

FINAL PROGRAM



25-27 October 2017



Lisbon, Portugal

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General Information

1. Conference Location

The **ESM'2017 Conference** is being held at



[Centro de Congressos do IST](#)

Rooms 02.2, 01.1, 02.3
Instituto Superior Técnico
Campus Alameda
Av. Rovisco Pais, 1,
1049-001 Lisboa
Tel: +351 218 418 069

The registration desk will be placed in the hallway downstairs from Wednesday morning October the 25th onwards, where registration will start at 08.00 a.m. and will end at 5.00 p.m. On Thursday October 26th registration will be from 8.30 a.m. - 5.00 p.m. with Friday 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 Lisbon:

By Plane

When arriving by plane you would arrive at Lisbon's [Portela Airport](#) - (other [website](#)) which is located within the city limits. There is a bus network from the airport that offers services to passengers who are travelling to various destinations from the airport. For passengers heading for [Cais do Sodre Railway Station](#) the No. 91 bus service offered by Carris is the bus for you. There are also other bus routes operating from the airport heading to various locations within the city

. A ticket to the city center should cost €1.35. One also has an option of purchasing an all day ticket at €3.35.

- [AEROBUS](#): Linking the Airport to downtown Lisbon and Cais do Sodre (every 20 minutes from 7 a.m. to 9 p.m.)
- [CARRIS BUSES](#): No. 5, 8, 22, 44, 45, 83;

General Information

Taxi from Airport

Outside the terminal buildings one is able to obtain taxi services. These generally charge an average of €15 to the city center. Some of the taxis have meters in them. They charge a minimum of €2.35 during the day and €2.50 at night. Though some of the taxi drivers may take longer routes to keep the meter running, the trip should take an average of 15 minutes to the city center

By Train

There are four commuter train lines arriving in Lisbon: the Cascais, Sintra and Azambuja lines (operated by CP – Comboios de Portugal), as well as a fourth line to Setúbal (operated by Fertagus) crossing the Tagus river, over the 25 de Abril Bridge. The major railway stations are [Santa Apolónia](#), Rossio, Gare do Oriente, Entrecampos, and [Cais do Sodre Railway Station](#). You can download the train link map [here](#).

By Metro

Another great way of getting around Lisbon is by [Metro](#). (see the [zoomable metro map](#)) The closest stop to Universidade Nova de Lisboa is [xxxx](#). or you can download the map [here](#). The closest stop to IST is [Alameda metro station](#).

By Tram

The current lines are:

12 - Praça da Figueira - Miradouro de Santa Luzia circular route

15 - Praça da Figueira – Algés

18 - Cais do Sodré railway station - Cemitério Ajuda

25 - R. Alfândega - Campo de Ourique

28 - Praça Martim Moniz - Chiado - Campo de Ourique

The five remaining lines only operate in the southern centre and west of the city. Despite the relevant tourist attraction, those lines are still very important because of sections of the city's topography that can only be crossed by small trams. Tram 15 also connects the entire western river front of the city to the centre and allows a better flow of passengers with the bus system towards an area that still is not served by the metro.

By Bus

The closest bus stops to IST are Av. de Antonio Jose de Almeida (bus 713, 716, 720, 742, 767) and Arco Cego (713, 716, 726 and 742)

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	€ 60
Extra lunch ticket	€ 25

4. Registration

The ESM'2017 Registration Desk will be open for information and registration:

Wednesday, October 25..... 8.00 a.m. to 5.00 p. m.
 Thursday, October 26..... 8.30 a.m. to 5.00 p. m.
 Friday, October 27 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'2017)

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

ESM'2017 Proceedings CASH AND CARRY	€ 50
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6. Meeting Rooms

The ESM'2017 conference will be held in **rooms designated A (room 02.2) , B (room 01.1) and C (room 02.3)** in this programme.

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

7. Need Help?

Please see the conference desk for your questions

General Information

8. Social Events and Lunches

All registrants are invited to

All **Coffee Breaks** are served in the hallway in front of the meeting rooms



Lunches are served at

[Café Imperio](#)

Av. Almirante Reis, 205 A,
1000-048 Lisbon, Portugal

We will walk together to the lunches as it is outside IST.

The Conference Dinner

All participants are invited to the conference dinner on **THURSDAY** the 26th of October. As we need to give an exact number of participants we would appreciate **your confirmation at the desk before Wednesday lunchtime**.

