Week 9
- Case Studies:
Retail; Manufacturing; High-Tech

Week 10
- Assignment Presentations
  & 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

● It has proven its excellence by continuously being featured in India's best B-schools list and was ranked 11th in the most recent Business Today Survey

● NITIE, a pioneer in Industrial Management has been positioned 12th amongst management schools in India by National Institutional Ranking Framework (NIRF) in 2020.

● NITIE, widely known as the leading Institute in the area of 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

● It has a strong linkage with private and public sectors, national research institutes, other academic institutions, universities, government organizations, and communities

● The institute has decided to act as a driving force not only in the 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 industries making them vibrant and influential globally

COURSE INSTRUCTORS

Prof. David Simchi-Levi

MIT Professor, Business & Supply Chain Analytics
Director, Data Science Lab
Massachusetts Institute of Technology, USA

● Prof. David Simchi-Levi is the Professor for Business & Supply Chain Analytics and the Director of Data Science Lab at Massachusetts Institute of Technology, USA.

● He is the Editor-in-Chief of the INFORMS journal, Management Science, the former Editor-in-Chief of Operations Research, Naval Research Logistics and a member of the board for several scientific journals including Transportation Science and Telecommunication Systems, and a former Area Editor of Transportation for Operations Research.

● He 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.

● Prof. Simchi-Levi founded LogicTools, now a subsidiary of IBM, which provided software solutions and decision support systems to clients such as Caterpillar, ConAgra, Kraft Foods, Mercer Management, Ryder, SC Johnson, UPS, U.S. Postal Service, Walgreens, etc., and later co-founded OPS Rules, and Opalytics, both now part of Accenture.

● Prof. David Simchi-Levi had associated with NITIE for the Global Online Certification Course on Supply Chain Digitization &Management in 2021 which was a highly successful course with over 2500 participants from 13+ countries.
(Read more)

● MIT profile – https://cee.mit.edu/people_individual/david-simchi-levi/
● LinkedIn Profile – https://www.linkedin.com/in/david-simchi-levi-3045026/

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COURSE INSTRUCTORS

Prof. Manoj K. Tiwari

Director, NITIE Mumbai

● 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/

Global Online Certification Course on Business and Operations Analytics - 2021

COURSE FEES

For Individual Registrations:

Category	Fee Category	Fee Rate (Incl. of all)*
Participants from India	Student	INR 3,000/- per participant
	Academician / Faculty	INR 6,000/- per participant
	NITIE Alumni	INR 6,000/- per participant
	Industry Professionals / Others	INR 12,000/- per participant
Foreign Participants	Any	USD 185 per participant

* Convenience Charges may apply.

For Bulk Registrations from one organization:

Number of Participants	Registration Fee (incl. of all)	
	Students	Industry Professionals
11 to 20	INR 2,700/- per participant	INR 10,000/- per participant
21 to 35	INR 2,400/- per participant	INR 8,500/- per participant
36 to 50	INR 2,000/- per participant	INR 7,500/- per participant
51 and above	INR 1,500/- per participant	INR 6,000/- per participant

Please write a mail to **analytics@nitie.ac.in** for more details on bulk registration.

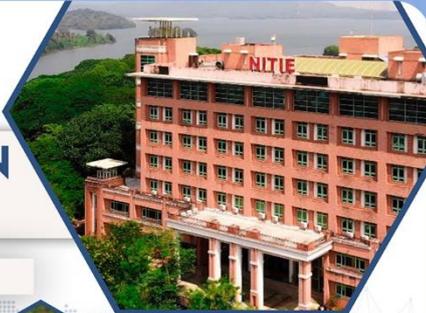www.nitie.ac.in   NITIE   Register Here

SUCCESS OF THE PREVIOUS COURSE BY NITIE

● NITIE had successfully completed the Global Online Certification Course on Supply Chain Digitization and Management in association with Prof. David Simchi– Levi in 2021.

● The course received an overwhelming response with 2500+ individuals from 250+ prestigious national and international organizations from 13+ countries engaging in learning over the course of 10 weeks. Some prominent academic institutions include the IITs, IIMs, University of London, University of Warwick, Arab Open University and some eminent organizations include P&G, HUL, ITC, Amul, Deloitte, General Mills, IBM, Titan, Reliance, PwC and many more.

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Global Online Certification Course on
SUPPLY CHAIN DIGITIZATION AND MANAGEMENT

COURSE INSTRUCTORS

Prof. David Simchi-Levi
MIT Professor - Business & Supply Chain Analytics
Director, Data Science Lab
Massachusetts Institute of Technology, USA

Prof. Manoj K Tiwari
Director, NITIE Mumbai

2500+ Participants   **13+** Countries   **250+** Organizations   **700+** Professionals

WE THANK OUR PARTICIPANTS FOR MAKING THE COURSE A HUGE SUCCESS

Educational Institutions

Corporates

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ANALYTICS 2021 COORDINATING TEAM

[Click here](#) **for FAQs**

For all queries, please email to
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