

WEDNESDAY November 05, 2014

08:30 - 09:15	Registration & Welcome
09:15 - 09:45	Opening Ceremony
09:45 - 10:30	Plenary Session: "From Linear Economy Short-Term Techno-Centred to a Long Term Interconnected Ecology" <i>Prof. Guy A. Boy, Florida Institute of Technology, USA</i>
10:30 - 11:00	Coffee Break
11:00 - 12:00	Plenary Session: "Cyber-Physical Systems as Technological Driver for Industry 4.0" <i>Prof. Paulo Leitão, Polytechnic Institute of Bragança, Portugal</i>
12:00 - 13:30	Lunch
13:30 - 15:30	Technical Session 1: Holonic and Agent-based Industrial Automation Systems
15:30 - 16:00	Coffee Break
16:00 - 17:20	Technical Session 2: Service-oriented Management and Control of Manufacturing Systems
17:25 - 18:45	Technical Session 3: Distributed Modelling for Safety and Security in Industrial Systems
19:30	City tour (optional)

THURSDAY November 06, 2014

08:30 - 09:30	Plenary Session: Intelligent Products In Logistics: The Rise of the Customer <i>Prof. Duncan McFarlane, University of Cambridge, UK</i>
09:30 - 10:00	Coffee Break
10:00 - 12:00	Technical Session 4: Complexity, Big Data and Virtualization in Computing-oriented Manufacturing
12:00 - 13:30	Lunch
13:30 - 15:30	Technical Session 5: Adaptive, Bio-inspired and Self-organized Multi-Agent Systems for Manufacturing
15:30 - 16:00	Coffee Break
16:00 - 18:00	Technical Session 6: Physical Internet Simulation, Modelling and Control
19:30	Gala dinner (on reservation)

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11:00 - 12:00	Plenary Session: "Cyber-Physical Systems as Technological Driver for Industry 4.0" <i>Prof. Paulo Leitão, Polytechnic Institute of Bragança, Portugal</i> Chair: Damien Trentesaux (University of Valenciennes and Hainaut-Cambresis, France)

Technical Session 1: Holonic and Agent-based Industrial Automation Systems

Chairs: Petr Novak (Vienna University of Technology, Austria)

Damien Trentesaux (University of Valenciennes and Hainaut-Cambresis, France)

13:30-13:20	<i>Engineering of Coupled Simulation Models for Mechatronic Systems,</i> Petr Novák, Petr Kadera, Václav Jirkovský, Pavel Vrba, Stefan Biffli
13:20-13:40	<i>Optimizing Power Consumption in Robotized Job-Shop Manufacturing,</i> Silviu Răileanu, Florin Anton, Alexandru Iatan, Theodor Borangiu, Silvia Anton
13:40-14:00	<i>Coupling Predictive Scheduling and Reactive Control in Manufacturing: State of the Art and Future Challenges,</i> Olivier Cardin, Damien Trentesaux, Andre Thomas, Pierre Castagna, Thierry Berger, Hind Brill
14:00-14:20	<i>Application of Holonic Paradigm to Hybrid Processes: Case of a Water Treatment Process,</i> Carlos Indriago, Olivier Cardin, Naly Rakoto, Edgar Chacón, Pierre Castagna
14:20-14:40	<i>Implementation of an Erlang-based Resource Holon for a Holonic Manufacturing Cell,</i> Karel Kruger, Anton Basson

Technical Session 2: Service-oriented Management and Control of Manufacturing Systems

Chairs: Olivier Cardin (University of Nantes, France)

Christoph Legat (Technical University of Munich, Germany)

16:00-16:20	<i>ANEMONA-S + Thomas: a Framework for developing Service-Oriented Intelligent Manufacturing Systems,</i> Adriana Giret, Vicente Botti
16:20-16:40	<i>An Orchestration Engine for Services-oriented Field Level Automation Software,</i> Christoph Legat, Birgit Vogel-Heuse
16:40-17:00	<i>Process Specification Framework in a Service Oriented Holonic Manufacturing Systems,</i> Francisco Gamboa, Olivier Cardin, Anne L'Anton, Pierre Castagna
17:00-17:20	<i>Aligning Decision support with Shop Floor operations. A proposal of intelligent product based on BDI physical Agents,</i> Pablo Garcia Ansola, Andrés García, Javier de las Morenas

Technical Session 3: Distributed Modelling for Safety and Security in Industrial Systems

Chairs: Nassima Aissani (University of Oran)

Theodor Borangiu (University Politehnica of Bucharest, Romania)

