ज्ञानम् जयति सर्वत्र

IIM MUMBAI

GLOBAL ONLINE CERTIFICATION COURSE ON

MODELLING AND BUILDING DIGITAL SUPPLY CHAIN TWINS USING ANYLOGISTIX

In collaboration with

PROF. DMITRY IVANOV

Supply Chain and Operations Management,
Department of Business and Economics,
Berlin School of Economics and Law, Germany

PROF. MANOJ K. TIWARI

Director, NITIE Mumbai

Course Timeline:

25th - 27th March '22

&

07th - 10th Apr '22

6:30 PM to 9:30 PM IST

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using anyLogistix

ABOUT THE COURSE

Supply chain network design and operational planning decisions can drastically impact the profitability and success of a company. Whether to have one warehouse or two, close a factory, rent a new one, or choose one **network path** over another are all consequential decisions a supply chain manager must make. However, these decisions must result from more than experience or intuition. As a result, research in Supply Chain Management is geared towards providing the data, tools, and models necessary for supporting supply chain managers' decisions. One such concept is the **digital twin**, which provides a virtual representation of an object or system that spans its lifecycle, is updated from real-time data, and uses simulation, **machine learning**, and reasoning to help managers in decision-making.

This course will consider the digital twin perspective of supply chain optimisation using anyLogistix software, a tool that facilitates **Greenfield Analysis**, **Network Optimization**, and **Simulation**. It will introduce the concepts and principles of supply chain management by building **anyLogistix models** for supply chain design and resilience analysis using case studies.

With the rapid growth in IoT and cloud computing, and mounting needs to cut costs and reduce product development time, the digital twin is one of the fastest-growing concepts in **Industry 4.0**. This course can provide you with the foundation on how to structure, model and solve real management problems in Supply Chain and Operations.

To read more about anyLogistix- Click Here

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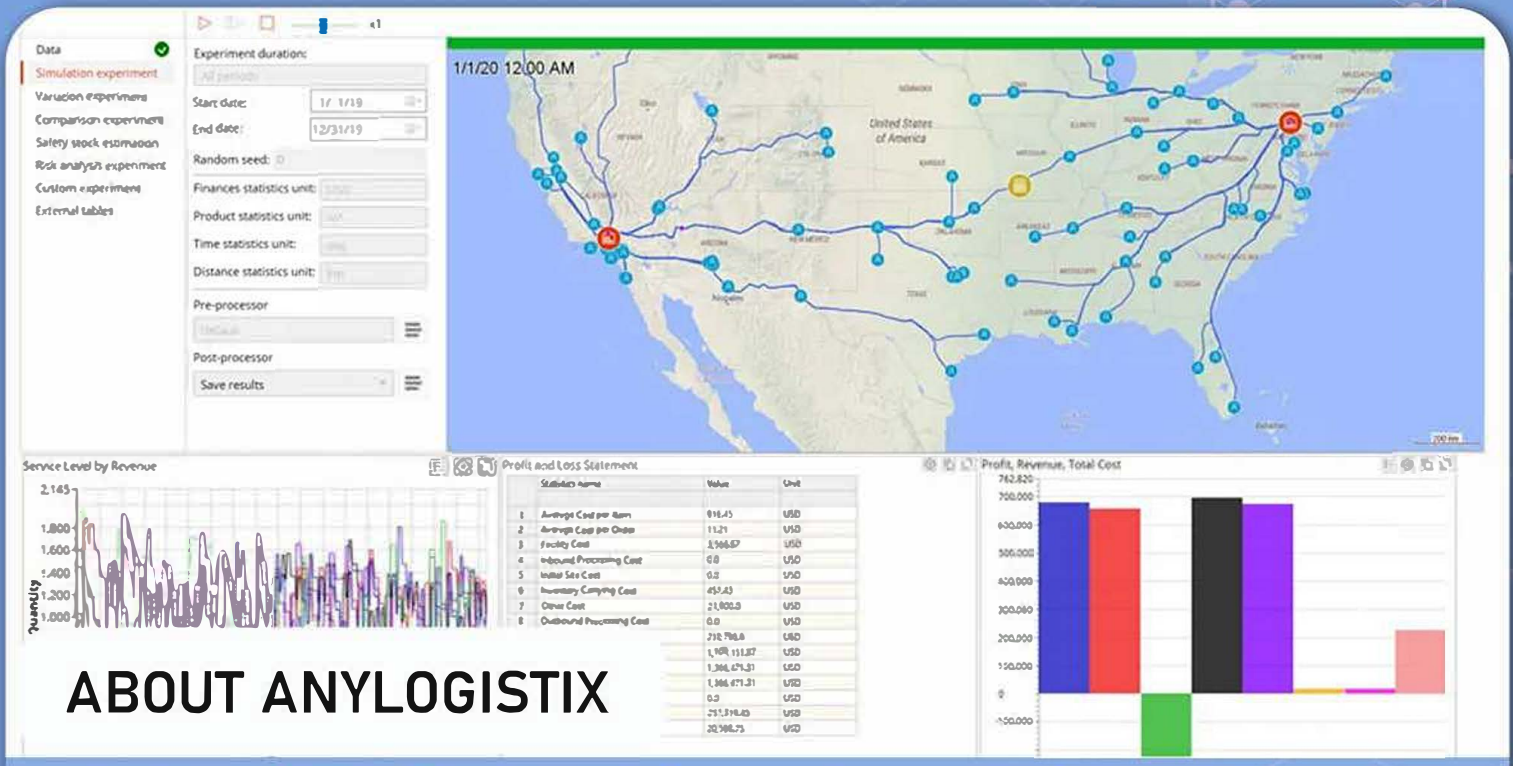

