

FINAL PROGRAM



26-28 October 2016



Gran Canaria, Spain

Organized by



Sponsored by



Contents

Badges	4
Best Paper Award	7
Bus Links to the University	31
Conference Location	4
Conference Proceedings	6
Conference Site Map	32
General Information	4
Meeting Rooms	6
Need Help?	7
Notes	12
Registration	6
Room Legend	7
Session Chairs Information	8
Social Event and Lunches	7
Tickets	6
 Quick Program Overview	 9
 Scientific Program	 13
 Wednesday, October 26	 13
Thursday, October 27	20
Friday, October 28	27
 Conference Location	 32
 ESM'2017	 30
 EUROSIS Info	 33

General Information

1. Conference Location

The **ESM'2016 Conference** is being held at



The faculty of Computer Science

[Escuela de Ingeniería Informática](#)

SIANI

University of Las Palmas,
35017 Las Palmas de
Gran Canaria

Las Palmas, Spain

Tel: 928 45 88 70

The registration desk will be placed in the hallway from Wednesday morning October the 26th onwards, where registration will start at 08.00 a.m. and will end at 5.00 p.m. On Tuesday October 27th registration will be from 8.00 a.m. - 5.00 p.m. with Wednesday registration only from 9.00 a.m.- 9.30. a.m. The way to the conference and desk will be signposted.

ALL MAJOR MAPS ARE AT THE BACK OF THIS PROGRAMME

How to reach the conference location in Las Palmas:

By Plane

When arriving by plane you would arrive at [Gran Canaria Airport](#), also called Las Palmas Airport (IATA: LPA, ICAO: GCLP). The airport is located in the eastern part of the island, about 18 km from Las Palmas city centre. This airport is also a base for Binter Canarias and Navegacion y Servicios Aéreos Canarios, airlines which operate regional inter-island flights within the Canary Islands. The bus service in the Gran Canaria airport has its corresponding stops in various airport terminals, thus facilitating the loading and movement of passengers who are to make use of the airport shuttle service.

One of the most comfortable means of transport to travel to and from the airport of Gran Canaria, the taxis, they are located in different areas of the airport terminals. The taxi service at Gran Canaria airport is quite handy because it allows travel to anywhere in the city with the convenience, speed and security. Also keep in mind that taxis should be chosen that are properly identified and metered. Las Palmas de Gran Canaria to the city centre should be around €26.

General Information

Line	Route
Line 5	Las Palmas de Gran Canaria // Maspalomas Lighthouse
Line 60	Airport // Las Palmas de Gran Canaria
Line 66	Maspalomas // Faro // Airport

By Boat

By boat you will arrive at the Puerto de Las Palmas (Las Palmas Port), also known as Puerto de la Luz, which is the main port for fishing, commercial, passenger and sports in the northwest of the city. [Las Palmas Ferry](#) crossings are operated by Trasmediterranea, Naviera Armas & Fred Olsen Express and depending on the time of year you'll find a choice of up to 14 ferry crossings daily.

By Bus

Las Palmas boasts a high quality bus system, provided by Guaguas Municipales. Municipal Bus Lines offers 40 urban transport routes, covering both the bottom and the top of the city. The main lines are the 1 (Teatro Puerto), 2 (Alameda de Colón - Puerto), 17 (Teatro - El Rincón), 25 (Campus Universitario - El Rincón), 12 (Puerto - Hoya de la Plata) and 30 (Alameda de Colón - Santa Catalina, via Rehoyas). In addition, two circular lines (A: Santa Catalina - Santa Catalina, via Alcaraveneras) and B (Santa Catalina - Santa Catalina, via Ciudad Alta).

The most important bus lines have frequencies of between 3 and 15 minutes during the day and between 10 and 40 minutes at night; most lines have service throughout the night. The bright yellow buses are known simply as 'guaguas'. The unique tariff, paid directly to the driver, is 1.30 euro. A 10-ride ticket is available for €7.50 at official shops in the city.

By Car

Las Palmas, being the centre of the Las Palmas metropolitan area, is the hub for the island's motorway network. The city is linked with three highways: the GC-1 to the south, the GC-2 to the west and GC-3 to the center of the island.

There will be parking spaces available for those participants who come by car to the university.

General Information

2. Badges

Each registrant will receive a name badge upon registration. **The badge must be worn, in order to be admitted to the technical sessions, lunches and social event.**

3. Tickets

Extra tickets for the social event and lunches are available from the registration desk. Price: (or equivalent in another currency) for extra tickets

Extra conference dinner	€ 50
Extra lunch ticket	€ 25

4. Registration

The ESM'2016 Registration Desk will be open for information and registration:

Wednesday, October 26..... 8.00 a.m. to 5.00 p. m.
 Thursday, October 27..... 8.30 a.m. to 5.00 p. m.
 Friday, October 28 9.00 a.m. to 9.30 a.m.

