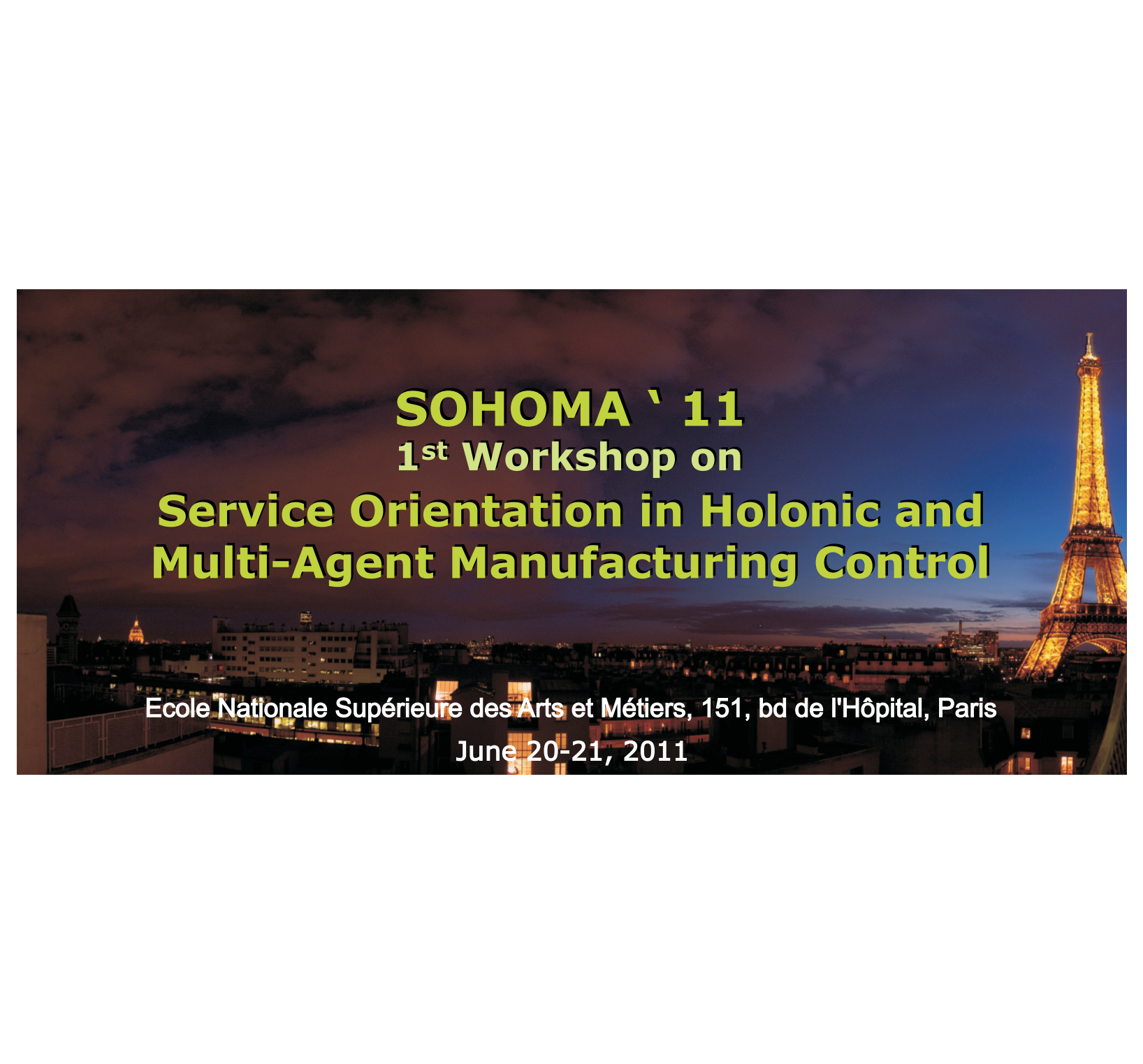


A nighttime photograph of the Paris skyline, featuring the Eiffel Tower on the right, illuminated with golden lights. The sky is dark with some clouds, and the city lights are visible in the background.

