

EUROSIM 2007

**6th EUROSIM Congress
on Modelling and Simulation**

PROGRAMME

9-13 September, 2007
Ljubljana, Slovenia
<http://www.eurosim2007.org>

Organised by:
University of Ljubljana, Faculty of Electrical Engineering
SLOSIM – Slovene Society for Simulation and Modelling

CONFERENCE VENUE

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Faculty of Electrical Engineering
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WELCOME TO EUROSIM 2007

It is our great pleasure to welcome you to the 6th EUROSIM Congress on Modelling and Simulation. Several years of efforts by many people have resulted in an unexpectedly large interest in the event. So 420 accepted papers were finally submitted. This proves that modelling and simulation is, in spite of being a very traditional discipline, still attractive, modern, and with a wide range of applications and research possibilities, and is closely connected with many of the most sophisticated and modern disciplines. The interest shown by several simulation societies in becoming new members of EUROSIM demonstrates that the EUROSIM umbrella is still of great interest and that we can expect further expansions in the future.

The Slovenian Society for Simulation and Modelling (SLOSIM) was given great support by the other EUROSIM societies and also by some other international modelling and simulation societies. As a result we have an event with a high-quality scientific programme, some associated events, and, we hope, with some unforgettable social events, which should always be an important part of successful events. Slovenia, a small yet beautiful country, a new member of the EU, and a country with a tremendous amount to offer the visitor, will, we believe, give you a pleasant surprise.

Borut Zupančič
Chair of the Congress
President of EUROSIM

Rihard Karba
Chair of the IPC
President of SLOSIM

ABOUT EUROSIM

EUROSIM is the Federation of European simulation societies, which was set up in 1989. Its purpose is to promote, especially through its member societies, the idea of modelling and simulation in different fields, in industry, research and development. EUROSIM has two publications focussing on modelling and simulation: the scientific journal *Simulation Modelling Practice and Theory (SIMPRA)* published by Elsevier, with scientific contributions, and the newsletter/journal *Simulation News Europe (SNE)*, published by ARGESIM, with technical notes, application contributions and news from societies. At present EUROSIM has eleven full members and three observer members. For more information please visit: www.eurosim.info

ORGANISATION

The main congress organisers:

University of Ljubljana, Faculty of Electrical Engineering
SLOSIM – Slovene Society for Simulation and Modelling
Technical support: Congress agency Cankarjev dom

The congress is co-organised by other EUROSIM member and observer societies:

ASIM Arbeitsgemeinschaft Simulation (Austria, Germany, Switzerland)
CROSSIM..... Croatian Society for Simulation Modelling
CSSS..... Czech and Slovak Simulation Society
DBSS Dutch Benelux Simulation Society (Belgium, The Netherlands)
FRANCOSIM Société Francophone de Simulation (Belgium, France)
HSS..... Hungarian Simulation Society
ISCS..... Italian Society for Computer Simulation
PSCS..... Polish Society for Computer Simulation
SIMS..... Simulation Society of Scandinavia (Denmark, Finland, Norway, Sweden)
UKSIM United Kingdom Simulation Society (UK, Ireland)
CEA SMSG Spanish Modelling and Simulation Group
LSS Latvian Simulation Society
ROMSIM..... Romanian Society for Modelling and Simulation

The congress is co-sponsored by:

ARRS..... Slovenian Research Agency
IEEE IEEE - Slovenia Section
ACSS Automatic Control Society of Slovenia
ECMS European Council for Modelling and Simulation
SCS The Society for Modeling and Simulation International
CASS Chinese Association for System Simulation
JSST Japan Society for Simulation Technology
KSS..... Korea Society for Simulation
IASTED..... International Association of Science and Technology for Development

COMMITTEES

Congress Committee

Borut Zupančič, president of EUROSIM, chair
Rihard Karba, president of SLOSIM, chair of the IPC
Janez Nastran, University of Ljubljana, Faculty of Electrical Engineering, dean
Felix Breitenecker, president of ASIM

International Programme Committee

Rihard Karba, Slovenia, IPC chair
David Al – Dabass, United Kingdom
Mikuláš Alexík, Slovak Republic
Maja Atanasić-Kunc, Slovenia
Ingrid Bausch-Gall, Germany
Aleš Belič, Slovenia
Sašo Blažič, Slovenia
Leon Bobrowski, Poland
Wolfgang Borutzky, Germany
Jadranka Božikov, Croatia
Felix Breitenecker, Austria
Agostino Bruzzone, Italy
Peter Bunus, Sweden
Peter Cafuta, Slovenia
Richard Cant, UK
Antonio Carvalho Brito, Portugal
Gunnar Cedersund, Sweden
François Cellier, Switzerland
Vlatko Čerić, Croatia
Erik Dahlquist, Sweden
Brian Elmegaard, Denmark
Peter Fritzson, Sweden
Jose Maria Giron-Sierra, Spain
Yskandar Hamam, France
Florin Hartescu, Romania
Arnold Heemink, Netherlands
Vlatka Hlupic, United Kingdom
Francisco Javier Otamendi, Spain
András Jávor, Hungary
Karel Jezerník, Slovenia
Emilio Jimenez, Spain
Dani Juričić, Slovenia
Kaj Juslin, Finland
Esko Juuso, Finland
Helen Karatzas, Greece
Tag Gon Kim, Republic of Korea
Evžen Kindler, Czech Republic
Miroljub Kljajić, Slovenia

Markus Klug, Austria
Juš Kocijan, Slovenia
Jiří Kunovský, Czech Republic
Frédéric Lebon, France
Bo Hu Li, China
Hai Xiang Lin, Netherlands
Franco Maceri, Italy
Werner Maurer, Switzerland
Yuri Merkuryev, Latvia
Ante Munitić, Croatia
David Murray-Smith, United Kingdom
Gašper Mušič, Slovenia
Shinnosuke Oharu, Japan
Osamu Ono, Japan
Alessandra Orsoni, United Kingdom
Klaus Panreck, Germany
Torsten Pawletta, Germany
Miguel Angel Piera Eroles, Spain
Henri Pierreval, France
John Pollard, UK
Constanța Zoie Rădulescu, Romania
Marius Rădulescu, Romania
François Rocaries, France
Mario Savastano, Italy
Waleed Smari, USA
Florin Stanciulescu, Romania
Gábor Szucs, Hungary
Peter Schwarz, Germany
Igor Škrjanc, Slovenia
Miroslav Šnorek, Czech Republic
Inge Troch, Austria
Sigrid Wenzel, Germany
Wolfgang Wiechert, Germany
Edward Williams, USA
Richard Zobel, United Kingdom
Borut Zupančič, Slovenia
Leon Žlajpah, Slovenia

Local Organising Committee

Borut Zupančič
Rihard Karba
Drago Matko
Maja Atanasić-Kunc
Igor Škrjanc
Gašper Mušič
Sašo Blažič
Gregor Klančar
Aleš Belič
Milan Simčič

Gorazd Karer
Simon Oblak
Vito Logar
Luka Teslić
Olga Zakrajšek
Dejan Gradišar
Alenka Kregar
Mateja Perić
Brane Žalar
Sebastjan Podbregar

SCIENTIFIC PROGRAMME

The scientific programme consists of tutorials, plenary lectures, regular sessions, special (organised) sessions, poster sessions and a student competition.

This is the final programme, but some small changes might be unavoidable. They will be announced on a board or on a LCD display in the foyer hall.

Tutorials

The tutorials will cover some important areas of modelling and simulation. Participation is free. However, as the number of participants is limited, only those who chose a tutorial during registration can be sure of participating, but any free places can also be filled before the tutorial starts. Two of the tutorials are organised as hands-on exercises in computer lecture rooms. You can also use your own notebook computers.

