



I3M Multiconference Program

I3M: The 10th International Multidisciplinary Modelling & Simulation Multiconference

General Chair

Agostino G. Bruzzone - DIME - University of Genoa, Italy
Yuri Merkuryev - Department of M&S, Riga TU, Latvia

Program Chair

Francesco Longo - MSC-LES, DIMEG, University of Calabria, Italy

EMSS: The 25th European Modelling & Simulation Symposium,

EMSS General Chairs:

Francesco Longo, MSC-LES, DIMEG, University of Calabria, Italy
Emilio Jimenez, University of La Rioja

HMS: The 15th International Conference on Harbour, Maritime & Multimodal Logistics Modelling and Simulation

HMS General Chairs:

Agostino Bruzzone, DIMEG, University of Genoa, Italy
Yury Merkuryev, Riga Technical University, Latvia

HMS Program Chair:

Manfred Gronalt, University of Natural Resources and Life Sciences Vienna, Austria

MAS: The 12nd International Conference on Modelling & Applied Simulation**MAS General Chairs:**

Michael Affenzeller, Upper Austria University of Applied Sciences, Austria
Marina Massei, Liophant Simulation, Italy

MAS Program Chairs:

Fabio De Felice, University of Cassino, Italy
David Del Rio Vilas, University of a Coruna, Spain

IMAACA: The 7th International Conference on Integrated Modeling and Analysis in Applied Control and Automation**IMAACA Conference Chairs:**

Sergio Junco, Universidad Nacional de Rosario, Argentina
Geneviève Dauphin-Tanguy, Ecole Centrale de Lille, France

DHSS: The 3rd International Defense and Homeland Security Simulation Workshop**DHSS General Chairs:**

Agostino Bruzzone, MITIM DIME, University of Genoa, Italy
John A. Sokolowski, Virginia Modeling, Analysis and Simulation Center, VA, USA

DHSS Program Chair:

Wayne Buck, HQ Supreme Allied Commander Transformation, NATO
Robert Sottolare, US Army, USA

I_WISH: The 2nd International Workshop on Innovative Simulation for Health Care**I_WISH General Chairs:**

Marco Frascio, University of Genoa, Italy
Vera Novak, BIDMC, Harvard Medical School, USA

I_WISH Program Chair:

Werner Backfrieder, Upper Austrian University of Applied Sciences, Austria

SESDE: The 1st International Workshop on Simulation for Energy, Sustainable Development & Environment**SESDE General Chairs:**

Francesco Longo, MSC-LES, M&SNet Center, University of Calabria, Italy
Janos Sebestyen Janosy, MTA EK Centre for Energy Research Hungarian Academy of Sciences

SESDE Program Chair:

Gerson Cunha, Grupo de Realidade Virtual Aplicada - LAMCE/COPPE/UFRJ, Brasil
Terry Bossomaier, Charles Sturt University, Australia

I3M: The International Multidisciplinary Modelling & Simulation Multiconference is involving EMSS, MAS, IMAACA, HMS, DHSS, I_WISH, SESDE and Workshops; All Sessions are open to all I3M Attendees

EMSS: European Modelling & Simulation Symposium, 25th Edition, Part of I3M2013

MAS: The International Conference on Modelling & Applied Simulation, 12th Edition, Part of I3M2013

IMAACA: The International Conference on Integrated Modeling and Analysis in Applied Control and Automation, 7th Edition, Part of I3M2013

HMS: The International Conference on Harbour, Maritime & Multimodal Logistics Modelling and Simulation, 15th Edition, Part of I3M2013

DHSS: The International Defense and Homeland Security Simulation Workshop, 3rd Edition, Part of I3M2013

I_WISH: The International Workshop on Innovative Simulation for Healthcare, 2nd Edition, Part of I3M 2013

SESDE: The International Workshop on Simulation for Energy, Sustainable Development & Environment, 1st edition, Part of I3M 2013

Workshops: Special Sessions

JS: Joint Session I3M/DHSS/EMSS/HMS/IMAACA/MAS/IWISH/SESDE freely open to all the attendees (i.e. Plenary Joint Opening)

I3M Event: A Special I3M Event (I3M Gala Dinner) is open to I3M / DHSS/ EMSS/ HMS/ IMAACA/ MAS/IWISH/SESDE Attendees

Wednesday 2013-09-25 8:30-10:00

Joint I3M Opening - Olympia

Welcome Address I3M, Prof. Agostino G. Bruzzone, DIME, University of Genoa, Italy

Conferences, Societies and Networks Welcome

- EMSS - Prof. Francesco Longo, MSC-LES, University of Calabria, Italy
- HMS - Prof. Yuri Merkurjev, Riga Technical University, Latvia
- MAS Conference - Prof. Michael Affenzeller, Upper University of Applied Science, Austria
- IMAACA - Prof. Sergio Junco, Rosario University, Argentina
- DHSS - Prof. Ryszard Klempous, Wroclaw University of Technology, Poland
- I_WISH Address - Prof. Vera Novak Harvard Medical School, USA
- SESDE Address - Prof. Janos Sebestyen Janosy MTA EK, Hungary
- I_M_CS - Prof. Emilio Jimenez, La Rioja University, Spain
- Liophant - Dr. Marina Massei, University of Genova, Italy
- Simulation Team - Prof. Miquel Angel Piera, UAB, Spain
- MISS - Prof. Gerson Cunha, LAMCE/COPPE/UFRJ, Brasil
- M&S Net - Prof. Stefano Saetta, University of Perugia, Italy
- National Russian Simulation Society - Prof. Boris Sokolov, SPIIRAS, Academy of Sciences, Russia

-Conference Updates

Wednesday 2013-09-25 10:00-10:30

COFFEE BREAK Co-Sponsored by CAL-TEK, LIO Tech, MAST, SIM4FUTURE - Kallirroe

Wednesday 2013-09-25 10:30-12:00

Joint I3M Opening - Olympia

Plenary Speeches:

Prof. Peter Groumpos, University of Patras

An Overview of Decision Support Systems: Theories and New Advances in Simulation, Automation, Enabling Technologies and Applications

Lt. Gen. Leonidas Mazarakis, President AFCEA, Hellenic Chapter

Hellenic Views of Modelling and Simulation in Security and Defense

Prof. Vera Novak, BIDMC, Harvard Medical School

Innovative Simulations to Overcome Global Healthcare Challenges

All Around for I3M Conference Pictures

Wednesday 2013-09-25 12:00-13:30

LUNCH Co-Sponsored by Lio-Tech, CAL-TEK, MAST, SIM4FUTURE

Wednesday 2013-09-25 13:30-15:00

Room: Room 1

EMSS: Agent Directed Simulation - Session I

Chair(s): Juan Ignacio Latorre, Public University of Navarre

EMSS_130: Modelling swarms of unmanned autonomous fighters for identification and analysis of new strategies and technological enablers

Agostino Bruzzone, Alberto Tremori, Simonluca Poggi, Luciano Dato, Angelo Ferrando, Antonio Martella
University of Genoa - Italy

EMSS_97: State space analysis for model plausability validation in multi agent system simulation of urban policies

Miquel Angel Piera, Roman Buil, Egils Ginters

Universitat Autònoma de Barcelona; Vidzeme University of Applied Sciences - Spain/ Latvia

EMSS_18: RETSIM: A shoe store agent-based simulation for fraud detection

Edgar Alonso Lopez-Rojas, Stefan Axelsson, Dan Gorton

Blekinge Institute of Technology; KTH Royal Institute of Technology - Sweden

EMSS_98: A MAS approach based on coloured Petri net formalism for urban policy design

Roman Buil, Miquel Angel Piera

Universitat Autònoma de Barcelona - Spain

EMSS_72: Exploring unknown networks using a cooperative mas-based approach

Pedro Simeão Carvalho, Rosaldo José Fernandes Rossetti, Ana Paula Rocha, Eugénio da Costa Oliveira
University of Porto - Portugal

Wednesday 2013-09-25 13:30-15:00*Room: Room 2***EMSS-MAS: Discrete/Combined and Parallel/Distributed Simulation- Session I****Chair:** *Gasper Music, University of Ljubljana; Thomas Wiedemann, HTW Dresden FB Informatik*

EMSS_92: SIMPHONY: at the pinnacle of next generation simulation modeling environments for the construction domain

Ronald Ekyalimpa, Stephen Hague, Simaan AbouRizk
University of Alberta - Canada

EMSS_60: A systems engineering approach to modeling and simulating software training management efforts

Asli Soyler Akbas, Waldemar Karwowski
University of Central Florida - USA

EMSS_19: A stochastic approach to security software quality management

Vojo Bubevski
TATA Consultancy Services Ltd - United Kingdom

EMSS_41: Process-interaction modeling and simulation: a Java-based approach

Brahim Belattar, Abdelhabib Bourouis
University Colonel El Hadj Lakhdar; University Larbi Ben M'Hidi - Algeria

MAS_22: A parallel approach of interest management in exascale simulation systems

