Introduction to Sustainable Manufacturing

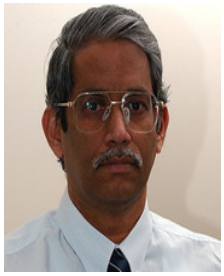
Overview

Manufacturing systems though create material wealth for humans; they consume a great amount of resources while generating a lot of waste. The waste generated during the manufacturing processes, during the use of the products and after the end of the life of the products is responsible for the degradation of the environment. Sustainable manufacturing (SM) is a system that integrates product and process design issues with issues of manufacturing, planning and control in such a manner as to identify, quantify, assess, and manage the flow of environmental waste with the goal of ultimately reducing the environmental impact so that the self-recovery capability of the Earth could be enhanced. In order to start a successful research program in sustainable manufacturing, it is necessary that all the players should have sufficient knowledge of the requirements and are thoroughly familiar with the tools that are available. Unfortunately, the current awareness among the academia about the availability of such tools is not that encouraging. This workshop is an attempt to bring the awareness of sustainability in manufacturing to a broad range of practitioners at the academic institutions, research organizations and industries. This workshop will help to stimulate the interest in sustainable manufacturing and accelerate the adoption by a larger group, the principles of sustainability in various manufacturing practices. The main purpose to be served by the workshop is the transfer of the state-of-art knowledge in the area of sustainable manufacturing, and networking among the US and Indian scientists to further progress in this area.

Course Information	➢ **Duration:** December 19 – December 23, 2016 ➢ **Total Contact Hours:** 35 hours: 4 hour lectures/day, 3-hour lab, over 1-week ➢ **Number of participants for the course will be limited to fifty.**
Modules	➢ Introduction to Sustainability – Basic concepts, LCA. ➢ Design for Environment, Economic Metrics. ➢ Sustainability in Manufacturing Systems
You Should Attend if	➢ Executives, engineers and researchers from manufacturing, service and government organizations including R&D laboratories. ➢ Students at all levels (B.Tech./M.Sc./M.Tech./Ph.D.) or Faculty Members from reputed Academic institutions and technical institutions.
Fees	The participation fees for taking the course is as follows: ➢ **Participants from abroad**: 800 US$ ➢ **Industry/ Research Organizations**: **INR 5000** ➢ **Academic Institutions**: **INR 3000 for faculty/ INR 1000 for Research Scholars** ➢ The above fee includes all instructional materials, computer use for tutorials and assignments. The participants will be provided accommodation on payment basis.

The Faculty

Prof. P.N. Rao



Educated in Mechanical engineering in India with specialization in manufacturing engineering. Major teaching activities in manufacturing in India, Malaysia and USA over the last 40+ years. Research in various manufacturing and allied disciplines with major emphasis in Metal cutting, computer applications, mathematical modelling and sustainability. Author of a few books that are widely used in India and Asia as textbooks in manufacturing engineering.

Prof. S. G. Deshmukh

Dr. S. G. Deshmukh is currently a professor in the department of Mechanical Engineering at IIT Delhi. His research interest includes operations management including modeling and analysis of supply chain and quality issues and has publications in journals of repute. Dr. S. G. Deshmukh is affiliated with IIIE, ISME, POMS, NCQM and other professional societies.

Prof. G.S . Dangayach

Dr. Govind Sharan Dangayach is Professor and Head in Department of Mechanical Engineering in MNIT JAIPUR. He has published 200 research papers in various International and National Journals. He is Guest Editor of three International Journals viz. Production Planning & Control (PPC), International Journal of Manufacturing Technology & Management (IJMTM), and International Journal of Business Performance Management (IJBPM).

Course Coordinator

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