The location of the registration desk will be signposted

5. Conference Proceedings

Each fully paid registrant will be provided with a copy of the Conference Proceedings (printed format). **This is NOT applicable to students who are not authors and who have not fully registered.**

(Extra copies are available on a cash and carry basis at special rates during **ESM'2016**)

Price: (or equivalent in another currency) for an extra copy

ESM'2016 Proceedings CASH AND CARRY	€ 50
-------------------------------------	------

6. Meeting Rooms

The ESM'2016 conference will be held in **rooms designated A (Main Hall), B and C** in this programme.

The way to the rooms will be signposted. WIFI-Internet is available and login information will be available at the conference.

General Information

7. Need Help?

Please see the conference desk for your questions

8. Social Events and Lunches

All registrants are invited to

All **Coffee Breaks** are served in the hallway in front of the meeting rooms
The lunches are served at the Caja de Sabores restaurant.

The Conference Dinner

All participants are invited to the conference dinner on **THURSDAY** the 27th of October. As we need to give an exact number of participants we would appreciate **your confirmation at the desk before Wednesday evening**.
The dinner will be held at:



[Hotel Iberia](#) ****

Av. del Alcalde José Ramírez
Bethencourt, 8,
35003 Las Palmas de Gran Canaria, Las
Palmas, Spain
☎ Tel: +34 928 36 11 33

9. Room Legend

The parallel meeting rooms will be designated **ROOM A B and C**. Signposts will indicate the room number above each door.

10. Best Paper Award

During the conference the papers, which were accepted as **extended** papers will be judged by the committee and conference participants in order to choose the best paper of the ESM'2016 conference.

The best paper author of the conference receives a certificate and a free registration to any EUROSIS event held within 2 years after receiving the best paper award. This registration waiver is only VALID FOR 2 YEARS AFTER RECEIPT AND FOR 1 (ONE) PERSON. In case of multiple authors, one (1) author only can use the registration waiver.

General Information

Session Chairs information

ALL SESSION CHAIRPERSONS IN THIS PROGRAM ARE PROVISIONAL

Session Chairs are chosen on a voluntary basis by proposals by either authors or local committee members or are appointed by the Track Chairs, General Program Chair or General Conference Chair. They are responsible for their assigned session. They make sure their speakers are available, take care of the timing within the session, chair the discussion after each presentation and introduce each speaker based on the CV's given to them by the authors. **If a session chair is not available then the first author takes on the responsibility to chair** In case they chair a session featuring **extended papers**, then they are required to distribute and collect the reviews of that or those papers at the beginning and end of the session. If they have time they should also indicate in their papers the number of session participants.

THE NUMBERS NEXT TO THE PRESENTATIONS DENOTE THE PAGE-NUMBERS IN THE PROCEEDINGS. IF NO NUMBERS ARE MENTIONED THEN THIS PAPER IS NOT PUBLISHED IN THE PROCEEDINGS

THE AUTHORS WHO ARE UNDERLINED ARE NORMALLY THE PRESENTERS

PAPERS IN GREY BOXES ARE THE EXTENDED PAPERS ELIGIBLE FOR THE BEST PAPER AWARD

CHECK OUT THE OTHER EUROSIS EVENTS ON OUR WEBSITE:

<http://www.eurosis.org>

WEDNESDAY, 26th OCTOBER 2016			
08.00-17.00	REGISTRATION		
09.00-09.15	WELCOME BY JOSE EVORA AND JOSE JUAN HERNANDEZ – ESM’2016 CONFERENCE CHAIRS - ROOM A		
09.15-10.00	KEYNOTE ADDRESS BY AMOS NG - ROOM A		
10.00-10.30	COFFEE BREAK		
10.30-12.30	PARALLEL SESSIONS		
	ROOM A	ROOM B	ROOM C
	SIMULATION METHODOLOGY	ENGINEERING SIMULATION	INFORMATION SYSTEMS AND DATABASES
12.30-14.00	LUNCH BREAK		
14.00-15.30	PARALLEL SESSIONS		
	ROOM A	ROOM B	ROOM C
	ELECTRONICS SIMULATION	HEALTH CARE SIMULATION	DATA ANALYSIS
15.30-16.00	COFFEE BREAK		
16.00-18.30	PARALLEL SESSIONS		
	ROOM A	ROOM B	ROOM C
	PARALLEL PROCESSING AND EMBEDDED SYSTEMS	SIMULATION IN BIOLOGY	TUTORIAL
18.30-.....	FREE EVENING		

