



I3M: The 12nd International Multidisciplinary Modelling & Simulation Multiconference

General Chairs

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

Program Co-Chair

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

EMSS: The 27th European Modelling & Simulation Symposium,

EMSS General Chairs:

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

EMSS Program Chairs:

Michael Affenzeller, Upper Austrian University of Applied Sciences, Austria
Lin Zhang, Beihang University, China

HMS: The 17th 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:

David Del Rio, Proyfe Group, Spain

MAS: The 14th International Conference on Modelling & Applied Simulation

MAS General Chairs:

Marina Massei, Liophant Simulation, Italy
Claudia Frydman, LSIS, France

MAS Program Chairs:

Fabio De Felice, University of Cassino, Italy
Adriano Solis, York University, Canada

DHSS: The 5th International Defense and Homeland Security Simulation Workshop

DHSS General Chair:

Agostino Bruzzone, MITIM DIME, University of Genoa, Italy

DHSS Program Chair

Robert Sottolare, Army Research Laboratory, USA

I_WISH: The 4th International Workshop on Innovative Simulation for Health Care

I_WISH General Chairs:

Vera Novak, BIDMC, Harvard Medical School, USA
Jerzy W. Rozenblit, University of Arizona, USA

I_WISH Program Chair:

Marco Frascio, University of Genoa, Italy

SESDE: The 3rd International Workshop on Simulation for Energy, Sustainable Development & Environment

SESDE General Chair:

Janos Sebestyén Janosy, MTA EK Centre for Energy Research Hungarian Academy of Sciences

SESDE Program Chair:

Gregory Zacharewicz, IMS Université Bordeaux, France

FOODOPS: The 1st International Food Operations and Processing Simulation Workshop

FOODOPS General Chairs:

Giuseppe Vignali, University of Parma
Ruben Mercadè - Prieto, Soochow University

FOODOPS Program Chair:

Francesco Longo, University of Calabria

WAMS: The 8th International Workshop on Applied Modeling and Simulation

WAMS General Chairs:

Agostino Bruzzone - University of Genoa
Paolo Fadda - Central Labs

WAMS Program Chairs:

Gianfranco Fancello - University of Cagliari
Miquel Angel Piera - Autonomous University of Barcelona

I3M: The International Multidisciplinary Modelling & Simulation Multiconference involves EMSS, MAS, HMS, IMAACA, DHSS, I_WISH, SESDE, FOODOPS, WAMS and related Workshops and Special Sessions; All Sessions are open to all I3M Attendees

EMSS: European Modelling & Simulation Symposium, 27th Edition, Part of I3M2015

MAS: The International Conference on Modelling & Applied Simulation, 14th Edition, Part of I3M2015

IMAACA: The International Conference on Integrated Modeling and Analysis in Applied Control and Automation, 8th Edition, Part of I3M2015

HMS: The International Conference on Harbour, Maritime & Multimodal Logistics Modelling and Simulation, 17th Edition, Part of I3M2014

DHSS: The International Defense and Homeland Security Simulation Workshop, 5th Edition, Part of I3M2015

I_WISH: The International Workshop on Innovative Simulation for Healthcare, 4th Edition, Part of I3M 2015

SESDE: The International Workshop on Simulation for Energy, Sustainable Development & Environment, 3rd edition, Part of I3M 2015

FOODOPS: The International Food Operations and Processing Simulation Workshop, 1st Edition, Part of I3M 2015

WAMS: The International Workshop on Applied Modeling & Simulation, 8th Edition

Special Session: I3M Special Session freely open to all the attendees (i.e. Plenary Joint Opening, I3M 2015 Special session, etc.)

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

Monday 2015-09-21 9:00-10:30

Joint I3M Opening, Room 1 - Colombo

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

Conferences, Societies and Networks Welcome

- EMSS Conference - Prof. Francesco Longo, MSC-LES, University of Calabria, Italy
- HMS Conference - Prof. Yuri Merkuryev, Riga Technical University, Latvia
- MAS Conference - Prof. Adriano Solis, York University, Canada
- IMAACA Conference - Sergio Junco, Universidad Nacional de Rosario, Argentina
- DHSS Workshop - Prof. Agostino Bruzzone, University of Genoa, Italy
- I_WISH Workshop - Prof. Vera Novak, Harvard Medical School, USA
- SESDE Workshop - Prof. Janos Sebestyen Janosy, Centre for Energy Research, Hungary
- FOODOPS Workshop - Prof. Giuseppe Vignali, University of Parma, Italy
- I_M_CS - Prof. Gerson Cunha, LAMCE/COPPE/UFRJ, Brasil
- Liophant - Dr. Marina Massei, University of Genova, Italy
- Simulation Team - Prof. Miquel Angel Piera, UAB, Spain
- MISS and M&Snet - Prof. Lin Zhang, Beihang University, China
- I3M 2016 and Conference Updates, Loucas S. Luca, University of Cyprus

Monday 2015-09-21 10:30-11:00

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

Monday 2015-09-21 11:00-12:30

Joint I3M Opening, Room 1 - Colombo

Plenary Speeches

Prof. Miquel Angel Piera, Autonomous University of Barcelona

Innovative Modeling & Simulation in the Aeronautics sector: integrating new technologies and methodologies

Lt. Col. Paolo Di Bella, NATO Modeling & Simulation Center of Excellence, Italy

Present and Future Scenarios and Challenges for M&S in terms of Human Behavior Modeling

Prof. Gerson Cunha, Federal University of Rio de Janeiro, Brazil

Visualization and Simulation - Challenges and Solutions for Industry Applications

Prof. Ruben Mercadé - Prieto, Soochow University, China

Multi-scale modelling in food engineering

Monday 2015-09-21 12:30-14:00

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

Monday 2015-09-21 14:00-15:30

Room: Room 1 - Colombo

EMSS: Industrial Processes and Engineering Modeling & Simulation - Session I

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

EMSS_32: Cybernetics applied to a six-legged Robot,
Michael Bogner, Thomas Haspl, Franz Wiesinger
University of Applied Sciences Upper Austria - Austria

EMSS_11: Dynamic and kinematic simulation of kawasaki manipulator industrial robot using solidworks and matlab simmechanics

Zennir Youcef, Makbouche Adel, Souames Hamza
Automatic Laboratory of Skikda - Algeria

EMSS_73: Supervisory FCM simulation in tunnel construction

Limao Zhang, A. J. Antony Chettupuzha, Seungjun Ahn, Stephen Hague, Chrysostomos D. Stylios, Simaan M. AbouRizk
University of Alberta; Technological Educational Institute of Epirus - Canada/ Greece

EMSS_71: Simulation-based assessment of the influence of requests for information on industrial module construction piping work

Amin Amini Khafri, Wenying Ji, Seungjun Ahn, Simaan AbouRizk
University of Alberta - Canada

EMSS_70: LCA software for environmental impact assesment of injected moulded plastic parts

Ana Elduque, Daniel Elduque, Carmelo Pina, Carlos Javierre, Ángel Fernández
University of Zaragoza; BSH Electrodomésticos España, S.A. - Spain

Monday 2015-09-21 14:00-15:30

Room: Room 2 - Verazzano

EMSS: Simulation and Optimization Approaches in industry, aviation, services and transport - Session I

Chair(s): Idalia Flores, University of Mexico

EMSS_6: Stochastic programming for train distribution in a metro transportation system

Jorge A. Garcia, Kumaraswamy Ponnambalam
University of Waterloo - Canada

EMSS_40: Utilization of computer simulation for the localization of rolling stock with utilization technology oracle spatial and dynamic database views

Jan Fikejz, Jan Merta
University of Pardubice - Czech Republic

EMSS_25: Model of a railway infrastructure as a part of a mesoscopic traffic simulator

Radek Novotny, Antonin Kavicka
University of Pardubice - Czech Republic

EMSS_13: Design and development of a mesoscopic simulator specialized in investigating capacities of railway nodes