The dinner will be held at:



[Museo da Cerveja](#)

Terreiro do Paço – Ala
Nascente

Nº 62 a 65, 1100-148 Lisboa,
Portugal

Tel: +351 210 987 656

9. Room Legend

The parallel meeting rooms will be designated **ROOM A (02.2) B (01.1) and C. (02.3)** Signposts will indicate the room number above each door.

General Information

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'2017 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.

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, 25th OCTOBER 2017

08.00-17.00	REGISTRATION IN THE HALLWAY		
09.00-09.15	WELCOME BY PAULO JORGE SEQUIERA GONÇALVES – ESM’2017 CONFERENCE CHAIR - ROOM A 02.2		
09.15-10.00	KEYNOTE ADDRESS BY NICOLAE AND DANIELA VASILIU- ROOM A -02.2		
10.00-10.30	COFFEE BREAK		
10.30-12.30	PARALLEL SESSIONS		
	ROOM A 02.2	ROOM B 01.1	ROOM C 02.3
	GRAPHICAL DATA SIMULATION I	PRODUCTION SCHEDULING	SENSOR NETWORK SIMULATION
12.30-14.00	LUNCH BREAK		
14.00-15.00	PARALLEL SESSIONS		
	ROOM A 02.2	ROOM B 01.1	ROOM C 02.3
	GRAPHICAL DATA SIMULATION II	INVITED SPEAKER PAULO JORGE SEQUIERA GONÇALVES	ELECTRONICS SIMULATION
15.00-15.30	COFFEE BREAK		
15.30-18.00	PARALLEL SESSIONS		
	ROOM A 02.2	ROOM B 01.1	ROOM C 02.3
	SIMULATION METHODOLOGY AND TOOLS	SUPPLY CHAIN SIMULATION AND INVENTORY MANAGEMENT	AEROSPACE SIMULATION
18.00-.....	FREE EVENING		

THURSDAY, 26th OCTOBER 2017

08.30-17.00	REGISTRATION		
09.00-10.00	KEYNOTE ADDRESS BY JOËL COLLOC ROOM A -02.2		
10.00-10.30	COFFEE BREAK		
10.30-12.30	PARALLEL SESSIONS		
	ROOM A 02.2	ROOM B 01.1	ROOM C 02.3
	GRAPHICAL HUMAN SIMULATION BIO-ANALYSIS	LOGISTICS SIMULATION	DECISION MANAGEMENT SIMULATION
12.30-14.00	LUNCH BREAK		
14.00-15.00	KEYNOTE ADDRESS BY HELENA BARBAS ROOM A – 02.2		
15.00-15.30	COFFEE BREAK		
15.30-18.00	PARALLEL SESSIONS		
	ROOM A 02.2	ROOM B 01.1	ROOM C 02.3
	TUTORIAL	TRAFFIC SIMULATION	FINANCIAL SIMULATION
20.00 – 22.30	CONFERENCE DINNER		

FRIDAY, 27th OCTOBER 2017

09.00-09.30	REGISTRATION		
09.00-10.00	PARALLEL SESSIONS		
	ROOM A 02.2	ROOM B 01.1	ROOM C 02.3
	INVITED SPEAKER JANOSY JANOS-SEBESTYEN	FLUID FLOW SIMULATION	ENGINEERING SIMULATION
10.00-10.30	COFFEE BREAK		
10.30 12.00	PARALLEL SESSIONS		
	ROOM A 02.2	ROOM B 01.1	ROOM C 02.3
	ENERGY FORECASTING AND OPTIMIZATION	BIOLOGICAL DATA SIMULATION	HUMAN COMPUTER INTERFACES
12.00-12.15	CLOSING SESSION AND BEST PAPER AWARD ROOM A - 02.2		

Notes

NOTES

Wednesday, 25th October 2017

HALLWAY

Registration

08.00 - 17.00

ROOM A – 02.2

09.00 – 09.15

Opening ESM'2017 and Welcome

Welcome Address

Paulo J.S. Gonçalves, Instituto Politécnico de Castelo Branco, Portugal, and, IDMEC/LAETA, Instituto Superior Técnico, Universidade de Lisboa, Portugal

