

## DO&IT Seminar Series

**Speaker:** Krishnan Anand, Assistant Professor  
The Wharton School, University of Pennsylvania

**Date:** Thursday, January 22, 2009

**Time:** 10:30 – 12 noon

**Location:** VMH 1336

**Title:** Can Information and Inventories be Complements?

### Abstract:

This paper models Information Systems (IS) in a supply chain, enabling the study of the interaction between material and information flows. The optimal dynamic production and distribution policies under demand uncertainty are derived as a function of the firm's IS. Since the supply chain model is quite general (with a non-parametric modeling of IS), the model and solution can be specialized to study different issues. This is illustrated through applications. Further, the effects of the informativeness and timing of the firm's IS on its optimal policies, sales and inventories are analyzed. It is shown that, contrary to conventional wisdom, information and inventories can be complements under quite general conditions; i.e., better information can lead to higher inventories. The drivers of this relationship are studied.

**Bio:** Krishnan S Anand is Assistant Professor of Operations and Information Management at the Wharton School of the University of Pennsylvania. Prior to joining the Wharton faculty, he taught at the Kellogg Graduate School on Management, Northwestern University.

Dr. Anand received a B.Tech in *Computer Science* from the Indian Institute of Technology (IIT) (Madras), an M.S. in *Management Science* from the Simon School of Business Administration, University of Rochester and his Ph.D. from the Stanford Graduate School of Business, Stanford University, with a concentration in Operations and Information Management.

Dr. Anand's research spans the areas of Operations / Supply Chain Management as well as the economics of Information Systems, and the interface of these two disciplines. His specific interests are in the interplay of Inventories, Information and Incentives in Supply Chains, and in Supply Chain Design and Management informed by these considerations. He also has ongoing research on strategic issues in e-Supply Chains, e-Procurement, Business Process Outsourcing and the optimal design of firms' Information Systems.

Dr. Anand has consulted with a variety of firms in the high-tech sector, and serves on the advisory boards of a number of Hi-Tech startups. Prior to his academic career, Dr. Anand worked in the Hi-Tech arena in a variety of positions. He was the co-founder and director of Juggernaut Systems Consultants, a consultancy firm specializing in turnkey software projects, executive training programs, and state-of-the-art systems software.