Elvis S. Liu
University College Dublin; IBM Research - Ireland

Wednesday 2013-09-25 13:30-15:00*Room: Room 3***MAS: Production Systems Design, Planning and Supply Chain Inventory Management - Session I****Chair(s):** *Adriano Solis, York University*

MAS_52: Applying modeling and simulation to evaluate statistical accuracy and inventory control performance of lumpy demand forecasting methods

Adriano Solis, Francesco Longo, Letizia Nicoletti, Aliaksandra Yemialyanava
York University; University of Calabria - Canada/ Italy

MAS_50: The impact of external disturbances on the performance of a cellular manufacturing system

Sameh M Saad, Carlos R. Gómez, Nabil Gindy
Sheffield Hallam University; Nottingham University - United Kingdom

MAS_37: Comparing material flow control mechanisms using simulation optimization

Manuela André, Luís Dias, Guilherme Pereira, José Oliveira, Nuno Fernandes, Sílvio Carmo-Silva
University of Minho; Polytechnic Institute of Castelo Branco; Algoritmi Research Center - Portugal

MAS_35: A data collection methodology to perform DHMS-based ergonomic analysis of manufacturing tasks

Nadia Rego-Monteil, Mariangela Suriano, Diego Crespo Pereira, David del Rio Vilas, Rosa Rios Prado, Francesco Longo
University of Coruña; University of Calabria - Italy

MAS_21: Looking for the equilibrium of the shields production system via simulation model

Pavla Ficova , Martina Kuncova
University of Economics Prague; College of Polytechnics Jihlava - Czech Republic

Wednesday 2013-09-25 13:30-15:00

Room: Room 4

HMS: Transportation Systems and Services - Session I

Chair(s): Manfred Gronalt, Boku University; Elvezia M. Cepolina, University of Pisa

HMS_9: Modelling of intermodal networks
Karl Etlinger, Edith Schindlbacher, Manfred Gronalt
University of Natural Resources and Life Sciences - Austria

HMS_13: An optimization methodology for the consolidation of urban freight boxes
Elvezia Maria Cepolina, Alessandro Farina
University of Pisa - Italy

HMS_11: A new robotized vehicle for urban freight transport
Aiko Dinale, Rezia Molfino, Penghui Huang, Matteo Zoppi
University of Genova - Italy

HMS_28: Model development for the assessment of an international railway corridor – methodological overview
Rosa Rios Prado, Diego Crespo Pereira, David del Rio Vilas, Nadia Rego Monteil, Óscar De Gregorio Vicente
University of A Coruna - Spain

Wednesday 2013-09-25 13:30-15:00

Room: Room Ground

SESDE: M&S for Environmental Sustainability - Session I

Chair(s): Janos Sebestyen Janosy, MTA EK

SESDE_9: Environmental performance of global supply chains observed through extended material requirements planning simulation model
Danijel Kovacic, Marija Bogataj
MEDIFAS - Slovenia

SESDE_11: Complementing life cycle assessment by integrated hybrid modeling and simulation
Bochao Wang, Séverin Brême, Young Moon
Syracuse University; Institut Supérieur de l'Aéronautique et de l'Espace - USA/ France

SESDE_34: Developing a sustainability assessment tool for socio-environmental systems: a case study of systems simulation and participatory modelling
Luisa Perez-Mujica, Terry Bossomaier, Roderick Duncan, Andrea Rawluk, Max Finlayson, Jonathon Howard
Charles Sturt University - Austria

SESDE_45: A new generic model for greenhouses using fuzzy cognitive maps
Vasiliki K. Bouga, Peter P. Groumpos
University of Patras - Greece

Wednesday 2013-09-25 15:00-15:30

COFFEE BREAK Co-Sponsored by CAL-TEK, LIO Tech, MAST, SIM4FUTURE - Kallirroe**Wednesday 2013-09-25 15:30-17:00***Room: Room 1***EMSS: Agent Directed Simulation - Session II****Chair(s): Emilio Jiménez, University of La Rioja**

EMSS_8: Modeling interactions in a mixed agent world

Wafa Johal, Julie Dugdale, Sylvie Pesty

University of Grenoble - France

EMSS_36: An agent-based electronic market simulator enhanced with ontology matching services and emergent social networks

Virgínia Nascimento, Maria João Viamonte, Alda Canito, Nuno Silva

Polytechnic of Porto - Portugal

EMSS_45: Agenda-based behavior in pedestrian simulation

Eric Kolstad, John M. Usher

Mississippi State University - USA

EMSS_13: On agents negotiation in a trading company simulation

Roman Šperka, Marek Spišák

Silesian University in Opava - Czech Republic

Wednesday 2013-09-25 15:30-17:00*Room: Room 2***EMSS: Warehouse and Inventory Management Modeling & Simulation - Session I****Chair(s): Adriano Solis, York University**

EMSS_52: Safety storage assignment in AS/RS

Giovanni Davoli, Andrea Govoni, Sergio Amedeo Gallo, Erika Bortoli, Riccardo Melloni

University of Modena and Reggio Emilia - Italy

EMSS_126: A simulation approach for spare parts demand forecasting and inventory management optimization

Mattia Armenzoni, Roberto Montanari, Vignali Giuseppe, Eleonora Bottani, Gino Ferretti, Federico Solari, Marta Rinaldi

University of Parma - Italy

EMSS_107: Simulation based evaluation of concepts and strategies for automated storage and retrieval systems with multiple i/o points

Daniel Lantschner, Thomas Atz, Willibald A. Günthner

Technische Universität München - Germany

EMSS_108: Modeling, simulation and optimization of the main packaging line of a brewing company

Natalia Basán, Lucila Ramos, Mariana Coccola, Carlos Alberto Méndez

INTEC (UNL - CONICET) - Argentina

Wednesday 2013-09-25 15:30-17:00*Room: Room 3*

MAS: Workshop on Modeling and Simulation of Food Processing and Operations- Session I

Chair(s): Eleonora Bottani, Roberto Montanari, University of Parma; Andrea Grassi, University of Modena and Reggio Emilia

MAS_30: Simulating continuous time production flows in food industry by means of discrete event simulation

Fabio Bursi, Andrea Ferrara, Andrea Grassi, Chiara Ronzoni

Università di Modena e Reggio Emilia; Logistics & Automation Consulting srl - Italy

MAS_51: Modelling fresh goods supply chain contamination

Agostino Bruzzone, Marina Massei, Matteo Agresta, Angelo Ferrandc

University of Genoa - Italy

MAS_44: Modelling and multiobjective optimization of the VHP sterilization process of pouch packaging

Matteo Folezzani, Michele Manfredi, Giuseppe Vignali

University of Parma - Italy

MAS_26: Evaluation and modeling the aerodynamic properties of mung bean seeds

Feizollah Shahbazi, Ali Dowlatshah, Saman Valizadeh

Lorestan University - Iran

MAS_33: Performance analysis of a water supply system of a dairy company by means of advanced simulative methods

Davide Marchini, Marta Rinaldi, Roberto Montanari, Eleonora Bottani, Federico Solari

Parco Area delle Scienze; University of Parma - Italy

Wednesday 2013-09-25 15:30-17:00

Room: Room 4

HMS: Logistic Networks, Supply Chains and e-Mobility - Session I

Chair(s): Tobias Reggelin, Univ. of Magdeburg; Alejandro Garcia, La Coruna Univ., Michael Affenzeller, Univ. of Applied Sciences

HMS_14: Resource allocation in mesoscopic logistics networks simulation

Til Hennies, Yvonne Boersch, Juri Tolujew, Tobias Reggelin

IFF and Otto-von-Guericke University Magdeburg - Germany

HMS_27: The network design of China's northeast cold chain

Nam Kyu Park, Woo Young Choi, Jian Hui

Tongmyong University - Republic of Korea

HMS_23: Analysis of the applicability of the public Upper Austrian transport graph for solving a location-allocation problem

Andreas Pell, Andreas Meingast, Stefan Rotter, Markus Pajones

University of Applied Sciences Upper Austria - Austria

HMS_17: Design of the SEEWOP software prototype

Thomas Kern, Tanja Peschetz, Gerald Petz

University of Applied Sciences Upper Austria - Austria

Wednesday 2013-09-25 15:30-17:00

Room: Room Ground

SESDE: M&S for Environmental Sustainability - Session II

Chair(s): Janos Sebestyen Janosy, MTA EK

SESDE_31: Options for switching modes of transport in Vienna
Gerda Hartl, Gabriel Wurzer
Vienna University of Technology - Austria

SESDE_6: Electro-thermal simulation of lithium ion batteries for electric and hybrid vehicles
Zul Hilmi Che Daud, Daniela Chrenko, Fabien Dos Santos, El-Hassane Aglzim, Luis Le Moyne
University of Technology Malaysia; University of Burgundy - Malaysia/ France

