# Dr Anurag Tewari

# PhD, M.Res, M.Sc, B.Tech

Assistant Professor of Management Information Systems School of Business University of Washington, Bothell, WA (USA) email: tewari@uw.edu | (M): (USA) +001– (425) 236 3989

# **EDUCATION**

2017	PhD. (Supply Chain Management and Complex Systems), Cranfield University, UK
2013	Master's in Research, Cranfield University, UK
2012	MSc (Logistics and Supply Chain Management), Cranfield University, UK
1998	B. Tech. (Chemical Engineering) Harcourt Butler Technological Institute, India

# **RESEARCH AND TEACHING POSITIONS HELD**

January 2023 – Present: Assistant Professor of Operations Management and Information Systems, School of Business University of Washington, Bothell, WA (USA).

February 2018 – December 2023: Lecturer- Logistics, Procurement and Supply Chain Management, Cranfield University (UK).

March 2021 – September 2023: Visiting Lecturer- School of Business and Economics for Loughborough University, (UK).

September 2016 – January 2018: Research Fellow- Complex Infrastructure Research Centre, Cranfield University, (UK).

April 2014 – September 2016: Visiting Lecturer and Module Leader- Business Information Systems, University of Buckingham, (UK).

January 2016 – May 2016: Visiting Lecturer- Operations Management and Logistics, University of Buckingham, (UK).

June 2001 – June 2002: Guest Lecturer- Department of Chemical Engineering, Sir Harcourt Butler Technological Institute Kanpur, India.

# **Present Title and Job Responsibilities**

Assistant Professor of Management Information Systems, School of Business University of Washington, Bothell, WA (USA).

#### **Teaching Responsibilities**

I teach undergraduate and postgraduate courses for full-time and executive students. The courses that I am currently teaching are;

- Introduction to Business Statistics
- Information Management & Analysis

• Digital Business Lab

#### Service Roles & Responsibilities

Apart from teaching, I undertake various service roles and responsibilities.

#### Member of Undergraduate Council, School of Business:

I sit in the Undergraduate Council, School of Business, representing the Operations Management and Information Systems (OM&IS) group. The council decides on curriculum changes, reviews academic proposals and recommends undergraduate academic matters to the university.

#### Member of Post Graduate Council, School of Business

#### Member of Campus Level Data Analytics Minor Review Committee

#### **Other Contributions**

I undertake various cross-campus collaborations and other initiatives to make scholarly contributions at the university level.

#### Project Guide to three Students for Practicum Simulation Project of Master of Science in Information Management (MSIM); University of Washington Information School.

I am currently acting as a project guide and data analysis/simulation expert for three students in the Master of Science in Information Management (MSIM) program at the University of Washington Information School, Seattle (WA). The project is developing a Python-based Management and Business simulation to teach strategy and operational aspects of Human Resource Management.

# **Courses Taught in the Past**

**Area:** Information Systems, Data Analytics, Operations Management, Freight Transport, Supply Chain and Statistics.

#### Cranfield University Department of Logistics, Procurement and Supply Chain Management

- Inventory and Operations Management (Module lead for Executive MSc and full-time MSc program)
- Freight Transport and Transport Modelling (In Executive MSc and full-time MSc program)
- Big Data Analytics in Supply Chain (Module in charge for full-time MSc program)
- Quantitative Research Methods (In full-time MSc program)
- Statistics (In Executive MSc and full-time MSc program)
- Planning and Resourcing Road Freight Transport (In Executive MSc and full-time MSc program)
- Food Supply Chain Resilience (In full-time MSc program)

#### Loughborough University, School of Business and Economics

- Behavioural Operations Management (In full-time MSc program)
- Manufacturing Operations Management (In Undergraduate program)

- Global Logistics and Supply Chain Management (In full-time MSc program and Undergraduate program)
- Supply Chain Management (In full-time MSc program and Undergraduate program)

### University of Buckingham UK

- Business Information Systems (Module leader for Master's and Undergraduate programs)
- Database Management System using SQL and Microsoft Access (Module leader for Undergraduate program)
- Business Operations Management (In Undergraduate program)
- Introduction to MS Office (Undergraduate program)

\**Consistently receiving excellent teaching evaluation feedback (4.5/5 and above, among the best scores in the department).* 

# **RESEARCH OUTPUT**

#### **Journal Articles**

- Punzo, G., Tewari, A., Butans, E., Vasile, M., Purvis, A., Mayfield, M., & Varga, L. (2020). Engineering resilient complex systems: the necessary shift toward complexity science. *IEEE Systems Journal*, *14*(3), 3865-3874.
- Grubic, T., Varga, L., Hu, Y., & Tewari, A. (2020). Micro-generation technologies and consumption of resources: A complex systems' exploration. Journal of Cleaner Production, 247.
- Hu, Y., Tewari, A., Varga, L., Li, H., & Yan, J. (2017). System dynamics of oxyfuel power plants with liquid oxygen energy storage. Energy Procedia, 142, 3727-3733.

