

**MECHANICAL ENGINEERING DEPARTMENT
ME/IE 8773-8774**

**INDUSTRIAL ENGINEERING SERIES
Topic: INDUSTRIAL ENGINEERING
Host: Saif Benjaafar**

**Strategic Inventory Placement in Supply Chains:
Recent Developments and New Directions**

by

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**Wednesday, November 9, 2005
3:30-5:00 p.m.
Room 1130 ME**

Coffee and refreshments will be available at 3:15 p.m. in Room 1130 ME before and after the seminar

ABSTRACT — Manufacturing managers are facing increasing pressure to reduce inventories across the supply chain. However, in complex supply chains it is not always obvious where to hold safety stock so that inventory costs are minimized while still providing a high level of service to the final customer. This talk will provide an overview of past research (with Sean Willems) that develops models and algorithms for where to place strategic safety stocks in a supply chain. We will sketch new developments, including extensions to address non-stationary demand, capacity considerations and general network structures. We conclude with some observations on future directions for research.

BIO — Graves received his A.B. and M.B.A. from Dartmouth College and completed his Ph.D. in operations research from the University of Rochester. Since 1977 he has been on the faculty at MIT. He has previously served as a deputy dean at the Sloan School, 1990 – 1993 and the co-director of the MIT Leaders for Manufacturing (LFM) Program (1989- 1990 and 1994 – 2001) and the System Design and Management (SDM) Program (1999 – 2001). He served a two-year term as the chair of the MIT faculty, 2001 – 2003. He has joint faculty appointments with both the Mechanical Engineering Department and the Engineering Systems Division at MIT.

He teaches classes in mathematical modeling and analysis, as applied to decision making in the context of manufacturing, supply chains and distribution systems. His primary research interests are in the design and planning of manufacturing systems and supply chains; recent efforts have considered supply-chain optimization, the evaluation of manufacturing flexibility and various tactical issues arising in e-retailing. He has authored over 50 papers and is the co-editor of two handbooks: Logistics of Production and Inventory and Supply Chain Management: Design, Coordination and Operation. Graves has served on several editorial boards for journals in operations management and management science, and has consulted in areas of production, logistics and distribution systems to several organizations.

A resume, as well as recent papers, can be found at web site: <http://web.mit.edu/sgraves/www/>

Informal Faculty Luncheon: Wednesday, November 9, 2005, 12:00 noon. Meet in 1100 ME and walk to lunch with other faculty. Prof. Stephen Graves will be able to attend.