SESDE_7: Optimization of racing series hybrid electric vehicle using dynamic programming
Zainab Asus, El-Hassane Aglzim, Daniela Chrenko, Zul-Hilmi Che Daud, Luis Le Moyne
University of Technology Malaysia; University of Burgundy - Malaysia/ France

SESDE_30: Simplified strategy for modeling the performance of a novel multi house heating schemes
John Rogers
University of Bath - United Kingdom

Thursday 2013-09-26 8:30-10:00

Room: Room 1

EMSS: Advanced Simulation for Logistics Systems - Session I

Chair(s): Maria Pia Fanti, Polytechnic of Bari, Chrysostomos Stylios, Tech. Ed. Institute of Epirus, Walter Ukovich, University of Trieste

EMSS_128: Cooperative training for ships and tugboats pilots based on interoperable simulation
Francesco Longo, Letizia Nicoletti, Alessandro Chiurco
University of Calabria - Italy

EMSS_129: Drivers and Parkers Training in Car Terminals
Francesco Longo, Letizia Nicoletti, Alessandro Chiurco, Adriano Solis, Francisco Spadafora
University of Calabria - Italy

EMSS_78: A model based decision support system for logistics management
Valentina Boschian, Maria Pia Fanti, Giorgio Iacobellis, George Georgoulas, Chrysostomos Stylios, Walter Ukovich
University of Trieste; Polytechnic of Bari; Technological Educational Institute of Epiru - Italy/ Greece

EMSS_112: Modeling and simulation of an electric car sharing system
Monica Clemente, Maria Pia Fanti, Giorgio Iacobellis, Walter Ukovich
University of Trieste; Polytechnic of Bari - Italy

EMSS_119: The famous transportation of Thailand and Japan logistics
Nollaphan Foongkiatcharoen, Fumio Akagi
Fukuoka Institute of Technology - Japan

Thursday 2013-09-26 8:30-10:00

Room: Room 2

EMSS: Industrial Processes Modeling & Simulation - Session I

Chair: Miquel Angel Piera, Autonomous University of Barcelona, Spain

EMSS_115: Advanced tool for predictive diagnosis and maintenance using case-based reasoning and fuzzy logic

Nikolinka Christova, Atanas Atanassov
University of Chemical Technology and Metallurgy - Bulgaria

EMSS_100: Predictive monitoring of production line efficiency

Tomi Žebič, Boštjan Hauptman, Peter Rogelj, Gašper Mušič
Metronik d.o.o; Trimo d.o.o; University of Ljubljana - Slovenia

EMSS_77: A pipe spool fabrication simulation model

Ramzi Labban, Simaan M. Abourizk, Haddad Zuhair, Amr El-Sersy
University of Alberta; Consolidated Contractors Group - Canada/ Greece

EMSS_33: Modeling, simulation and analysis applied to a naphtha stabilizer tower

Felipe Sanchez Nagata, Wilson Hideki Hirota, Roberto Nasser Junior, Rosimeire Aparecida Jerônimo
UNIFESP; UNIFEI - Brasil

EMSS_47: Evaluation of the agribusiness chain of panela process using hierarchical analysis: case study colombian andean region

Gabriela Leguizamon, Nelson V Yepes Gonzalez, Maria Victoria Cifuentes
Antonio Nariño University - Colombia

Thursday 2013-09-26 8:30-10:00

Room: Room 3

EMSS: Simulation Optimization Approaches in Industry, Services and Logistics Processes - Session I

Chair(S): Idalia Flores, University of Mexico; Miguel Mújica Mota, Universitat Autònoma de Barcelona

EMSS_23: Information security incidents simulation for risk analysis in the national autonomous university of Mexico

Israel Andrade Canales
UNAM - Mexico

EMSS_123: A machine learning approach for modeling and its applications

Shuxiang Xu, Yunling Liu, Byeong-Ho Kang, Wanlin Gao
University of Tasmania; China Agricultural University - Australia/ China

EMSS_20: Production capacity and investment policy for a manufacturing company using simulation and integer programming

Jorge Andrés García-Hernández
UNAM - Mexico

EMSS_64: A model based on artificial neural network for risk assessment to polycyclic aromatic hydrocarbons in workplace

Francesco Facchini, Giorgio Mossa, Giovanni Mummolo
Polytechnic of Bari - Italy

EMSS_42: Towards large scale road traffic simulation experiment

Marek Małowidzki, Tomasz Dalecki, Przemysław Bereziński, Michał Mazur
Military Communication Institute - Poland

Thursday 2013-09-26 8:30-10:00

Room: Room 4

MAS: Decision Support Systems Applications - Session I

Chair(s): Fabio De Felice, University of Cassino, Antonella Petrillo, University of Cassino

MAS_27: Using analytic hierarchy process to evaluate human performance

Fabio De Felice, Antonella Petrillo, Michele Tricarico

University of Cassino; Horseracing Italian Agency - Italy

MAS_18: A flexible decision support tool for maintenance float systems - a simulation approach

Francisco Peito, Guilherme Pereira, Armando Leitão, Luís Dias, José Oliveira

Polytechnic Institute of Bragança; University of Minho; University of Porto - Portugal

MAS_11: Proposal of agent simulation methodology for the prospective analysis of mineral commodities markets

Fenintsoa Andriamasinoro, Bruno Martel-Jantin

BRGM - France

MAS_23: SimUse: modeling recreational polydrug use through an agent-based model

Francois Lamy, Terry Bossomaier, Pascal Perez

CRICS (CSU); Clersé (USTL); HEMA Consulting/DPMP; CRiCS (CSU); ; SMART Infrastructure Facility (UoW); HEMA Consulting/DPMP - Australia

MAS_38: The use of simulation as a tool to support decision-making in a piston manufacturing system

Alexandre Massote, Bruno Ignácio

Centro Universitário da Fei; Fundação Armando Alvares Penteado - Brazil

Thursday 2013-09-26 8:30-10:00

Room: Room Ground

DHSS-EMSS: Defense and Homeland Security Simulation - Session I

Chair(s): Ryszard Klempous, Wrocław University of Technology

DHSS_19: Human factors' simulation models military relevance

Francesco Nasca, Alberto Tremori

NATO MSCOE; University of Genoa - Italy

EMSS_127: Modeling cyber warfare in heterogeneous networks for protection of infrastructures and operations

Agostino Bruzzone, Diego Merani, Marina Massei, Alberto Tremori, Christian Bartolucci, Angelo Ferrando

University of Genoa - Italy

DHSS_18: 3D terrestrial laser scanner used to replicate a real military vehicle suitable to conduct static and dynamic tests in a virtual scenario

Marco Giorgi, Francesco Longo, Pier Carmine Bosco, Letizia Nicoletti

NATO MSCOE; University of Calabria - Italy

DHSS_10: Modelling intrusion detection in security systems

Zenon Chaczko, Ryszard Klempous, Chris Chiu

University of Technology, Sydney; Wrocław University of Technology - Australia/ Poland

DHSS_9: Weighted attack trees for the cybersecurity analysis of SCADA systems

Andrea Bobbio, Lavinia Egidi, Roberta Terruggia, Ester Ciancamerla, Michele Minichino

Università del Piemonte Orientale - Italy

Thursday 2013-09-26 10:00-10:30

COFFEE BREAK Co-Sponsored by CAL-TEK, LIO Tech, MAST, SIM4FUTURE - Kallirroe

Thursday 2013-09-26 10:30-12:00

Room: Room 1

EMSS: M&S Methodologies, Techniques and Applications - Session I

Chair(s): Emilio Jimenez, University of La Rioja

EMSS_37: Creating sorted list for simulink models with graph transformation

Péter Fehér, Tamás Mészáros, Pieter J. Mosterman, László Lengyel

Budapest University of Technology and Economics; MathWorks - Hungary/ USA

EMSS_109: Fuzzy cognitive maps modeling and simulation

Evangelia Bourgani, Chrysostomos D. Stylios, George Manis, Voula C. Georgopoulos

TEI of Epirus; University of Ioannina; TEI of Western Greece - Greece

EMSS_29: Modeling and simulation of amperometric biosensors acting in flow injection analysis

Romas Baronas, Darius Baronas

Vilnius University - Lithuania

EMSS_67: How SMP suits the needs for the European space sector

Vemund Reggestad, Anthony Walsh

ESA-ESOC - Germany

EMSS_25: Modelling complex and flexible processes for smart cyber-physical environments

Ronny Seiger, Christine Keller, Florian Niebling, Thomas Schlegel

Technische Universität Dresden - Germany

Thursday 2013-09-26 10:30-12:00

Room: Room 2

EMSS-MAS: M&S for Natural Disasters and Human Caused Problems- Session I

Chair: Yuri Merkuryev, Riga Technical University

EMSS_70: Automatization of a process of an inundation area computation

Pavel Veselý, Štěpán Kuchař, Jan Martinovič, Vít Vondrák

VŠB - Technical University of Ostrava - Czech Republic

EMSS_101: Advanced river flood forecasting and simulation

Galina V. Merkuryeva, Yuri A. Merkuryev

Riga Technical University - Latvia

EMSS_81: Crowdsourcing supported modelling and analysis infrastructure for intelligent monitoring of natural-technological objects