ESM'2017 General Conference

ROOM A – 02.2. - 09.15-10.00

KEY

KEYNOTE

Chair: Paulo J.S. Gonçalves, IST-IDMEC, Lisbon, Portugal



KEY_01

[Modeling and simulation of the multidisciplinary processes with AMESim](#)

Nicolae Vasiliu and Daniela Vasiliu, POLITEHNICA University of Bucharest, Bucharest, Romania

Welcome

Wednesday, 25th October 2017

10.00 - 10.30
COFFEE BREAK

10.30 – 12.30

ROOM A – 02.2 - 10.30-12.30 **DATA**

GRAPHICAL DATA SIMULATION I

Chair: Yves Dumond, Universite Savoie Mont Blanc, Le Bourget-du-Lac Cedex, France

PAR_02

Multi-Master Replication in Eventually Consistent Simulation Grids

Stefan Elsen 63

TOOLS_03

Visualising of Co-occurrence Data

Igor Litvine and Oksana Ryabchenko 68

METH_02

Performance Comparison of Adapted Delaunay Triangulation Method over Nurbs for Surface Optimization Problems

Suyesh Bhattarai, Parag Vichare and Keshav Dahal 76

METH_14

Automatic Generation of a Diagnostic and Control Unit for controlling Embedded Systems Application. Case Study: HEVC Decoder

Habib Smej, Abderrazak Jemai and Kamel Smiri 81

ROOM B – 01.1 - 10.30-12.30 **LOGIS**

PRODUCTION SCHEDULING

Chair: Paulo J.S. Gonçalves, IST-IDMEC, Lisbon, Portugal

PAR_05

Modular Hybrid Modeling Based on DEVS for Interdisciplinary Simulation of Production Systems

Bernhard Heinzl, Philipp Raich, Franz Preyser, Wolfgang Kastner, Peter Smolek and Ines Leobner..... 157

Wednesday, 25th October 2017

PETRI_02

Simulation of a Flexible and Adaptable One-Piece-Flow Assembly Line Based on a Process Flow of Colored and Timed Petri Nets

Benedikt A. Latos, Peyman Kalantar, Philipp M. Przybysz, Susanne Mütze-Niewöhner, Christoph Holtkötter and Jan Brinkjans..... 162

DISC_01

Production Process Evaluation and Improvement by using the Method of Discrete Event Simulation

Tola Kudret Karaca and Volkan Cakir..... 167

DISC_03

A Simulation Based Evaluation of Dynamic Task Prioritization in Maintenance Management

Dietmar Neubacher, Nikolaus Furian, Clemens Gutschi, Tobias Elmer and Siegfried Vössner 174

ROOM C – 02.3 - 10.30-12.30

ELEC

SENSOR NETWORK SIMULATION

Chair: Jan Studzinski, Systems Research Institute, Polish Academy of Sciences, Warsaw, Poland

METH_16

Simulation of Optimized Nonlinear Frequency Modulation in Pulse Compression Radar

Jiří Roleček, Pavel Bezoušek and Karel Juryca 273

METH_19

An Open Architecture Framework for the Electronic Warfare Modeling & Simulation

Sang Yeong Choi, Hyeon Seo Kang, Hyeong Jun Kwon and Sug Joon Yoon 278

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On the Effects of the Variations in Network Characteristics in Cyber Physical Systems

Géza Szabó, Sándor Rácz, József Pető and Rafael Roque Aschoff..... 283

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Mohsin Jafri, Simonetta Balsamo and Andrea Marin..... 288

Wednesday, 25th October 2017

12.30 - 14.00
LUNCH BREAK

14.00 – 15.00

ROOM A – 02.2 - 14.00-15.00 **DATA**

GRAPHICAL DATA SIMULATION II

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

GRAPH_01

3D Filtering Color Image contaminated by mixed Noise using Sparse Representation

Alfredo Palacios-Enriquez, Volodymyr Ponomaryov and Araceli Hernandez-Fragoso 88

ENV_01_METH

Enhancing the Accuracy of Raster Based Algorithms for Forest Fire Spread Modelling

Yves Dumond 93

ROOM B - 01.1 - 14.00-15.00 **INVITED**

INVITED SPEAKER

Chair: tbc

INV_01

Ontologies for Robotics and Automation: need and applications

Paulo J.S. Gonçalves, Instituto Politécnico de Castelo Branco, Portugal, and, IDMEC/LAETA, Instituto Superior Técnico, Universidade de Lisboa, Portugal