THURSDAY, 27th OCTOBER 2016			
08.30-17.00	REGISTRATION		
09.00-10.00	KEYNOTE ADDRESS BY ENRIQUE KREMERS		
10.00-10.30	COFFEE BREAK		
10.30-12.30	PARALLEL SESSIONS		
	ROOM A	ROOM B	ROOM C
	SUPPLY CHAIN SIMULATION	POPULATION DYNAMICS	MULTIBODY SIMULATION
12.30-14.00	LUNCH BREAK		
14.00-15.30	PARALLEL SESSIONS		
	ROOM A	ROOM B	ROOM C
	FLEXIBLE PRODUCTION SIMULATION	MONTE CARLO SIMULATION	CHEMICAL SIMULATION
15.00-15.30	COFFEE BREAK		
15.30-18.30	PARALLEL SESSIONS		
	ROOM A	ROOM B	ROOM C
	AI AND AGENT BASED SIMULATION	PETRI NET SIMULATION	TUTORIAL
20.00 – 22.30	CONFERENCE DINNER		

FRIDAY, 28 th OCTOBER 2016			
09.00-09.30	REGISTRATION		
09.00-10.00	KEYNOTE ADDRESS BY JANOS JANOSY-SEBESTYEN		
10.00-10.30	COFFEE BREAK		
10.30 12.30	PARALLEL SESSIONS		
	ROOM A	ROOM B	ROOM C
	ENERGY OPTIMIZATION PLANNING	LOGISTICS SIMULATION	ENVIRONMENTAL RISK SIMULATION MANAGEMENT
12.30-12.45	CLOSING SESSION AND BEST PAPER AWARD ROOM A		

Notes

NOTES

Wednesday, 26th October 2016

HALLWAY

Registration

08.00 - 17.00

ROOM A

09.00 – 09.15

Opening ESM'2016 and Welcome

Welcome Address

José Évora Gómez, SIANI, Universidad de Las Palmas de GC, Spain
Jose Juan Hernandez-Cabrera, SIANI, Universidad de Las Palmas de GC, Spain

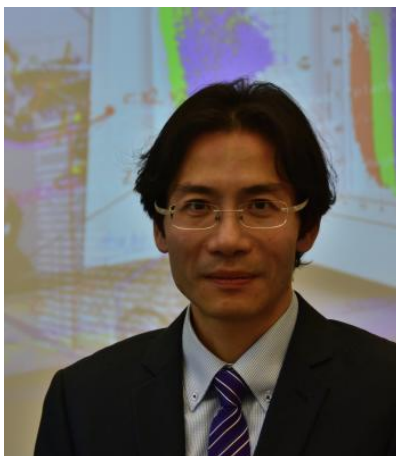
ESM'2016 General Conference Chairs

ROOM A - 09.15-10.00

KEY

KEYNOTE

Chair: Jose Juan Hernandez, SIANI, Las Palmas, Spain



KEY_01

[When Simulation meets Multi-Objective Optimization and Data Mining: Knowledge-Driven Optimization and its applications to Industrial Systems Engineering](#)

Amos H.C. Ng, Professor of Production & Automation Engineering, University of Skövde, Skövde, Sweden

Welcome

Wednesday, 26th October 2016

10.00 - 10.30

COFFEE BREAK

10.30 – 12.30

ROOM A - 10.30-12.30

METH

SIMULATION METHODOLOGY

Chair: Jose Evora, SIANI, Las Palmas, Spain

OPT_03

Simulate to infer: the Experimental Research Methodology applied to Simulations

Dorra Louati and Slimane Ben Miled 479

METH_25

Semantic interoperability in co-simulation: use cases and requirements

Jose Juan Hernandez, Jose Evora and Jean-Philippe Tavella..... 5

ANMT_01

Highly efficient recursive Algorithms for the generalized Vandermonde Matrix

Jerzy S. Respondek..... 15

OPT_09

Eleven Dimensional Correlation Problems

William Conley..... 10

ROOM B - 10.30-12.30

ENGIN

ENGINEERING SIMULATION

Chair: Amos Ng, University of Skovde, Skovde, Sweden

OPT_01

Modelling of Friction Stir Welding of 304 Stainless steel

A. Smith, M. Al-moussawi, A. Young, S. Cater and M. Faraji 351

Wednesday, 26th October 2016

OPT_12

Experimental and Numerical Study on Curing of Composite Materials

Lukasz T. Matysiak, Andrzej J. Nowak and Zbigniew P. Bulinski 356

METH_10

Dual analysis for Heat Exchange applied on Thermal Bridge

Samer Taoum, Emmanuel Lefrançois and Benoit Beckers 361

ENERG_01_ENGIN

Finite Element Model and Analysis of CANDU Fuel Channel Behavior during a Severe Accident