Andrejs Romanovs, Boris V. Sokolov, Arnis Lektauers, Julija Petuhova

Riga Technical University; Russian Academy of Sciences - Latvia/ Russia

EMSS_114: A model for irregular phenomena in urban traffic

Luigi Rarità

University of Salerno - Italy

MAS_47: A preliminary supply chain model to housing recovery after the occurrence of a natural disaster

Rafael Diaz, Joshua Behr, Sameer Kumar, Ange Lionel Toba, Francesco Longo, Letizia Nicoletti

Old Dominion University; Eastern Virginia Medical School; University of Calabria - USA/ Italy

Thursday 2013-09-26 10:30-12:00

Room: Room 3

EMSS: Simulation Optimization Approaches in Industry, Services and Logistics Processes - Session II

Chair(S): Idalia Flores, University of Mexico; Miguel Mújica Mota, Universitat Autònoma de Barcelona

EMSS_54: Solving small TSP according to the principle of minimum action
Diego D'Urso, Marco Cannemi
Università degli Studi di Catania - Italy

EMSS_28: Simulation of the design area in a printing company
Carlos Quintero Aviles, Idalia Flores
UNAM - Mexico

EMSS_26: Urban transport infrastructure: a state of the art
Idalia Flores, Ioannis Chatziioannou, Esther Segura, Salvador Hernández
UNAM; Technological Institute of Celaya - Mexico

EMSS_80: Simulation models to support GALB heuristic optimization algorithms based on resource balancing based on multi objective performance index
Sergio Amedeo Gallo, Giovanni Davoli, Andrea Govoni, Riccardo Melloni
University of Modena and Reggio Emilia - Italy

EMSS_89: A Bayesian network analysis for safety management
Ciro D'Elia, Fabio De Felice, Paola Mariano, Antonella Petrillo, Simona Ruscino
University of Cassino and Southern Lazio - Italy

Thursday 2013-09-26 10:30-12:00

Room: Room 4

MISS-MSNet Joint Directors Meeting

Chair: Agostino Bruzzone, DIME University of Genoa

Thursday 2013-09-26 10:30-12:00

Room: Room Ground

IWISH-EMSS: Specific Diseases and Physical Systems Modeling and Simulation - Session I

Chair(s): Vera Novak, Harvard Medical School

IWISH_22: An optimal control approach to modeling head-up tilt
Nakeya Williams, Hien Tran, Mette Olufsen
North Carolina State University - USA

EMSS_79: Appointment scheduling for a computed tomography facility for different patient classes using simulation
Francesco Boenzi, Giovanni Mummolo, Jacobus E. Rooda
Facoltà di Ingegneria del Politecnico di Bari; Eindhoven University of Technology - Italy/ The Netherlands

IWISH_26: Telewar on obesity (two), a real-time system to track and correct individual behavior in social networks
Simone B. Bortolami, Agostino G. Bruzzone, Vera Novak

The Charles Stark Draper Laboratory; University of Genoa; Harvard University - Italy/ USA

IWISH_23: Monitoring brain blood flow using ear temperature and its implications for diagnosis of orthostatic intolerance

David Lorr, Johan Skoog

University of Linköping - Sweden

IWISH_27: Challenges in monitoring analyses and interpretation of cerebral autoregulation

Vera Novak

Harvard Medical School - USA

Thursday 2013-09-26 12:00-13:30

LUNCH Co-Sponsored by Lio-Tech, CAL-TEK, MAST, SIM4FUTURE

Thursday 2013-09-26 13:30-15:00

Room: Room 1

EMSS: Effective Design by Modeling and Simulation: General Applications - Session I

Chair(s): Stefano Saetta, University of Perugia

EMSS_40: Modelling and simulation of thermal induced stress in 3D nano PMOS

Abderrazzak El Boukili

Al Akhawayn University in Ifrane - Morocco

EMSS_105: Modeling and simulation of stress for cemented carbide cylindrical end mill

WU Qiong, Li Da Peng

Beihang University - China

EMSS_12: Simulation for safety engineering: a comparison between experimental data and fire models

Andrea Govoni, Giovanni Davoli, Sergio Amedeo Gallo, Riccardo Melloni

University of Modena and Reggio Emilia - Italy

EMSS_38: Experimental and numerical analysis of the knocking phenomenon in a GDI engine

Michela Costa, Ugo Sorge, Bianca Maria Vaglieco, Paolo Sementa, Francesco Catapano

CNR – Istituto Motori - Italy

EMSS_124: Experimental comparison of image thresholding methods for defect detection in the papermaking process

Luca Ceccarelli, Francesco Bianconi, Stefano Antonio Saetta, Antonio Fernández, Valentina Caldarelli

Università degli Studi di Perugia; Universidade de Vigo - Italy/ Spain

Thursday 2013-09-26 13:30-15:00

Room: Room 2

Special Session: I3M 2014

Chairs: Yuri Merkuryev, Riga Technical University; Francesco Longo, University of Calabria

Thursday 2013-09-26 13:30-15:00

Room: Room 3

MAS: Simulation Based Design and Optimization - Session I

Chair(s): Pasquale Legato, University of Calabria, Rina Mary Mazza, University of Calabria

MAS_43: Addressing robust berth planning under uncertainty via simulation based optimization

Pasquale Legato, Rina Mary Mazza
University of Calabria - Italy

MAS_40: A study of DEVS-based process scheduling on multi-user semiconductor test equipment
Soonchul Lim, Youngsin Han, Chilgee Lee
Sungkyunkwan University; Samsung Electronics - South Korea

MAS_15: Using conservative hidden non-markovian models for multi-touch gesture recognition
Tim Dittmar, Claudia Krull, Graham Horton
Otto-von-Guericke-University - Germany

MAS_20: From safety requirements to simulation-driven design of safe systems
Alfredo Garro, Andrea Tundis, Lena Buffoni-Rogovchenko, Peter Fritzon
University of Calabria; Linköping University - Italy/ Sweden

MAS_48: A mechanical approach of multivariate density function approximation
László Mohácsi, Orsolya Réthallér
Corvinus University of Budapest - Hungary

Thursday 2013-09-26 13:30-15:00

Room: Room 4

HMS: Ports, Terminals and Ships Modeling - Session I

Chair(s): Manfred Gronalt, Boku University

HMS_16: Operational control for stacker/reclaimers
Teus van Vianen, Jaap Ottjes, Gabriel Lodewijks
Delft University of Technology - Netherlan

HMS_25: Complex objects remote sensing monitoring and modeling for port maritime management
Boris Sokolov, Vjacheslav Zelentsov, Victor Mochalov, Semyon Potryasaev, Olga Brovkina
Russian Academy of Science - Russia

HMS_10: Management of dangerous goods in container terminal with MAS model
Mansoriya Hamidou, Dominique Fournier, Eric Sanlaville, Frédéric Serin
University of Le Havre - France

HMS_19: Ship damage control action simulation using HLA
Paulo Martins, Rosaldo Rossetti, António Brito
University of Porto; Centro de Investigação Naval - Portugal

Thursday 2013-09-26 13:30-15:00

Room: Room Ground

IWISH-EMSS: M&S of Healthcare Systems - Session I

Chair(s): Joshua Behr, Old Dominion University

IWISH_12: Modeling and simulation of an ambulatory surgery facility
Jose Sepulveda, Waldemar Karwoski, Francisco Ramis
University of Central Florida; Universidad del Bío-Bío - USA/ Chile

IWISH_11: Strategies for successful implementation of healthcare simulation – A case study of operating room planning
Krisjanis Steins, Fredrik Persson
Linköping University - Sweden

EMSS_65: Aggregate model based performance analysis of an emergency department

Ivo J.B.F. Adan, Erjen Lefeber, Jordi J.D. Timmermans, Annette van de Waarsenburg, Mireille Wolleswinkel-Schriek

Eindhoven University of Technology; Catharina Hospital Eindhoven - The Netherlands

EMSS_68: Integrating an agent-based model of malaria mosquitoes with a geographic information system

S. M. Niaz Arifin, Rumana Reaz Arifin, Dilkushi de Alwis Pitts, Gregory R. Madey

University of Notre Dame - USA

IWISH_21: Analyzing the impact of public health interventions on ambulatory healthcare capacities – A preliminary model

Rafael Diaz, Joshua Behr, Angel Lionel Toba, Francesco Longo

Old Dominion University; University of Calabria - USA/ Italy

Thursday 2013-09-26 15:00-15:30

COFFEE BREAK Co-Sponsored by CAL-TEK, LIO Tech, MAST, SIM4FUTURE - Kallirroe

Thursday 2013-09-26 15:30-17:00

Room: Room 1

EMSS: Modeling & Simulation and Business, Economy, Finance and Organizations - Session I

Chair(s): Terry Bossomaier, Charles Sturt University

EMSS_14: Queuing theory simulation model for calculating net present value corrective factor in investment project appraisal