ROOM C- 02.3 - 14.00-15.00 **ELEC**

ELECTRONICS SIMULATION

Chair: Jan Studzinski, Systems Research Institute, Polish Academy of Sciences, Warsaw, Poland

TOOLS_08

Dynamic Switching of Processor Simulation Model Accuracy

Johannes Kohl, Dietmar Fey and Jürgen Bäsig..... 295

Wednesday, 25th October 2017

PETRI_01

A New Method to transform Petri Nets to Digital Circuits using Input Driven Reachability Graphs

Christoph Brandau and Dietmar Tutsch..... 301

15.00 - 15.30

COFFEE BREAK

15.30 - 18.00

ROOM A- 02.2 - 15.30-18.00

METH

SIMULATION METHODOLOGY AND TOOLS

Chair: Joël Colloc, Université of Le Havre, Normandie University, Le Havre, France

METH_17

A Timed Extended Reachability Graph for bounded Simulation and Analysis of Timed Petri Nets

Dimitri Lefebvre 33

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Visual Estimation of Persistence in Time Series

Sihle Poswayo and Igor Litvine..... 38

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Efficient Quantile Estimation via a Combination of Importance Sampling and Latin Hypercube Sampling

Marvin K. Nakayama 49

METH_11_MC

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William Conley..... 46

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William Conley..... 54

Wednesday, 25th October 2017

ROOM B- 01.1 - 15.30-18.00 **LOGIS**
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Chair: Paulo J.S. Gonçalves, IST-IDMEC, Lisbon, Portugal

TRANS_04
Modelling and Simulation for Decentralized Supply Chain Formation
Florina Livia Covaci 185

TRANS_06_LOGIS
Towards Quantitative Risk Evaluation for Supply Chains in Preparation of a Simulation Study
Birgit Mösl, Dietmar Neubacher, Nikolaus Furian and Siegfried Vössner 192

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The Concept of Semi-Variance as a Tool for Safety Inventory Decisions in Case of Uncertain Demand
 Katrien Ramaekers, Galina Merkuryeva and Gerrit K. Janssens..... 201

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Mass Customization Dynamics Simulation for Fashion and Apparel Market
Jocelyn Bellemare 206

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Simulation Optimization: A Simple Approach combining Metaheuristics and Metamodels
Luiz Ricardo Pinto, Júlia Cobucci Morais, Gabriela Martins Nunes and João Flavio de Freitas Almeida 212

ROOM C- 02.3 - 15.30-17.00 **AERO**
AEROSPACE SIMULATION
Chair: Nicolae Vasiliu, POLITEHNICA University of Bucharest, Bucharest, Romania

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Clément Michel, Janette Cardoso and Pierre Siron..... 343

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 Stephen Wright and Alvery Grazebrook 350

Wednesday, 25th October 2017

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An Evaluation Framework for UAV Surveillance Applications

Michael Ettlinger, Bilge Sarp, Christopher-Eyk Hrabia and Sahin Albayrak..... **356**

18.00 -

FREE EVENING

Parallel Sessions - Wednesday

Thursday, 26th October 2017

HALLWAY

Registration

08.30 - 17.00

09.00 – 10.00

ROOM A- 02.2 - 09.00-10.00

KEY

KEYNOTE

Chair: Paulo J.S. Gonçalves, IST-IDMEC, Lisbon, Portugal



KEY_02

[A Fuzzy Vectorial Space That avoids to Defuzzify the Membership Functions](#)

Joël Colloc.....13

10.00 - 10.30

COFFEE BREAK

10.30 - 12.30

ROOM A- 02.2 - 10.30-12.30

BIO

GRAPHICAL HUMAN BIO-ANALYSIS SIMULATION

Chair: Christina Klüver, University of Duisburg-Essen, Essen, Germany

BIO_03

Semi-automatic Brain Lesions Detection and Segmentation Method in MR Images

Carlos Segura Granados, [Volodymyr Ponomaryov](#)

and Martha Hernandez-Cuellar 415

Thursday, 26th October 2017

BIO_02

Transcription Initiation Controls Skewness of the Distribution of Intervals between RNA Productions