Roman Diviš, Antonín Kavička
University of Pardubice - Czech Republic

EMSS_34: Conducting experimental design and optimization on an innovative car rental business

Natalia P. Basán, Mariana E. Cóccola, Carlos A. Méndez
UNL-CONICET - Argentina

Monday 2015-09-21 14:00-15:30

Room: Room 3 - Caboto

MAS: Warehouse & Inventory Management, Suppliers Selection

Chair(s): Adriano Solis, York University

MAS_37: Improvement of the warehouse operation in the furniture company on the basis of the simulation study

Bronislav Chramcov, Petr Šošolík, Robert Bucki

Tomas Bata University; Institute of Management and Information Technology - Czech Republic/ Poland

MAS_10: A heuristics with simulative approach for the determination of the optimal offsetting replenishment cycles to reduce the warehouse space

Chiara Franciosi, Salvatore Miranda, Raffaele Iannone, Alfredo Lambiase
University of Salerno - Italy

MAS_28: Monte Carlo simulation used for the electricity supplier selection

Martina Kuncova, Jana Seknickova
University of Economics - Czech Republic

MAS_46: Better statistical forecast accuracy does not always lead to better inventory control efficiency: the case of lumpy demand

Adriano O. Solis
York University - Canada

Monday 2015-09-21 14:00-15:30

Room: Room 4 - Smilax

IWISH-EMSS: Modeling & Simulation in Medicine and Population care

Chair(s): Vera Novak, Harvard Medical School

IWISH_3: Popliteal artery aneurysm: a bioengineering study on pathogenesis

Francesca Condemmi, Raffaele Serra, Stefano de Franciscis, Gionata Fragomeni
"Magna Graecia" University - Italy

IWISH_5: Sitting vs standing: a computational comparison of hemodynamics in carotid bifurcation

Maria Vittoria Caruso, Raffaele Serra, Paolo Perri, Stefano de Franciscis, Gionata Fragomeni
"Magna Graecia" University - Italy

EMSS_46: Flow simulations in the human cardiovascular system under variable external conditions

Reece Adragna, Radu C. Cascaval, Maria Pia D'Arienzo, Rosanna Manzo
University of Colorado; University of Salerno - USA/ Italy

IWISH_18: The foundation for multi-scale modeling of the digital patient

C. Donald Combs
Eastern Virginia Medical School - USA

Monday 2015-09-21 14:00-15:30

Room: Room 5 - Malicia

FOODOPS: Modelling and Simulation of food properties

Chair(s): Ruben Mercade Prieto, Soochow University

FOODOPS_5: Finite element analysis investigation of response of pumpkin tissue under uniaxial loading

Maryam Shirmohammadi, Prasad KDV Yarlagadda
University of South Australia; Queensland University of Technology - Australia

FOODOPS_6: Breakage matrix comparison of granulated food products for prediction of attrition during lean-phase pneumatic conveying

B.A. Kotzur, M.S.A. Bradley, R.J. Berry, R.J. Farnish
University of Greenwich - UK

FOODOPS_8: Effect of foaming agent, foam stabilizer and whipping time on drying process of tomato paste under different drying equipment

Adesoji Mathew Olaniyan, John Adeyemi Adeoti, Musiliu Olusola Sunmonu
Federal University Oye Ekiti; University of Ilorin - Nigeria

FOODOPS_23: Poroviscoelastic modeling of protein hydrogels

Ruben Mercadé-Prieto, Joaquim Lopez, Xiao Dong Chen
Soochow University; Ramon Llull University - China/ Spain

Monday 2015-09-21 15:30-16:00

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

Monday 2015-09-21 16:00-17:30

Room: Room 1 - Colombo

EMSS-MAS-SESDE: Human-centred and Human-focused Modelling and Simulation

Chair(s): Peer Olaf Siebers, University of Nottingham

EMSS_20: Simulative analysis of performance shaping factors impact on human reliability in manufacturing activities

Valentina Di Pasquale, Salvatore Miranda, Raffaele Iannone, Stefano Riemma
University of Salerno - Italy

EMSS_78: DEVS-based framework for message dissemination in multi-layer networks

Youssef Bouanan, Mathilde Forestier, Judicael Ribault, Gregory Zacharewicz, Bruno Vallespir
University of Bordeaux - France

SESDE_11: Human behavior simulation for smart decision making in emergency prevention and mitigation within urban and industrial environments

Agostino G. Bruzzone, Marina Massei, Matteo Agresta, Alberto Tremori, Francesco Longo, Giuseppina Murino, Fabio De Felice, Antonella Petrillo

University of Genoa; University of Calabria; Simulation Team; University of Cassino; Parthenope University of Naples - Italy

MAS_34: Modelling and simulation of rail passengers to evaluate methods to reduce dwell times

Adam Perkins, Brendan Ryan, Peer-Olaf Siebers
University of Nottingham - UK

MAS_39: The Simulation Exploration Experience, education opportunity in higher education – Preparing college students to thrive in chaos

Priscilla Elfrey, Richard Severinghaus
NASA, Kennedy Space Center; CRTN Solutions, LLC - USA

Monday 2015-09-21 16:00-17:30

Room: Room 2 - Verazzano

EMSS: Simulation and Optimization Approaches in industry, aviation, services and transport - Session II

Chair(s): Idalia Flores, University of Mexico

EMSS_27: Urban transport infrastructure: a survey
Idalia Flores, Miguel Mújica Mota, Salvador Hernández
UNAM; Aviation Academy; Amsterdam University of Applied Sciences - Mexico/ Netherlands

EMSS_28: Ambulance location using linear programming: the case of the national autonomous university of Mexico (UNAM)
Esther Segura Pérez, Idalia Flores, Alexander Vindel
UNAM - Mexico

EMSS_41: Various aspects of multi-method modelling and its applications in modelling large infrastructure systems like airports
Barbara Glock, Niki Popper, Felix Breitenecker
dwh GmbH; Vienna University of Technology - Austria

EMSS_35: Modular approach for modelling an airport system
Paolo Scala, Miguel Mujica Mota, Nico de Bock
Amsterdam University of Applied Sciences - Netherlands

Monday 2015-09-21 16:00-17:30

Room: Room 3 - Caboto

HMS: Urban, Pedestrian and Transportation Modeling & Simulation

Chair(s): Elvezia Cepolina, University of Pisa; Miquel Angel Piera, Autonomous University of Barcelona

HMS_15: Pedestrian modelling: autonomy and communication needs
Elvezia Cepolina, Silvia Cervia, Paloma Gonzalez Rojas
University of Pisa; Massachusetts Institute of Technology - Italy/ USA

HMS_16: Pedestrian modelling: discomfort assessment
Elvezia Cepolina, Gabriella Caroti, Andrea Piemonte, Paloma Gonzalez Rojas
University of Pisa; Massachusetts Institute of Technology - Italy/ USA

HMS_24: MAS simulation for decision making in urban policy design: bicycle infrastructure
Roman Buil, Miquel Angel Piera, Marjan Gusev, Egils Ginters, Artis Aizstrauts
Universitat Autònoma de Barcelona; Univ. Sts Cyril and Methodius; Vidzeme University of Applied Sciences - Spain/ Macedonia/ Latvia

HMS_22: A demand shifting algorithm to smooth the peaks at airport Security Screening Checkpoint (SSC) facilities
Jenaro Nosedal-Sánchez, Miquel A. Piera-Eroles, Rubén Martínez, Núria Alsina-Pujol
Universitat Autònoma de Barcelona; Advanced Logistics Group - Spain

Monday 2015-09-21 16:00-17:30

Room: Room 4 - Smilax

DHSS-HMS: Adaptive Training

Chair(s): Robert Sottolare, Army Research Laboratory

DHSS_4: Domain modeling in support of adaptive instructional decisions in the generalized intelligent framework for tutoring
Robert A. Sottolare, Scott J. Ososky, Michael W. Boyce
U.S. Army Research Laboratory; Oak Ridge Affiliated Universities - USA

DHSS_8: Dimensions of instructional management research in support of a generalized intelligent framework for tutoring (GIFT)