Schedule:

Sunday, 9 Sept., Room P21

TUTORIAL-I

13-15.45	INTRODUCTION TO OBJECT-ORIENTED MODELING AND SIMULATION WITH MODELICA USING THE OPENMODELICA ENVIRONMENT <i>Fritzson P., Pop A., Aronsson P., Lundvall H.*; Broman D., Hedberg D., Brugard J.**</i> (*Linköping University, Sweden, **MathCore Engineering AB, Linköping, Sweden)
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Sunday, 9 Sept., Room LRNV

TUTORIAL-II

13:00-15.45	SUPER-OBJECT-ORIENTED PROGRAMMING AND MODEL NESTING <i>Kindler E. *</i> (*University of Ostrava, Czech Republic)
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Sunday, 9 Sept., Room LRNV

TUTORIAL-I

16:00-18.45	INTRODUCTION TO OBJECT-ORIENTED MODELING AND SIMULATION WITH MODELICA USING THE OPENMODELICA ENVIRONMENT <i>Fritzson P., Pop A., Aronsson P., Lundvall H.*; Broman D., Hedberg D., Brugard J.**</i> (*Linköping University, Sweden, **MathCore Engineering AB, Linköping, Sweden)
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Sunday, 9 Sept., Room PI

TUTORIAL-III

16:00-18.45	INVERSE SIMULATION METHODS AND APPLICATIONS <i>Murray-Smith D. J.*; Lu L. (*University of Glasgow, United Kingdom)</i>
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Plenary lectures

The plenary lectures cover the broad spectrum of modelling and simulation. Five scientists will give an overview of the state of the art and recent developments on diverse domains.

Schedule:

Monday, 9 Sept., Room P1

PLENARY-I

10:00-10.45	ELECTRONIC CIRCUIT MODELING AND SIMULATION IN MODELICA <i>Cellier F. E. *, Clauß C., Urquía A. (*ETH Zurich, Switzerland)</i>
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Tuesday, 11 Sept., Room P1

PLENARY-II

9:00-9.45	INTEGRATED MULTISCALE SIMULATION OF CONTINUOUS CASTING OF STEEL <i>Šarler B. *, Vertnik R., Gjerkes H., Lorbiecka A., Manojlović G., Cesar J. (*University of Nova Gorica, Slovenia)</i>
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Tuesday, 11 Sept., Room P1

PLENARY-III

13:30-14.15	EXPERIENCES AND TRENDS IN MODELLING AND SIMULATION OF INTEGRATED INDUSTRIAL PROCESSES <i>Juslin K. (*VTT Technical Research Centre of Finland, Espoo, Finland)</i>
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Wednesday, 12 Sept., Room P1

PLENARY-IV

9:00-9.45	AN ODE FOR THE RENAISSANCE <i>Breitenecker F. *, Breitenecker K. *, Judex F., Popper N., Wassertheurer S. (*Vienna University of Technology, Austria)</i>
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Thursday, 13 Sept., Room P1

PLENARY-V

9:00-9.45	THE CHALLENGE OF MODELING HIGH SPEED FLOWS <i>Longo J. M. A. *, Hannemann K., Hannemann V. (*German Aerospace Center (DLR), Braunschweig, Germany)</i>
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Regular sessions

These papers were regularly submitted and reviewed by three IPC members. Presentation: oral.

Special sessions

These sessions are organised by experts from the area of modelling and simulation. Partly these are invited papers, and partly they were submitted after the session organiser's call. The review procedure was organised by the session organisers. Presentation: oral.

Poster Session

These papers were regularly submitted and reviewed by three IPC members. We try to give the poster session more emphasis than usually. Poster means at the congress only the way of presentation. In terms of submission, format in the Proceedings and also the reviewing procedure, the posters are treated in exactly the same way as regular papers. By joining the poster and closing sessions we will combine the scientific and social parts of the programme. The three best posters will be selected on the basis of votes by the poster-session participants. The best-poster prizes will be awarded, and one of the voting participants will receive a present.

Congress wine: Each participant taking part in the Poster and Closing sessions will obtain a bottle of special EUROSIM 2007 wine - Cabernet Sauvignon.

Schedule: Thursday, 13 Sept. 15.30-17.00 *Foyer hall*

Student competition

To be eligible for this competition the authors must have been registered at a university in 2006, either as undergraduates or as graduate students (e.g., bachelor and master in the new Bologna studies), so that students do not compete with the themes from their Ph.D. work. Each paper will be reviewed and marked by three reviewers. For the final classification the committee members will also take into account the presentation at the conference. The results of the reviews and the results of the oral presentations will be collected and the three best - paper prizes awarded. Presentation: oral

The committee for the student competition:

Igor Škrjanc, Slovenia

Richard Zobel, United Kingdom

Eugene Kindler, Czech Republic

Schedule: Monday, 11. Sept. 14.00 -16.00, 16.20-17.40 *Lecture room P2*

Lecture rooms

Plenary papers will be presented in the main lecture room – Room P1. The papers in the regular and special sessions will be presented in 7 parallel sessions: Room P3, Room P4, Room P6, Room P7, Room P8, Room P9 and Room P12. Student competition will be in Room P2.

Abbreviations of sessions

Abbreviations consist of: DAY-SESSION-ROOM

SESSION: 1 – morning session, 2,3 – afternoon sessions

MO-1-P3	MECHANICAL ENGINEERING I
MO-1-P4	ARTIFICIAL INTELLIGENCE METHODS I
MO-1-P6	ALGEBRAIC METHODS AND ALGORITHMS IN MODELLING DISCRETE DYNAMICAL SYSTEMS (S12)
MO-1-P7	MODELLING AND SIMULATION IN THE VEHICLE THERMAL MANAGEMENT SYSTEM (S23)
MO-1-P8	MODELLING AND SIMULATION IN STRUCTURAL MECHANICS (S15)
MO-1-P9	SIMULATION IN ECONOMICS AND BUSINESS I (S02-I)
MO-1-P12	CONTROL AND DECISION FOR COMPLEX SYSTEMS (S17)
MO-2-P3	AEROSPACE SYSTEMS
MO-2-P4	EDUCATION IN SIMULATION / SIMULATION IN EDUCATION I (S01-I)
MO-2-P6	HYBRID SYSTEMS
MO-2-P7	MODELLING AND SIMULATION IN MEDICINE AND PHARMACY I (S14-I)
MO-2-P8	MODELLING AND SIMULATION IN MECHATRONICS (S04)
MO-2-P9	SIMULATIONS, MODELLING AND OPTIMIZATION OF VLSI CIRCUITS (S10)
MO-2-P12	TRAFFIC SYSTEMS
MO-2-P2	STUDENT COMPETITION I
MO-3-P3	ALTERNATIVE MODELLING AND COMPARISONS AND BENCHMARKING IN MODELLING AND SIMULATION I (S22-I)
MO-3-P4	EDUCATION IN SIMULATION / SIMULATION IN EDUCATION II (S01-II)
MO-3-P6	MATHEMATICAL / NUMERICAL METHODS I
MO-3-P7	REAL TIME SYSTEMS
MO-3-P8	PROCESS ENGINEERING I
MO-3-P9	DECISION SUPPORT SYSTEMS
MO-3-P12	DIGITAL FACTORY/SIMULATION AND OPTIMIZATION OF INDUSTRIAL PROCESSES I (S07-I)
MO-3-P2	STUDENT COMPETITION II
TU-1-P3	SUCCESSFUL APPLICATION OF SIMULATION IN INDUSTRY I (S08-I)
TU-1-P4	ARTIFICIAL INTELLIGENCE METHODS II
TU-1-P6	MATHEMATICAL / NUMERICAL METHODS II
TU-1-P7	MODELLING AND SIMULATION IN MEDICINE AND PHARMACY II (S14-II)

