IFAC TC 5.2

Manufacturing Modelling for Management and Control

Working group: Design and Control of Reconfigurable Manufacturing Systems

Co-chairs: Prof. Alexandre Dolgui, Dr. Luminita Duta and Prof. Manoj Kumar Tiwari

The working group investigates and develops novel modelling approaches for designing and management of reconfigurable machining, assembly and disassembly systems.

Equipment selection and process planning;
Production system dimensioning;
Assembly and disassembly line design and balancing;
Robotic cell design;
Scheduling and planning;
Operations management and flow analysis
Operators inclusion and integration in the system
Layout design and management of reconfigurable manufacturing/assembly machines

Keywords: RMS, Assembly, Machining, Flexibility, Design, Optimization

19th IFAC WC 2014, “Balancing and Sequencing in Assembly and Machining Lines.” Cape Town, South Africa. August 24-29, 2014, organized by Prof. A. Dolgui (France), Prof. Y. Bukchin (Israel) and Dr. F. Lolli (Italy)

WC IFORS 2014, Barcelona, July 13-19, 2014, “Process Planning and Task Scheduling under Uncertainties”, Organizers: A. Dolgui, O. Battaïa

WC IFORS 2014, Barcelona, July 13-19, 2014, “Balancing and Sequencing of Assembly Lines”, Organizers: A. Dolgui, A. García-Villoria (Spain), X. Delorme

IFAC INCOM 2015, Track: “Production System Design and Optimization”, Chairs: A. Dolgui, J. Li (USA), S. M. Meerkov (USA)

IFAC INCOM 2015, 2 sessions: “Assembly Line Balancing and Scheduling Problems”, Organizers: X. Delorme, A. Dolgui, O. Gusikhin (USA), E.R. Gafarov (Russia), O. Hazir (Turkey)

IFAC INCOM 2015, Invited session: “Design, balancing and optimization of disassembly lines and systems”, O. Battaïa, M.L. Bentaha, A. Dolgui, M. K. Tiwari