

International Journal of Production Research

Special Issue - Call for Papers

Multi-agent and Holonic Techniques for Manufacturing Systems: Technologies and Applications

Deadline: November 30, 2009

Nowadays the manufacturing sector faces a fundamental change from a vendor's to a customer's market. The manufacturer's success is no more measured by their ability to cost-effectively produce a single product; success now seems to be measured in terms of flexibility, agility and versatility. The new requirements for manufacturing systems have motivated researchers in academia and industry to create and exploit new production paradigms on the basis of autonomy and co-operation because both concepts are necessary to create flexible behaviour and thus to adapt to the changing production conditions. Such technologies provide a natural way to overcome these problems, and to design and implement distributed intelligent manufacturing environments. Agent based manufacturing systems, and holonic manufacturing systems are considered as important approaches for developing industrial distributed systems.

This special issue is aimed at reviewing the state-of-the-art of researches and applications, addressing the major challenges and issues of developing and applying multi-agent and holonic approaches for manufacturing systems, including but are not limited to topics such as:

- Industrial applications of distributed intelligent systems, state of the art
- Open intelligent manufacturing systems
- Internet based computing for Manufacturing
- e-manufacturing
- Communication principles and standards for industrial domains
- Virtual organizations & holonic factories - reconfigurable factories
- Multi-agent based system integration
- Modeling and simulation tools
- Reconfiguration tasks, coalition formation, knowledge ontologies
- Standardization issues, security issues, industrial needs
- Industrial applicability, state of the art and future trends
- Specification of holonic and agent-based architectures and design methodologies
- Collaborative design of products and manufacturing processes
- Case Studies

Please submit your paper by email to the Guest Editor as a PDF file, following the instructions for authors on the IJPR website:

<http://www.tandf.co.uk/journals/journal.asp?issn=0020-7543&linktype=44>

Please do not use IJPR's online submission system.

Guest Editor of Special Issue

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Important Dates

1. Deadline for manuscripts submissions: November 30, 2009
2. Target for the completion of the first round of reviews: February 10, 2009
3. Deadline for the submissions of revised manuscripts: April 15, 2010
4. Target for the completion of the second (last) round of reviews: June 15, 2010
5. Target for sending the accepted manuscripts to the publisher: August 1, 2010