TU-1-P8	PROCESS ENGINEERING II
TU-1-P9	SIMULATION IN ECONOMICS AND BUSINESS II (S02-II)
TU-1-P12	DISCRETE EVENT SYSTEMS I
TU-2-P3	MECHANICAL ENGINEERING II
TU-2-P4	ROBOTICS
TU-2-P6	AGENT-BASED AND DYNAMIC APPROACHES TO MODELLING IN ECONOMICS (S19)
TU-2-P7	MANUFACTURING SYSTEMS
TU-2-P8	SIMULATION IN ELECTRIC POWER SYSTEMS (S13)
TU-2-P9	MULTIDISCIPLINARY DESIGN OPTIMIZATION (S11)
TU-2-P12	BIOSCIENCES I
TU-3-P3	SUCCESSFUL APPLICATION OF SIMULATION IN INDUSTRY II (S08-II)
TU-3-P4	PETRI NETS
TU-3-P6	ELECTRICAL ENGINEERING
TU-3-P7	CONTROL SYSTEMS I
TU-3-P8	SIMULATORS
TU-3-P9	FUZZY SYSTEMS (S09)
TU-3-P12	DIGITAL FACTORY/SIMULATION AND OPTIMIZATION OF INDUSTRIAL PROCESSES II (S07-II)
WE-1-P3	MODELLING OF STRUCTURAL DYNAMIC SYSTEMS – MODEL REDUCTION METHODS (S24)
WE-1-P4	ARTIFICIAL INTELLIGENCE METHODS III
WE-1-P6	MODELLING OF CRYOGENIC SYSTEMS AND THEIR APPLICATIONS (S03)
WE-1-P7	CONTROL SYSTEMS II
WE-1-P8	COMPUTATIONAL INTELLIGENCE AND DISCRETE SIMULATION (S05)
WE-1-P9	SIMULATION OF MULTIFIELD AND MULTISCALE PROBLEMS IN STRUCTURAL AND MATERIAL ENGINEERING (S18)
WE-1-P12	BIOSCIENCES II
TH-1-P3	ALTERNATIVE MODELLING AND COMPARISONS AND BENCHMARKING IN MODELLING AND SIMULATION II (S22-II)
TH-1-P4	COMPLEX SYSTEMS
TH-1-P6	STOCHASTIC SYSTEMS
TH-1-P7	CONTROL SYSTEMS III
TH-1-P8	LOGISTICS / SUPPLY CHAINS
TH-1-P9	SIMULATION ENVIRONMENTS
TH-1-P12	DISCRETE EVENT SYSTEMS II
TH-2-P3	MECHANICAL ENGINEERING III
TH-2-P4	ARTIFICIAL INTELLIGENCE METHODS IV
TH-2-P6	MATHEMATICAL / NUMERICAL METHODS III
TH-2-P7	COMMUNICATIONS
TH-2-P8	INCREASED PREDICTABILITY OF CRASH MODELS (S06)

TH-2-P9 DOMAIN MODELLING THROUGH AUTONOMOUS DISCOVERY (S20)
TH-2-P12 MODEL NETWORKS FOR PROCESS SYSTEMS SIMULATION (S16)
TH-3- POSTER SESSION
FOYER

Instructions for speakers

Tips and suggestions for presentations. Presentation time for oral presentations in regular, special and student sessions is **15 minutes plus 5 minutes for questions**. The main goal of your oral presentation is to get the audience interested in your work. All presentations are to be made in English. Speak slowly, use short sentences. An effective oral presentation should be structured accordingly: outline of main points (one slide at the beginning in the form of a table of contents/agenda), introduction (arouse your audience's interest, demonstrate why the topic is important), details of main points (follow the order of your outline, limit the number of points you make, since listeners cannot process as much information as readers can, be clear when you are switching to a new point, since listeners cannot follow as easily as readers can), conclusion (a summary of your main points). General suggestions for slides: use max. 1-2 slides per minute of your presentation, and 4-5 points per slide, use clear titles, use graphs and figures rather than just words, use large fonts (18-24), show only the slides that you are discussing (do not skip slides during presentation).

Equipment: DATA projectors (beamer) for computer presentation (resolution up to 1024 x 768 pixels), notebook with Microsoft Windows Vista operating system, Microsoft Office 2007 with PowerPoint, Adobe Acrobat. Presenters are kindly asked to **use the available computers**. Only if they have special reasons should they use their own notebooks. Slide and overhead projectors will not be available.

Installation of presentation. Only Power Point or PDF presentations on a CD-ROM or a USB Memory stick will be accepted. Authors are invited to upload and check their presentation in the INTERNET/PREVIEW room P5 (entrance from the Foyer hall) if possible one day before the presentation. Alternatively, the presentation can be uploaded directly to the presenting computer by a session technician before the session (please come at least 15 minutes before the start of the session).

Instructions for posters

Posters must be brought to the congress by the presenting author. The dimensions should not exceed 90 cm (width) and 100 cm (height). At the top of the poster, please provide the title of the paper, the names of the authors and their affiliations, all in bold lettering of about 2 to 3 cm size. Artwork and lettering should be large and clear enough so that the poster is readable from a distance of 1.5 m.

Posters will be presented in the Foyer hall of the congress site. Each poster is numbered and the appropriate numbers will appear on the poster stands. Presenters are responsible for posting and removing the materials. Posters have to be displayed from Wednesday morning until the end of the congress. Authors of posters can be available at the site during coffee breaks, but they are also requested to be there at the time scheduled for the poster session.

Instructions/suggestions for Session Chairs

- Arrive at the lecture room at least 15 minutes before session start and meet briefly with the presenters.
- Do not forget Programme and Book of abstracts.
- You needn't take care about technical problems as a technical assistant will be present permanently.
- Each presenting author has 15 minutes for presentation and 5 minutes is reserved for questions.
- Start the session promptly at the announced time.
- Introduce yourself and the session co-chair. Introduce the session with the title. Introduce each presenter with a title and institutional affiliation and with some basic information from the presenting author's biography. The information is available in the Book of abstracts.
- Politely inform the presenters when their time limit is approaching.
- After the presentation invite questions and comments from the audience.
- Conclude the session promptly at the announced time.
- Fill in the form with which you mark different aspects of each paper (one form per paper). You can get forms at the registration desk or from the technical assistant. Return the forms at the registration desk or to the technical assistant.

PROGRAMME SCHEDULE

SUNDAY

Sunday, 9 Sept., Room: LRVN, 13:00

TUTORIAL-I

Session Organizer: **Mušič G.**

13:00-15:45	INTRODUCTION TO OBJECT-ORIENTED MODELING AND SIMULATION WITH MODELICA USING THE OPENMODELICA ENVIRONMENT <i>Fritzson P., Pop A., Aronsson P., Lundvall H.*; Broman D., Hedberg D., Brugard J.** (*Linköping University, Sweden, **MathCore Engineering AB, Linköping, Sweden)</i>
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Sunday, 9 Sept., Room: LRVN, 13:00

TUTORIAL-II

Session Organizer: **Mušič G.**

13:00-15:45	SUPER-OBJECT-ORIENTED PROGRAMMING AND MODEL NESTING <i>Kindler E. (*University of Ostrava, Czech Republic)</i>
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Sunday, 9 Sept., Room: LRVN, 16:00

TUTORIAL-I

Session Organizer: **Mušič G.**

16:00-18:45	INTRODUCTION TO OBJECT-ORIENTED MODELING AND SIMULATION WITH MODELICA USING THE OPENMODELICA ENVIRONMENT <i>Fritzson P., Pop A., Aronsson P., Lundvall H.*; Broman D., Hedberg D., Brugard J.** (*Linköping University, Sweden, **MathCore Engineering AB, Linköping, Sweden)</i>
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Sunday, 9 Sept., Room: P1, 16:00

TUTORIAL-III

Session Organizer: **Mušič G.**

16:00-18:45	INVERSE SIMULATION METHODS AND APPLICATIONS <i>Murray-Smith D. J.*, Lu L. (*University of Glasgow, United Kingdom)</i>
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MONDAY

Monday, 9 Sept., Room: P1, 9:00

OPENING

Session Chair: **Zupančič B.**, Session Co-chair: **Karba R.**

9:00	Welcome address, About EUROSIM, A brief history of EUROSIM, About EUROSIM 2007, Message from the golden sponsor Elektro Slovenia- Importance of effective simulation tools for reliable electric transmission system control.
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Monday, 9 Sept., Room: P1, 10:00

PLENARY-I

Session Chair: **Zupančič B.**

10:00-10:45	ELECTRONIC CIRCUIT MODELING AND SIMULATION IN MODELICA <i>Cellier F. E. *, Clauß C., Urquía A. (*ETH Zurich, Switzerland)</i>
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Monday, 10 Sept., Room: P3, 11:05

