INSTITUT NATIONAL
DES SCIENCES
APPLIQUÉES
LYON

Projects

Production Scheduling and flow management

IDENTIFICATION

CODE :   MSGI-ORDO
ECTS :   3.0

HOURS

Lectures :	0.0 h
Seminars :	24.0 h
Laboratory :	0.0 h
Project :	0.0 h
Teacher-student contact :	24.0 h
Personal work :	12.0 h
Total :	36.0 h

ASSESSMENT METHOD

Oral, individual : 15 min
1 report per group

TEACHING AIDS

Teaching assistance on a case study
INCOPLAN software

TEACHING LANGUAGE

French

CONTACT

M. DAOUZLI Merwane
@

AIMS

This teaching takes place over the period November till April

Being able to use a scheduling software from technical data to generation of the scheduling solutions. Being aware of selection criteria for a scheduling software, advantages and disadvantages of such software.
More specifically, knowledge of data, information and methods required for such a tool.

CONTENT

Study of the project consisting in the implementation of a scheduling software (INCOPLAN). From the data of a manufacturing company which decides to modify its scheduling system, we carry out the following steps:
- Study of technical data (operations, resources, processing times, routing (operation sequencing), production orders ...), and computation of estimated loads for personnel and equipment.
- Study of the effects of several sequencing heuristics in final solution as well as the effects of work periods.
- Analysis of working hours and harmonization of scheduling solutions.
- Consideration of the constraints (Overlapping, splitting, non-preemption, etc) and unexpected events (breakdown of a machine ...).
- Technical, financial and risk analysis and evaluation of the scheduling software.

BIBLIOGRAPHY

M. Pinedo ; Scheduling: Theory, Algorithms, and Systems, Prentice Hall, 2001

PRE-REQUISITE

Modules GP1 : production management and scheduling
Basic knowledge about production scheduling (technical data and scheduling method)

INSA LYON
Campus LyonTech La Doua
20, avenue Albert Einstein - 69621 Villeurbanne cedex - France
Phone +33 (0)4 72 43 83 83 - Fax +33 (0)4 72 43 85 00
www.insa-lyon.fr