ABOUT ANYLOGISTIX

anyLogistix (ALX), by The AnyLogic Company, is a supply chain analytics software used for designing, optimizing and analyzing a company's supply chain. ALX combines powerful analytical optimization approaches together with innovative dynamic simulation technologies to offer a comprehensive set of tools for end-to-end supply chain analytics.

Features of anyLogistix:

- **Network Design & Optimization**: Carrying out Greenfield analysis to find the number of facilities and their locations with minimum data input

- **What-if Scenario Dynamic Simulation**: Analyze time dependent factors, random events, actual system behavior, and dynamic interactions between elements of your supply chain

- **Supply Chain Digital Twin**: Automatically gather data about your supply chain and configure your supply chain model's objects, processes, and entities

- **Inventory Optimization**: Safety stock estimation experiment will help to find a balance between service level and cost-effectiveness

- **Transportation Optimization**: Plan your transportation logistics at strategic and tactical levels

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FOCUS

- Facility Location Planning
- Supply Chain Design
- Inventory Control Policy
- Sourcing Policy
- Shipment Policy
- Supply Chain Resilience

COURSE OUTCOME

Perform analyses to determine an optimal location for a new warehouse

Compare alternative network designs using Network Optimization

Perform simulations of real time supply chain and operations management scenarios

Validate the models using Validation, Comparison experiments

Analyse supply chain behaviour under uncertainty and disruption

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COURSE HIGHLIGHTS

- Lecture Recordings for 1 week duration
- Simulate real life operations scenarios using anyLogistix
- Learning through Exhaustive Case Studies
- Lecture slides & Supplementary material after each session

COURSE CONTENT

Lect 1: Introduction to supply chain optimization and simulation
- Supply chain network optimization
- Supply chain simulation
- Digital supply chain twins

Lect 2: Introduction to anyLogistix and digital supply chain twins
- Concepts and models used in anyLogistix
- Technical part of anyLogistix
- Practical, educational and research projects using anyLogistix
- anyLogistix as a digital supply chain twin

Lect 3: Supply chain network design using anyLogistix
- Greenfield Analysis
- Network Optimization

Lect 4: Supply chain simulation using anyLogistix
- Inventory and transportation control
- Supply chain performance analysis

Lect 5: Supply chain resilience and its modeling
- Principles and concepts of resilience
- Modelling of supply chain resilience

Lect 6: Supply chain resilience analysis using anyLogistix
- Principles and technical skills
- Examples of resilience simulations