MO-1-P3: MECHANICAL ENGINEERING I

Session Chair: **Hannani K. S.**, Session Co-chair: **Štum Ž.**

	GREY-BOX MODELING OF AN OCEAN VESSEL FOR OPERATIONAL OPTIMIZATION <i>Savarsdóttir H., Sigurdsson S., Leifsson L.*, Vésteinsson A. (*Reykjavik University, Iceland)</i>
11:05	SIMULATION OF THE COALESCENCE OF DROPLETS EMPLOYING LATTICE BOLTZMANN AND LEVEL SET METHODS <i>Mehravar M., Hannani S. K.* (*Sharif University of Technology, Iran)</i>
11:25	MODELING AND SIMULATION OF HYDRAULIC SYSTEM FOR TRANSLATIONAL AND ROTATIONAL MOTION <i>Štum Ž.*, Essert M., Žilić T. (*University of Zagreb, Croatia)</i>
11:45	DYNAMICAL CHARACTERIZATION OF A VIBRATING MEMBER GYROSCOPE USING FINITE ELEMENT METHOD <i>Satz A.*, Hammerschmidt D. (*KAI Kompetenzzentrum Automobil- und Industrie-Elektronik GmbH, Villach, Austria)</i>
12:05	MODELING OF NON-CONTACT HANDLING DEVICE BY USING AIR SWIRLING FLOW <i>Li X.*, Kagawa T., Kawashima K. (*Tokyo Institute of Technology, Japan)</i>
12:25	

Monday, 10 Sept., Room: P4, 11:05

MO-1-P4: ARTIFICIAL INTELLIGENCE METHODS I

Session Chair: **Liu Z.**, Session Co-chair: **Belič A.**

11:05	MATHEMATIC MODEL AND CONTROL METHOD BASED ON HYBRID INTELLIGENCE <i>Liu Z.*, Wang X., Cui L. (*Beijing Technology and Business University, China)</i>
11:25	RBF NEURAL NETWORK WITH LINEARLY APPROXIMATED FUNCTIONS ON FPGA <i>Marek R.*, Skrbek M. (*Czech Technical University in Prague, Czech Republic)</i>
11:45	USE OF RADIAL BASIS FUNCTIONS AND LEVEL SET METHOD FOR SOLVING ONE-DIMENSIONAL PHASE CHANGE PROBLEMS <i>Vrankar L.*, Kansa E. J., Runovc F., Turk G. (*Slovenian Nuclear Safety Administration, Ljubljana, Slovenia)</i>
12:05	MISSING DATA IMPUTATION AND THE INDUCTIVE MODELING <i>Čepeš M.*, Kordík P., Šnorek M. (*Czech Technical University in Prague, Czech Republic)</i>
12:25	DATA MODELS IN VIEW OF COOPERATIVE DIALOGUE SYSTEMS <i>Hajdinjak M.* (*University of Ljubljana, Slovenia)</i>

Monday, 10 Sept., Room: P6, 11:05

MO-1-P6: ALGEBRAIC METHODS AND ALGORITHMS IN MODELLING DISCRETE DYNAMICAL SYSTEMS (S12)

Session Organizer(s): **Li A.**

Session Chair: **Li A.**, Session Co-chair: **Peng C.**

11:05	COMPUTING DEDEKNID SUMS USING THE EUCLIDEAN ALGORITHM <i>Buckley A.* (*University of Ljubljana, Slovenia)</i>
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11:25	CONSTRUCTION OF SELF-ADJOINT DETERMINANTAL REPRESENTATIONS OF SMOOTH CUBIC SURFACES <i>Buckley A., Košir T.* (*University of Ljubljana, Slovenia)</i>
11:45	ALGEBRAIC METHODS IN MULTIVARIATE POLYNOMIAL INTERPOLATION <i>Li A.*, Min X. (*Montclair State University, Montclair, New Jersey, United States of America)</i>
12:05	DISTANCE BASED METHODS IN PHYLOGENTIC TREE CONSTRUCTION <i>Peng C.* (*Morehouse College, Atlanta, Georgia, United States of America)</i>
12:25	WAVELET COMPRESSION OF SEMI-REGULAR TETRAHEDRAL VOLUME MESHES <i>Castro S., Castro L.* (*Universidad Nacionál del Sur, Bahia Blanca, Argentina)</i>

Monday, 10 Sept., Room: P7, 11:05

MO-1-P7: MODELLING AND SIMULATION IN THE VEHICLE THERMAL MANAGEMENT SYSTEM (S23)

Session Organizer(s): **Puntigam W.**

Session Chair: **Puntigam W.**, Session Co-chair: **Tegethoff W.**

11:05	SOME CONSIDERATIONS ON GLOBAL AND LOCAL THERMAL COMFORT BASED ON FIALA'S THERMAL MANIKIN IN THESEUS-FE <i>Paulke S.*, Wagner S., Schneider T. (*P+Z Engineering GmbH, München, Germany)</i>
11:25	MODELING AND SIMULATION OF COMPRESSORS IN MOBILE AIR-CONDITIONING SYSTEMS <i>Tegethoff W.*, Horst T., Richter C., Kossel R., Bodmann M., Lemke N. (*TLK-Thermo GmbH, Braunschweig, Germany)</i>
11:45	INTELLIGENT COMBINATION OF SIMULATION TOOLS AND EXPERIMENTAL INVESTIGATIONS BY MEANS OF THE V APPROACH <i>Puntigam W.*, Martin K. (*The Virtual Vehicle - Competence Center (VIF), Graz, Austria)</i>
12:05	THERMAL MANAGEMENT SIMULATION APPROACH FOR PARALLEL HYBRID VEHICLES <i>Kitanoski F.*, Lang G., Puntigam W., Kussmann C. (*The Virtual Vehicle - Competence Center (VIF), Graz, Austria)</i>
12:25	SIMULATING THERMAL MANAGEMENT OF BATTERY MODULES FOR THE PROPULSION OF HYBRID VEHICLES <i>Kussmann C.*, Drage P., Jagsch S. (*Magna Steyr Fahrzeugtechnik AG & CO KG, Graz, Austria)</i>

Monday, 10 Sept., Room: P8, 11:05

MO-1-P8: MODELLING AND SIMULATION IN STRUCTURAL MECHANICS (S15)

Session Organizer(s): **Lebon F., Maceri F.**

Session Chair: **Lebon F.**, Session Co-chair: **Maceri F.**

11:05	RESOLUTION METHODS DEDICATED TO STRESS FORMULATED CONTACT PROBLEMS <i>Kuss F., Lebon F.* (*LMA-CNRS, Marseille, France)</i>
11:25	WIRES AND CABLES IN SOME DISCRETE STRUCTURES OF CIVIL ENGINEERING <i>Alart P., Dureisseix D.*, Lainel R., Pagano S. (*University Montpellier 2, France)</i>

11:45	SIMULATION OF DECOHESION AND FRACTURE ALONG AN INTERFACE VIA GEOMETRICALLY NONLINEAR COHESIVE ELEMENTS. APPLICATION TO ADHESIVE JOINTS <i>Valoroso N.*, Champaney L. (*Consiglio Nazionale delle Ricerche, Rome, Italy)</i>
12:05	NUMERICAL SIMULATION OF DELAMINATION PHENOMENA IN FIBER REINFORCED COMPOSITE LAMINATES <i>Bruno D., Carpino R., Greco F., Lonetti P.* (*University of Calabria, Italy)</i>
12:25	NUMERICAL SIMULATION OF THE MINTING PROCESS FOR INNOVATIVE COINS <i>Ielpo N., Maceri F., Tocchetti F. A.* (*Università di Roma "Tor Vergata", Italy)</i>

Monday, 10 Sept., Room: P9, 11:05

MO-1-P9: SIMULATION IN ECONOMICS AND BUSINESS I (S02-I)

Session Organizer(s): Štemberger M., Orsoni A.

Session Chair: Orsoni A., Session Co-chair: Indihar Štemberger M.

11:05	BUSINESS PROCESS MANAGEMENT AND DISCRETE EVENT SIMULATION: A TOLL SURVEY <i>Bosilj-Vukšić V., Čerić V. (*University of Zagreb, Croatia)</i>
11:25	REFORMS OF THE SLOVENIAN PERSONAL INCOME TAX SYSTEM <i>Čok M.* (*University of Ljubljana, Slovenia)</i>
11:45	AN EXTENDED PRICING AND INVENTORY CONTROL MODEL WITH REFERENCE EFFECTS <i>Gimpl-Heersink L.*, Gimpl J., Taudes A. (*Vienna University of Economics and Business Administration, Austria)</i>
12:05	SIMULATION SYSTEM FOR CRISIS MANAGEMENT <i>Glogovac B.*, Rožaj D., Krnec G. (*Logon d.o.o., Ljubljana, Slovenia)</i>
12:25	SIMULATION MODELLING OF SUPPLY CHAIN PROCESSES □ A CASE STUDY FROM WHOLESALE <i>Jaklič J.*, Huber T., Svetina M., Indihar Štemberger M. (*University of Ljubljana, Slovenia)</i>

Monday, 10 Sept., Room: P12, 11:05

MO-1-P12: CONTROL AND DECISION FOR COMPLEX SYSTEMS (S17)

Session Organizer(s): Popescu D., Tanguy G.D.