Daniel Dupleac, Ilie Prisecaru, Stefan Nicolici and Codrut Tiberiu Mateescu 369

ROOM C - 10.30-12.30

INFO

INFORMATION SYSTEMS AND DATABASES

Chair: Octavio Roncal, SIANI, Las Palmas, Spain

CLOUD_01

A Survey on Cloud Architecture Security Issues and Solutions

Amira Wertani, Chaker Katar and Abderrazek Jemai 49

ANMT_03

Challenges in Performance Simulation of ICT Solution Stacks

Martijn Goorden, Joanna v.d. Mortel-Fronczak, Michel Reniers, Matti Kinder and Willem van Veggel 64

AI_01

A Fairness DASH-DMS Architecture for Adaptive Streaming Video in Wireless Network

Haifa Harrouch, Mourad Kaddes, Majed Abdouli, Claude Duvallet and Rafik Bouaziz 59

OPT_16

Towards Automated Multi-Objective Rule Extraction

Leif Pehrsson, Ingemar Karlsson and Amos H.C. Ng 64

12.30 - 14.00

LUNCH BREAK

Wednesday, 26th October 2016

14.00 – 15.30

ROOM A – 14.00-15.30

ELEC

ELECTRONICS SIMULATION

Chair: Enrique Kremers, EIFIR I, Karlsruhe, Germany

METH_14

Hybrid Model for Estimating Performance in Codedesign Flow of Multi-Core Systems

Nourhen Fourati, Kamel Smiri, Habib Smei and Abderrazak Jemai 243

METH_15_DIS_TOOLS

Modelling, Simulation and Verification of Reconfigurable NoC under Energy and QoS Constraints

Hela Ben Salah, Adel Benzina and Mohamed Khalgui 248

METH_22_ELEC RAND

Generation of Executable Runtime Constrained Random Programs Functional Processor Verification

Wolfgang Bauer, Johannes Kohl, Jürgen Bäsig, Stefan Rübesam and Dietmar Fey 256

ROOM B- 14.00-15.30

HEALTH

HEALTH CARE SIMULATION

Chair: Igor Litvine, Nelson Mandela Metropolitan University, Port Elizabeth, South Africa

BIO_01

3D Scene Modelling in Human Anatomy Simulators

Anton Ivaschenko, Nickolay Gorbachenko, Alexandr Kolsanov, Aikush Nazaryan and Andrey Kuzmin 307

METH_03

HCDESLib - A Generic Open Source Toolkit for Health Care Simulation

Nikolaus Furian, Dietmar Neubacher, Siegfried Vössner, Michael O'Sullivan and Cameron Walker 315

Wednesday, 26th October 2016

OPT_21

Optimal Sizing of a Pediatric Hospital Patients Reception Desk Using Discrete Event Simulation

Lucia Cassettari, Fabio Rolando, Ilaria Bendato, Marco Mosca and Roberto Mosca 320

ROOM C- 14.00-15.30

DATA

DATA ANALYSIS

Chair: Octavio Roncal, SIANI, Las Palmas, Spain

METH_04

Using Relational Databases to Collect and Store Discrete Event Simulation Results

Justas Poderys and Jose Soler 28

METH_16_DIS_TOOLS

MASADA: A Modeling and Simulation Automated Data Analysis Framework for Continuous Data-Intensive Validation of Simulation Models

Daniel Foguelman, Matías Bonaventura and Rodrigo Castro..... 34

ENV_04

Geographic Data Extraction from Web Documents

Nesrine Hassini, Khaoula Mahmoudi and Sami Faiz..... 42

OPT_07

Finding Information in the Midst of Chaos

William Conley..... 23

15.30 - 16.00

COFFEE BREAK

16.00 - 18.30

ROOM A- 16.00-18.30

PAR

PARALLEL PROCESSING AND EMBEDDED SYSTEMS

Chair: Enrique Kremers, EIFIR I, Karlsruhe, Germany

METH_11_RAND

ARNG: Accelerating Discrete Event Simulation RNGs by Asynchronous Random Number Generation

Arne Koors and Bernd Page..... 191

Wednesday, 26th October 2016

PAR_01

A Distributed Simulation Grid using Eventual Consistency

Stefan Elsen 199

METH_21

A Novel DREC-UML-B Approach for Modeling and Code Generation of Distributed Reconfigurable Control Systems

Raja Oueslati, Olfa Mosbahi, Mohamed Khalgui and Samir Ben Ahmed 207

METH_17_DIS_TOOLS

RCo-Design: New Visual Environment for Reconfigurable Embedded Systems

Ines Ghribi, Riadh Ben Abdallah, Mohamed Khalgui and Marco Platzner 217

METH_30_DIS_TOOLS

Reconf-Pack: A Simulator for Adaptive Battery-Powered Real-Time Systems

Aymen Gammoudi, Adel Benzina, Mohamed Khalgui, Daniel Chillet and Aicha Goubaa 225

INTEL_03

New Solutions for Intelligence Adaptation of Reconfigurable Embedded Systems

Walid Bouzayen, Hamza Gharsellaoui and Mohamed Khalgui 233

ROOM B- 16.00-18.30

BIO

SIMULATION IN BIOLOGY

Chair: Anton Ivaschenko, Samara State National University, Samara, Russia

BIO_04

Are Semi-Empirical Methods suitable for the Description of Ionic Interactions?