Vinodh K. Kandavalli, Sofia Startceva and Andre S. Ribeiro 418

BIO_06

A Modeling Approach to Heart Failure Treatment

Alexander Lassnig, Christian Baumgartner and Jörg Schröttner 425

BIO_08

Modeling Survival Times using Frailty Models

Liberato Camilleri, Roxanne Caruana and Alex Manche 428

ROOM B- 01.1 10.30-12.30

LOGIS

LOGISTICS SIMULATION

Chair: Gerrit Janssens, Hasselt University, Diepenbeek, Belgium

DISC_05_LOGIS

Simulation of Logistics for Construction Management

Nikolaus Furian, Dietmar Neubacher, Siegfried Vössner, Philip Santner, Michael O'Sullivan and Cameron Walker 221

AGENT_08

Cooperative Decision Making Modeling in Transportation Logistics Dispatching System

Anton Ivaschenko, Ilya Syusin and Pavel Sitnikov 227

OPT_01

Comparison of Cost Performance of Fixed and Flexible Collection Strategy in Return Logistics Network

Di Zhang and Uwe Clausen 233

TRANS_01

Evaluation in Transport Planning: A Comparison between Data Envelopment Analysis and Multi Criteria Decision Making Methods

Giuseppe Musolino, Corrado Rindone and Antonino Vitetta 238

Thursday, 26th October 2017

ROOM C- 02.3 - 10.30-12.30 **MGMT**
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Chair: Helena Barbas, Universidade Nova de Lisboa, Lisbon, Portugal

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 Emily Schmidt and Dhananjai M. Rao 127

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A Domain Specific Language for Complex Dynamic Decision Making
Souvik Barat, Vinay Kulkarni, Tony Clark and Balbir Barn..... 135

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Jiří Barta and Josef Navrátil..... 143

DISC_07_COMP
A co-simulation Framework Interoperability for Neo-campus Project
Yassine Motie, Alexandre Nketsa and Philippe Truillet 148

12.30 – 14.00
LUNCH BREAK

14.00 - 15.00

ROOM A - 02.2 - 14.00-15.00 **KEY**
KEYNOTE SPEAKER
Chair: Paulo J.S. Gonçalves, IST-IDMEC, Lisbon, Portugal



KEY_03
[VR, AR, MR simulations and inspirations from Iron Man 3](#)
Helena Barbas.....25

Thursday, 26th October 2017

15.00 - 15.30
COFFEE BREAK

15.30 - 18.00

ROOM A – 02.2 - 15.30-18.00 **TUT**
TUTORIAL
Chair: Souvik Barat, Tata Consultancy Services Research, Pune, India

TUT_01

[Actor-Based Methods, Concepts and Tools for Simulation](#)

Tony Clark, Sheffield Hallam University, UK, Vinay Kulkarni, Souvik Barat, Tata Consultancy Services Research, India and Balbir Barn, Middlesex University, United Kingdom

ROOM B – 01.1 - 15.30-17.30 **TRAF**
TRAFFIC SIMULATION
Chair: Gerrit Janssens, Hasselt University, Diepenbeek, Belgium

TOOLS_12

Evaluation of Car-following-Models at controlled Intersections

Laura Bieker-Walz, Michael Behrisch, Marek Junghans and Kay Gimm..... **247**

TRAF_01

A Stochastic Driver Distraction Model for Microscopic Traffic Simulations

Manuel Lindorfer, Christian Backfrieder, Gerald Ostermayer and Christoph F. Mecklenbräuker **252**

PRED_01

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Jan Fikejz and Josef Brožek..... **258**

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Hybrid Optimizing Models for Planning Charging Infrastructures

Hubert Büchter and Sebastian Naumann **264**

Thursday, 26th October 2017

ROOM C – 02.3 - 15.30-17.00 **FINANC**
FINANCIAL SIMULATION
Chair: Jocelyn Bellemare, School of Business and Management, ESG, University of Quebec in Montreal (UQAM), Montréal (Québec), Canada

METH_08_MC_FIN
Analysis of Relationship between Risk and (expected) Return of the Investment (Portfolio) – Simulation Experiment on the Prague Stock Exchange
Adam Borovička 103

RAND_03_FIN
Optimal Dating of Cycles in Financial Time Series
 Konrad Kapp and Igor Litvine 111