Session Chair: Popescu D., Session Co-chair: Lupu C.

11:05	STRUCTURAL PROPERTIES OF SWITCHING BOND GRAPH <i>Hihi H.*, Rahmani A. (*Ecole Centrale de Lille, France)</i>
11:25	IMAGE PROCESSING FOR BIOLOGIC MODELS USING FRACTAL TECHNIQUES <i>Crișan D., Popescu-Minea C., Udrea A.* (*Polytechnic University of Bucharest, Romania)</i>
11:45	ADAPTIVE FUZZY CONTROL OF DC MOTORS USING STATE AND OUTPUT FEEDBACK <i>Rigatos G. G.* (*Industrial Systems Institute, Rion Patras, Greece)</i>
12:05	MULTI-MODEL ADAPTIVE CONTROL <i>Lupu C., Pages O., Flutur C.* (*Polytechnic University of Bucharest, Romania)</i>
12:25	IDENTIFICATION, CONTROL AND DECISIONS FOR HEATING PROCESSES <i>Popescu D.*, Dimon C. (*Polytechnic University of Bucharest, Romania)</i>

Monday, 10 Sept., Room: P3, 14:00

MO-2-P3: AEROSPACE SYSTEMS

Session Chair: **Casella F.**, Session Co-chair: **Patchett C.**

14:00	HIGH ACCURACY SIMULATION OF ORBIT DYNAMICS: AN OBJECT-ORIENTED APPROACH <i>Casella F.*, Lovera M. (*Politecnico di Milano, Italy)</i>
14:20	FLYING THROUGH DESIGN SPACES: EFFICIENT EVOLUTIONARY OPTIMISATION OF AIRCRAFT WINGS <i>Vankan W. J., Kesseler E. *, Maas R. (*National Aerospace Laboratory, Amsterdam, Netherlands)</i>
14:40	DECISION ARCHITECTURES FOR UNINHABITED AUTONOMOUS AIR SYSTEMS <i>Patchett C. *, Sastry V. (*BAE Systems, Warton Aerodrome, Lancashire, United Kingdom)</i>
15:00	MATLAB-SIMULINK NONLINEAR MODELING AND SIMULATION OF AIRCRAFT LONGITUDINAL DYNAMICS <i>Abdulhamitbilal E. *, Jafarov E. M., Kavsaoglu M. S. (*Istanbul Technical University, Turkey)</i>
15:20	MODELLING OF LEADER-FOLLOWER SPACECRAFT FORMATIONS IN 6 DOF <i>Svendsen L. M., Kristiansen R., Nicklasson P. J., Schlanbusch R. * (*Narvik University College, Norway)</i>
15:40	ACCELERATING SOLAR WIND CALCULATIONS <i>Schüle J. * (*Technical University of Braunschweig, Germany)</i>

Monday, 10 Sept., Room: P4, 14:00

MO-2-P4: EDUCATION IN SIMULATION / SIMULATION IN EDUCATION I (S01-I)

Session Organizer(s): **Wiechert W.**

Session Chair: **Wiechert W.**, Session Co-chair: **Kljajić M.**

14:00	WORKFLOW INTEGRATION OF COMPUTER AIDED ENGINEERING: AN EDUCATIONAL APPROACH <i>Anderl R., Yaman O. * (*Technical University of Darmstadt, Germany)</i>
14:20	AN INTERACTIVE GRAPHICAL TRACE-DRIVEN SIMULATOR FOR TEACHING BRANCH PREDICTION IN COMPUTER ARCHITECTURE <i>Radu C., Calborean H., Crapciu A., Gellert A., Florea A. * (*Lucian Blaga University of Sibiu, Romania)</i>
14:40	ROLE-BASED VIEW CONTROL IN WEB-BASED SIMULATION ENVIRONMENTS <i>Piater A. *, Lurk A. (*University of Stuttgart, Germany)</i>
15:00	TEACHING FINITE ELEMENTS: AN ALTERNATIVE APPROACH USING MODELICA <i>Wiechert W. *, Treude M. (*University of Siegen, Germany)</i>
15:20	MODELING AND SIMULATION EDUCATION CONCEPTS IN SYSTEM DYNAMICS OF MANAGEMENT STUDIES <i>Kljajić M. *, Kljajić Borštnar M., Škraba A. (*University of Maribor, Slovenia)</i>
15:40	THE GPSS++ MODELLING LANGUAGE: OBJECT-ORIENTED VERSION OF GPSS <i>Basch D. *, Capan I., Ivančić T., Prgeša H., Sukser T. (*University of Zagreb, Croatia)</i>

Monday, 10 Sept., Room: P6, 14:00

MO-2-P6: HYBRID SYSTEMS

Session Chair: **Zbořil F.**, Session Co-chair: **Schiffelers R.**

14:00	COMPUTATION OF POSITIVE REALIZATIONS OF MIMO HYBRID LINEAR SYSTEMS WITH DELAYS USING THE STATE VARIABLE DIAGRAM METHOD <i>Kaczorek T., Sajewski Ł.* (*Bialystok Technical University, Poland)</i>
14:20	CO-SIMULATION OF CHI AND SIMULINK MODELS <i>van Beek B., Hofkamp A., Reniers M., Rooda J., Schiffelers R.* (*Eindhoven University of Technology, Netherlands)</i>
14:40	CONSTRUCTION OF A HYBRID TRAFFIC MODEL BASED ON JUTS CELLULAR MODEL <i>Hartman D.*, Herout P. (*University of West Bohemia, Czech Republic)</i>
15:00	PATTERN ORIENTED AGENT-BASED MULTI-MODELING OF EXPLOITED ECOSYSTEMS <i>Bonneaud S.*, Redou P., Chevaillier P. (*European Center for Virtual Reality, Plouzane, France)</i>
15:20	FRAMEWORK FOR MODEL-BASED DESIGN OF MULTI-AGENT SYSTEMS <i>Zbořil jr. F.* (*Brno University of Technology, Czech Republic)</i>
15:40	EXTENDING THE OPNET SIMULATION ENVIRONMENT FOR MOBILE AGENTS IN NETWORK CONGESTION CONTROL <i>Van N. H.*, Popov O. (*Stockholm University, Sweden)</i>

Monday, 10 Sept., Room: P7, 14:00

MO-2-P7: MODELLING AND SIMULATION IN MEDICINE AND PHARMACY I (S14-I)

Session Organizer(s): **Drinovec J., Mrhar A., Atanasijević-Kunc M.**

Session Chair: **Drinovec J.**, Session Co-chair: **Kofránek J.**

14:00	NEUROGENESIS: FROM EXPERIMENTAL DATA TO SYSTEM DYNAMICS MODEL <i>Rimac M., Božikov J.* (*University of Zagreb, Croatia)</i>
14:20	NUMERICAL MODELS OF SKIN ELECTROPERMEABILIZATION <i>Pavšelj N.*, Miklavčič D. (*University of Ljubljana, Slovenia)</i>
14:40	LOCALIZATION OF ELECTRICAL ACTIVITY SOURCES IN HUMAN BRAIN DURING EPILEPTIC SEIZURES WITH EEG ANALYSIS <i>Peyrer-Heimstätt I.*, Belič A., Breitenecker F. (*Vienna University of Technology, Austria)</i>
15:00	DISEASES AND FACTORS OF RISK MODELLING REGARDING THE DEVELOPMENT OF STROKE <i>Atanasijević-Kunc M.*, Drinovec J., Ručigaj S., Mrhar A. (*University of Ljubljana, Slovenia)</i>
15:20	ATLAS OF PHYSIOLOGY AND PATOPHYSIOLOGY – INTERNET SIMULATION PLAYGROUND <i>Kofránek J., Matoušek S., Andrlík M., Stodulka P., Wünsch Z., Privitzer P., Hlaváček J., Vacek O.* (*Charles University in Prague, Czech Republic)</i>
15:40	TIME BEHAVIOUR OF PROSTATA TUMOR MARKERS: FROM MODELLING TO A WEBTOOL FOR PHYSICIANS <i>Popper N.*, Zauner G., Bodmann V. (*"Die Drahtwarenhandlung" – Simulation Services, Vienna, Austria)</i>

