



SPARC-UKIERI WORKSHOP ON SEMICONDUCTOR SUPPLY CHAIN RESILIENCE 11-12 NOVEMBER 2024

Overview

Covid-19 pandemic has questioned whether supply chains will be able to keep up with growing demand. The global chip shortage has starkly exposed supply chain vulnerabilities. The automotive industry alone lost its potential sales of \$210 billion due to an acute shortage of chips. The blame for this has been attributed to the pandemic, geo-political tension, and natural disasters. However, to a great extent, the chip shortage had been a ticking time bomb, building since last many years due to the lack of visibility in SCs. Thus, concerns about disruptions to supply chains and shortages that have occurred during the pandemic motivated us to investigate the impact of SC risks on semiconductor manufacturers and the development of models to improve supply chain resilience.

The goal of this workshop is to provide a broad introduction to the key ideas in supply chain resilience using Operations Research and Machine Learning by faculty from India and UK.

Key Topics

Supply Chain Resilience	Supply Chain Digitisation	Business Model Innovation	Managing risks in the supply chain
Semiconductor Policy	Supplier relationship management	Supply Chain Network Design Under Uncertainty	Supply chain Forecasting

Program Details

Target Participants	UG 4 th Year, PG, PhD, Early Career Researchers and Faculty working in the area of supply chain
Course Fees	There are no fees. Due to limited seats the Selection is on a first-come, first served basis.
Accommodation	Twin-sharing accommodation will be provided at the Institute Guesthouse for outside participants.
Venue	Department of ISE, IIT Kharagpur
Registration	https://erp.iitkgp.ac.in/CEP/courses.htm
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Prof. Alok Choudhary is the Head of the Supply Chain Group at WMG, University of Warwick, and Founding Director of the JLR-WMG Supply Chain Innovation Hub. A sought-after supply chain thought leader and keynote speaker, his industry-driven research on sustainability, resilience, and digital transformation drives impact across industry, policymakers, and society. Alok has led large-scale, multi-stakeholder projects with funding exceeding £25 million by UKRI, EU and industries including JLR, Siemens and DHL. With over 120 publications, his work continues to influence supply chain innovation and low-carbon supply chain growth.



Prof. Manoj Kumar Tiwari (FNAE, FNASc, FIISE) is the Director of IIM Mumbai and a Professor in the Department of Industrial and Systems Engineering at IIT Kharagpur. He has published over 360 papers in prestigious journals and received several accolades, including the 2023 David F. Baker Distinguished Research Award and the Lillian Gilbreth Award (2021–22). Prof. Tiwari also serves as an editor for leading journals in production and operations management.



Dr. Akhilesh Kumar is currently working as an Associate Professor in the Department of Industrial & Systems Engineering at the Indian Institute of Technology, Kharagpur. His publications appeared in such journals as the International Journal of Production Economics, European Journal of Operational Research, Expert System with Applications, and IEEE. He has carried out various research and consultancy projects with Shell, Tata Sons, Govt. of India, European Union. Dr. Kumar is the recipient of the Faculty Excellence Award 2020.



Dr. Sri Krishna Kumar received his PhD from Wolfson School of Mechanical and Manufacturing Engineering at Loughborough University, UK in the area of virtual enterprise collaboration. His expertise includes, Supply Chain Management, Port Logistics, Knowledge Management, Game Theory and Optimization and published few good articles in the journal like International Journal of Production Research, Computers in Industry, Computers & Industrial Engineering, Annals of Operations Research, and Journal of Engineering Manufacture.