RIKS_01
Mining Patterns in Financial Time Series using Dynamic Time Warping Algorithm
Kristina Šutienė, Audrius Kabašinskas, Eimutis Valakevičius and Roland Reichardt 119

CONFERENCE DINNER – 20.00 -22.30

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



[Museo da Cerveja](#)
 Terreiro do Paço – Ala Nascente
 N° 62 a 65, 1100-148 Lisboa, Portugal
 📞 Tel: +351 210 987 656

Friday, 27th October 2017

HALLWAY

Registration

09.00 - 09.30

09.00 – 10.00

ROOM A – 02.2 - 09.00-10.00

INV

INVITED SPEAKER

Chair: Paulo J.S. Gonçalves, IST-IDMEC, Lisbon, Portugal



INV_02

Problems and methods of integration of unpredictable and renewable energy

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

ROOM B – 01.1 - 09.00-10.00

FLUID

FLUID FLOW SIMULATION

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

METH_03_MC

Monte Carlo Simulation of Daily Precipitation and River Flow Conditional Spatio-Temporal Fields

Nina A. Kargapolova..... 311

BIO_10

Forecast of selected Quality Indicators of Wastewater flowing to the Treatment Plant using selected Black-Box Methods

Bartosz Szelaq, Krzysztof Barbusiński, Agnieszka Operacz and Jan Studziński 316

Friday, 27th October 2017

ROOM C – 02.3 - 09.00-10.00 **ENGIN**
ENGINEERING SIMULATION
Chair: Nicolae Vasiliu, POLITEHNICA University of Bucharest,
 Bucharest, Romania

PAR_03
Applying the Model Driven Architecture Approach to Dynamic Structure Applications
Min Zhu, Clément Foucher, Vincent Albert and Alexandre Nketsa 365

PAR_07
Modelling and Optimal Control with Energy Regeneration of a 6DOF Motion Platform with permanent Magnet Linear Actuators
E. Thöndel 373

10.00 - 10.30
COFFEE BREAK

10.30 – 12.00

ROOM A – 02.2 -10.30-12.00 **ENERG**
ENERGY FORECASTING AND OPTIMIZATION
Chair: Janos Sebestyen-Janosy, Hungarian Academy of Sciences,
 Budapest, Hungary

AI_05
Neural Network Models and Electricity Demand Forecasting
Francis Bismans and Igor N. Litvine 325

OPT_05
Optimisation of Compressed Air System’s Energy Usage through Discrete Event Simulation Compressor Performance
Robbie Mulvany, Alan Arokiam, Abdelhafid Belaidi, John Ladbrook and Michael Higgins..... 328

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Investigation of the Modelling Effects on the Steam Generator’s Behaviour during the early Stages of a Station Blackout in a CANDU 6 Reactor
Roxana-Mihaela Nistor-Vlad, Daniel Dupleac, Ilie Prisecaru and Chris Allison 336

Friday, 27th October 2017

ROOM B – 01.1 - 10.30-12.00 **BIO DATA**
BIOLOGICAL DATA SIMULATION
Chair: Joel Colloc, Univ of Le Havre, Normandie Univ., Le Havre, France

AI_13
The controlled Development of (Medical) Self-Diagnosis Systems with Self-Enforcing Networks
Christina Klüver and Jürgen Klüver 397

BIO_09_WEB
Model of Modular IoT-based Bee-Keeping System
K. Dineva and T. Atanasova 404

AGENT_01_BIO
The Effect of Sexual Networks on Fertility Levels
Edinah Mudimu..... 407

ROOM C – 02.3 - 10.30-12.00 **INTERFACE**
HUMAN COMPUTER INTERFACES
Chair: Helena Barbas, Universidade Nova de Lisboa, Portugal

AI_08
Human-Computer Interface for Communication and Automated Estimation of Basic Emotional States
Svetla Radeva, Strahil Sokolov and Dimitar Radev 381

GRAPH_03
Simulation-Based User Interfaces for Digital Twins Pre-, In-, or Post Operational Analysis and Exploration of Virtual Testbeds
Torben Cichon and Juergen Rossmann 384

BIO_05
Surgery Assistant Based on Augmented Reality
Anton Ivaschenko, Alexandr Kolsanov and Aikush Nazaryan 390