Monday, 10 Sept., Room: P8, 14:00

MO-2-P8: MODELLING AND SIMULATION IN MECHATRONICS (S04)

Session Organizer(s): **Schmucker U.**

Session Chair: **Schmucker U.**, Session Co-chair: **Kasper R.**

14:00	A COMPONENT ORIENTED APPROACH TO MULTIDISCIPLINARY SIMULATION OF MECHATRONIC SYSTEMS <i>Kasper R.*, Vlasenko D., Sintotskiy G. (*University of Magdeburg, Germany)</i>
14:20	CONTACT PROCESSING IN THE SIMULATION OF THE MULTI-BODY SYSTEMS <i>Schmucker U., Rusin V.*, Konyev M. (*Fraunhofer Institute for Factory Operation and Automation, Magdeburg, Germany)</i>
14:40	SIMULATING THE DYNAMICS OF NANOPOSITIONING AND NANOMEASURING MACHINES USING METHODS OF MULTI-BODY SYSTEM DYNAMICS <i>Gerlach E.*, Zimmermann K., Oberthür S., Tröbs A. (*Technical University of Ilmenau, Germany)</i>
15:00	BEYOND THE LIMITS OF KINEMATICS IN PLANNING KEYFRAMED BIPED LOCOMOTION <i>Juhász T.*, Urbancsek T. (*Fraunhofer Institute for Factory Operation and Automation, Magdeburg, Germany)</i>
15:20	USE OF SEMI-EMPIRICAL PRESSURE RELIEF VALVE MODEL IN FREQUENCY DOMAIN ANALYSIS OF FLUID POWER CIRCUITS <i>Handroos H.*, Nishiumi T. (*Lappeenranta University of Technology, Finland)</i>
15:40	COMPUTATIONALLY EFFICIENT TWO-REGIME FLOW ORIFICE MODEL FOR REAL-TIME SIMULATION <i>Åman R.*, Handroos H., Eskola T. (*Lappeenranta University of Technology, Finland)</i>

Monday, 10 Sept., Room: P9, 14:00

MO-2-P9: SIMULATIONS, MODELLING AND OPTIMIZATION OF VLSI CIRCUITS (S10)

Session Organizer(s): **Strle D.**

Session Chair: **Strle D.**, Session Co-chair: **Vallette F.**

14:00	MODELING AND SIMULATION OF MOS TRANSISTOR MISMATCH <i>Cijan G.*, Tuma T., Bürmen Á. (*Regional Development Agency of Northern Primorska, Šempeter pri Gorici, Slovenia)</i>
14:20	SIMULATED ANNEALING FOR SIZING OF INTEGRATED CIRCUITS IN SPICE <i>Olenšek J., Bürmen Á.*, Puhan J., Tuma T. (*University of Ljubljana, Slovenia)</i>
14:40	MODELLING FRAMEWORK FOR HIGH-LEVEL EVALUATION OF EMBEDDED SYSTEMS <i>Perko K.*, Trost A. (*Sipronika d.o.o., Ljubljana, Slovenia)</i>
15:00	SENSITIVITY ANALYSIS IN MOSFET ANALOG INTEGRATED CIRCUITS <i>Vallette F.*, Vasilescu G., Garda P. (*Université Pierre et Marie Curie - Paris 6, France)</i>
15:20	SIMULATION SYSTEM FOR RUN-TIME RECONFIGURABLE NETWORKS-ON-CHIP <i>Albrecht C.*, Koch R., Pionteck T., Maehle E. (*University of Lübeck, Germany)</i>
15:40	SPEEDING UP VERILOG GATE-LEVEL SIMULATION WITH BI-PARTITIONING <i>Janin L.*, Edwards D. (*The University of Manchester, United Kingdom)</i>

Monday, 10 Sept., Room: P12, 14:00

MO-2-P12: TRAFFIC SYSTEMS

Session Chair: **Savio S.**, Session Co-chair: **Šraml M.**

14:00	AN APPROACH TO PREDICT DESIGN CHOICES IMPACT ON RAILWAY SERVICE DEPENDABILITY <i>Dazzi G., Firpo P., Savio S.* (*University of Genova, Italy)</i>
14:20	DISCRETE SIMULATION OF TRAFFIC FLOWS IN HIGHWAY TUNNELS <i>Laković S., Šraml M.* , Tollazzi T., Potrč I. (*University of Maribor, Slovenia)</i>
14:40	THE ANALYSIS OF PEDESTRIANS STREAM ON THE ROUNDABOUT CAPACITY USING MICRO-SIMULATION MODEL <i>Tollazzi T., Lerher T., Šraml M.* (*University of Maribor, Slovenia)</i>
15:00	CUSTOMISING VEHICLE ATTRIBUTES FOR ROAD TRAFFIC MICROSIMULATION MODELLING <i>Stazic B.* (*University of South Australia, Adelaide, Australia)</i>
15:20	THE SCALE EFFICIENCY MODEL OF AIRSPACE SECTOR CAPACITY <i>Li S.* (*National Penghu University, Taiwan)</i>
15:40	AN INTEGRATED APPROACH TO LOCAL PUBLIC TRANSPORT SERVICES AND EFFICIENCY IN COMPANY MANAGEMENT. A MODEL APPLICATION <i>Cirianni F., Leonardi G.* , Ianno D. (*University of Reggio Calabria, Italy)</i>

Monday, 10 Sept., Room: P2, 14:00

MO-2-P2: STUDENT COMPETITION I

Session Chair: **Škrjanc I.**, Session Co-chair: **Zobel R., Kindler E.**

14:00	A TRUST-BASED MODEL FOR MULTI-AGENT SYSTEMS <i>Samek J.* (*Brno University of Technology, Czech Republic)</i>
14:20	MULTI-AGENT SIMULATION OF THE INDUSTRIAL REFRIGERATOR MATERIAL FLOWS <i>Ivashkin Y. A., Sheshenina L. A.* (*Moscow State University of Applied Biotechnology, Russian Federation)</i>
14:40	INTEGRATION OF SIMULATION, ANALYSIS OF VARIANCE AND GOAL PROGRAMMING FOR MINIMIZATION OF MAKESPAN AND TARDINESS <i>Dabbagh A.* , Dehghanbaghi M., Azadeh A., Ghaderi F. (*University of Tehran, Iran)</i>
15:00	APPLICATION OF GENETIC ALGORITHM TO A BICRITERIA SINGLE MACHINE SCHEDULING PROBLEM OF MINIMIZING MAXIMUM EARLINESS AND NUMBER OF TARDY JOBS <i>Dehghanbaghi M.* , Dabbagh A., Jolai F., Yazdani M. (*University of Tehran, Iran)</i>
15:20	THE SYNTHESIS TECHNOLOGY OF COMPLEX SYSTEMS' IMITATING MODELS BASED ON CONCEPTUAL PATTERNS <i>Kodema V. A.* (*Kola Science Centre RAS, Apatity, Russian Federation)</i>
15:40	SIMULATION OF A MOBILE ROBOT WITH A LRF AND MAP BUILDING <i>Teslić L.* , Klančar G., Škrjanc I. (*University of Ljubljana, Slovenia)</i>

Monday, 10 Sept., Room: P3, 16:20

MO-3-P3: ALTERNATIVE MODELLING AND COMPARISONS AND BENCHMARKING IN MODELLING AND SIMULATION I (S22-I)