Zoran Petrovic, Sladjana Benkovic, Ugljesa Bugarcic, Dusan Petrovic, Gordana Markovic Petrovic
Mokra Gora School of Management; University in Belgrade; Dom Zdravlja - Republic of Serbia

EMSS_113: An analytical hierarchy process methodology to evaluate IT solutions for organizations

Spiros Vasilakos, Chrysostomos D. Stylios, John Garofalakis

Computer Technology Institute & Press "Diophantus"; Technological Educational Institute of Epirus; CEID - Greece

EMSS_32: A study on performance evaluation of the "dogs of the dow" investment strategy for the thai stock market

Kittipong Tissayakorn, Yu Song, Fumio Akagi

Fukuoka Institute of Technology - Japan

EMSS_39: A simulation case study of email management within a large I.T. company in Greece

Agapi Vouvoudi, Makrina Viola Kostis, Lefteris Angelis

Aristotle University of Thessaloniki - Greece

EMSS_56: Recognizing characteristic patterns in distorted data collections

Tomáš Kocyan, Jan Martinovič, Pavla Dráždilová, Kateřina Slaninová

VŠB - Technical University of Ostrava - Czech Republic

Thursday 2013-09-26 15:30-17:00

Room: Room 2

EMSS-MAS: Visualization Techniques, Systems and IoT - Session I

Chair: Miquel Angel Piera, Autonomous University of Barcelona, Spain

EMSS_27: Application of three-dimensional visualization techniques and decision making used in the detection of movements of the ground and underground pipelines in unstable areas

Robson da Cunha Santos, Marcelo Silva, Gerson Gomes Cunha

Fluminense Federal Institute; Estácio de Sá University; Federal University of Rio de Janeiro - Brazil

EMSS_73: Using natural interfaces to interact with a virtual control desk of a nuclear power plant

Maurício Alves da Cunha Aghina, Antônio Carlos de Abreu Mól, Carlos Alexandre Frutuoso Jorge, Paulo Victor Rodrigues de Carvalho, Ana Paula Legey, Gerson Gomes Cunha, Luiz Landau

Instituto de Engenharia Nuclear /Comissão Nacional de Energia Nuclear; Universidade Gama Filho; Universidade Federal do Rio de Janeiro - Brazil

EMSS_48: Impact of projection systems for vehicle simulators on symptoms of simulator

Grzegorz Gudzbeler, Andrzej Urban

Police Academy Szczytno - Poland

EMSS_117: Modeling autonomic monitoring and control for IoT systems

Zenon Chaczko, Ryszard Klempous, Jan Nikodem

University of Technology, SydneyWroclaw University of Technology - Australia/ Poland

MAS_45: Multi-perspective visualization within simulation-based design enhanced shared understanding

Bart van Zaalen, Rens Kortmann, Wijnand Veeneman, Alexander Verbraeck, Marten Busstra

Delft University of Technology; NedTrain B.V. - Netherlands

Thursday 2013-09-26 15:30-17:00

Room: Room 3

IMAACA -EMSS: Supervision and Diagnosis Systems - Session I

Chair(s): Sergio Junco, Universidad Nacional de Rosario

IMAACA_11: Observer-based actuator and sensor fault estimation

Christophe Sueur

Ecole Centrale de Lille - France

IMAACA_25: State and unknown input observer: analysis and design

Eugene Tarasov, Ibtiseme Gahlouz, Christophe Sueur, Belkacem Ould Bouamama

Ecole Centrale de Lille; Polytech Lille - France

IMAACA_33: Bond graph proportional-integral observer-based robust fault detection

Ghada Saoudi, Rafika EL Harabi, Geneviève Dauphin-Tanguy, Belkacem Ould Bouamama, Mohamed Naceur Abdelkrim

Ecole Nationale d'ingénieurs de Gabes; Ecole Centrale de Lille; Polytech Lille - Tunisie/ France

EMSS_46: Arduino platform and object-oriented programming applied to autonomous robots for detection of pipeline

Robson da Cunha Santos, Marcelo Silva, Gerson B. Alcantara, Julio C. P. Ribeiro, Iorran M. de Castro

Fluminense Federal Institute; Estácio de Sá University - Brazil

Thursday 2013-09-26 15:30-17:00

Room: Room 4

HMS: Ports, Terminals and Ships Modeling - Session II

Chair(s): Manfred Gronalt, Boku University

HMS_26: Consideration of some performance of containers' flow at yard

Maja Škurić, Branislav Dragović, Nenad Dj. Zrnić, Romeo Meštrović

University of Montenegro; University of Belgrade - Republic of Serbia/ Montenegro

HMS_8: An integrated resource-based approach to port and terminal simulation modeling
Constantin Semyonov
Baltic Fishing Fleet State Academy - Russia

HMS_22: Improving car port terminal efficiency through modelling and simulation
James Brucato
Palermo Euro Terminal s.r.l. - Italy

Thursday 2013-09-26 15:30-17:00

Room: Room Ground

Special Session: SIMCJOH Technical Meeting

Chair: Agostino G. Bruzzone, DIME, University of Genoa

Social Event

Thursday 2013-09-26 20:00-22:30

20:00 I3M Gala Dinner at Royal Olympic Hotel @ Roof

During Gala Dinner the I3M Best Paper Awards will be presented

Friday 2013-09-27 8:30-10:00

Room: Room 1

EMSS: Modelling and Simulation Approaches in and for Education - Session I

Chair(s): Francesco Longo, University of Calabria

EMSS_82: Modeling a wrong maintenance policy
Diego D'Urso
Università degli Studi di Catania - Italy

EMSS_116: A mathematical model for determining timetables that minimizes the number of students with conflicting schedules
Anibal Tavares de Azevedo, Alexander Kameyama, Joni de Almeida Amorim, Per M. Gustavsson
UNICAMP; UNESP; HiS; Saab Group - Brazil/ Sweden

EMSS_111: Assigning classes to teachers in universities via mathematical modelling: using beam search method and simulation in Java
Anibal Tavares de Azevedo, Andressa Fernanda S. M. Ohata, Joni A. Amorim, Per M. Gustavsson
UNICAMP; UNESP; Högskolan i Skövde; Saab Group - Brazil/ Brazil/ Sweden/ Sweden

EMSS_84: Topic extension using the network extracted from DBLP
Alisa Babškova, Pavla Draždilová, Jan Martinovič, Kateřina Slaninová
VŠB - Technical University of Ostrava; Silesian University in Opava - Czech Republic

EMSS_59: Simulating human resource capability and productivity in software process simulations
Štěpán Kuchař, Ivo Vondrák
VSB - Technical University of Ostrava - Czech Republic

Friday 2013-09-27 8:30-10:00

Room: Room 2

**IMAACA-EMSS: Modeling and Control of Mechanical and Mechatronic Systems -
Session I**

Chair(s): Sergio Junco, Universidad Nacional de Rosario

IMAACA_13: Battery system modeling and identification for electric propulsion vehicle with fault simulation
KyuHong Han
Agency for Defense Development - Republic of Korea

IMAACA_14: Nonlinear hybrid sliding mode control of an electrohydraulic active suspension
Bassel Shaer, Jean-Pierre Kenné, Claude Kaddissi, Vladimir Polotski
Université du Québec - Canada

IMAACA_16: Dynamic modeling and control of off-road truck using bond graphs
Ashish Gupta, Vikas Rastogi
Delhi Technical University - India

IMAACA_32: Modeling and simulation of an automated manual transmission system
Hua Huang, Sebastian Nowoisky, René Knoblich, Clemens Gühmann
Technische Universität Berlin - Germany

EMSS_102: Simulation and optimal control of hybrid electric vehicles
Guillermo Becerra, Alfonso Pantoja-Vazquez, Luis Alvarez-Icaza, Idalia Flores
UNAM - Mexico

Friday 2013-09-27 8:30-10:00

Room: Room 3

**IWISH: Specific Diseases and Physical Systems Modeling and Simulation -
Session II**

Chair(s): Werner Backfrieder, Witold Jacak, University of Applied Sciences, Upper Austria

IWISH_18: Identification of motion-based action potentials in neural bundles using an algorithm with multi agent technology
Volkhard Klinger, Arne Klauke
FHDW - Germany

IWISH_24: Calibration of an agent-based model for infectious diseases
Philipp Pichler, Florian Miksch, Niki Popper, Felix Breitenecker
Vienna University of Technology - Austria

IWISH_13: Identification of PNH affected cells by classifying motion characteristics of single molecules
Susanne Schaller, Jaroslaw Jacak, Daniel Gschwandtner, Peter Bettelheim, Stephan M. Winkler
University of Applied Science Upper Austria; Johannes Kepler University Linz; Elisabethinen Hospital - Austria

IWISH_6: Analysis of aortic flow in presence of intra aortic balloon pump using a coupled 3D-0D model of the aorta and peripheries
Vera Gramigna, Maria Vittoria Caruso, Michele Rossi, Giuseppe Filiberto Serraino, Attilio Renzulli, Gionata Fragomeni
Magna Graecia University - Italy