Lydie Plačková and Martin Kabeláč 283

ENV_01

Modeling and Simulation of Phylodynamics of Avian Influenza

Gianna Sheffield and Dhananjai M. Rao 286

BIO_06

Persistence Analysis of RR-interval Series

Igor Litvine and Oleg Gorshkov 291

Wednesday, 26th October 2016

RAND_01

Return Intervals in the Analysis of Cardiac Arrhythmias

Monika Petelczyc and Maciej Kwiatkowski 296

INTEL_01

A Method to Identify Affect Levels from EEG Signals using Two Dimensional Emotional Models

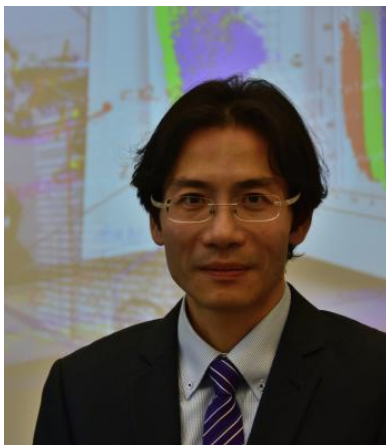
Pablo Arnau-González, Naeem Ramzan and Miguel Arevalillo-Herráez 299

ROOM C- 16.00-18.30

TUT

TUTORIAL

Chair: Jose Evora, SIANI, Las Palmas, Spain



TUT_01

Production Systems Optimization and Decision Support using FACTS Analyzer

Amos H.C. Ng and Marcus Frantzén,
Production & Automation Engineering,
University of Skövde, Skövde, Sweden



18.30 -

FREE EVENING

Thursday, 27th October 2016

HALLWAY

Registration

08.30 - 17.00

09.00 – 10.00

ROOM A- 09.00-10.00

KEYNOTE

Chair: Jose Evora, SIANI, Las Palmas, Spain

KEY



KEY_02
[Multi-Scale Simulation for Energy Systems using a Complex Systems Approach](#)
Dr. Enrique Kremers, Team coordinator Intelligent Energy Systems, EIFER I, Karlsruhe, Germany

10.00 - 10.30
COFFEE BREAK

10.30 - 12.30

ROOM A- 10.30-12.00

SUPPLY CHAIN SIMULATION

Chair: Gerrit Janssens, Hasselt University, Hasselt, Belgium

LOGIS

AGENT_07
Agent-Based Simulation for Peer to Peer Supply Chain Formation
Florina Livia Covaci 429

Thursday, 27th October 2016

ENGIN_01_OPT

**Discrete Event Simulation Approach to Closed Loop Supply Chain
Optimisation: Conceptual Design, Control Strategies and Performance
Metrics**

Jonathan Ebner Jr, Jiayi Wang, Oladipupo Olaitan and John Geraghty **434**

ENGIN_03

**Time-Oriented Collection Schedule Simulation in Closed-Loop RTP
Network with Multiple Economic Collection Quantities and Multiple
Production Cycle**

Di Zhang and Uwe Clausen **440**

ROOM B- 10.30-12.30

METH

POPULATION DYNAMICS

Chair: Joseph Kehoe, Carlow Institute of Technology, Carlow, Ireland

AGENT_01

**Who are convincing? An Experience based Opinion Formation Dynamics
in Online Social Networks**

Rajkumar Das, Joarder Kamruzzaman and Gour Karmakar **167**

GAME_02

Using Item Response Models to investigate Attitudes towards Divorce

Liberato Camilleri and Lara Emma Pace **177**

METH_07

**A Domain Specific Language for Tactic Representation in Engagement
Level Simulation**

Jian Yao, Ning Zhu, Junqing Xu, Shuai Chen and Yonglin Lei **182**

METH_02

**A conceptual Model for organisational decision-making and its possible
Realisations**

Souvik Barat, Vinay Kulkarni, Tony Clark and Balbir Barn **174**

Thursday, 27th October 2016

ROOM C- 10.30-12.30

MULTI

MULTIBODY SIMULATION

Chair: Jose Evora, SIANI, Las Palmas, Spain

METH_32_DIS

A Study on Vertical Displacement, Pitch and Roll Angles over a Bump
for Combat Vehicles

Hwan Il Kang, Hyun Soo Kim and Jae Jeong Pyun 401

GAME_01

Modelling Prediction Uncertainty in the Game against Nature Framework
Applied to a Vehicle Motion Control in Dynamic Environments