Benjamin Goldberg, Robert Sottolare, Jason Moss, Anne Sinatra

U.S. Army Research Laboratory-Human Research and Engineering Directorate - USA

HMS_27: Interoperability and performance analysis of a complex marine multidomain simulation based on high level architecture

Agostino G. Bruzzone, Diego Crespo Pereira, Alberto Tremori, Marina Massei, Mirko Scapparone

University of Genoa; University of a Coruna; NATO STO CMRE; Cal-Tek - Italy/ Spain

DHSS_9: Considerations for learner modeling in a domain-independent intelligent tutoring system framework

Anne M. Sinatra, Keith W. Brawner, Gregory A. Goodwin

U.S. Army Research Laboratory - USA

DHSS_10: Architectural research in intelligent tutoring technologies

Keith Brawner, Anne Sinatra, Bob Sottolare

Human Research and Engineering Directorate - USA

Monday 2015-09-21 16:00-17:30

Room: Room 5 - Malicia

FOODOPS: Modelling and Simulation of food processing - Session I

Chair(s): Michel Havet, ONIRIS

FOODOPS_11: Development of a small scale machine for roasting shea kernel prior to shea butter extraction

A.M. Olaniyan, A.O. Yusuf, O.F. Osadipe

Federal University Oye Ekiti; University of Ilorin - Nigeria

FOODOPS_2: CFD analysis of coffee packaging in capsules using gas flushing modified atmosphere packaging

Simone Spanu, Giuseppe Vignali

University of Parma - Italy

FOODOPS_17: Analysis of the energetic and exergetic efficiency of the electrohydrodynamic drying process

M. Havet, E. Bardy, S. Manaï, M. Hamdi, O. Rouaud

LUNAM Université; Grove City College - France/ USA

FOODOPS_18: Optimization of hydration process of date palm fruits from experimental and numerical approaches

A. Lakoud, S. Curet, M. Hassouna

Ecole Supérieure des Industries Alimentaires de Tunis; L'UNAM Université - Tunisie/ France

Tuesday 2015-09-22 9:00-10:30

Room: Room 1 - Colombo

EMSS-MAS: Industrial Processes and Engineering Modeling & Simulation - Session II

Chair(s): Juan Ignacio Latorre, University of La Rioja

EMSS_47: Discrete-event simulation modelling of prefabricated wall production line
Mohammed Sadiq Altaf, Hexu Liu, Youyi Zhang, Mohamed Al-Hussein, Ahmed Bouferguene
University of Alberta - Canada

EMSS_64: Sustainable performance management model of manufacturing companies according to sampled methods from performance management system
Veronika Burešová, Lilia Dvořáková
University of West Bohemia - Czech Republic

EMSS_75: Modeling, simulation and optimization of logistics management of a cans packaging line
Victoria G. Achkar, Luciana S. Picech, Carlos A. Méndez
UNL; INTEC - Argentina

EMSS_72: Environmental assessment tool to analyze the presence of critical and valuable raw materials
Patricia Gómez, Daniel Elduque, Carmelo Pina, Judith Sarasa, Isabel Clavería, Carlos Javierre
BSH Electrodomésticos España, S.A.; University of Zaragoza - Spain

MAS_33: Economies of scale and scope in manufacturing systems - a benchmarking approach
Sameh Saad, Ali Bagheri
Sheffield Hallam University - UK

Tuesday 2015-09-22 9:00-10:30

Room: Room 2 - Verazzano

EMSS: Discrete, Combined, Distributed and Parallel and other Simulation Approaches

Chair(s): Gasper Music, University of Ljubljana; Thomas Wiedemann, HTW Dresden FB Informatik

EMSS_80: A specialized library for simulation of coal mining in flat-lying coal seam
Victor Okolnishnikov, Sergey Rudometov, Sergey Zhuravlev
Siberian Branch of the Russian Academy of Sciences - Russia

EMSS_76: A proposal of using DEVS model for process mining
Yan Wang, Grégory Zacharewicz, David Chen, Mamadou Kaba Traoré
University of Bordeaux; Université Blaise Pascal - France

EMSS_66: Use of delphi method in obtaining requirements for the game structural masonry
Ailton Soares Fereire, Leiliane Santana Souza, Daniela Matschulat Ely, Antônio Edésio Jungles
Instituto Federal de Educação, Ciência e Tecnologia do Piauí; Instituto Federal de Educação, Ciência e Tecnologia da Bahia; Centro Federal de Educação Tecnológica de Minas Gerais; Universidade Federal de Santa Catarina - Brasil

EMSS_43: Pipeline as high level parallel composition for the implementation of a sorting algorithm
Mario Rossainz López, Manuel Capel Tuñón, Patricia Domínguez Mirón, Ivo Pineda Torres
Universidad Autónoma de Puebla; Universidad de Granada - Mexico/ Spain

EMSS_42: Performance gain and energy savings using multi-threaded software on an embedded asymmetric chip multiprocessor
Michael Bogner, Christof Steps, Franz Wiesinger
University of Applied Sciences Upper Austria - Austria

Tuesday 2015-09-22 9:00-10:30

Room: Room 3 - Caboto

MAS-EMSS: Decision Support Systems

Chair(s): Ilaria Baffo, Italian CNR

MAS_23: Optimal crop selection and scheduling using a generic crop growth model and integer programming model

Kasi Bharath Vegesana, Frederic D. McKenzie
Old Dominion University - USA

MAS_35: A decision support system for the prioritization of projects and investments to maximize impact on regional development

Anton Coteló Garcia, Pablo Diaz de la Cuesta, Juan Diaz Pardo, David del Rio Vilas
Proyfe S.L. - Spain

MAS_36: An integrated decision support system to solve multi-criteria orienteering problem

Pasquale Carotenuto, Ilaria Baffo, Fabio De Felice, Antonella Petrillo
IAC - CNR; University of Cassino; University of Naples "Parthenope" - Italy

MAS_43: A genetic algorithm to design touristic routes in a bike sharing system

Ilaria Baffo, Pasquale Carotenuto, Giovanni Storchi
IAC-CNR; Università di Roma "Sapienza" - Italy

EMSS_86: Alternatives aggregation petri nets applied to modular models of discrete event systems

Juan Ignacio Latorre Biel, Emilio Jiménez Macías, Jorge Luis García-Alcaraz,
Juan Carlos Sáenz Díez Muro, Mercedes Pérez de la Parte
Public University of Navarre; University of La Rioja; Autonomous University of Ciudad Juarez - Spain/
Mexico

Tuesday 2015-09-22 9:00-10:30

Room: Room 4 - Smilax

EMSS-MAS: Agent Based Modeling and Simulation

Chair(s): Michael Kommenda, Upper Austria UAS

EMSS_24: Rapid prototyping and verification of simulating systems applying ABASIM architecture

Emil Řezanina, Antonín Kavička
University of Pardubice - Czech Republic

MAS_29: Modelling the effect of individual differences in punishment sensitivity on behaviour in a public goods game

Tuong Manh Vu, Peer-Olaf Siebers, Anya Skatova, Theodore Turocy
University of Nottingham; University of East Anglia - Uk

MAS_11: Clothes maketh the man and the regional mall

Roderick Duncan, Terry Bossomaier, Steve d'Alessandro, Daniel Murphy
Charles Sturt University - Australia

MAS_47: Modeling human behavior in marine environment for anti-piracy operations

Agostino G. Bruzzone, Marina Massei, Irene Piccini, Alberto Tremori
University of Genoa; University of Torino; NATO STO CMRE - Italy

EMSS_69: Validation and approval of PN ciphered subnets: security in PN sharing and storage using PNML, XMLSecurity and XMLSignature

Iñigo León Samaniego, Mercedes Perez-Parte, Juan-Ignacio Latorre-Biel, Emilio Jiménez-Macías
University of La Rioja - Spain

Tuesday 2015-09-22 9:00-10:30

Room: Room 5 - Malicia

Special Session: I3M 2016 and MISS-MSNet Board of Directors Meeting

Chair(s): *Francesco Longo, University of Calabria; Loucas S. Louca, University of Cyprus*