ROOM A – 02.2 - 12.00 - 12.15 **BEST PAPER**
CLOSING SESSION AND BEST PAPER AWARD
Chair: Paulo J.S. Gonçalves, IST-IDMEC, Lisbon, Portugal

Paulo J.S. Gonçalves, IST_IDMEC, Portugal
Philippe Geril, EUROSIS, Ostend, Belgium

ESM'2018



**SEE YOU ALL
ESM'2018, October 25-27, 2018, Ghent University,
Ghent, Belgium for ESM'2018**

**Track proposals and tutorial proposals can be sent in by
January 30th, 2018**

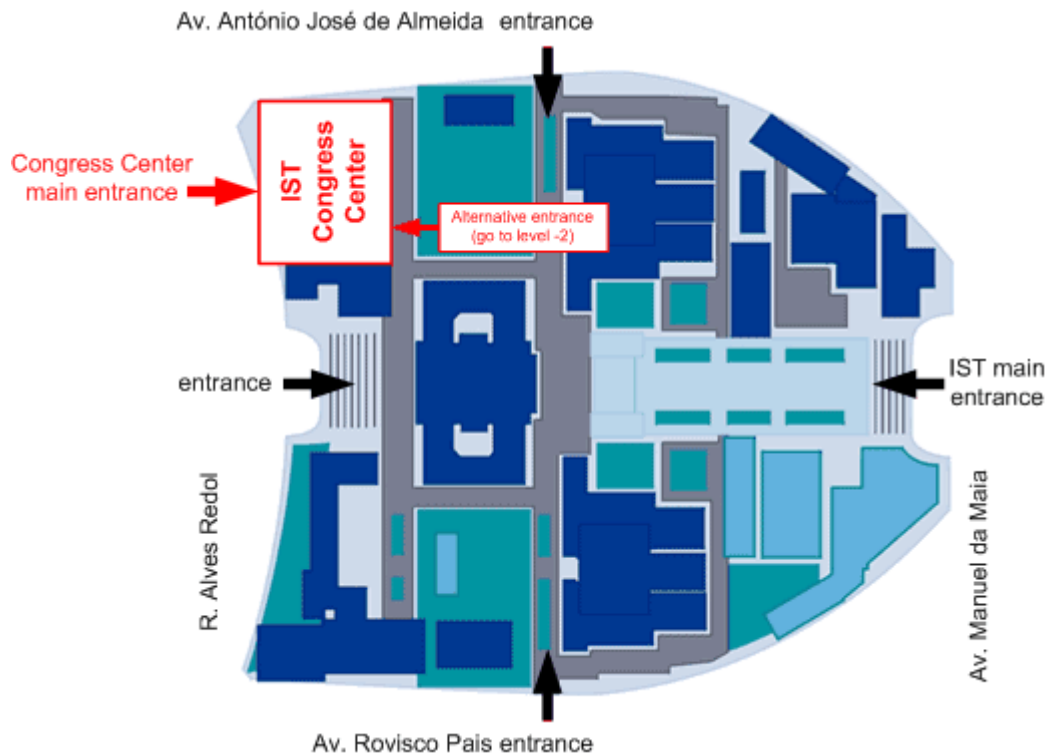
**Proposals for future ESM locations can be emailed to
philippe.geril@eurosis.org**

**Proposals at present
ESM'2019, October 2019, TU Vienna, Vienna, Austria (TBC)
ESM'2019, October 2019, Palma de Mallorca, Spain (TBC)**

Other upcoming EUROSIS conferences
**FOODSIM'2018, April 8-12, 2018, [Catholic University Louvain](#), Ghent,
Belgium**
Scifi-It'2018, April 18-20, 2018, Bruges, Belgium
ISC'2018, June 6-8, 2018, [University of Azores](#), Ponta Delgada, Portugal
**NASTEC'2018, GAMEON-NA'2018, August 4-5, 2018, [UQAM](#), Montreal,
Canada**
**GAMEON'2018, September 18-20, [Abertay University](#), Dundee,
Scotland, United Kingdom**

Conference Site Map

IST Building Map



IST is located in Lisbon city centre, 1.5Km south from Lisbon Airport and 5 minutes from the downtown Lisbon, by subway. It is served by several bus and subway lines which provide an easy access to every point in the city. IST occupies the Civil Engineering building (Alameda Campus), floor 01 an 02 (south tower).

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

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