SOHOMA ' 11

1st Workshop on

Service Orientation in Holonic and

Multi-Agent Manufacturing Control

Ecole Nationale Supérieure des Arts et Métiers, 151, bd de l'Hôpital, Paris

June 20-21, 2011

Workshop Organizers



Scientific Committee

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Theodor Borangiu (CIMR, RO)

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Damien Trentesaux (TEMPO, F)

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The main goal of the ERRIC project is to empower the Faculty of Automatic Control and Computers existing excellence in research by unlocking its significant research potential and enhancing its national and regional leadership position in selected areas of Intelligent Information Technologies: agreement technologies, semantic and collaborative technologies for the web, advanced grid technologies, large scale distributed system services, and adaptive intelligent control.

The **SOHOMA'11** Workshop is organized in the framework of the European FP7 Project ERRIC, the objective of which is to foster innovation in control of sustainable manufacturing and in this context to empower excellence in research in the faculty of Automatic Control and Computer Science of the University Politehnica of Bucharest thus enhancing its national and regional leadership position in selected areas of Intelligent Information Technologies applied to manufacturing.

Keynote Speakers



Jose Barata, Professor, New University of Lisbon, Portugal,
Evolvable Production Systems - Current implementations using Multiagents and Services

Diem Ho, PhD, University Relations Manager IBM Europe, Middle East and Africa,
Service Orientation: from good-dominant to service-dominant



Duncan McFarlane, Professor, University of Cambridge, United Kingdom,
Distributed Intelligence in Manufacturing and Service Environments

Paul Valckenaers, Professor, Catholic University of Leuven, Belgium,
Design for the Unexpected - PROSA and Delegate MAS revisited



Workshop Program

Day 1: June 20, 2011

Time	Event
10:00 – 10:30	Registration and welcome coffee
10:30 – 10:45	Opening session (Alex Rémy, ENSAM director;Theodor Borangiu ERRIC FP7 Task Force Committee Manager)

Plenary Session 1, Chair Damien Trentesaux (University of Valenciennes and Hainaut Cambrésis, France)

10:45 – 11:30	Keynote presentation 1 (KP1), Amphitheater Manet Diem Ho, PhD, University Relations Manager IBM Europe, Middle East and Africa, Service Orientation: from good-dominant to service-dominant
11:30 – 12:30	Keynote presentation 2 (KP2), Amphitheater Manet Jose Barata, Professor, New University of Lisbon, Portugal, Evolvable Production Systems - Current implementations using Multiagents and Services
12:30 – 14:00	Lunch

Session MO1, Room A1, Chair Yves Sallez (University of Valenciennes and Hainaut Cambrésis, France)

14:00 – 14:20	Theodor Borangiu, Silviu Raileanu, Octavian Stocklosa, Christian Tahon, Thierry Berger, Damien Trentesaux, Holonic service oriented control framework for a system characterized by a guided flow of entities
14:20 – 14:40	Yves Sallez, The Augmentation Concept: How to make a Product “Active” during its Life Cycle
14:40 – 15:00	Alexandru Dumitrache , Theodor Borangiu , Sylvain Pateloup, Grigore Gogu, Knowledge-Based Adaptive Machining Concept for Service Oriented Architectures

Workshop Program

Day 1: June 20, 2011

Session MO2, Room A2, Chair Doru Panescu ("Gheorghe Asachi" Technical University of Iasi, Romania)

14:00 – 14:20	Gildas Morvan, Daniel Dupont, Jean-Baptiste Soyez, Rochdi Merzouki, Engineering hierarchical complex systems: an agent-based approach
14:20 – 14:40	Doru Panescu, Carlos Pascal, HAPBA - a Holonic Adaptive Plan-Based Architecture
14:40 – 15:00	Florin Daniel Anton, Theodor Borangiu, Silvia Anton, Marco Ceccarelli, Giuseppe Carbone Integrating Intelligent Robot Services in Holonic Manufacturing
15:00 – 15:30	Coffee Break

Session MO3, Room A1, Chair Yves Sallez (University of Valenciennes and Hainaut Cambrésis, France)