Tuesday 2015-09-22 10:30-11:00

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

Tuesday 2015-09-22 11:00-12:30

Room: Room 1 - Colombo

**EMSS-IMAACA-MAS: Industrial Processes and Engineering Modeling & Simulation
- Session III**

Chair(s): *Miquel Angel Piera, Autonomous University of Barcelona*

EMSS_44: Heat treatment process parameter estimation using heuristic optimization algorithms
Michael Kommenda, Bogdan Burlacu, Reinhard Holecek, Andreas Gebeshuber, Michael Affenzeller
University of Applied Sciences Upper Austria; Johannes Kepler University; Rübigen GmbH & Co KG -
Austria

EMSS_17: Modeling and simulation based on finite element method for electron beam welding process
Zhengkun Feng, Henri Champlaud
Ecole de technologie supérieure - Canada

IMAACA_16: Modeling, identification and a first control approach on the quality of flames in oil furnaces
Agenor T. Fleury, Danilo S. Chui, Flavio C. Trigo, Flavius P. R. Martins
Centro Universitário da FEI; Escola Politecnica da Universidade de São Paulo - Brasil

MAS_20: Powers controls of a doubly-fed induction generator used in a chain of wind power conversion
Jean N. Razafinjaka, Andrianantenaina Tsiory Patrick, Jean Claude Rakotoarisoa, Hervé Mangel, Charles
Bernard Andrianirina
Ecole Supérieure Polytechnique d'Antsiranana; Université de Bretagne Occidentale; Ecole Supérieure
Polytechnique - Madagascar/ France

EMSS_74: Investigation of thermal effects on elastic constants to simulate correctly the thermal stress in
nano transistors
Abderrazzak El Boukili
Al Akhawayn University - Morocco

Tuesday 2015-09-22 11:00-12:30

Room: Room 2 - Verazzano

EMSS: HLA and Web Simulation

Chair(s): *Diego Crespo Pereira, La Coruna University*

EMSS_57: Connection of microcontroller and microcomputer to distributed simulation
Martin Jakeš, Josef Brožek
University of Pardubice - Czech Republic

EMSS_56: Naval operations' assessment through a multi-purpose HLA simulation framework
Davide Tozzi, Federica Valdenazzi, Aldo Zini
CETENA SPA - Italy

EMSS_88: Synthetic environment for interoperable advanced marine simulation
Agostino G. Bruzzone, Marina Massei, Alberto Tremori, Riccardo di Matteo, Giovanni Luca Maglione
University of Genoa; NATO STO CMRE; Simulation Team - Italy

EMSS_9: Web simulation with support of mobile agents
Jan Voracek
University of Pardubice - Czech Republic

EMSS_59: Hardware libraries for online control of interactive simulations
Josef Brozek, Martin Jakes
University of Pardubice - Czech Republic

Tuesday 2015-09-22 11:00-12:30

Room: Room 3 - Caboto

WAMS: Workshop on Modeling & Applied Simulation

Chair(s): Gerson Cunha, UFRJ

WAMS_3: Adaptive simulation-based training for a complex world
Latika Eifert, Jonathan Stevens, Dean Reed, Oleg Umanskiy, Boris Stilman
ARL; University of Central Florida; University of Colorado Denver - USA

WAMS_4: Internet of things (IoT) applications study using big data and virtualization process technology
Albino Ribeiro Neto, Gerson Gomes Cunha, Luiz Landau, Sergio Poliano Villarreal, Cristina Jasbinscheck
Haguenauer
LAMCE/COPPE/UFRJ; SENAI/FIRJAN - Brazil

WAMS_7: Autonomous system simulation to improve scenario awareness and capabilities to protect
marine, off-shore and coastal critical infrastructure
Agostino G. Bruzzone, Marina Massei, Alberto Tremori, Diego Crespo Pereira, Giulio Franzinetti, Manlio
Oddone, Arnau Carrera, Fabio Camponeschi, Luciano Dato
University of Genoa; NATO STO CMRE; Simulation Team; Universidad de Girona - Italy/ Spain

WAMS_5: Low cost laparoscopic training platform: primary validation process
E.Perino, M. Sguanci, F. Mandolino, M. Minuto, G. Vercelli, M. Gaudina, S. Marcutti, V. Rumolo, G.
Maccocci, M. Frascio
DISC; DIBRIS - Italy

WAMS_6: Modelling and simulating the assembly line supply by tigger trains
T. Staab, M. Röschinger, M. Dewitz, W. A. Günthner
Technische Universität München - Germany

Tuesday 2015-09-22 11:00-12:30

Room: Room 4 - Smilax

DHSS: Defense and Homeland Security Simulation

Chair(s): Robert Sottolare, Army Research Laboratory

DHSS_14: A novel approach for modeling complex deep futures

Edwin Upchurch, Leila Meshkat
California Institute of Technology - USA

DHSS_6: Defense and first-responders leverage virtual technology: taking it to the edge
Tami Griffith, Jennie Ablanedo, Milt Nenneman
ARL-HRED STTC; University of Central Florida; DHS – S&T - USA

DHSS_7: Towards an immersive virtual reality training system for CBRN disaster preparedness
Annette Mossel, Andreas Peer, Johannes Goellner, Hannes Kaufmanr
Vienna University of Technology; Ministry of Defence and Sports - Austria

DHSS_5: Optimally locating surveillance assets in urban areas
Javier Salmeron, Kevin Wood
Naval Postgraduate School, Monterey - USA

DHSS_12: Optical engineering simulator development for efficient design of miles gear
Seon Han Choi, Changbeom Choi, Tag Gon Kim
Korea Advanced Institute of Science and Technology; Handong Global University - Sud Korea

Tuesday 2015-09-22 11:00-12:30

Room: Room 5 - Malicia

FOODOPS: Modelling and Simulation of food processing - Session II

Chair(s): Francesco Marra, University of Salerno

FOODOPS_14: Operating strategies to minimise the methanol content in distillates obtained in alembics
R. Luna, J.R. Pérez-Correa, F. López, M. Fernández-Fernández

Pontificia Universidad Católica de Chile; Universitat Rovira I Virgili; Universidad de Talca - Chile/ Spain

FOODOPS_16: Study and optimisation of a CO2 sparger for carbonated beverages and beer by means of CFD modelling

Massimiliano Rinaldi, Matteo Cordioli, Davide Barbanti, Marco Dall'Aglio
University of Parma; Valfor srl - Italy

FOODOPS_24: Virtualization strategies for modeling the energy transfer in a food undergoing RF heating
Tsfaye Faye Bedane, Francesco Marra
Università degli studi di Salerno - Italy

FOODOPS_25: Reaction engineering methodology as an effective approach to model drying, baking and water vapor sorption processes

Aditya Putranto, Xiao Dong Chen, Ruben Mercadé-Prieto
Soochow University - China

Tuesday 2015-09-22 12:30-14:00

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

Tuesday 2015-09-22 14:00-15:30

Room: Room 1 - Colombo

EMSS: Cloud Simulation and Simulation as a Service

Chair(s): Lin Zhang, Beihang University

EMSS_31: Towards humans issues in cloud manufacturing paradigm
Yuqiuge Hao, Rayko Toshev, Petri Helo
University of Vaasa - Finland

EMSS_30: A cloud service based modeling & simulation framework
Xiao Song, Feng Li, Lin Zhang, Cheng'en Wang
Beihang University - China

EMSS_83: Cerebellum Function For MSAAS
Erdal Cayirci, Hakan Karapinar, Lutfu Ozcakir
University of Stavanger; HAVELSAN - Norway/ Turkey

EMSS_23: Cost-based assessment of partitioning algorithms of agent-based systems on hybrid cloud environments
Chahrazed Labba, Narjès Bellamine Ben Saoud
Ecole Nationale des Sciences de l'Informatique; Univ. Tunis El Manar - Tunisia