17:25-17:45	<i>Risk and Hazard Control Solutions based on Reconfigurability,</i> Radu Dobrescu, Gheorghe Florea
17:45-18:05	<i>Wireless Control Network for Intralogistics Service in a Holonic and Isoarchic Control Approach,</i> Patrick Pujo, Fouzia Ounnar, Tarik Remous
18:05-18:25	<i>From Centralized Modelling to Distributed Design in Risk Assessment and Industrial Safety: Survey and Proposition,</i> Nassima Aissani, Islam Hadj Mohamed Guetarni
18:25-18:45	<i>A Multi-Agent based Platform for Safety Control,</i> Brahim Boudiaf, Sorya Zebirate, Nassima Aissani, Abdelkader Chaker

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Technical Session 4: Complexity, Big Data and Virtualization in Computing-oriented Manufacturing

Chairs: Radu Băbiceanu (Embry-Riddle Aeronautical University, USA)

Theodor Borangiu (University Politehnica of Bucharest, Romania)

10:00-10:20	<i>Redundancy Mechanisms for Virtualized MES Workloads in Private Cloud,</i> Octavian Morariu, Silviu Răileanu, Theodor Borangiu
10:20-10:40	<i>Internet of Things, Big Data, and Manufacturing Operations: Towards Predictive Manufacturing Systems,</i> Radu F. Băbiceanu, Remzi Seker
10:40-11:00	<i>A Framework for the Development of Manufacturing Cyber-Physical Systems Enabled by Complex Event Processing and Big Data Environments,</i> Radu F. Băbiceanu, Remzi Seker
11:00-11:20	<i>Planning and Control of Maintenance, Repair and Overhaul Operations of a Fleet of Complex Transportation Systems: A Cyber-Physical System Approach,</i> Damien Trentesaux, Thomas Knothe, Guillaume Branger, Klaus Fischer
11:20-11:40	<i>Toward an Ontology-based Architecture for Cloud Manufacturing,</i> Asma Talhi, Jean-Charles Huet, Virginie Fortineau, Samir Lamouri

Technical Session 5: Adaptive, Bio-inspired and Self-organized Multi-Agent Systems for Manufacturing

Chairs: Silviu Răileanu (University Politehnica of Bucharest, Romania)

Andre Thomas (University of Lorraine, France)

13:30-13:40	<i>Evaluating the Applicability of Multi Agent Software for Implement-ing Distributed Industrial Data Management Approaches,</i> Torben Jess, Philip Woodall, Duncan McFarlane
13:40-13:50	<i>Self-Interested Service-Oriented Agents based on Trust and QoS for Dynamic Reconfiguration,</i> Nelson Rodrigues, Paulo Leitao, Eugénio Oliveira
13:50-14:00	<i>Volatile Knowledge to Improve the Self-Adaptation of Autonomous Shuttles in Flexible Job Shop Manufacturing System,</i> Emmanuel Adam, Damien Trentesaux
14:00-14:20	<i>A Model for Manufacturing Scheduling Optimization through Learning Intelligent Products,</i> Bouazza Wassim, Yves Sallez, Aissani Nassima, Bouziane Beldjilali
14:20-14:40	<i>Fuzzy Decision-Making Method for Product Holons Encountered Emergency Breakdown in Product-Driven System: An Industrial Case,</i> Ming Li, Hind Bril, Andre Thomas, Arnould Guidat

Technical Session 6: Physical Internet Simulation, Modelling and Control

Chairs: Yves Sallez (University of Lille Nord de France)

Benoit Montrueil (Laval University, Canada)

16:00-16:20	<i>On the Activeness of Physical Internet containers,</i> Yves Sallez, Benoit Montrueil, Eric Ballot
16:20-16:40	<i>Adaptive Storage Location Assignment for Warehouses using Intelligent Products,</i> Nikolaos Tsamis, Vaggelis Giannikas, Duncan McFarlane, Wenrong Lu, James Strachan
16:40-17:00	<i>Open Tracing Container Repositioning Simulation Optimization: A Case Study of FMCG Supply Chain,</i> Shenle Pan, Eric Ballot
17:00-17:20	<i>A New Framework for the Management of Returnable “Containers” Within Open Supply Networks,</i> Yann Le Roch, Eric Ballot, Xavier Perraudin
17:20-17:40	<i>A Simulated Annealing Metaheuristic for a Rail-Road PI-Hub Allocation Problem,</i> Faiza Walha, Sondes Chaabane, Abdelghani Bekrar, Taicir Loukil
17:40-18:00	<i>Human-in-the-Loop Cyber-Physical Production Systems Control (HiLCP2sC),</i> Mehdi Gaham, Brahim Bouzouia, Noura Achour