Session Organizer(s): **Breitenecker F.**, **Wiechert W.**

Session Chair: **Breitenecker F.**, Session Co-chair: **Jávor A.**

16:20	MODELLING OF DYNAMIC WATER QUALITY CHANGES BY MEANS OF TIME SERIES METHODS <i>Alegue J. D. *, Gnauck A., Luther B. (*Brandenburg University of Technology at Cottbus, Germany)</i>
16:40	FEM MODELLING VS. RANDOM WALK MODELLING FOR POLLUTION SPREAD IN GROUNDWATER FLOW <i>Judex F. *, Teufelsbauer H., Breitenecker F. (*ARC Seibersdorf GmbH, Seibersdorf, Austria)</i>
17:00	INTELLIGENT AGENT CONTROLLED SIMULATION WITH THE CASSANDRA SYSTEM <i>Jávor A. *, Für A. (*Budapest University of Technology and Economics, Hungary)</i>
17:20	FULLY AGENT BASED MODELLINGS OF EPIDEMIC SPREAD USING ANYLOGIC <i>Emrich Š. *, Suslov S., Judex F. (*Vienna University of Technology, Austria)</i>
17:40	HYBRID SIMULATION OF TUMOR GROWTH COMBINING CELLULAR AUTOMATA WITH CONTINUOUS STATE DYNAMICS <i>Leitner D. *, Blaickner M., Mohr T., Estelberger W., Wassertheurer S. (*Austrian Research Centers GmbH, Vienna, Austria)</i>
18:00	A HYBRID MODELLING APPROACH FOR INFLUENZA EPIDEMICS BASED ON CELLULAR AUTOMATA AND AGENT BASED TECHNIQUES <i>Emrich Š. *, Breitenecker F., Zauner G., Popper N., Gyimesi M. (*Vienna University of Technology, Austria)</i>

Monday, 10 Sept., Room: P4, 16:20

MO-3-P4: EDUCATION IN SIMULATION / SIMULATION IN EDUCATION II (S01-II)

Session Organizer(s): **Wiechert W.**

Session Chair: **Wiechert W.**, Session Co-chair: **Klajić M.**

16:20	VIRTUAL CITY AND TRAFFIC SIMULATION GAME BASED ON SCIENTIFIC MODELS <i>Brannolte U., Harder R. J. *, Kraus T. J. (*Bauhaus-University of Weimar, Germany)</i>
16:40	DEVELOPMENT OF WEB ACCESSIBLE MEDICAL EDUCATIONAL SIMULATORS <i>Stodulka P., Privitzer P. *, Kofránek J., Tribula M., Vacek O. (*Charles University in Prague, Czech Republic)</i>
17:00	THE DIGITAL FACTORY: A NEW COURSE FOR UNIVERSITARY EDUCATION <i>Arndt W. *, Busetti M., Hedtstück U. (*University of Applied Sciences, Konstanz, Germany)</i>
17:20	A PHP/MATLAB BASED E-LEARNING SYSTEM FOR EDUCATION IN ENGINEERING MATHEMATICS AND IN MODELLING AND SIMULATION <i>Zauner G. *, Popper N., Breitenecker F. (**"Die Drahtwarenhandlung" – Simulation Services, Vienna, Austria)</i>

17:40	A DYNAMIC APPROACH TO THE EDUCATION-INVESTMENT DECISION STRATEGY USING OPTIMAL CONTROL THEORY <i>Kalogeropoulos G. A. *, Pantelous A. A. (*University of Athens, Greece)</i>
18:00	THE MEANS AND MOTIVATION FOR ANIMATING GRAPHICS IN ENGINEERING APPLICATIONS <i>Yakimenko O. * (*Naval Postgraduate School, Monterey, CA, United States of America)</i>

Monday, 10 Sept., Room: P6, 16:20

MO-3-P6: MATHEMATICAL / NUMERICAL METHODS I

Session Chair: **Kunovský J.**, Session Co-chair: **Văduva C. I.**

16:20	MODELING AND SIMULATION OF FRACTIONAL SYSTEMS USING ORTHOGONAL FUNCTIONS <i>Bouafoura M. K. *, Braiek N. B. (*Ecole Polytechnique de Tunisie, La Marsa, Tunisia)</i>
16:40	ON SIMULATION OF A BIVARIATE UNIFORM BINOMIAL PROCESS AND ITS USE TO SCAN STATISTICS <i>Văduva I. C. * (*University of Bucharest, Romania)</i>
17:00	STOCHASTIC MODELLING OF INSURANCE <i>Didenko K. *, Jansons V., Jurenoks V., Pettere G. (*Riga Technical University , Latvia)</i>
17:20	STIFF SYSTEMS IN THEORY AND PRACTICE <i>Kunovský J. *, Pindryč M., Šátek V., Zbořil F. (*Brno University of Technology, Czech Republic)</i>
17:40	ADAPTING POWER-SERIES INTEGRATION TO REAL-TIME SIMULATION <i>Howe R., Kraus M., Kunovský J. * (*Brno University of Technology, Czech Republic)</i>
18:00	ESTIMATION OF BURN INJURIES FROM TEMPERATURE MEASUREMENT USED IN EVALUATION OF FIRE PROTECTIVE GARMENTS <i>Gašperin M. *, Juričič D., Musizza B., Mekjavić I. (*Institut "Jozef Stefan", Ljubljana, Slovenia)</i>

Monday, 10 Sept., Room: P7, 16:20

MO-3-P7: REAL TIME SYSTEMS

Session Chair: **Seabra E.**, Session Co-chair: **Mramor Kosta N.**

16:20	SIMULATION OF REAL TIME SYSTEMS BEHAVIOUR CONSIDERING HUMAN-MACHINE INTERFACE <i>Seabra E. *, Machado J. (*University of Minho, Portugal)</i>
16:40	HIERARCHICAL DIFF-EDF: AN AGENT BASED SCHEDULER FOR HETEROGENEOUS REAL-TIME PACKET NETWORKS <i>Saleh M. *, Othman Z. A., Zin A. M. (*University Kebangsaan Malaysia, Bangi, Selangor, Malaysia)</i>
17:00	REAL-TIME SIMULATION FOR DISTRIBUTED GENERATION IN POWER SYSTEM <i>Guillaud X. *, Venne P., Degobert P., Salha F. (*Ecole Centrale de Lille, France)</i>
17:20	REAL-TIME PROCESS CONTROL WITH CONCURRENT JAVA <i>Rekdalsbakken W. *, Styve A. (*Aalesund University College, Norway)</i>
17:40	CONTROL OF SCANNING PROBE MICROSCOPES USING QUARTZ TUNING FORKS <i>Jurčič Zlobec B., Vuk M., Mramor Kosta N. * (*University of Ljubljana, Slovenia)</i>

18:00	SIMULATION-AIDED PROCESS COVERAGE FOR DELIVERY RELIABILITY UNDER SHORT DELIVERY SCHEDULES USING REAL-TIME EVENT BASED FEEDBACK LOOPS <i>Dangelmaier W., Döring A.*, Laroque C., Timm T. (*University of Paderborn, Germany)</i>
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Monday, 10 Sept., Room: P8, 16:20

MO-3-P8: PROCESS ENGINEERING I

Session Chair: **Tanttu T. J.**, Session Co-chair: **Mostoufi N.**

16:20	MODELING AND SIMULATION OF A COPPER ELECTROLYSIS CELL GROUP <i>Laitinen I. S., Tanttu J. T.* (*Tampere University of Technology, Finland)</i>
16:40	IMPROVING THE USAGE OF PROCESS DATA COLLECTED IN PROCESS INDUSTRY AND POWER PLANTS <i>Karlsson C.*, Avelin A., Dahlquist E. (*Mälardalen University, Västerås, Sweden)</i>
17:00	DYNAMIC OPTIMIZATION OF ACETYLENE HYDROGENATION UNIT USING A HYBRID GA-SQP ALGORITHM <i>Mansoornejad B., Mostoufi N.*, Jalali-Farahani F. (*University of Tehran, Iran)</i>
17:20	INDUSTRIAL APPLICATION OF REAL-TIME SIMULATION MODEL OF WALKING-BEAM REHEATING FURNACE <i>Jaklič A.*, Vode F., Kolenko T., Zupančič B. (*Institute of Metals and Technology, Ljubljana, Slovenia)</i>
17:40	ESTIMATION OF THE EDGER'S INFLENCE ON THE STRIP-WIDTH WITH THE DEFORMATION ENERGY AND THE IMPLEMENTATION IN THE ACRONI STEELWORKS <i>Vode F.*, Jaklič A., Kokalj T. (*Institute of Metals and Technology, Ljubljana, Slovenia)</i>
18:00	SIMULATION MODEL OF THE THERMODYNAMIC CYCLE OF A THREE-CYLINDER DOUBLE-ACTING STEAM ENGINE <i>Thöndel E.* (*Czech Technical University in Prague, Czech Republic)</i>