EMSS_16: Web simulation as a platform for training software application
Stepan Kartak
University of Pardubice - Czech Republic

Tuesday 2015-09-22 14:00-15:30

Room: Room 2 - Verazzano

EMSS-MAS: Supply Chain Networks and Retail Modeling & Simulation

Chair(s): Adriano Solis, York University

EMSS_82: The impact of procurement and inventory management in operative performance in a supply chain
Jorge Luis García-Alcaraz, Aidé Aracely Maldonado-Macías, Emilio Jiménez Macías, Julio Blanco Fernández
Autonomous University of Ciudad Juarez; University of La Rioja - Mexico/ Spain

EMSS_60: A dynamic multicommodity network flow problem for logistics networks
Sebastian Raggl, Judith Fechter, Andreas Beham
University of Applied Sciences Upper Austria; Johannes Kepler University - Austria

EMSS_55: Extending the retsim simulator for estimating the cost of fraud in the retail store domain
Edgar Alonso Lopez-Rojas
Blekinge Institute of Technology - Sweden

MAS_25: Impact analysis of a cross-channel retailing system in the fashion industry by a simulation approach
Alessandra Lanzilotto, Giada Martino, Maria Grazia Gnoni, Raffaele Iannone
University of Salento; University of Salerno - Italy

Tuesday 2015-09-22 14:00-15:30

Room: Room 3 - Caboto

IMAACA: Bond Graph Modeling and Analysis

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

IMAACA_6: Steady-state power flow analysis of electrical power systems modelled by 2-dimensional multibond graphs
Israel Núñez-Hernández, Peter C. Breedveld, Paul B. T. Weustink, Gilberto Gonzalez-A

University of Twente; Controllab Products B.V; University of Michoacan - Netherlands/ Mexico

IMAACA_3: Model complexity of a cantilever beam: an energy-based approach

Loucas Louca

University of Cyprus - Cyprus

IMAACA_26: Experimentally validated bond graph model of a brazed-plate heat exchanger (BPHE)

Marwa Turki, Mohamed Kebdani, Geneviève Dauphin Tanguy, Antoine Dazin, Patrick Dupont

Ecole Centrale de Lille; Arts et Métiers Paris Tech - France

IMAACA_5: Fault accommodation by inverse simulation through solving a differential algebraic system obtained from a bond graph

Wolfgang Borutzky

Bonn-Rhein-Sieg University of Applied Sciences - Germany

Tuesday 2015-09-22 14:00-15:30

Room: Room 4 - Smilax

HMS: Supply Chains and Transportation

Chair(s): Yuri Merkurjev, Riga Technical University

HMS_18: Intelligent transport measures as a component of cyber-physical systems: case study for Adazi city

Yuri Merkurjev, Nadezhda Zenina, Andrejs Romanovs

Riga Technical University - Latvia

HMS_8: Evaluation of supply chains effectiveness and reliability based on modelling logistics operations

Valery Lukinskiy, Vladislav Lukinskiy, Yuri Merkurjev

National Research University Higher School of Economics; Riga Technical University - Russia/ Latvia

HMS_20: Agent-based simulation for planning and evaluation of intermodal freight transportation networks

Manfred Gronalt, Edith Schindlbacher

University of Natural Resources and Life Sciences - Austria

HMS_23: Multivariate freight data generation for assessing customs' risk evaluation tools

Farzad Kamrani, Pontus Hörling, Thomas Jansson, Pontus Svenson

Swedish Defence Research Agency - Sweder

Tuesday 2015-09-22 14:00-15:30

Room: Room 5 - Malicia

Special Session: SIMCJOH Project Demonstration

Chair(s): Agostino Bruzzone, University of Genoa

Tuesday 2015-09-22 15:30-16:00

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

Tuesday 2015-09-22 16:00-17:30

Room: Room 1 - Colombo

EMSS: Workshop on Model Engineering for System of Systems

Chair(s): Prof. Lin Zhang, Beihang University

EMSS_5: A generation algorithm of latin hypercube sampling based on original sampling points
Zhizhao Liu, Wei Li, Ming Yang, Jun Xu, Duzheng Qing
Harbin Institute of Technology; Beijing Simulation Center - China

EMSS_7: An integrated platform for simulation, validation, analysis and optimization of electromagnetic railgun system
Yuchen Zhou, Ping Ma, Ming Yang
Harbin Institute of Technology - China

EMSS_14: Ontology and its role in domain-specific modeling
Ning Zhu, Yonglin Lei, Xiaobo Li, Yifan Zhu
National University of Defense Technology - China

EMSS_15: Result validation of a rudder simulation model
Lina Meng, Xiaochao Qian, Haiying Wang, Wei Li
Heilongjiang Institute of Technology; Harbin Institute of Technology - China

EMSS_68: Towards an extension of promela for the modeling, simulation and verification of discrete-event systems
Aznam Yacoub, Maamar Hamri, Claudia Frydman , Chungman Seo , Bernard P. Zeigler
Aix-Marseille Université; RTSync Corp - France/ USA

Tuesday 2015-09-22 16:00-17:30

Room: Room 2 - Verazzano

SESDE-EMSS: LCA, Human Risks and Environmental Impact Reduction

Chair(s): Janos Sebestyen Janosy, Hungarian Accademy of Sciences

SESDE_8: Mushroom cultivation process, agaricus bisporus variety: comparison between traditional and climate controlled cultivation and identification of environmental impacts of the production processes
F.J. Leiva-Lázaro, J. Blanco-Fernández, E. Martínez-Cámara, J.I. Latorre-Biel, E. Jiménez-Macías
University of La Rioja; Public University of Navarre - Spain

SESDE_4: Coagulation-adsorption-flocculation process to regenerate cip solutions. effect on the physicochemical and cleaning properties of regenerated solutions
Mehdi Dif, Olivier Barrault
Elodys International - France

EMSS_84: Chemical risk evaluation: application of the Movarish methodology in an industry of the textile sector
Vincenzo Duraccio, Gianpaolo Di Bona, Domenico Falcone, Alessandro Silvestri, Antonio Forcina
University Niccolò Cusano; University of Cassino; University Parthenope - Italy

SESDE_2: Using simulation to support management of offshore renewable energy facilities
Kevin Kennedy, Ted Scully, Tom Mastaglio
Cork Institute of Technology; MYMIC Global Ltd - Ireland

Tuesday 2015-09-22 16:00-17:30

Room: Room 3 - Caboto

IMAACA: Robot Modeling & Control

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

IMAACA_22: Fractional order PI-Dm controller: applied to control a manipulator robot wrist
Youcef Zennir, Adel Makhbouche
Automatic Laboratory of Skikda - Algeria

IMAACA_24: Obstacle avoiding strategy of a reconfigurable redundant space robot
Vijay Kumar Dalla, Pushparaj Mani Pathak
Indian Institute of Technology, Roorkee - India

IMAACA_29: User front-following behaviour for a mobility assistance robot: a kinematic control approach
George P. Moustiris, Athanasios Dometios, Costas S. Tzafestas
National Technical University of Athens - Greece

IMAACA_28: Gait modelling for a context-aware user-adaptive robotic assistant platform
Georgia G. Chalvatzaki, Xanthi S. Papageorgiou, Costas S. Tzafestas
National Technical University of Athens - Greece

IMAACA_18: Dynamic analysis and 3D visualization of multibody systems
Vjekoslav Damic, Maida Cohodar
University of Dubrovnik; University of Sarajevo - Croatia/ Bosnia and Herzegovina

Tuesday 2015-09-22 16:00-17:30

Room: Room 4 - Smilax

HMS: Logistics networks and distribution

Chair(s): Eleonora Bottani, University of Parma

HMS_5: Simulation-optimisation based decision-support for coordinated disaster relief last mile distribution
Christian Fikar, Manfred Gronalt, Johannes Goellner, Patrick Hirsch
University of Natural Resources and Life Sciences; National Defence Academy - Austria