Krzysztof Skrzypczyk..... 405

ENGIN_05

The Modeling and Simulation of a Quadrocopter

Emre Kiyak and Ahmet Ermeýdan..... 395

ENGIN_06

Modelling and PID Controller Design for a Quadrotor

Gulay Unal and Emre Kiyak..... 398

12.30 – 14.00

LUNCH BREAK

14.00 - 15.30

ROOM A- 14.00-15.00

CIM

FLEXIBLE PRODUCTION SIMULATION

Chair: Karel Bauters, Ghent University, Ghent, Belgium

METH_08

Simulation Driven Development of Complex Systems: Foundations for
Simulation Based Design Workflows

David Grüner, Tommy Baumann, Bernd Däne and Wolfgang Fengler 413

Thursday, 27th October 2016

METH_29_DIS

Hierarchical Control Simulation Model to Support Maintenance Planning in Flexible Production Systems

Dietmar Neubacher, Nikolaus Furian, Clemens Gutschi

and Siegfried Vössner 420

ROOM B- 14.00-15.30

METH

MONTE CARLO SIMULATION

Chair: Mario Hernandez, SIANI, Las Palmas, Spain

RAND_03

Applying Refined Descriptive Sampling on the Vibrating String Model

Megdouda Ourbih-Tari and Sofia Guebli 75

METH_01

Monte Carlo Simulation of Piecewise Constant Periodically Correlated Processes

Nina A. Kargapolova..... 79

RAND_04

A Study of Angular Characteristics of Polarized Radiation in the Scattering Layer with the Use of Monte Carlo Method

Natalya Tracheva and Sergey Ukhinov 84

OPT_08

A 75 X 300 System Solved with Multistage Monte Carlo Algebra

William Conley..... 71

ROOM C- 14.00-15.30

CHEM

CHEMICAL SIMULATION

Chair: Igor Litvine, Nelson Mandela Metropolitan University, Port Elizabeth, South Africa

OPT_04

Guided Optimization Method for Fast and Accurate Atomic Charges Computation

Jana Pazúriková, Aleš Krenek and Luděk Matyska 267

Thursday, 27th October 2016

OPT_05

Evaluating the Accuracy of a Third Order Hessian-Based Predictor-Corrector Integrator

Heng Wu and Shaofei Lu..... 275

PAR_02

Accelerated RMSD Calculation for Molecular Metadynamics

Jirí Filipovič, Jana Pazůriková, Aleš Kreněk and Vojtěch Spiwok..... 278

15.30 - 16.00

COFFEE BREAK

16.00 – 18.30

ROOM A -16.00-18.30

AI

AI AND AGENT BASED SIMULATION

Chair: Mario Hernandez, SIANI, Las Palmas, Spain

OPT_11

Investment Portfolio making under Uncertainty by Stochastic and Fuzzy Approach

Adam Borovička 151

AI_04

A Comparison of PSO Variants according to Neighborhoods and Synchronizations

Monia Ettouil, Imed Bennour and Abderrazak Jemai..... 160

AGENT_06

Robust Reproducibility of Agent Based Models

Joseph Kehoe..... 125

METH_06

A Controlled Natural Language Based Knowledge Representation Approach for Agent Based Simulation Results

Harshal G. Hayatnagarkar and G Murali Krishna 133

Thursday, 27th October 2016

METH_23_AGENT

A Method for Identifying Objectives and Metrics of Agent-based Simulation Studies

Valeria Seidita, Patrizia Ribino, Massimo Cossentino and Carmelo Lodato 140

ROOM B- 16.00-18.30

METH

PETRI NET SIMULATION

Chair: Enrique Kremers, EIFIR I, Karlsruhe, Germany

PETRI_02

Colored Petri Net Based Diagnosis of Process Systems

Anna I. Pózna, Miklós Gerzson, Adrien Leitold and Katalin M. Hangos 91

PETRI_01

Modeling and Simulation of Sensor Networks using the Publish/Subscribe Paradigm

Valentín Valero, Gregorio Díaz, Hermenegilda Macià and María Emilia Cambronero 96

PETRI_04

Logical Petri Net - A Modeling Tool to describe and transform Petri Nets into Digital Circuits

Christoph Brandau, Nils Potthoff and Dietmar Tutsch 104

METH_13_PETRI

Modelling and Performance Analysis of IEEE 802.11e EDCA

Xiang Hu and Li Jiao 109

PETRI_06

Object-Oriented Petri Net-Based Scripting for Robotics

Daniel Losch, Michael Schluse and Jürgen Roßmann 115

Thursday, 27th October 2016

ROOM C- 16.00-18.00

TUT

TUTORIAL

Chair: Jose Juan Hernandez, SIANI, Las Palmas, Spain



TUT_02

[Model Driven Engineering applied to complex simulations](#)

Jose Juan Hernandez and Jose Evora, Universidad de Las Palmas, Las Palmas, Gran Canaria, Spain