Lect 7: Future trends
- Digital supply chain
- Industry 5.0

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COURSE STRUCTURE

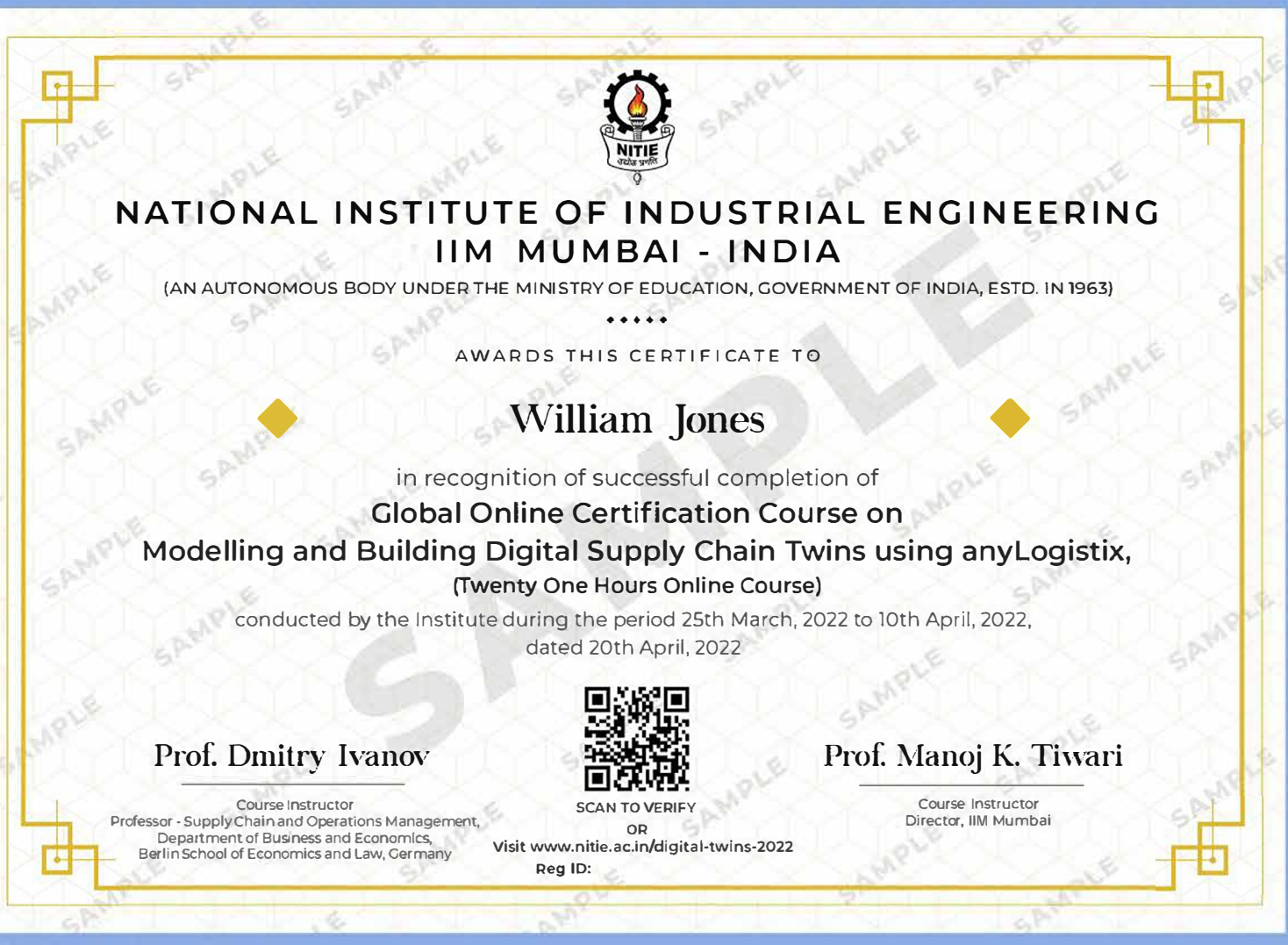
25th - 27th March '22 &
07th - 10th April '22

21 Hour Course
7 sessions (3 Hours/Session)

6:30 PM - 9:30 PM IST

Access to anyLogistix software
(Windows OS only)

COURSE CERTIFICATE



Signed jointly by
Prof. Dmitry Ivanov
and Prof. Manoj K Tiwari

Attendance & Quiz participation
criteria for course completion

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ABOUT IIM Mumbai

- Indian Institute of Management (IIM) Mumbai 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

- IIM Mumbai, a pioneer in Industrial Management has been positioned 12th amongst management schools in India by National Institutional Ranking Framework (NIRF) in 2021.

- IIM Mumbai, widely known as the leading Institute in the area of Supply chain and Operations, holds a purpose in advancing the transformative education and in-dustry 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

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ABOUT 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 IIM 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

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COURSE INSTRUCTORS

Prof. Dmitry Ivanov

Supply Chain and Operations Management
Department of Business and Economics
Berlin School of Economics and Law

• Prof. Dr. habil. Dr. Dmitry Ivanov is professor of Supply Chain and Operations Management at Berlin School of Economics and Law (HWR Berlin), deputy director and executive board member of Institute for Logistics (IfL) at HWR Berlin, and faculty director of M.A. Global Supply Chain and Operations Management program at HWR Berlin.

• His research explores structural dynamics and control in complex networks, with applications to supply chain resilience, scheduling in Industry 4.0 systems, supply chain simulation, risk analytics and digital supply chain twins. He is co-author of structural dynamics control methods for supply chain management.

