







# **GLOBAL ONLINE CERTIFICATION COURSE ON**

# DATA-DRIVEN SUPPLY CHAIN TRANSFORMATION 2022

LAUNCHED BY NITIE, MUMBAI AND IIT (BHU), VARANASI
(UNDER PM GATI SHAKTI SCHEME)

# Course Instructors



PROF. DAVID SIMCHI-LEVI
Professor, Business & Supply Chain Analytics
Director, Data Science Lab
Massachusetts Institute of Technology, USA



PROF, MANOJ K. TIWARI Director, NITIE Mumbai



PROF. PRAMOD KUMAR JAIN
Director. IIT (BHU) Varanasi

# Course Timeline:

16<sup>th</sup> Jul '22 to 21<sup>st</sup> Aug '22 (Saturday & Sunday)

5:00 PM to 7:30 PM IST





Digital transformation, which refers to the use of data, analytics and automation, has been applied by a few innovative companies, from Apple to Amazon to Dell, to transform their businesses and achieve a significant increase in their revenue and profit while decreasing costs. In all these cases, the objective is to apply business analytics to transform the way the organization manages its business, from manufacturing, supply chain, marketing, and revenue optimization all the way to understanding consumers' preferences and innovate new products.

NITIE, Mumbai and IIT (BHU), Varanasi are proud to present the Global Online Certification Course on 'Data-Driven Supply Chain Transformation 2022' in association with Prof. David Simchi Levi (MIT, USA) under the leadership of Prof. Manoj Tiwari (Director, NITIE Mumbai) and Prof. Pramod Kumar Jain (Director, IIT (BHU) Varanasi), to accelerate the vision of PM Gati Shakti. This course is launched under NITIE's Centre of Excellence in Logistics and Supply Chain Management which aims to develop India's logistics sector through applied research and industry outreach to tackle real-time business scenarios.

This digital disruption is now motivating many companies in a variety of industries to reinvent their supply chains, from demand and supply planning to production and distribution. This course introduces Professor Simchi-Levi's unique framework that combines the three technology trends, digitization, analytics and automation, to reinvent the supply chain. Participants will gain a deeper understanding of:

- (i) Applications of these trends to improve efficiency, profitability, and growth
- (ii) The required processes to improve supply chain visibility, flexibility, and resiliency
- (iii) The appropriate organization and talent change

Global Online Certification Course on Data-Driven Supply Chain Transformation 2022

# **FOCUS**



- Supply Chain Trends
- Supply Chain Competency
- Digital Supply Chain Transformation
- Machine Learning Based Technology

Identify opportunities for creating supply chain value using digitization, analytics and automation

Prioritize the opportunities provided by the technology trends: digitization, analytics and automation

Drive automation through network and production optimization

Increase sales by improving forecast accuracy

Apply data analytics to improve new product introduction

# COURSE OUTCOME



# COURSE HIGHLIGHTS



Lecture Recordings for 1 week duration



Learning through
Exhaustive Case Studies



Live Interaction with Prof. David Simchi-Levi



Lecture slides & Supplementary material after each session

# COURSE CONTENT

# Week 1

- Introduction and Course Overview
- Customer Value and Operations Strategy
- Controlling the Bullwhip and the Value of Information

# Week 2

- Supply Chain Integration: Push-Pull and Complexity Reduction
- Supply Chain Segmentation

# Week 5

- Inventory Management and Risk Pooling Strategies
- Supply Contracts and Risk Sharing Strategies

# Week 6

- Network Planning and the Green Supply Chain
- IT and Business Processes
- Course Summary

# Week 3

- Using Big Data to Improve Operations
- Applications in Retail, Manufacturing

# Week 4

- Supply Chain Resiliency
- Supply Chain Flexibility



# COURSE STRUCTURE



16<sup>th</sup> July '22 to 21<sup>st</sup> August '22



30 Hour Course - 6 weekends 12 sessions (2.5 Hours/Session)



5:00 PM - 7:30 PM IST Saturday & Sunday



Mode of Instruction Live via WebEx

# **COURSE CERTIFICATE**



NATIONAL INSTITUTE OF INDUSTRIAL ENGINEERING (NITIE), MUMBAI

AND INDIAN INSTITUTE OF TECHNOLOGY (BHU), VARANASI



JOINTLY AWARD THIS CERTIFICATE TO

# William Jones

in recognition of successful completion of

Global Online Certification Course on Data-Driven Supply Chain Transformation 2022,

(Thirty Hours Online Course)

conducted by the Institute during the period 16th July, 2022 to 21st August, 2022, dated 30th August, 2022



SCAN TO VERIFY

Visit www.nitie.ac.in/data-driven-transformation Reg ID:

Prof. David Simchi-Levi

Prof. Manoj K. Tiwari

Prof. Pramod Kumar Jain

Course instructor Director, NITIE Mumbai Course instructor Director, IIT (BHU) Varanasi

Course Instructor Professor - Business & Supply Chain Analytics Director, Data Science Lab Massachusetts institute of Technology, USA



Signed jointly by

Prof. David Simchi-Levi

Prof. Manoj K Tiwari and

Prof. Pramod Kumar Jain



Attendance & Quiz participation criteria for course completion



- 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 2021.
- 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
- 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
- To learn more- Click Here



- Indian Institute of Technology (Banaras Hindu University) Varanasi is an Institute of national importance created by an Act of the Parliament through the Institutes of Technology (Amendment) Act, 2012. The institute celebrated its centenary year in 2019-2020.
- IIT (BHU) Varanasi has been positioned 14th amongst Engineering (Research and Teaching) institutions in India by National Institutional Ranking Framework (NIRF) in 2022 and at 651-700th position in QS World University Rankings wherein it is 10th amongst IITs and 6th according to citations per faculty.
- The institute aspires to be a harbinger of modern interdisciplinary technological advancement in the country and at a forefront of imparting quality education by use of innovative pedagogy culminating traditional with contemporary methods.
- It has a strong linkage with private and public sectors, national research institutes, other academic institutions, universities, government organizations, and communities
- To learn more- Click Here

# ABOUT NITIE'S CENTER OF EXCELLENCE

- Shri Piyush Goyal (Minister of Commerce & Industry, Consumer Affairs & Food & Public Distribution and Textiles, Government of India) inaugurated the Centre of Excellence in Logistics and Supply Chain Management at NITIE, Mumbai on 23rd September 2021.
- This center will act as a driving force to train and launch top quality programs to disseminate advanced knowledge and promote digitization, analytics, and IoT application and decision support systems through artificial intelligence and machine learning applications and digital twin and control towers, to strengthen the monitoring and analysis of complex logistics operations.
- It will help the logistics sector become more cost-effective, make the sector more competitive, create new jobs, export more, engage better with the world markets, expand outreach and bring more economic activity to India
- To Read More Click Here

# ABOUT PM GATI SHAKTI

- The PM Gati Shakti National Master Plan was launched on 13th October 2021 with an aim to celebrate 75 years of a progressive India and the glorious history of its people, culture, and achievements.
- The objective is to break departmental silos and will lay the foundation for holistic infrastructure development to address the multi-modal and last-mile connectivity issues pertaining to supply chain and demand management.
- The Global Online Certification Course on Data-Driven Supply Chain Transformation 2022 aims to provide participants with a profound understanding of leveraging technology to improve operational efficiency and decision-making across the supply chain to accelerate the PM Gati Shakti Master Plan.
- To Read More Click Here

# **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 is also 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.
- MIT profile Click here
- LinkedIn Profile Click here

# **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.
- NITIE Profile Click here
- LinkedIn Profile Click here

# **COURSE INSTRUCTORS**

# Prof. Pramod Kumar Jain

Director, IIT (BHU) Varanasi



- Prof. Pramod Kumar Jain is the Director of Indian Institute of Technology (BHU) Varanasi and was Director (In-Charge) of Indian Institute of Technology Patna. Prof. Jain was also the Director of Indian Institute of Information Technology Design & Manufacturing Jabalpur.
- Trained as an Industrial Engineer, Professor Jain received his B.E., M.E., and Ph.D. from the University of Roorkee (Now IIT Roorkee). He has a broad background in manufacturing systems and engineering including product design and development.
- For his outstanding contributions to teaching and research, he has won accolades from several quarters such as University Prize and University Medal from IIT Roorkee, Career Award for Young Teachers by AICTE, Indo-Netherlands Fellowship and Japanese Society for Promotion of Science (JSPS) Fellowship to pursue his research interests in various labs abroad.
- He is also a Fellow of Indian National Academy of Engineers and Indian Intuition of Engineers. Professor Jain is on the panel of several policy making committees of national importance, constituted by DST, CSIR, AICTE, Ministry of Health and Family Welfare and Ministry of Education.
- His research and teaching interests are in Manufacturing Systems and Engineering including Product Design and Development.
- Profile Click here

# **COURSE FEES**

# For Individual Registrations:

Category	Fee Category	Total Fee (Inclusive of Taxes)#
Participants from India	Student	INR 4,000
	Academician / Faculty	INR 7,000
	NITIE / IIT (BHU) Alumni	INR 8,000
	Industry Professionals & Others	INR 14,000
Foreign Participants	Any	USD 200 (Incl. of all)

# Convenience Charges may apply.

# For Bulk Registrations from one organization (Fee Per Participant):

Category	Slabs	Total Fee (Inclusive of Taxes)*
Students	Slab 1 (11-25)	INR 3,500
	Slab 2 (26-50)	INR 3,000
	Slab 3 (>50)	INR 2,500
Industry Professionals	Base Price (5-10)**	INR 14,000
	Slab 1 (11-25)	INR 12,500
	Slab 2 (26-50)	INR 11,000
	Slab 3 (>50)	INR 9,000

<sup>\*</sup> Convenience Charges may apply.