HMS_14: Modelling and assessment of risks in logistics using multidimensional statistical methods
Vladimirs Jansons, Vitalijs Jurenoks, Konstantins Didenko, Julia Pushkina
Riga Technical University; JS Insurance Company "BALTA", - Latvia

HMS_12: Supporting real-time decision-making in logistics and transportation by combining simulation with heuristics
Angel A. Juan, Javier Faulin, Laura Calvet
IN3-Open University of Catalonia; Public University of Navarre - Spain

HMS_21: Hierarchical mesoscopic simulation models of parcel service provider networks
Björn Erichsen, Tobias Reggelin, Sebastian Lang, Horst Manner-Romberg
Otto-von-Guericke University Magdeburg; Fraunhofer Institute for Factory Operation and Automation; MRU GmbH - Germany

Tuesday 2015-09-22 16:00-17:30

Room: Room 5 - Malicia

Special Session: Simulation Exploration Experience, SEE 2016

Chair(s): Agostino Bruzzone, University of Genoa

Social Event

Tuesday 2015-09-22 18:30-23:00

19:00 I3M Gala Dinner @ Claudio Hotel and Congress Center

During Gala Dinner the I3M Best Paper Awards will be presented

Wednesday 2015-09-23 9:00-10:30

Room: Room 1 - Colombo

EMSS: Modelling and Simulation Approaches in and for Education

Chair(s): Maja Atanasijevic-Kunc, Univ. Ljubljana; Andreas Körner, Vienna Univ. of Technology

EMSS_62: Combination of learning approaches in modelling and simulation

Maja Atanasijevic-Kunc, Marko Papić, Borut Zupančič, Janez Bešter

University of Ljubljana - Slovenia

EMSS_77: An accredited engineering curriculum for modeling and simulation

Frederic D. McKenzie

Old Dominion University - USA

EMSS_81: Modelling and simulation examples based on computer algebra systems

Stefanie Winkler, Andreas Körner, Andreas Bauer, Martin Bicher, Felix Breitenecker

Technische Universität Wien; dwh GmbH - Austria

EMSS_53: NumEquaRes - Online simulation tool for education and academic research

Stepan Orlov, Nikolay Shabrov

St. Petersburg State Polytechnical University - Russia

EMSS_10: Simulators sustainability assessment

Dace Aizstrauta, Egils Ginters, Artis Aizstrauts

University of Applied Sciences - Latvia

Wednesday 2015-09-23 9:00-10:30

Room: Room 2 - Verazzano

MAS: Modeling and Applied Simulation

Chair(s): Miguel Mújica Mota, Amsterdam University of Applied Sciences

MAS_12: A multimodal approach to simulation fidelity

Patrice Thebault, Sangeeth saagar Ponnusamy, Vincent Albert

Airbus Operations SAS; CNRS LAAS - France

MAS_15: A positional study for network modeling using Zigbee protocol

Leonardo Lanzellotti, Larissa P. M. Cruz, Maria Celia S. Lopes, Gerson Gomes Cunha, Luiz Landau

Universidade Federal do Rio de Janeiro - Brasil

MAS_24: Internet of Things (IoT) applications study using big data and virtualization process technology

Albino Ribeiro Neto, Gerson Gomes Cunha, Luiz Landau, Sergio Poliano Villarreal, Cristina Jasbinscheck

Haguenauer

Universidade Federal do Rio de Janeiro; National Service for Industrial Training - Brasil

MAS_27: An improved conversive hidden non-markovian model-based touch gesture recognition system with automatic model creation

Tim Dittmar, Claudia Krull, Graham Horton

Otto-von-Guericke-University Magdeburg - Germany

MAS_42: Discovering social networks using a mobile phone game

Terry Bossomaier, Roderick Duncan, Steve D'Alessandro, Michelle Evans, Liaquant Hossian

Charles Sturt University; Hong Kong University - Australia/ China

Wednesday 2015-09-23 9:00-10:30

Room: Room 3 - Caboto

SESDE-EMSS: Energy and Environment

Chair(s): Gregory Zacharewicz, University of Bordeaux

SESDE_3: Fuzzy inference about wind resources in urban environment

Marcos Antonio Cruz Moreira, Roberto Rosenhaim, Robson da Cunha Santos, Gerson Gomes Cunha, Thaianie Fagundes de Araújo Holanda

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

SESDE_5: Simulation of home activities to analyze household electricity consumption

C. Azcárate, I. Les, F. Mallor

Public University of Navarre - Spain

SESDE_10: Analysis of thermal and acoustic performance in residential buildings with one way slab depending on the rib width and compression layer

Javier Ferreiro Cabello, Esteban Fraile García, Eduardo Martínez Cámara, Emilio Jiménez Macías

Qualiberica SL; University of La Rioja - Spain

SESDE_9: A probabilistic FR 13 simulation of strategies for cooling of air in buildings with unplanned traffic flow during summer

James Y. G. Chu, Kenneth R. Davey

The University of Adelaide - Australia

EMSS_8: Synergy of matlab and modelica in thermal flows control in buildings

Borut Župančič

University of Ljubljana - Slovenia

Wednesday 2015-09-23 9:00-10:30

Room: Room 4 - Smilax

IWISH: Training Solutions in Healthcare and Patient's care- Session I

Chair(s): Marco Frascio, University of Genoa

IWISH_2: Towards a hybrid virtual/physical nuss procedure surgical simulator

Mohammad F. Obeid, Eun-sil Heo, Krzysztof J. Rechowicz, Robert E. Kelly, Frederic D. McKenzie

Old Dominion University Norfolk; Pediatric Surgery, Children's Hospital of The King's Daughters and Eastern Virginia Medical School - USA

IWISH_17: The development of a low-cost obstetric simulator to train midwifery students and test objective examinations' skills

S. Ricci, A. Paci, S. Marcutti, P. Marchiolè, G. Torre, M. Casadio, G. Vercelli, M. Cordone

University of Genova; ASL3 Genova; Gynecology and Obstetric Villa Scassi Hospital - Italy

IWISH_11: Biosignal acquisition system for prosthesis control and rehabilitation monitoring

Volkhard Klinger
FHDW - Germany

IWISH_7: Agent-based modelling for rethinking the socioeconomic determinants of child health in sub-saharan africa

Carine Van Malderen, Hedwig Deconinck, Niko Speybroeck, Jean-Christophe Chiem
Université catholique de Louvain - Belgium

IWISH_10: Simulation-based framework to compute population risk related to traffic accidents

FJ Otamendi, D Garcia-Heredia
Universidad Rey Juan Carlos - Spain

Wednesday 2015-09-23 9:00-10:30

Room: Room 5 - Malicia

Special Session: NATO MSG-ET-036 SA3C

Chair(s): Agostino Bruzzone, University of Genoa

Wednesday 2015-09-23 10:30-11:00

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

Wednesday 2015-09-23 11:00-12:30

Room: Room 1 - Colombo

EMSS-MAS: Simulation and Optimization

Chair(s): Michael Kommenda, Upper Austria UAS

EMSS_36: Comparison of optimization methods efficiency in different dimensions of the search space of simulation models

Pavel Raska, Zdenek Ulrych
University of West Bohemia - Czech Republic

EMSS_51: AMEBA – Structural evolutionary optimization: method and toolbox development

Marko Corn, Maja Atanasijević-Kunc
Ameba d.o.o.; University of Ljubljana - Slovenia

EMSS_58: Simulation-based set-up time optimization using Sim# and Heuristiclab

Johannes Karder, Andreas Scheibenpflug, Andreas Beham, Stefan Wagner, Michael Affenzeller
University of Applied Sciences Upper Austria; Johannes Kepler University - Austria

EMSS_61: Modelling a clustered generalized quadratic assignment problem

Judith Fechter, Andreas Beham, Stefan Wagner, Michael Affenzeller
University of Applied Sciences Upper Austria; Johannes Kepler University - Austria

MAS_26: Using multi-pole modeling and intelligent simulation in design of a hydraulic drive