IWISH_7: Empirical modeling of cerebral autoregulation
Simona Panunzi, Laura D'Orsi, Daniela Iacoviello, Andrea De Gaetano
Istituto di Analisi dei Sistemi ed Informatica "Antonio Ruberti"; Università di Roma - Italy

Friday 2013-09-27 8:30-10:00*Room: Room 4***SESDE: Smart Grid Planning, Optimization and Control - Session I****Chair(s): Michael Affenzeller, Stephan Hutterer, Upper University of Applied Sciences**

SESDE_35: A demand response system for hierarchically organized aggregators in smart grids
 Sergios Soursos, Vassilis Kapsalis, George Petropoulos, Yiannis Karras, Loukas Hadellis
 Intracom S.A. Telecom Solutions; Technological Educational Institute of Patras; inAccess S.A. - Greece

SESDE_13: Policy function approximation for optimal power flow control issues
 Stephan Hutterer, Michael Affenzeller
 University of Applied Sciences Upper Austria - Austria

SESDE_2: Control algorithms for photovoltaic inverters with battery storage for increased self consumption
 Philipp J. Rechberger, Gerald Steinmaurer, Robert Reder
 Austria Solar Innovation Center; Fronius Int. GmbH - Austria

SESDE_5: Effective use of resources in closed value networks
 Anja-Tatjana Braun, Joerg Mandel, Thomas Bauernhansl
 Fraunhofer Institute for Manufacturing Engineering and Automation IPA - Germany

SESDE_4: Theoretical and experimental investigation for "storage less" control of a water pumping system fed by intermittent renewable sources
 Amine Ben Rhouma, Jamel Belhadj, Xavier Roboam
 Université de Tunis El Manar; Université de Tunis; Université de Toulouse - Tunisie/ France

Friday 2013-09-27 8:30-10:00*Room: Room Ground***DHSS: Defense and Homeland Security Simulation - Session II****Chair(s): Agostino Bruzzone, University of Genoa**

DHSS_5: Serious game development methodology by via interoperation between a constructive simulator and a game application using HLA/RTI
 Changbeom Choi, Moon Gi Seok, Seon Han Choi, Tag Gon Kim, Soohan Kim
 Korea Advanced Institute of Science and Technology; Samsung Electronics HQ - Korea

DHSS_4: Synthetic battlefield based simulation framework for the aviation engagement in distributed system
 Won Kyung Hwam, Yongho Chung, Sang C. Park
 Ajou University - South Korea

DHSS_17: Simulating the marine domain as an extended framework for joint collaboration and competition among autonomous systems
 Agostino Bruzzone, Jean-Guy Fontaine, Alessandro Berni, Stefano Brizzolara, Francesco Longo, Luciano Dato, Simonluca Poggi, Margherita Dallorto
 NATO CMRE; University of Genoa; Simulation Team - Italy

DHSS_8: Examining the relative disagreement model of opinion dynamics with Klemm-Eguiluz social network topologies
 Michael Meadows
 University of Bristol - United kingdom

DHSS_13: Agent-based modelling in the New Zealand defence force
Mark Anderson
New Zealand Defence Force - New Zealand

Friday 2013-09-27 10:00-10:30

COFFEE BREAK Co-Sponsored by CAL-TEK, LIO Tech, MAST, SIM4FUTURE - Kallirroe

Friday 2013-09-27 10:30-12:00

Room: Room 1

EMSS-HMS: Advanced Models and Applications of Logistics & Manufacturing - Session I

Chair(s): Teresa Murino, University of Naples Federico II (Italy), Liberatina Santillo University of Naples Federico II

EMSS_125: A software architecture for Integrated Logistic Management system
Fabrizio Simeoni, Srecko Maksimovic, Walter Geretto, George Georgoulas, Chrysostomos Stylios
Teorema Engineering Srl; Technological Educational Institute of Epirus - Italy/ Greece

EMSS_22: Simulation and optimization of production system based on fuzzy logic and quick response manufacturing

Piera Centobelli, Teresa Murino, Doriana D'Addona, Giuseppe Naviglio
University of Naples Federico II - Italy

EMSS_75: Simulation model to analyze transport, handling, temporary storage and sorting issues: a valuable way to support layout, system definition and configuration and scheduling decision

Sergio Amedeo Gallo, Riccardo Melloni, Teresa Murino
University of Modena and Reggio Emilia; University of Naples - Italy

EMSS_110: New formalism for production systems modeling

Guido Guizzi, Daniela Miele, Liberatina Carmela Santillo, Elpidio Romano
University of Naples "Federico II" - Italy

HMS_18: A simulation tool for maintenance processes of offshore wind farms

Philip Joschko, Andi Widok, Bernd Page
University of Hamburg - Germany

Friday 2013-09-27 10:30-12:00

Room: Room 2

IMAACA-EMSS: Control of General Physical Systems- Session I

Chair(s): Sergio Junco, Universidad Nacional de Rosario

IMAACA_18: H-infinity control with time domain specifications applied to a heat exchanger network

Fábio Delatore, Fabrizio Leonardi, Luís Novazzi, José Da Cruz
FATEC Santo André; Centro Universitário da FEI; Universidade de São Paulo - Brazil

IMAACA_20: Bondgraphs modeling and simulation on dynamic characteristics of cavitating pump system

Kazuhiro Tanaka, Toshiyuki Sato, Hiroshi Tsukamoto, Takehisa Kohda, Katsuya Suzuki
Kyushu Institute of Technology; Kitakyushu National College of Japan; Infrastructure Systems Company;
Dept. of Aeronautics and Astronautics - Japan

IMAACA_35: Three-dimensional multi-body bond graph model for vibration control of long shafts – application to oil well drilling
 Geoff Rideout, Farid Arvani, Stephen Butt, Ehsan Fallahi
 Memorial University - Canada

IMAACA_37: Bond-graph based controller design of a two-input two-output four-tank system
 Matías Nacusse, Sergio Junco
 Universidad Nacional de Rosario - Argentina

EMSS_30: Multi-controllers approach applied to a wrist of a robot
 Youcef Zennir, Pascal Mouille
 Laboratoire d'automatique de Skikda; Polytech Annecy-Chambéry - Algeria/ France

Friday 2013-09-27 10:30-12:00

Room: Room 3

IWISH: M&S of Healthcare Systems - Session II

Chair(s): Werner Backfrieder, Gerald Zwettler, Upper University of Applied Sciences

IWISH_25: Health care facility improvement through simulation

Agostino Bruzzone, Francesco Longo, Letizia Nicoletti, Francisco Spadafora, Rafael Diaz, Joshua Behr
 University of Calabria; University of Calabria; Old Dominion University - Italy/ USA

IWISH_9: From quantities to qualities in early-stage hospital simulation
 Gabriel Wurzer, Wolfgang E. Lorenz
 Vienna University of Technology - Austria

IWISH_15: Versioning in early-stage hospital simulation
 Gabriel Wurzer
 Vienna University of Technology - Austria

IWISH_8: Resource allocation in simulated clinical pathways
 Milena Andonova, Sven Kruse
 University of Hamburg - Germany

IWISH_20: Increasing surgical safety through serious gaming: “nobody is perfect, but a team can be.”
 Heide Lukosch, Jaco Appelman, Lambert Tristan, Dirk de Korne, Frans Hiddema
 Delft University of Technology ; Vertigo Games; The Rotterdam Eye Hospital - Netherland

Friday 2013-09-27 10:30-12:00

Room: Room 4

SESDE: Energy Modeling and Renewable Energy - Session I

Chair(s): Rodrigo Castro, University of Buenos Aires

SESDE_10: Energy tracking – safe transition from a world of exponential growth to one of sustainability
 François E. Cellier
 Computer Science Dept - Switzerland

SESDE_8: Eco-bond graphs: an energy-based modeling framework for complex dynamic systems with a focus on sustainability and embodied energy flows
 Rodrigo D. Castro, François E. Cellier, Andreas Fischlin
 University of Buenos Aires; ETH Zurich - Argentina/ Switzerland

SESDE_46: Quantitative simulation of comprehensive sustainability models as game based experience for education in decision making

Agostino Bruzzone, Marina Massei, Simonluca Poggi, Margherita Dallorto, Giulio Franzinetti, Andrea Barbarino

University of Genoa; Liotech; Turin Polytechnic - Italy/ UK

SESDE_44: A review of control strategies for analyzing and designing managing wind generators

Vaia K. Gkountroumani, Peter P. Groumpos

University of Patras - Greece

SESDE_36: Electricity market and renewable energy integration: an agent-based conceptual model

José Carlos Sousa, Zafeiris Kokkinogonis, Rosaldo Rossetti, João Tomé Saraiva

University of Porto - Portugal

Friday 2013-09-27 10:30-12:00

Room: Room Ground

DHSS: Defense and Homeland Security Simulation - Session III

Chair(s): Marina Massei, Liophant Simulation

DHSS_12: Operations architecture and vector field guidance for the riverscout subscale unmanned surface vehicle