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

<sup>\*\*</sup> For registrations less than 5 from one organization, direct individual payments should be made

# SUCCESS OF NITIE'S GLOBAL COURSES

# **Supply Chain Digitization and Management**

(16th Jan '21 - 21st March '21)

2500+ Participants

13+ Countries 250+ Organizations 1000+ Professionals

Click here to download the course report

# End-to-End Supply Chain Transformation through Digitization (13th Nov '21 – 5th Dec '21)

350+ Participants 9+ Countries 110+ Organizations EXCLUSIVELY Industrial Professionals

Click here to download the course report

# **Participating Organizations**

# **Educational Institutions**

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# Corporates



# SUCCESS OF NITIE'S GLOBAL COURSES

# **Business and Operations Analytics 2021**

(3rd Jul '21 - 5th Sept '21)

3000 Participants

17 Countries 350+ Organizations 700+
Professionals

Click here to download the course report

# **Business and Operations Analytics 2022**

(12th Feb '22 - 13th Mar '22)

1500+ Participants 6+ Countries

290+ Organizations 335+
Professionals

Click here to download the course report

# **Participating Organizations**

# **Educational Institutions**

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# Corporates



# **GLOBAL COURSES TESTIMONIALS**



### Supply Chain Digitization and Management

Everything about the course was PERFECT. The timing of the course, The execution by NITIE, Prof David was always bang on target .Explained so many new concept and terms. The presentation, the study material, The quizzes and above all the KNOWLEDGE IMPARTED. There were tremendous learnings and takeaways from the session. I AM ENLIGHTENED and looking forward for more such sessions.

Ms. Priya Figueredo Manager SCM

Cipla

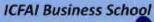


# End-to-End Supply Chain Transformation through Digitization

The study material and the delivery mode are very good. Also, the pace at which the course has been conducted is excellent.

Mr. Dibyendu Nandy

Faculty, Marketing & Operations







### Supply Chain Digitization and Management

The most valuable aspect of this course was the course web-site and materials which you shared. Everything on the web-site was very helpful especially the quizes and notes. I enjoyed the sessions prof.david a lot.

Mr. Vikas Bijaysingh Bamnath
Student
BITS Pilani

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### Supply Chain Digitization and Management

After having been in the industry for 11 years, it was a delight to find new insights from every session and I look forward to using the concepts in my career going forward. Grateful for the immense learning imparted in a very simple manner.

Mr. Siddharth Anand Head- Planning & Logistics

MTR Foods Pvt Ltd



# **Business and Operations Analytics '21**

I liked the structure, commitment of NITIE and the passion. The team did a tremendous job to stay on top of things. Coordinating a global event with 2500+ students and ensuring a seamless event for 10 weekends is easier said than done. Kudos to the team!!

Mr. Venkateswara Duggirala Senior Engagement Director Tata Group North America



### Business and Operations Analytics '21

The training was very well organized and many unknown concepts were touched upon to get us enlightened.

Mr. Karthik Swaminathan
Senior Manager
Brakes India Private Limited



# **COORDINATING TEAM**

# Click here for FAQs

For all queries, please email to scmtransformation@nitie.ac.in

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# Faculty Coordinators from NITIE, Mumbai:

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Prof. Priyanka Verma

Prof. M.S. Mahapatra

Prof. Rofin T M

# Faculty Coordinators from IIT (BHU), Varanasi:

Prof. Agnivesh P

Prof. Lakshay

Prof. Ajinkya N. Tanksale

Prof. Saurabh Pratap

# Student Coordinators from NITIE, Mumbai:

Ms. Aayushi Kumari Yadav

Mr. Rony Mitra

Mr. Giriraj Jhawar

Ms. Rosalin Sahoo

Mr. Nishant Kumar Singh

Mr. Rutvik Ghiya

Mr. Prashant M

Mr. Shibi Chakravarthy

Ms. Puja Sarkar

# Student Coordinators from IIT (BHU), Varanasi:

Mr. Eshwar Dayal

Mr. Shubham Sinha

Mr. Nikhil Anand