Mait Harf, Gunnar Grossschmidt
Tallinn University of Technology - Estonia

Wednesday 2015-09-23 11:00-12:30

Room: Room 2 - Verazzano

MAS: Simulation Based Education and Training

Chair(s): Diego Crespo Pereira, La Coruna University

MAS_41: Voluntary education standardization in study energy efficiency direction programs in European Union and neighborhood regions

A. Zabasta, N. Kunicina, N. Arsic, O. Krievs, L. Ribickis
Riga Technical University; University of Pristina - Latvia/ Kosovo

MAS_40: The assurance of quality and recognition of researcher's skills in Europe towards smart energy regions paradigm

N. Kunicina, A. Zabasta, L. Ribickis, D. Bunte, O. Krievs
Riga Technical University; University of Applied Sciences - Latvia/ Germany

MAS_14: Augmented reality to support 3D visualization of geometric elements in classroom with AR teacher tools

Livia Fernandes, Leonardo Lanzellotti, Celia Lopes, Gerson G. Cunha, Luiz Landau
Universidade Federal do Rio de Janeiro - Brasil

MAS_32: Virtual panel system with tactile feedback

Allisson D'ant Ramos Bastos, Gerson Gomes Cunha, Luiz Landau, Maria Celia Santos Lopes
Universidade Federal do Rio de Janeiro - Brasil

Wednesday 2015-09-23 11:00-12:30

Room: Room 3 - Caboto

SESE-MAS-IMAACA: Green Vehicles and Green Solutions

Chair(s): Janos Sebestyen Janosy, Hungarian Accademy of Sciences

SESE_7: Challenges and Opportunities in selecting green solutions for port terminals

Francesco Longo, Antonio Padovano, Alok Baveja, Benjamin Melamed
University of Calabria; Rutgers University - Italy/ USA

SESE_6: Modeling energy consumption in automotive manufacturing

Bitu Ghazanfari, Zbigniew J. Pasek
University of Windsor - Canada

IMAACA_8: Hybridization effect on fuel consumption and optimal sizing of components for HEV

Mauro G. Carignano, Norberto M. Nigro, Sergio Junco
Universidad Nacional de Rosario; INTEC-CONICET-UNL - Argentina

IMAACA_14: Modelling, control and application of dynamic programming to a series-parallel hybrid electric vehicle

Ivan Miguel Trindade, Agenor de Toledo Fleury
University of Sao Paulo; FEI University - Brasil

MAS_4: Optimal control strategy of plug-in hybrid electric vehicles

Wonki Kim, Yonghyeok Ji, Shunghwa Lee, Hyeongcheol Lee
Hanyang University - Korea

Wednesday 2015-09-23 11:00-12:30

Room: Room 4 - Smilax

Special Session: Public Transportation Modeling & Simulation

Chair(s): Agostino Bruzzone, University of Genoa

Wednesday 2015-09-23 11:00-12:30

Room: Room 5 - Malicia

FOODOPS: Simulation of Food Supply Chain

Chair(s): Giuseppe Vignali, University of Parma

FOODOPS_4: Dynamic freight flow modelling for risk evaluation in food supply
Andreas Balster, Hanno Friedrich
Technische Universität Darmstadt - Germany

FOODOPS_7: Optimization of transportation decisions under exclusionary side constraints in food supply chain
Marcin Anholcer, Arkadiusz Kawa
Poznań University of Economics - Poland

FOODOPS_13: Analysis, simulation and optimization of the milking process in a cowshed for the production of Parmigiano Reggiano
Mattia Armenzoni, Eleonora Bottani, Roberto Montanari, Marta Rinaldi, Sergio Amedeo Gallo
University of Parma; University of Modena and Reggio Emilia - Italy

FOODOPS_9: Life cycle assessment of a new feed production obtained by wasted flour food collected from the distribution and retail phases.
David Mosna, Giuseppe Vignali
University of Parma - Italy

Wednesday 2015-09-23 12:30-14:00

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

Wednesday 2015-09-23 14:00-15:30

Room: Room 1 - Colombo

IWISH: Patients pathway and care - Session I

Chair(s): Marco Frascio, University of Genoa

IWISH_16: A simulation tool to plan daily nurse requirements
Paolo Barone, Francesco Imbimbo, Rosa Napoletano, Stefano Riemma, Debora Sarno
University of Salerno - Italy

IWISH_13: The interprofessional skill lab in the simulation centre: an experience of communication between the medical-nursing team and family members
Annamaria Bagnasco, Sue-Anne Maruffi, Gianluca Catania, Giancarlo Torre, Loredana Sasso
University of Genoa - Italy

IWISH_12: Using the OSCE method in a simulation centre to ensure equity and objectivity in assessing the communication and relational skills in a large of student nurses during a long examination session
Annamaria Bagnasco, Angela Tolotti, Giancarlo Torre, Loredana Sasso
University of Genoa - Italy

IWISH_14: An advanced centre of simulation to support caregivers providing home care to chronically ill patients, patients with rare diseases, and end of life care
Annamaria Bagnasco, Giancarlo Torre, Roberta Centanaro, Lucia Bacigalupo, Loredana Sasso
University of Genoa - Italy

IWISH_9: Rotated principal components for fuzzy segmentation szinitigraphic time series in individual dose planing
Werner Backfrieder, Gerald Zwettler
University of Applied Sciences Upper Austria - Austria

Wednesday 2015-09-23 14:00-15:30*Room: Room 2 - Verazzano***IMAACA: Modeling, Analysis and Control - Session I****Chair(s): Sergio Junco, Universidad Nacional de Rosario**

IMAACA_2: Predictive maintenance based on four parameters on an industrial test bench
Drishtysingh Ramdenee, Samuel Austin, Michel Guimond, Adrian Ilinca
Institut technologique de maintenance industrielle; l'Université du Québec - Canada

IMAACA_11: Battery dynamic model improvement with parameters estimation and experimental validation

Javier M. Cabello, Eric Bru, Xavier Roboam, Fabien Lacressonniere, Sergio Junco
Universidad Nacional de Rosario; Université de Toulouse - Argentina/ France

IMAACA_10: Design of a hydraulic turbine control system by numerical optimization
Roberto Canonico, Renato A. Aguiar, Fabrizio Leonardi
Centro Universitário da FEI - Brasil

IMAACA_25: Linear stability analysis for severe slugging: sensitivity to void fraction correlations
Gabriel Romualdo Azevedo, Jorge Luis Baliño, Karl Peter Burr
Universidade de São Paulo; ; Universidade Federal do ABC - Brasil

IMAACA_4: Application of an infinite horizon MPC to a nonlinear open-loop unstable reactor system
André Shiguelo Yamashita, Bruno Faccini Santoro, Márcio André Fernandes Martins, Darci Odloak
Universidade de São Paulo; Universidade Federal da Bahia - Brasil

Wednesday 2015-09-23 14:00-15:30*Room: Room 3 - Caboto***Special Session: DIEM-SSP and SG-ICT Projects presentation****Chair(s): Francesco Longo, University of Calabria****Wednesday 2015-09-23 14:00-15:30***Room: Room 4 - Smilax***DHSS-MAS: Defense and Homeland Security Simulation****Chair(s): Agostino Bruzzone, University of Genoa**

DHSS_16: Distributed virtual simulation supporting defense against terrorism
Agostino G. Bruzzone, Marina Massei, Alberto Tremori, Marco Camponeschi, Letizia Nicoletti, Riccardo Di Matteo, Giulio Franzinetti
University of Genoa; NATO STO CMRE; Simulation Team - Italy/ UK

DHSS_15: Intelligent agents & interoperable simulation for strategic decision making on multicoalition joint operations

Agostino G. Bruzzone, Marina Massei, Francesco Longo, Letizia Nicoletti, Riccardo Di Matteo, Gianluca Maglione, Matteo Agresta
University of Genoa; University of Calabria; Simulation Team - Italy

MAS_45: Developing effective virtual reality training for military forces and emergency operators: from technology to human factors

Federica Pallavicini, Nicola Toniuzzi, Luca Argenton, Luciana Aceti, Fabrizia Mantovani
University of Milano-Bicocca; Selex ES - Italy