# Work in Progress

- Due for Submission to *Management Science* by November 2025, Tewari A., Pathak. S., Sen. Pradyot, Kim Y.; "*Network Dynamics of Bullwhip Effect*".
- Due for Submission to Journal of Production and Operations Management byDecember 2025, Tewari. A., Villena. V, Wiedmer. R.;" Local Vs Global: The Unintended Consequences Of Re-Shoring Initiatives".
- Due for Submission by October 2025, Tewari A, Pathak. S, Sen. Pradyot. "Can Earnings Management Trigger Bullwhip: A Study of Network Risks Associated with Incentive-Driven Financial Decisions."
- Due for Submission to Journal of Operations Management by December 2024, Tewari A., and Chu. J.; "Insidious Signals and Degree of Distortion: A Study of Sustainability Assurance Signaling".
- Due for Submission by January 2025, Tewari A, "The Use of Convolution Algorithm for an AIdriven Classification of Online Product Reviews."

# **Book Chapter**

Tewari, A., & Wilding, R. (2021), *Supply Chains as Complex Adaptive Systems*. In L. Bals, W. Tate, & L. M. Ellram (Eds.), A Handbook of Theories for Purchasing, Supply Chain and Management Research. Edward Elgar Publishing, In Press.

# **Peer-reviewed Conference Papers**

- Anurag Tewari, Aadish Jain, Aastha Sharma and Pavan Godiawala (2023) Virtual Factory Based Shop Floor Scheduling: An Application for a Semi Automated Manufacturing Environment. In 33<sup>rd</sup> Annual POMS Conference, May 21-25, Orlando (FL) USA
- Anurag Tewari, Farooq Habib (2022) Buyer Supplier Exit Strategy Evaluation Based On Data Driven Machine Learning Approach. In 32<sup>nd</sup> Annual POMS Conference, April 21-25, 2022.
- Pathak. S, Kim.Y, Tewari A, Sen. Pradyot (2020) The Apple Strategy: Linking Supply Network Structure to Supplier Liquidity Risk. In: 51<sup>st</sup> Annual Conference Decision Science, November 21-23, 2020.
- Tewari. A, Jain. A, Sharma. A, Godiawala. P (2020) Dynamical Simulation Analysis in An Apparel Manufacturing Environment. In **INFORMS Conference of Business Analytics & Operations Research**, April 26-28, 2020.
- Tewari A, Ghadge A & Bourlakis M (2019) Supply chain emergence: A reconceptualization and evidence from practice. In: **24th International Symposium on Logistics**, Würzburg, 14-17 July 2019.
- Tewari A, Varga E & Denyer D (2017) Influence of Micro Agent Behaviours on Macro Organizational Outcomes: A Study of Supply Chain Disruptions Using a Complexity Perspective. In: **EURAM 2017**, University of Strathclyde, Glasgow, Scotland, 21 June 2017.
- Varga E & Tewari A (2017) The ability of models to predict the effects of policy decisions. In: M2D Conference on Decision Making Under Uncertainty, **Exeter University**, 11 July 2017.
- Punzo G, Tewari A, Butans E, Mayfield M & Varga L (2017) Resilient and complex infrastructure: conjugating opposite ends of the spectrum. In: **3rd International Conference on Urban Sustainability & Resilience**, Bloomsbury, London, 13-14 June 2017.
- Tewari A & Varga L (2016) Mechanism of supply chain resilience and vulnerability. In: **EURAM**, 2016, Universite Paris est Creteil, Paris, 1-4 June 2016.
- Tewari A & Varga L (2016) Agents and Schemas: A study of upstream supply chain disruptions. In: **23rd EurOMA Conference**, **2016**, Trondheim, 17-22 June 2016.
- Gonzalez de Durana J, Rey R, Barambones O, Tewari A, Varga L & Kremers E (2014) Agent-based modelling of the energy network for hybrid cars. In: **Energy Systems Conference**, London, 24 June 2014.