15:30 – 15:50	Sylvain Kubler, William Derigent, Andre Thomas, Eric Rondeau, Key Factors for Information Dissemination on Communicating Products and Fixed Databases
15:50 – 16:10	Iulia Ștefan, George Mois, Szilárd Enyedi, Liviu Miclea, A Load Balancing Algorithm for Multi-Agent Systems
16:10 – 16:30	Gabriel Zambrano Rey, Nassima Aissani, Abdelghani Bekrar, Damien Trentesaux, A holonic approach to myopic behavior correction for the allocation process in flexible-job shops using recursiveness

Session MO4, Room A2, Chair Doru Panescu ("Gheorghe Asachi" Technical University of Iasi, Romania)

15:30 – 15:50	Aurelian Mihai Stanescu, Mihnea Alexandru Moisesescu, Ioan Stefan Sacala, Irina Gabriela Lolu, Towards Internet of the Future oriented Supply Chain Management Systems
15:50 – 16:10	Luminita Duta, Sid-ali Addouche, Dynamic Bayesian Network for Decision Aided Disassembly Planning
19:30 –	Workshop dinner at Cafe Reale (Eliance Museums Kiosque Nord Ouest, Jardin des Tuileries, 75001 Paris). The restaurant is close to the Tuileries Gardens.

Workshop Program

Day 2: June 21, 2011

Plenary Session 2, Andre Thomas (University of Nancy, France)

10:00 - 11:30	Keynote presentation 1 (KP3), Amphitheater Manet Duncan McFarlane, Professor, University of Cambridge, United Kingdom, Distributed Intelligence in Manufacturing and Service Environments
11:30 – 12:30	Keynote presentation 2 (KP4), Amphitheater Manet Paul Valckenaers, Professor, Catholic University of Leuven, Belgium, Design for the Unexpected - PROSA and Delegate MAS revisited
12:30 – 14:00	Lunch

Session TU1, Room A1, Chair Theodor Borangiu (University Politehnica of Bucharest, Romania)

14:00 – 14:20	Yves Dubromelle, Fouzia Ounnar, Patrick Pujo, Service Oriented Architecture for Holonic and Isoarchic Control
14:20 – 14:40	Carlos Herrera, Sana Belmokhtar Berraf, Andre Thomas, Viable System Model approach for holonic product-driven manufacturing systems
14:40 – 15:00	Adriana Tapus, Towards Personalized Assistive Human-Robot Interaction

Session TU2, Room A2, Chair Vittaldas Prabhu (Penn State University, USA)

14:00 – 14:20	Olivier Cardin, Pierre Castagna, Online simulation for holonic manufacturing systems
14:20 – 14:40	Gabriel Neagu, Service-oriented Implementation of a Multi-agent Model for Job-shop Scheduling
14:40 – 15:00	Vittaldas V. Prabhu, Services for Competitive and Sustainable Manufacturing in the Smart Grid
15:00 – 15:30	Coffee Break

Workshop Program

Day 2: June 21, 2011

Session TU3, Room A1, Chair Theodor Borangiu (University Politehnica of Bucharest, Romania)

15:30 – 15:50	Nick Andrei Ivanescu, Mihai Parlea, Andrei Rosu, Different Approaches Regarding the Operational Control of Production in a Flexible Manufacturing Cell
15:50 – 16:10	Calin Munteanu, Simona Caramihai, Mihnea Moisesescu, Ioan Sacala, Using hybrid Petri nets for performance analysis in manufacturing systems
16:10 – 16:30	Adina Magda Florea, Decision-making algorithms in MAS for industrial applications

Session TU4, Room A2, Chair Vittaldas Prabhu (Penn State University, USA)

15:30 – 15:50	Silviu Raileanu, Mihai Parlea, Octavian Stocklosa, Intelligent product-driven automation for holonic manufacturing based on Intelligent Products and JADE Environment
15:50 – 16:10	Eric Ballot, Benoit Montreuil and Frédéric Fontane, Contribution of swarm intelligence to the Physical Internet: toward an open framework and decentralized decisions system to operate logistics networks