CONFERENCE DINNER – 20.00 -23.00

All participants are invited to the conference dinner which will be held from 20.00 to 23.00 at the




[Hotel Iberia](#) ****

Av. del Alcalde José Ramírez

Bethencourt, 8,

35003 Las Palmas de Gran Canaria, Las

Palmas, Spain

 Tel: +34 928 36 11 33

Friday, 28th October 2016

HALLWAY

Registration

09.00 - 09.30

09.00 – 10.00

ROOM A- 09.00-10.00

KEY

KEYNOTE

Chair: Jose Evora, SIANI, Las Palmas, Spain



KEY_03

[Intelligent Electrical Energy Distribution & Consumption: SMARTGRID](#)

Janos-Sebestyen Janosy, Hungarian Academy of Sciences, Centre for Energy Research, Budapest, Hungary

10.00 - 10.30

COFFEE BREAK

10.30 – 12.30

ROOM A- 10.30-12.00

ENERG

ENERGY OPTIMIZATION PLANNING

Chair: Janos-Sebestyen Janosy, Hungarian Acad. of Sciences, Hungary

OPT

An Energy Model for Press Line Tending Robots

Emile Glorieux, Bo Svensson, Prithwick Parthasarathy

and Fredrik Danielsson..... 377

Friday, 28th October 2016

OPT_15

Optimizing Charging Infrastructure for Electrically Driven Buses

Hubert Büchter and Sebastian Naumann 384

OPT_17_ENERG

Simulation Optimization in the Task of Urban Energy Planning

Xiubei Ge and Enrique Kremers 387

ROOM B – 10.30-12.30

LOGIS

LOGISTICS SIMULATION

Chair: Markus Frantzen, University of Skovde, Skovde, Sweden

METH_27_DIS

A simulation Model to compare Autonomous Vehicle based Warehouses with traditional AS/RS Systems

Karel Bauters, Kurt De Cock, Joris Hollevoet, Gianni Dobbelaere and Hendrik Van Landeghem 451

AGENT_02

Towards Model Choice in Agent-Based Freight Transport Model Considering the Used Loading Unit

Koen Mommens, Tom van Lier and Cathy Macharis 461

METH_19_DIS_TOOLS

Modular, Complexity reduced Material Handling Simulation Model for Air Cargo Terminals

Armin Siegel, Karsten Turek and Thorsten Schmidt 467

OPT_20

Evaluation of Vulnerability of Solutions of a Vehicle Routing Problem with Time Windows

Kris Braekers and Gerrit K. Janssens 472

ROOM B – 10.30-12.30

LOGIS

ENVIRONMENTAL RISK SIMULATION MANAGEMENT

Chair: Octavio Roncal, SIANI, Las Palmas, Spain

RIKS_02

Simulation Technologies in Risk Prevention within Crisis Management

Jozef Ristvej, Roman Ondrejka, Ladislav Šimák, Tomáš Loveček, Katarína Hollá, Maros Lacinák, Laura Šurinová, and Michaela Jánošíková 327

Friday, 28th October 2016

ENV_05_RISK_OPT

Decision support in sustainable management of water supply systems

Rafał Brodziak, Jędrzej Byłka, Andrzej Urbaniak
and Przemysław Zakrzewski 331

ENV_03_RISK

Geographic Information Retrieval for Natural Disasters using Generated Structured Query Language

Ghada Landoulsi, Khawla Mahmoudi and Sami Faiz 336

RISK_01

Forest Fire Spread Modelling in Practice

Yves Dumond 341

ROOM A – 12.30 - 12.45

BEST PAPER

CLOSING SESSION AND BEST PAPER AWARD

Chair: Jose Evora, SIANI, Las Palmas, Spain

José Évora Gómez, SIANI, Universidad de Las Palmas de GC, Spain

Jose Juan Hernandez-Cabrera, SIANI, Universidad de Las Palmas de GC, Spain

EUROSIS

Philippe Geril, EUROSIS, Ostend, Belgium

ESM'2017



SEE YOU ALL

**ESM'2017, October 25-27, 2017, [IST Campus](#), Lisbon,
Portugal
FOR ESM'2017**

**Track proposals and tutorial proposals can be sent in by
January 30th, 2017**

**Proposals for future ESM locations can be emailed to
philippe.geril@eurosis.org**

ESM'2018, October 2018, TU Vienna, Vienna, Austria (TBC)

ESM'2019, October 2019, Palma de Mallorca, Spain (TBC)

Conference Site Hotels Bus Lines

LAS PALMAS HOTELS UNIVERSITY BUS LINES

It is not possible to go on foot from those hotels to the university. The university campus is a little bit in the middle of nothing. However, hereafter you can find which bus to take from which hotel to get to the University.