# **OTHER ACADEMIC ACTIVITIES**

# **Research Projects and Funding**

- £ 5000 UKRI, STFC Food Network Expert working group, "Digital Platforms For Smallholders" 2023 (Group Chair and PI)
- £ 10,000 UKRI, STFC Food Network Scoping project; "Integrating data science,

IoT and AI capabilities for standardizing and automating food waste (food surplus) in Thailand", 2018-2019 (Co-PI)

- £ 43,470 Colgate-Palmolive Denmark Consulting Project; "Co-packing Assembly Efficiency Improvement", 2019-2020 (Co-PI).
- £500,000 EPSRC, ENCORE: "The Engineering Complexity Resilience Network", 2016-2018 (RF)
- £3m (ESRC, NERC, DEFRA, BEIS, FSA and EA), CECAN: Centre for the Evaluation of Complexity Across Nexus, 2017-2018 (RF)
- £ 300,000 EPSRC, TUCP: Transforming Utilities' Conversion Points, 2016-2017 (RA)

# **External Roles**

Advanced Independent Work External Examiner; Teesside University, Middlesbrough, UK.(April 2021 to Dec 2026);

# **Journal Reviews**

- Journal of Operations Management
- Operations Management Research
- Continuity & Resilience Review

# Invited talks/seminars/workshops

- Guest Talk, "Supply Chain and Industry 4.0" for a group of visiting scholars from "Association for Science and Technology of Fujian, China, at Peking University HSBC Business School, Foxcombe Hall, Boars Hill, Oxford OX1 5HR (21st Nov 2019)
- Invited Keynote Speaker, "Key Challenges for Future Supply Chains" for a National Conference organised by HN Institute of Management and Research Pune, India and The Indian Society for Training & Development (ISTD), ISTD, Pune, India (25th June 2021)

# **OTHER RELEVANT EXPERIENCE**

# Acharya Bangalore B School: Regional Director Admissions, Bangalore, India (January 2010 - July 2011)

#### Acharya Bangalore B School (ABBS) is a reputed B School of South India.

- Created a system of holistic brand building and systematic client tracking approach that improved the net enrolment ratio of course subscribers. It resulted in a 200 % growth, with annual turnover reaching a value of US\$2.7m.
- Developed a network of channel partners and consultants to promote the brand ABBS.

# Career Forum LTD: Centre Manager and Quantitative Faculty, Lucknow, India (December 2005 - December 2009)

Career Forum LTD is a test prep company with more than 60 centres across India. Bennett Coleman & Co. Ltd. (BCCL), the largest media house in the country, is a strategic investor in the company.

• Conducted classroom courses of Quantitative and reasoning ability for GMAT and GRE.

• Delivered personality development sessions for handling group discussions, case studies and personal interviews.

# IMS Learning Resource Pvt Ltd.: Faculty Quantitative Ability, Lucknow, India (April 2004- June 2005)

IMS is the leader in Management Entrance training. The institute has been ranked 4th in the education sector and 44th amongst India's Top 50 Most Trusted Service Brands.

• Tutored Quantitative ability and analytical reasoning to Tata Consultancy Service (TCS) engineers and IET Lucknow, a reputed government Engineering College of the province.

#### Asian PPG India LTD: Sales and Service Technologist, Gurgaon, India (June 1998 - October 1999)

Asian PPG is a joint Venture of PPG Inc USA and Asian Paints India Ltd, manufacturing industrial surface coating base coats and topcoats for prominent auto manufacturers like GM, Suzuki, Honda, Ford etc.

- Managed the logistics, sales and warehouse operations of the regional warehouse catering to Suzuki and Honda production lines in Gurgaon, India. Being located 600 miles from the main Manufacturing unit of Asian PPG, the challenge was maintaining a responsive and efficient supply chain. Successfully handled the supply chain of more than 500 SKUs in a conventional warehouse with supervision responsibilities for more than ten employees.
- Demonstrated exceptional customer handling and problem-solving skills and thus was entrusted with key customer accounts and projects. Represented Asian PPG in the joint commissioning of the prestigious Tecumseh India compressor unit at Faridabad, India, alongside Tecumseh Brazil and L&T India Ltd. Other key accounts included Maruti Suzuki, Hero Honda Motors Ltd and its OEMs, Escorts Tractors, Agri and Construction Equipment plants in Faridabad and their OEMs.

# **RELEVANT SKILLS**

- Python based Simulation and Modelling: Agent Based, Discrete Event and System Dynamics
- Python Based Data Analytics and machine learning applications.
- Supply Chain and Freight Transport modelling
- Programming in Python
- GIS modelling in QGIS
- Network Modelling Using GEPHI
- Modelling and Visualisation of Large Complex Systems

# AWARDS

- Dave Watson Memorial Award (2015-16): This is Cranfield Universities' clubs and societies' most important award given to the student who has made the greatest contribution to a sports club.
- **Research Officer (2014):** An elected Cranfield University student union post.

# **HOBBIES**

- Tennis (Runner up for 2021 Charnwood Tennis Club Doubles Championship)
- Cricket: ICC (International Cricket Council) Level 1 cricket coach from WACA Australia. Captain of Cranfield University cricket team since 2014.

- Music: Composer, song writer and singer. Music arrangement using Pro tools DAW and Native instruments Komplete instruments and effects over a MIDI keyboard.
- Music Instruments: Guitar, piano and flute.
- Painting: Landscape Oil on canvas