Yiannis Papelis, Mitchel Weate

Old Dominion University; SimInc - USA

DHSS_11: Capability and maturity model for simulation-based acquisition: case study in Korea

Jinsoo Park, Yun Bae Kim, Gyutai Kim

Yong In University; Sungkyunkwan University; Chosun University - Korea

DHSS_15: Modeling and simulation of land avoidance behavior belonging to tactical entities within a high-fidelity simulation environment

Levent Senyurek, Deniz Aldogan Aldogan, Mehmet Haklidir

Tubitak Bilgem - Turkey

DHSS_16: Anti-submarine warfare modeling and simulation

Deniz Aldogan, Mehmet Haklidir, Levent H. Senyurek, Yasemin Timar, Samuel Franko, Omer Eroglu, A.Faik Guven, H.Murat Genc

Tubitak Informatics and Information Security Research Center - Turkey

DHSS_7: The edge decision support framework - emergency management training and support to operations

Marco Biagini, Bruce Joy

University of Genoa; VastPark - Italy/ USA

Friday 2013-09-27 12:00-13:30

LUNCH Co-Sponsored by Lio-Tech, CAL-TEK, MAST, SIM4FUTURE

Friday 2013-09-27 13:30-15:00

Room: Room 1

EMSS: Advanced Models and Applications of Logistics & Manufacturing - Session II

Chair(s): Teresa Murino, University of Naples Federico II (Italy), Liberatina Santillo University of Naples Federico II

EMSS_122: The role of innovation in industrial development system. A simulation approach for sustainability of global supply chain network

Liberatina Santillo, Giuseppe Converso, Luigi De Vito

University of Naples Federico II; University of Naples Federico II; CNR – IMCB - Italy

EMSS_120: Implementation of Kanban technique within the total flow management model

Mose Gallo, Teresa Murino, Emanuele Guadalupi, Liberatina Carmela Santillo

University of Naples "Federico II" - Italy

EMSS_62: Knowledge acquisition for cloud manufacturing

Yifan Mai, Lin Zhang, Anrui Hu, Chenfei Lv, Fei Tao

Beihang University - China

EMSS_63: Knowledge semantic search in cloud manufacturing

Xiaohang Hu, Lin Zhang, Anrui Hu, Dongming Zhao, Fei Tao

Beihang University; University of Michigan-Dearborn - China/ USA

EMSS_83: A stochastic approach for supply systems

Matteo Gaeta, Luigi Rarità

University of Salerno - Italy

Friday 2013-09-27 13:30-15:00

Room: Room 2

IMAACA-MAS-HMS: Modeling & Simulation (General Applications)- Session I

Chair(s): Sergio Junco, Universidad Nacional de Rosario

IMAACA_34: 3D computational model including topographic data for the prediction of dire wind regimes and vortex shedding in an attempt to improve tall building reliability

Drishtysingh Ramdenee, Pierre Luc Paradis, Hussein Ibrahim, Hemraj Joyram, Adrian Ilinca

Institut Technologique de la Maintenance Industrielle; École Technologique supérieur; Technocentre

Éolien; Sir Abdool Raman Osman; Wind Energy Research Laboratory - Canada/ Mauritius

IMAACA_36: Tuning the position of a fuzzy cognitive map attractor using back propagation through time

Michal Gregor, Peter Groumpos

University of Žilina; University of Patras - Slovak Republic/ Greek

MAS_46: Polynomial controller for AC-DC converter with power factor correction

Jean N. Razafinjaka, Jean Daniel Lan Sun Luk

Ecole Supérieure Polytechnique; Laboratoire d'Énergétique, d'Électronique et des Procédés - Madagascar/

La Réunion

MAS_13: Simulation analysis for cascading failure of an electrical power grid

Chulhan Kim, Kiwook Bae, Soojeong Bae, Tae-Eog Lee

KAIST - South Korea

HMS_12: Simulation assisted design of inductors in power electronics systems

Daniel Hofinger, Heinz Weinzierl, Mario Jungwirth

University of Applied Sciences Upper Austria - Austria

Friday 2013-09-27 13:30-15:00

Room: Room 3

IWISH-EMSS: Simulation based Training and Computer Aided Therapy Solutions for Healthcare - Session I

Chair(s): Marco Frascio, University of Genoa

IWISH_14: Generic model-based application of modular image processing chains for medical 3D data analysis in clinical research and radiographer training

Gerald Zwettler, Werner Backfrieder

University of Applied Science Upper Austria - Austria

EMSS_57: Economic analysis of a low-cost laparoscopic simulator: a descriptive study

Marco Frascio, Marco Sguanci, Francesca Mandolino, Angela Testi, Marcello Parodi, Gianni Vercelli

University of Genova - Italy

EMSS_58: Laparoscopic skills simulator: a gradual structured training program for acquiring laparoscopic abilities

Marco Frascio, Marco Sguanci, Francesca Mandolino, Marco Gaudina, Edoardo Bellanti

University of Genova - Italy

IWISH_19: Technology enhanced surgery education environments: requirements and system models

Ibrahim Cereci, Nergiz Ercil Cagiltay, Mustafa Berker

Atilim University; Hacettepe University - Turkey

IWISH_10: Segmentation by multispectral analysis of MR image data for 3D modelling in surgical planning

Werner Backfrieder, Berthold Kerschjbaumer, Gerald Zwettler

University of Applied Science Upper Austria - Austria

Friday 2013-09-27 13:30-15:00

Room: Room 4

EMSS: Petri Nets Based on Modeling & Simulation - Session I**Chair(s): Emilio Jiménez, University of La Rioja; Juan Ignacio Latorre, Public University of Navarre**

EMSS_93: Analysis of states in production systems modeled by Petri nets using Diophantine equations

Julián Gómez-Munilla, Emilio Jiménez-Macías, Juan Ignacio Latorre-Biel, Mercedes Pérez de la Parte, Jorge Luis García-Alcaraz

University of La Rioja; Public University of Navarre; Universidad Autónoma de Ciudad Juárez - Spain/
Mexico

EMSS_94: Rubik's cube as a benchmark for strategies of solution search in discrete systems presenting state explosion problem. Model with ordinary and colored PN

Emilio Jiménez-Macías, Francisco Javier Leiva-Lázaro, Juan Ignacio Latorre-Biel, Mercedes Pérez de la Parte

University of La Rioja; Public University of Navarre - Spain

EMSS_90: Development and simulation of a new scheme for the aircraft cleaning service

Miguel Mújica, Mireia Soler, Idalia Flores

Amsterdam University of Applied Sciences; Universitat Autònoma de Barcelona; UNAM - Netherland/
Spain/ Mexico

EMSS_88: Analysis of information partial encryption options for exchanging Petri nets systems

Iñigo León Samaniego, Emilio Jiménez-Macías, Juan Ignacio Latorre-Biel

University of La Rioja; Public University of Navarre - Spain

EMSS_85: Optimal design, based on simulation, of an olive oil mill

Juan Ignacio Latorre-Biel, Emilio Jiménez-Macías, Julio Blanco-Fernández, Juan Carlos Sáenz-Díez

Public University of Navarre; University of La Rioja - Spain

Friday 2013-09-27 13:30-15:00

Room: Room Ground

Special Session: Panel on M&S for Autonomous Systems

Chair: Agostino G. Bruzzone, DIME, University of Genoa

Friday 2013-09-27 15:00-15:30

COFFEE BREAK Co-Sponsored by CAL-TEK, LIO Tech, MAST, SIM4FUTURE - Kallirroe

Friday 2013-09-27 15:30-17:00

Room: Room 1

Special Session: SEE (Smackdown) Initiative

Chair: Agostino G. Bruzzone, DIME, University of Genoa

Friday 2013-09-27 15:30-17:00

Room: Room 2

HMS: Modeling & Simulation in Logistics, Traffic and Transportation - Session I

Chair(s): Galina Merkurieva, Riga Technical University

HMS_29: A simulation framework for ships pilots training
Francesco Longo, Roberto Musmanno, Letizia Nicoletti, Alessandro Chiurco
University of Calabria - Italy

HMS_15: Simulation modeling of schemes of cargo trucking between European Union and customs union of Russia, Belarus and Kazakhstan
Eugene Kopytov, Dmitry Abramov, Michail Savrasov
Transport and Telecommunication Institute - Latvia

HMS_5: Use of modelling for assessment of Latvian road safety and logistics costs minimization
Vitalijs Jurenoks, Vladimirs Jansons, Konstantins Didenko
Riga Technical University - Latvia

HMS_7: The capacitated vehicle routing problem with loading constraints
Hanne Pollaris, Kris Braekers, An Caris, Gerrit K. Janssens
Hasselt University; Reseach Foundation Flanders - Belgium

