Energy-Aware Manufacturing

*Presented by:*

**Dr. Vittal Prabhu**
Professor, Marcus Department of Industrial and Manufacturing Engineering, Penn State

There is a need for energy-aware models of manufacturing systems that link the physics of energy consumption at the individual machine-level to the energy consumption at the factory and supply chain levels. Such models would enable designs and real-time control of green factories and fleets. Researching the energy dimension of manufacturing system from control of machine tools to operations of their supply chains will span a time scale of milliseconds up to years, posing several challenges in terms of fidelity of the models. This talk will cover our recent work in this area including theoretical, simulation and experimental results.

**About the speaker:**

Dr. Vittal Prabhu is currently a Professor in the Marcus Department of Industrial and Manufacturing Engineering at Penn State. He received his PhD in Mechanical Engineering from the University of Wisconsin-Madison. Professor Prabhu works in the area of distributed control systems with a focus on manufacturing and service enterprises consisting of discrete-events, physical process, and service processes. He teaches courses in manufacturing systems, service systems, and distributed controls.