

INDUSTRIAL & SYSTEMS ENGINEERING SEMINAR



Wednesday, February 8

3:15 PM – Refreshments before the seminar

3:30 PM – Graduate Seminar

Mechanical Engineering Room 4125 A & B

Managing the Health Care Supply Chain

Dr. Sameer Kumar

Opus College of Business

University of St. Thomas

This talk presents a brief overview of trends, issues and applications from a systems' perspective. A study called "Supply Chain Disruption By Avian Flu Pandemic For U.S. Companies" illustrates the application of system dynamics. With the rise in global trade, supply chain coordination, and offshore services, a hypothetical outbreak of the avian flu could lead to a devastating effect on global food supply, business services and product supply chains. This paper uses a system dynamics modeling approach to examine the impact of the spread of avian flu and how an epidemic could affect business operations in the United States and overseas of two large U.S. companies whose markets and supply bases span the whole world. Wal-Mart and Dell Computers were chosen for their contrasts in business focus; one specializes in retail and the other in manufacturing. This study highlights awareness of the potential impact of a pandemic on business supply chain, as well as, the need to create contingency plans for corporate preparedness to avoid incurring huge losses.

Bio: As a Professor of Operations and Supply Chain Management and Qwest Endowed Chair in Global Communications and Technology Management at the Opus College of Business, University of St. Thomas, Minneapolis, Minnesota, Dr. Sameer Kumar's energy is focused on providing research leadership and a strong commitment to teaching and service. Dr. Kumar is an affiliate faculty and graduate faculty member in the Institute for Health Informatics at the University of Minnesota. He has published over 190 archival journal articles and seven books in healthcare systems applications, supply chain systems modeling, humanitarian logistics, environmental-friendly supply chains, systems engineering, system dynamics, risk management, knowledge management, outsourcing, production and service cost economics, and decision support systems. He has received research grants from NSF, the State of Wisconsin, and Society of Manufacturing Engineers. Dr. Kumar received the "2000 Star of Excellence Quality" Award from Medtronic Corporation for a successful design of an Assembly Line using PROMODEL Simulation Software. He has also received the "2010 Goodeve Medal" for the best paper published in the Journal of the Operational Research Society in 2009. He is active on ten editorial boards of academic journals, Associate Editor of *Decision Sciences* journal, Regional Editor for Americas of *Supply Chain Management* journal and advisor of a book series "*Supply Chain Management, Operations and Systems Engineering*" for the publishing firm, *Taylor and Francis*. Dr. Kumar has a Ph.D. (Industrial Engineering) and M.S. (Industrial Engineering and Operations Research), University of Minnesota, Minneapolis; M.S. (Computer Science), University of Nebraska, Lincoln; M.Sc. (Mathematics) and B.Sc. (Mathematics, Physics and Chemistry), University of Delhi, India. He is a registered Professional Engineer in Minnesota and has various industry certifications.

FOR MORE INFORMATION ON DR. KUMAR'S RESEARCH, please visit:

http://www.stthomas.edu/business/faculty/directory/Kumar_Sameer.html