Friday 2013-09-27 15:30-17:00

Room: Room 3

EMSS: Simulation and Artificial Intelligence - Session I

Chair(s): Michael Affenzeller, Upper University of Applied Sciences

EMSS_21: Simulation optimizer and optimization methods testing on discrete event simulations models and testing functions
Pavel Raska, Zdenek Ulrych, Petr Horejsi
University of West Bohemia - Czech Republic

EMSS_66: Wireless sensor deployment decision support using genetics algorithm and DEVS formalism
Bastien Poggi, Jean-François Santucci, Thierry Antoine-Santoni

University of Corsica Pasquale Paoli - France

EMSS_121: Using data mining and machine learning methods for server outage detection – modelling normality and anomalies

Matthias Wastian, Felix Breiteneker, Michael Landsiedl
dwh GmbH; Vienna University of Technology - Austria

EMSS_71: Technical and economic verification of the convenience in reengineering a production line using simulation techniques

Domenico Falcone, Antonio Forcina, GianPaolo Di Bona, Vincenzo Duraccio, Alessandro Silvestri, Cristina Cerbaso
University of Cassino and Lazio Meridionale - Italy

Friday 2013-09-27 15:30-17:00

Room: Room 4

EMSS: Petri Nets Based on Modeling & Simulation - Session II

Chair(s): Emilio Jiménez, University of La Rioja; Juan Ignacio Latorre, Public University of Navarre

EMSS_91: Comparison of incidence matrices to detect common patterns in Petri nets

Juan Ignacio Latorre-Biel, Emilio Jiménez-Macías
Public University of Navarre; University of La Rioja - Spain

EMSS_95: Petri net reduction rules through incidence matrix operations

Joselito Medina-Marin, Juan Carlos Seck-Tuoh-Mora, Norberto Hernandez-Romero, Jose Carlos Quezada-Quezada
Autonomous University of Hidalgo State - Mexico

EMSS_86: Management of resources and wastes in a network of schools modelled by Petri nets

María Otero-Prego, Juan Ignacio Latorre-Biel, Diego Azofra-Rojo, Emilio Jiménez-Macías
University of La Rioja - Spain

EMSS_87: Sustainable design for a centre of vocational training. A Petri net approach

María Otero-Prego, Juan Ignacio Latorre-Biel, Eduardo Martínez-Cámara, Emilio Jiménez-Macías
University of La Rioja; Public University of Navarre - Spain

Friday 2013-09-27 15:30-17:00

Room: Room Ground

MAS: M&S in Company Organization and Informative Systems and Along the Supply Chains

Chair(s): David del Rio Vilas, University of a Coruna

MAS_14: Falling stars: simulation of the effect of firm culture on employee performance

Roderick Duncan, Terry Bossomaier
Charles Sturt University - Australia

MAS_49: Orchestrating the interoperability workflow within a transport simulation platform

Judicael Ribault, Gregory Zacharewicz
Univ. Bordeaux - France

MAS_39: Simulating an internet product delivery supply chain with multi-item orders

Oliverio Cruz-Mejia, Richard Eglese
Universidad Anáhuac Mexico Norte; Lancaster University - Mexico/ United Kingdom

MAS_29: Problems of information systems integration in large transport companies
Eugene Kopytov, Vasilij Demidovs, Natalia Petukhova
Transport and Telecommunication Institute; State Joint-Stock Company "Latvian Railway" - Latvia

Friday 2013-09-27 17:00-18:00

Room: Room 1

I3M Closing Ceremony

I3M Next Year

Be Ready for I3M in France

I3M2014 in Bordeaux, France

If you are interested in being active in I3M2014 in Bordeaux France, please visit:

www.msc-les.org/conf/i3m2014

and/or contact the Program Chair Dr.Francesco Longo

International Journal Special Issues for I3M

The I3M Organization finalized an agreement to publish most interesting I3M papers in International Journals; the following Special Issues will include a collection of best papers submitted and presented at I3M:

-International Journal of Food Engineering

Special Issue on: "Modelling and Simulation of Food Processing and Operations"

-Journal of Simulation

Special Issue on: "Modeling & Simulation: new challenges and advanced solutions"

-International Journal of Simulation and Process Modelling

Special Issue on: "Cutting-edge Methodologies, Applications and Technologies in M&S"

-International Journal of Simulation and Process Modelling

Special Issue on: "Modeling and Applied Simulation: Multi-perspective and Multidisciplinary approaches"

-International Journal of Privacy and Health Information Management

Special Issue on: "Modeling & Simulation Advances in Healthcare Information Management, Decision Making and Education"

-Journal of Computational Science

Special Issue on: "Modeling, Algorithms and Simulations: advances and novel researches for problem-solving and decision-making in complex, multi-scale and multi-domain systems"

-International Journal of Service and Computing-Oriented Manufacturing

Special Issue on: "Integrated Approaches based on advanced M&S methodologies for industry and manufacturing"

I3M Best Paper Awards

In the I3M Best Paper Awards will be delivered during I3M at the Gala Dinner; these are assigned by the I3M Best Paper Award International Committee and selected among the top quality papers of each Conference based on their originality, scientific quality and impact on each specific domain.

Gianni Cantice Award for Gifted Simulation Students

The "Gianni Cantice Research Award for Gifted Simulation Students" will be announced during the I3M Opening Ceremony and attributed to the best simulation student applicants; the Award is entitled to Col.Cantice as recognition for his long activity in Simulation; the Gianni Cantice Award Winner will receive the Award Certificate, a financial contribution and the opportunity to spend a period in a M&S Excellence Center world wide, as visiting researcher of the Simulation Team. The Master and PhD students interested, in applying for this competition, need to submit their application, as described on the web site (www.liophant.org/i3m/cantice), to Dr.Marina Massei (massei@itim.unige.it) before the deadline (September 1, 2013). For information about next edition of Gianni Cantice Award, please visit the web site www.liophant.org/i3m/cantice.

I3M Hotel and Venue

the I3M 2013 multiconference will be held at Royal Olympic Hotel - Athens, Greece

Rooms Rates, Conditions and Reservation are available on the web site www.msc-les.org/conf/i3m2013

The organizing committee has arranged special rooms rates for I3M 2013 participants booking at the Hotel Royal Olympic in Athens:

-Please Check Single and Double Room

Lunches will be provided to all conference attendees with regular full registration. You make your hotel reservation through the links on the www.msc-les.org/conf/i3m2013 links or directly on hotel web sites

Author and Chair Guidelines for I3M2013

On the I3M web site guidelines for Track / Session Chairs and for Authors / Presenters are available please check them in order to proper deliver your presentation in best way avoiding any inconvenience.

I3M as Evolving Framework

Dear attendee, the whole I3M Organization is very glad for having you here and for your support to this important event; we really hope you enjoyed the conference, therefore we are looking forward to further develop and improve it; by participating in I3M it is evident that a major stronghold of this Multiconference is its capability to mix very experience people with young blood. So we will be glad if you could consider to be more involved in future events by submitting session or track proposals, by proposing new topics or by providing your availability for being candidate for paper review; in addition you can find on the web site I3M Quality Assessment Forms for providing your feedback, thanks in advance for your support.

I3M2014, Bordeaux, France

I3M2014 will be held next year in Bordeaux, France, September 22-24, 2014. Please consider to be active and to participate in this important event by submitting a paper or even by proposing a track and/or a session to the I3M Organization and Conference Chairs; for further information please check the web site: www.msc-les.org/conf/i3m2014 or write to I3M2014 Program Chair Francesco Longo (f.longo@unical.it)

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Halldale - The Journal of Healthcare, Education, Simulation and Training
Halldale - The Military Simulation and Training Magazine
EUROMERCI

Synergies & Other Opportunities

WAMS2013

WAMS2013 (the International Workshop in Applied Modeling & Simulation) will be held in Buenos Aires Argentina during November 2013. Please consider to be active and to participate in this thematic workshop; for further information please check the web site: <http://www.lsis.org/wams2013/> or write to Dr. Marina Massei (marina.massei@liophant.org)

SIREN M&S Courses

The Modeling & Simulation Professional Courses are organized with scientific sponsorship of MITIM-DIME University of Genoa, Simulation Team, MSC-LES and Liophant. Attendees have the opportunity to select among different M&S courses levels (i.e. Fundamentals, Regular, Advanced Educational Package) and categories (i.e. M&S, VV&A, PM and Interoperability). Each M&S course includes lecturing and exercises provided by world-wide experts, with several years of experience, from major center of excellence, i.e. MITIM-DIPTTEM University of Genoa, Virginian Modeling & Simulation Center (VMASC), GrVa Universidad Federal de Rio de Janeiro, LSIS Marseille, MAST, MSC-LES, National Center for Simulation (NSC), NASA, Riga TU, UAB, University of Arizona, etc. If you are interested in next SIREN Courses please visit www.mastsrl.eu/mscourses or contact info@mastsrl.eu

***Further details on I3M Conferences are available in www.liophant.org/i3m,
www.msc-les.org/conf/i3m2013***