• His academic background includes industrial engineering and management, operations research, and applied control theory. He studied industrial engineering and production management in St. Petersburg and Chemnitz and graduated with honors. He gained his PhD (Dr.rer.pol.), Doctor of Science (ScD), and Habilitation (Dr. Habil.) degrees in 2006 (TU Chemnitz), 2008 (FINEC St. Petersburg), and 2011 (TU Chemnitz) respectively.

• He is a recipient of German Chancellor Scholarship Award (2005-2006), Best Paper and Most Cited Paper Awards of International Journal of Production Research (2018,2019, 2020, 2021), Annual Reviewer Award of International Journal of Production Economics (2020), Commended Paper Award at International Conference LogDynamics (2018), Clarivate Highly Cited Researcher Award (2021).

• Profile (Berlin School of Economics and Law) - Click here

• Google Scholar Profile - Click here

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COURSE INSTRUCTORS

Prof. Manoj K. Tiwari

Director, IIM Mumbai

- Prof. Manoj K Tiwari, Director-IIM Mumbai, is on-lien from his post as Professor, Department of Industrial and Systems Engineering at Indian Institute of Technol-ogy, 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 Tech-niques (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 (Analy-sis 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

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COURSE FEES

For Individual Registrations:

Category	Fee Category	Course Fee	GST (18%)	Total Fee (Inclusive of Taxes)*
Participants from India	Student**	INR 2,000	INR 360	INR 2,360
	Academician / Faculty	INR 5,000	INR 900	INR 5,900
	IIM Mumbai Alumni	INR 5,000	INR 900	INR 5,900
	Industry Professionals & Others	INR 6,000	INR 1,080	INR 7,080
Foreign Participants	Any	USD 125 (Incl. of all)		

** Convenience Charges may apply.*
*** For students, once the payment is completed, the student identity proof verification will be conducted for registration confirmation. Student category is applicable only for students currently pursuing Full-time UG, PG or PhD Equivalent.*

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

Category	Slabs	Course Fee	GST (18%)	Total Fee (Inclusive of Taxes)#
Students	Slab 1 (21-50)	INR 1,500	INR 270	INR 1,770
	Slab 2 (51 & above)	INR 1,300	INR 234	INR 1,534
Industry Professionals	Slab 1 (5-10)##	INR 6,000	INR 1,080	INR 7,080
	Slab 2 (11 & above)	INR 4,300	INR 774	INR 5,074

 # Convenience Charges may apply.
For registrations less than 5 from one organization, direct individual payments should be made

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

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SUCCESS OF NITIE'S GLOBAL COURSES

Business and Operations Analytics 2021
(3rd Jul '21 – 5th Sept '21)

3000	17	350+	700+
Participants	Countries	Organizations	Professionals

Click here to download the course report

Business and Operations Analytics 2022
(12th Feb '22 – 13th Mar '22)

1500+	6+	290+	335+
Participants	Countries	Organizations	Professionals

Click here to download the course report

Supply Chain Digitization and Management
(16th Jan '21 – 21st March '21)

2500+	13+	250+	1000+
Participants	Countries	Organizations	Professionals

Click here to download the course report

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

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

Click here to download the course report

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GLOBAL COURSES TESTIMONIALS

Supply Chain Digitization and Management

Everything about the course was PERFECT. The timing of the course , The execution by IIM Mumbai , 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 tre-mendous learnings and takeaways from the session. I AM ENLIGHTENED and looking forward to more such ses-sions.

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
ICFAI Business School

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.da-vid a lot.

Mr. Vikas Bijaysingh Bamnath
Student
BITS Pilani

Supply Chain Digitization and Management

After having been in the industry for 11 years, it was a delight to find new insights from every ses-sion and I look forward to using the concepts in my career going forward. Grateful for the im-mense 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 IIM Mumbai and the passion. The team did a tremendous job to stay on top of things. Coordinating a global event with 2500+ students and en-suring 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 or-ganized and many unknown concepts were touched upon to get us enlightened.

Mr. Karthik Swaminathan
Senior Manager
Brakes India Private Limited

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DIGITAL TWINS COORDINATING TEAM

Click here for FAQs

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

or contact:

- Mr. Nishant Kumar Singh — +91-85960 53860
- Mr. Prashant M — +91-90039 59623

Faculty Coordinators:

- Prof. Priyanka Verma
- Prof. Sushmita Narayana
- Prof. Debabrata Das

Student Coordinators:

- Ms. Aayushi Kumari Yadav
- Mr. Giriraj Jhawar
- Mr. Jyothikrishnan
- Mr. Nishant Kumar Singh
- Mr. Prashant M
- Ms. Priti Bhole
- Mr. Rutvik Ghiya
- Mr. Shibi Chakravarthy

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