The Hong Kong Polytechnic University  
Department of Logistics and Maritime Studies  
Research Seminar

Data Science for Operations Management

by

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co-authored work with QI Annabelle Feng

Date: 15 February 2019 (Friday)  
Time: 10:30am - 11:30am  
Venue: M802, Li Ka Shing Tower  
The Hong Kong Polytechnic University

(Conducted in English)

Abstract:
We will review the various Data Science approaches that can be applied to problems arising in Operations Management Decision Making. Importance of the differences in “learning algorithms,” to “making the most of data,” decision making will be highlighted. Also, in either cases, the differences in adversarial modeling (min max regret), approximate modeling (objective operational learning) and model free decision making (multi armed bandit) will be highlighted. In the case of making the most of data, superiority of Operational Data Analytic approaches over Robust Optimization will be demonstrated.

Bio:
J. George Shanthikumar is the Richard E. Dauch Chair Professor of Manufacturing and Operations Management and a University Distinguished Professor of Management at the Krannert School of Management, Purdue University, West Lafayette, IN and a Professor Emeritus of Industrial Engineering and Operations Research at the University of California, Berkeley, CA. Before joining Purdue, he was a Chancellor’s Professor of Industrial Engineering and Operations Research at the University of California, Berkeley, CA. He received the B. Sc. degree in Mechanical Engineering from the University of Sri Lanka, Peradeniya, and the M. A. Sc. and Ph. D. degrees in Industrial Engineering from the University of Toronto, Toronto, Canada.


His research interests are in model uncertainty, learning, data-integrated operations management, production systems modeling and analysis, queueing theory, reliability, scheduling, semiconductor yield management, simulation, stochastic processes, and supply chain management. He has written or written jointly over 300 papers on these topics. He is a coauthor (with John A. Buzacott) of the book Stochastic Models of Manufacturing Systems and a coauthor (with Moshe Shaked) of the book Stochastic Orders and Their Applications and the book Stochastic Orders.

Dr. Shanthikumar has extensively consulted for various companies like Applied Materials (AMAT), Bellcore, IBM, KLA-Tencor, NTT (Japan), Intel, Intermolecular, Reel Solar, Safeway, and Southern Pacific Railways and through KLA-Tencor worked on Joint Development Projects for AMD, IBM, Intel, LSI, Motorola, TI, Toshiba, Fujitsu, TSMC and UMC. He is an advisory consultant for Sensor Analytics and a member of the technical advisory board of Inter Molecular Inc. and Reel Solar, Inc.

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All are welcome!