

SOFT COMPUTING METHODS IN MANUFACTURING AND MANAGEMENT SYSTEMS

Contents of the session:

Management of manufacturing systems involves development of detailed solutions related to decision making and problem solving processes. There are many important decisions to be taken and high complexity problems to solve (NP-hard), related to e.g. processes organization, planning and control of manufacturing systems. Special attention is paid to inexact solutions for which there is no known algorithm that can obtain an exact solution in polynomial time. The aim of this session is to present results of research related to management of production systems. Taking into account the complexity of problems related to production management, soft computing may deliver the most adequate answers.

Topics:

Application of soft computing methods and tools to problem solving in:

- Manufacturing Systems Integration
- Modelling and Design
- Control and Supervision
- Production Planning and Scheduling
- Project Management
- Supply Chain Management
- Virtual Organisation
- Data Mining and Data Recognition
- Integration of Organisational and Technical Production Preparation
- Production System Organization
- Production Management
- Computer Integrated Manufacturing
- System Layout
- Line Balancing

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