

Scheduling Systems - An Integrated View on Models, Methods and Tools with a Focus on Manufacturing and Service Systems

Overview

This course will provide a state-of-the-art overview of scheduling systems in manufacturing and service industries by presenting the framework of scheduling systems, main modelling approaches and representative solution approaches. We will focus mainly on manufacturing settings but will also address similarities and differences between manufacturing scheduling and scheduling in service industries. Among others, we will focus on aspects of the real-world context of scheduling models and methods including different shop structures (e.g., flow shops and job shops) and issues of bi- and multi-criteria problems in scheduling.

The course is for those who are considering to enter deeper into this research and application area, e.g. master students, early PhD students, researchers from related areas or practitioners working in this field. It is recommended that the participants have at least some basic knowledge background in operations research/operations management. The course is designed to give insights into approaches to job scheduling. From a systems perspective, it will present ideas and structures both with respect to formal approaches as well as with respect to areas of application.

The course will cover the following key aspects:

- Introduction to and Framework of Manufacturing and Service Scheduling
- Scheduling Models
- Scheduling Methods
- Scheduling Tools

Dates for the Course	8th July, 2016 to 17th July, 2016
Host Institute	IIT Madras
No. of Credits	2
Max. No. of Participants	40
You Should Attend If ...	<ul style="list-style-type: none">▪ You are an engineer or Operations Research professional interested in the management of operations and scheduling of jobs.▪ You are a student, a PhD student or a faculty member in Engineering, Management, Operations Research or Operations Management, interested in structural and quantitative aspects of scheduling of jobs and operations.
Course Registration Fees	The participation fees for taking the course is as follows: Student Participants: Rs. 2000 Faculty Participants: Rs. 3000 Industry Participants Rs. 6000 The above fee is towards participation in the course, course material/handout, relevant text book, and any other resource utilized in IIT Madras. Mode of payment: Demand draft in favour of "Registrar, IIT Madras" payable at Chennai
Accommodation	The participants may be provided with hostel accommodation, depending on the availability, on payment basis. Request for hostel accommodation may be submitted through the link: http://hosteldine.iitm.ac.in/iitmhostel

Course Faculty



Dr. Leisten is Professor for Business Administration and Operations Management in the Faculty of Engineering of the University of Duisburg-Essen, Germany. His degrees are from the University of Cologne (Master (Diplom) in Mathematics with Business Administration, Ph. D. in Industrial Management and Operations Research) and from the University of Heidelberg (Habilitation in Business Administration). Dr. Leisten's main research areas include manufacturing scheduling, supply chain management and multi-level decision making in industrial management. He published four books and numerous papers, many of them in reviewed journals. In addition, numerous company projects, mainly with manufacturing companies were and still are carried out by Dr. Leisten and his group.



Dr. C. Rajendran is a Professor in the Department of Management Studies at Indian Institute of Technology Madras. His research interests include production planning and scheduling, total quality management and supply chain management. He has more than 125 publications related to these areas in many international journals such as European Journal of Operational Research, International Journal of Production Research, Journal of Operational Research Society, International Journal of Operational Research, Computers and Operations Research, and International Journal of Logistics Systems and Management. He is a recipient of Alexander von Humboldt Fellowship of Germany.

Course Coordinator

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