DHSS_17: Guidelines for developing interoperable simulation focused on maritime operations combining autonomous systems and traditional assets

Agostino G. Bruzzone, Alberto Tremori, Marina Massei, Diego Crespo Pereira, Robert Been, Letizia Nicoletti, Giulio Franzinetti

University of Genoa; NATO STO CMRE; University of A Coruna; Simulation Team - Italy/ Spain

Wednesday 2015-09-23 15:30-16:00

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

Wednesday 2015-09-23 16:00-17:30

Room: Room 1 - Colombo

EMSS-MAS: Linear, non-linear systems and time series

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

EMSS_3: Positive and stable periodic time-varying continuous-time linear systems,
Tadeusz Kaczorek

Bialystok University of Technology - Poland

EMSS_85: Nonlinear scaling in smart adaptive modelling

Esko Juuso

University of Oulu - Finland

MAS_8: Synthesis of adequate mathematical description and its applications

Yuri Menshikov

University of Dnepropetrovsk - Ukraine

EMSS_19: Searching the longest common subsequences in distorted data

Tomáš Kocyan, Jan Martinovič, Kateřina Slaninová, Daniela Szturcová

VŠB - Technical University of Ostrava - Czech Republic

Wednesday 2015-09-23 16:00-17:30

Room: Room 2 - Verazzano

Special Session: EUROSIM Board Meeting

Chair(s): Esko Juuso, University of Oulu

Wednesday 2015-09-23 16:00-17:30

Room: Room 3 - Caboto

HMS: Logistic Nodes and Supply Chains Modeling & Simulation

Chair(s): Yuri Merkuryev, Riga Technical University

HMS_25: A tool to support harbor terminals design

Agostino Bruzzone, Francesco Longo, Alessandro Chiurco, Felice Crupi, Marco Lanuzza, Alessio Luigi Emanuele, Curinga Maria Chiara, Molinaro Jessica

University of Calabria - Italy

HMS_26: Discrete event simulation for virtual experimentation on marine decision support system

Agostino G. Bruzzone, Alberto Tremori, Raffaele Grasso, Raul Vicen, Alex Bourque, Giovanni Luca Maglione, Letizia Nicoletti

University of Genoa; NATO STO CMRE; Cal-Tek - Italy

HMS_3: Design of a logistic platform through de optimization of agricultural distribution networks in Panama

Humberto R. Alvarez A., Andrés Orozco, Nuvia Martez

Universidad Tecnológica de Panamá; Universidad Marítima Internacional de Panamá - Panama

HMS_4: Dynamic planning of cargo transportation for uncertain environments

Yukihisa Fujita

Hitachi Ltd. - Japan

HMS_7: A simulation model for determining throughput capacity of container terminals

Zijian Guo, Xuhui Yu, Guolei Tang, Wenyuan Wang

Dalian University of Technology - China

Wednesday 2015-09-23 16:00-17:30

Room: Room 4 - Smilax

Special Session: SMARTDISTR Project

Chair(s): Francesco Longo, University of Calabria

Wednesday 2015-09-23 17:30-18:30

Room: Room 1 - Colombo

Chair(s): Agostino Bruzzone, University of Genoa

I3M Closing Ceremony

I3M Next Year

Be Ready for I3M in Cyprus

I3M2016 in Cyprus

If you are interested in being active in I3M2016 in Cyprus, please visit:

www.msc-les.org/conf/i3m2016

and/or contact the Program Chair Dr.Francesco Longo (f.longo@unical.it)

International Journal Special Issues for I3M

The I3M Organization has finalized an agreement to publish most interesting I3M papers in International Journals and to provide the opportunity to I3M authors to submit papers on International journals featuring Special Issues on simulation topics. The following Special Issues will include a collection of best papers submitted and presented at I3M or will feature topics in the area of Modeling & Simulation

-International Journal of Food Engineering

Special Issue on: "Modeling & Simulation of food processing and operations"

-Simulation: Transaction of SCS

Special Issue on: "Agent Directed Simulation"

-International Journal of Simulation and Process Modelling

Special Issue on: "New trends of simulation and process modeling in multiple domains: from business and production to healthcare, defense and environmental sustainability"

-International Journal of Simulation and Process Modelling

Special Issue on: "Integrating Modeling & Simulation tools and methodologies in real-world complex systems for solving multidisciplinary problems"

-International Journal of Service and Computing-Oriented Manufacturing

Special Issue on: "Innovative Service-oriented and computing/simulation-based for future manufacturing system and manufacturing at large"

-International Journal of Privacy and Health Information Management

Special Issue on: "New simulation based solutions for education, training and decision making in the healthcare sector"

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, 2015). 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 2015 multiconference will be held at Claudio Hotel and Congress Center, Bergeggi, Italy.
Further Information are available on the web site www.msc-les.org/conf/i3m2015

Claudio Hotel & Congress Center
Via XXV Aprile,37 - Begeggi (SV) - Italy
Tel +39 019 85 97 50
Fax +39 019 85 97 50
Email: info@hotelclaudio.it
URL: www.hotelclaudio.it

Directions to Claudio Hotel & Congress Center :

By Plane: It is possible to use Volabus Shuttle from Genoa International Airport "Cristoforo Colombo" in order to reach P.Principe Genova Railway Station.

Then proceed by train to Savona or use taxi .

By Train: Stop in Savona Station and then use bus to Bergeggi or use taxi (~20 Euro), the distance is about 10 km.

By Car: Starting from Savona train station on local road West direction 2.1 km. Turn Right (South) on S1 and proceed for 7.5 km to Varigotti. Turn Right (North) on local road and proceed for 0.9 km

In Bergeggi follow "Claudio Ristorante & Hotel". Arrival to the Site (parking available)

The Hotel reservation form is available in the conference website at: http://www.msc-les.org/conf/i3m2015/index_file/ConferenceHotel.htm

A Shuttle Service on demand is also available: please check the conference website for additional information at: http://www.msc-les.org/conf/i3m2015/index_file/shuttleservice.htm

Lunches, coffee breaks and a gala dinner will be provided to all conference attendees with regular full registration.

Author and Chair Guidelines for I3M2015

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.

I3M2016, Cyprus

I3M2016 will be held next year in Cyprus, September 2016. 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/i3m2016 or write to I3M2016 Program Chair Francesco Longo (f.longo@unical.it)

I3M2015 Industrial Sponsors

CAL-TEK Srl
LIOTECH Ltd
SIM4FUTURE
MAST Srl
SIM4FUTURE

I3M2015 Media Partners

InderScience Publisher - International Journal of Simulation and Process Modelling
InderScience Publisher - International Journal of Service and Computing Oriented Manufacturing

SAGE - Simulation Transaction of SCS
IGI Global Disseminator of Knowledge - International Journal of Privacy and Health Information Management (IJPHIM)
Halldale - The Journal of Healthcare, Education, Simulation and Training
Halldale - The Military Simulation and Training Magazine
Euromerci
De Gruyter - International Journal of Food Engineering

Synergies & Other Opportunities

WAMS 2016

WAMS 2016, the International Workshop in Applied Modeling & Simulation. Please consider to be active and to participate in this thematic workshop; for further information please check the web site: <http://www.msc-les.org/conf/wams2016> 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-DIPTEM 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.mastssl.eu/mscourses or contact info@mastssl.eu

SILENI

SILENI (Simulation LEarning iNitiative) is an initiative devoted to promote M&S applied to real problems with special attention to Defense and Industry; SILENI promotes Seminars, Courses and Lectures on application of M&S. The name SILENI (Simulation LEarning iNitiative) is inspired by Greek mythology where Sileni (companions of Dionysus) were said to possess special knowledge and power of prophecy such as Modeling & Simulation. If you are interested in next SILENI Initiatives and Seminars please visit www.liophant.org/sileni or contact info@liophant.org

Further details on I3M Conferences are available in www.liophant.org/i3m, www.msc-les.org/conf/i3m2015