From REINA ISABEL HOTEL: <https://goo.gl/maps/95xZddfALds>

From IBERIA HOTEL: <https://goo.gl/maps/95xZddfALds>

From NH Imperial Playa: <https://goo.gl/maps/ZZRE34MNsV32>

From Hotel Parque: <https://goo.gl/maps/s3WKpaV27Z42>

From Hotel Escuela Santa Brigida: it is not as clear as the others since it depends on another bus company, which does not have the information on internet as detailed as Guaguas Municipales. According to their information this is the bus:

origen destino ir 

Este buscador no tiene en cuenta transbordos, por favor llame al 928 25 26 30 or 902 38 11 10 para consultar rutas con transbordos.

Pulse el nombre de la línea para acceder al horario de la misma.

Origen	Destino	Línea	Precio Billete (1 viaje)	Tarjeta AB (10 viajes)	Bono Cabildo (50 viajes)
SANTA BRIGIDA	CAMPUS UNIVERSITARIO	301 SANTA CATALINA-EL MONTE-SANTA BRIGIDA	1.40	11.20	—
SANTA BRIGIDA	CAMPUS UNIVERSITARIO	302 SANTA.CATALINA-LA CALZADA-SANTA BRIGIDA	1.40	11.20	—
SANTA BRIGIDA	CAMPUS UNIVERSITARIO	303 LAS PALMAS- SAN MATEO	1.40	11.20	—
SANTA BRIGIDA	CAMPUS UNIVERSITARIO	305 TEJEDA - SAN MATEO	1.40	11.20	—
SANTA BRIGIDA	CAMPUS UNIVERSITARIO	307 SAN MATEO-ARIÑEZ-LAS LAGUNETAS-SAN MATEO	1.40	11.20	—
SANTA BRIGIDA	CAMPUS UNIVERSITARIO	311 SANTA CATALINA-BANDAMA-SANTA BRIGIDA	1.40	11.20	—
SANTA BRIGIDA	CAMPUS UNIVERSITARIO	323 LAS PALMAS (SANTA CATALINA) - SAN MATEO	1.40	11.20	—

For those of you coming by car, there will be parking spaces available

Conference Site Map

Las Palmas Map



eurosis

EUROSIS was borne out of discussions with the European Community to set up a new kind of Society, which would be project-driven instead of driven by pure membership and conferences.

The aim of the Society is to set up and manage topic related Technical Committees which will link directly to European Projects in the field of computer simulation and related areas and to act as a knowledge pool for future European Networks of Excellence, like MOSAIC, HORIZON2020 by seeking out the latest innovations in simulation, modelling and AI research.

If you would like to receive more information about EUROSIS, please contact

Philippe Geril


EUROSIS-ETI


Greenbridge Science Park

Ghent University – Ostend Campus

Wetenschapspark 1, Plassendale 1

B- 8400 Ostend, Belgium

 Tel: +32.59.255.330

 Fax: +32.59.255.339

 Email: **Philippe.Geril@eurosis.org**

Please send me info on EUROSIS:

Name:

Address:

.....

.....

Telephone:

Fax:

Email:

ESM'2016 Registration Form

Please legibly print or type and fill out completely. (Check appropriate boxes where necessary)

FIRST NAME	LAST NAME	M.I.
COMPANY OR AFFILIATION		
Mailing address (tick one): <input type="checkbox"/> HOME <input type="checkbox"/> BUSINESS		
STREET		
CITY		
ZIPCODE	COUNTRY	
TELEPHONE	FAX	
E-MAIL		
DATE	SIGNATURE	
1. <input type="checkbox"/> EUROISIS member € 560 Member Number: _____		€ _____
2. <input type="checkbox"/> Members of Sponsor or Affiliate Society € 560		€ _____
3. <input type="checkbox"/> Non-Member Participant € 605		€ _____
4. <input type="checkbox"/> Students, <u>who are not authors</u> but who wish to attend the conference, or ONE DAY PARTICIPANTS pay: € 435		€ _____
(Above registration fees include, one copy of the PROCEEDINGS, all midday meals, cocktail, refreshments, coffees and social program,) One Day Participants and Non-Author Students cannot participate in the conference dinner.		
5. <input type="checkbox"/> Conference Dinner Ticket for Companion € 50 <input type="checkbox"/> Lunch Ticket for Companion € 25/day		€ _____
6. <input type="checkbox"/> Extra Conference Proceedings € 50 Cash and Carry		€ _____
VAT Number if applicable: _____		
TOTAL AMOUNT DUE		€ _____
		€ _____
		€ _____
TOTAL AMOUNT REMITTED		€ _____

Pay by **CREDIT CARD** and fill in the information below:

Charge my (tick one): ☐ Visa ☐ Euro/Mastercard ☐ American Express

CARD NO: _____ : _____ : _____ : _____ EXP.DATE: ____ / ____

Authorizing Signature:

Print Signature in CAPITALS