Monday, 10 Sept., Room: P9, 16:20

MO-3-P9: DECISION SUPPORT SYSTEMS

Session Chair: **Bobrowski L.**, Session Co-chair: **Hibino H.**

16:20	RANKED MODELING ON TIME-DATA WITH INEXACT TIMING <i>Bobrowski L.*, Łukaszuk T. (*Białystok Technical University, Poland)</i>
16:40	SIMULATION ENVIRONMENT FOR MANUFACTURING CELL TO SUPPORT FULL PRODUCTION PERFORMANCE AT PRODUCT LAUNCH <i>Hibino H.* (*Technical Research Institute of JSPMI, Tokyo, Japan)</i>
17:00	MULTILEVEL PROCESS DIMENSIONING REGARDING CONTRARY TARGET VALUES <i>Denkena B., Brandes A., Henning H., Rabinovitch A.* (*Leibniz Universität Hannover, Germany)</i>
17:20	DEVELOPMENT AND APPLICATION OF HUMAN RESOURCES TRANSITION SIMULATION MODEL IN SLOVENIAN ARMED FORCES <i>Škraba A.*, Kljajić M., Knaflčić A., Kofjač D., Podbrregar I. (*University of Maribor, Slovenia)</i>
17:40	DYNAMIC VALIDATION OF MODELS: A CASE STUDY ON PLUG-FLOW REACTOR <i>Ropponen A.*, Konkarikoski K., Ritala R. (*Tampere University of Technology, Finland)</i>

18:00	A DECISION SUPPORT SYSTEM FOR FORENSIC ENTOMOLOGY <i>Morvan G., Jolly D., Dupont D., Kubiaak P. (*Université d'Artois, Béthune, France)</i>
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Monday, 10 Sept., Room: P12, 16:20

MO-3-P12: DIGITAL FACTORY/SIMULATION AND OPTIMIZATION OF INDUSTRIAL PROCESSES I (S07-I)

Session Organizer(s): **Jósvai J., März L.**

Session Chair: **Jósvai J.**, Session Co-chair: **März L.**

16:20	DYNAMIS-P - DEVELOPMENT OF NEW METHOD FOR DYNAMIC DIMENSIONING <i>Krauss A. *, Müller E. (*Technical University of Chemnitz, Germany)</i>
16:40	SIMULATION AND PRODUCTION PLANNING, A SPECIAL CASE IN SHORT SERIES PRODUCTION <i>Jósvai J. * (*Széchenyi István University, Győr, Hungary)</i>
17:00	FULLY EMBEDDED SIMULATION MODELS IN MANUFACTURING PROCESSES <i>Tauböck S. *, Steiner M., Klug M. (*Profactor Research & Solutions, Seibersdorf, Austria)</i>
17:20	A MODELING AND OPTIMIZATION TOOL FOR THE EXPANDABLE POLYSTYRENE BATCH PROCESS <i>Heikkinen M. *, Nurminen V., Hiltunen T., Hiltunen Y. (*University of Kuopio, Finland)</i>
17:40	DEADLOCK DETECTION IN HIGH LEVEL ARCHITECTURE FEDERATIONS USING AXIOMATIC DESIGN THEORY <i>Togay C. *, Bicer V., Dogru A. H. (*Middle East Technical University, Ankara, Turkey)</i>
18:00	REQUIREMENTS ANALYSIS FOR MODEL-BASED SIMULATION PROCESSES <i>Anderl R., Yaman O. (*Technical University of Darmstadt, Germany)</i>

Monday, 10 Sept., Room: P2, 16:20

MO-3-P2: STUDENT COMPETITION II

Session Chair: **Škrjanc I.**, Session Co-chair: **Zobel R., Kindler E.**

16:20	BIFURCATIONS AND CHAOS IN AUTOMATIC CONTROL SYSTEM <i>Kocewiak Ł. H. (*Warsaw University of Technology, Poland)</i>
16:40	CONFIGURATION OF UAV AUTOPILOTS' DYNAMICS USING A 3 DOF AIRCRAFT MOTION SIMULATOR <i>Tomažič T. *, Matko D. (*University of Ljubljana, Slovenia)</i>
17:00	MODELLING AND SIMULATION OF SUPPRESSION VIBRATION MECHANICAL SYSTEMS <i>Hruška J. *, Vondřich J., Thöndel E. (*Czech Technical University in Prague, Czech Republic)</i>
17:20	MODELING FREEWAY TRAFFIC FLOW: AN LPV APPROACH <i>Luspay T. *, Varga I., Kulcsár B., Bokor J. (*Budapest University of Technology and Economics, Hungary)</i>

TUESDAY

Tuesday, 11 Sept., Room: P1, 09:00

PLENARY-II

Session Chair: **Karba R.**

9:00-9:45	INTEGRATED MULTISCALE SIMULATION OF CONTINUOUS CASTING OF STEEL Šarler B.*, Vertnik R., Gjerkes H., Lorbiecka A., Manojlović G., Cesar J. (*University of Nova Gorica, Slovenia)
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Tuesday, 11 Sept., Room: P3, 10:05

TU-1-P3: SUCCESSFUL APPLICATION OF SIMULATION IN INDUSTRY I (S08-I)

Session Organizer(s): **Juslin K.**

Session Chair: **Juslin K.**, Session Co-chair: **Juuso K. E.**

10:05	MODELING OF THE DYNAMICAL BEHAVIOR OF POWER PLANTS WITH A COMMERCIAL SOFTWARE SHELL Zehtner W.*, Spliethoff H., Woyke W. (*University of München, Germany)
10:25	SEVERE ACCIDENT SIMULATIONS IN APROS NUCLEAR PLANT ANALYSER FOR VVER-440/213 REACTORS AND THE VISUALISATION OF THE RESULTS Csige A., Aszódi A.* (*Budapest University of Technology and Economics, Hungary)
10:45	VIRTUAL COMMISSIONING OF A LARGE LNG PLANT WITH THE DCS „800XA“ BY ABB Krause H.* (*Secolon, Minden, Germany)
11:05	SIMULATION FOR VIRTUAL COMMISSIONING Schumann R.*, Hoyer M., Premier G. C. (*Hanover University of Applied Sciences and Arts, Germany)
11:25	A FULL-SCOPE APROS-BASED SIMULATOR FOR HUMAN-MACHINE STUDIES Nihlwing C.*, Kvalem J. (*Institute for Energy Technology, Halden, Norway)
11:45	FORECASTING BATCH COOKING RESULTS WITH INTELLIGENT DYNAMIC SIMULATION Juuso E. K.* (*University of Oulu, Finland)

Tuesday, 11 Sept., Room: P4, 10:05

TU-1-P4: ARTIFICIAL INTELLIGENCE METHODS II

Session Chair: **Gavát I.**, Session Co-chair: **Kordík P.**

10:05	OPTIMIZATION OF MODELS: LOOKING FOR THE BEST STRATEGY Kordík P.*, Kovářík O., Šnorek M. (*Czech Technical University in Prague, Czech Republic)
10:25	SPEECH RECOGNITION BY USING ASRS_RL Gavát I.*, Dumitru C. O. (*Polytechnic University of Bucharest, Romania)
10:45	NEURAL NETWORK BASED QUALITY INCREASE OF SURFACE ROUGHNESS RESULTS IN FREE FORM MACHINING Korošec M.*, Duhovnik J., Kopač J. (*University of Ljubljana, Slovenia)
11:05	NONLINEAR PCA IN FAULT DETECTION AND ISOLATION Bratina B.*, Tovornik B. (*University of Maribor, Slovenia)

11:25	TEXT ENCODING AND RECALL SPEEDUP FOR CORRELATION MATRIX MEMORIES <i>Beran T., Macek T., Skrbek M. (*Czech Technical University in Prague, Czech Republic)</i>
Tuesday, 11 Sept. , Room: P6, 10:05	
TU-1-P6: MATHEMATICAL / NUMERICAL METHODS II	
Session Chair: Venturino E. , Session Co-chair: Vairo G.	
10:05	MATHEMATICAL MODELS OF THE AUJESZKY DISEASE IN THE CUNEO PROVINCE FARMS, ITALY. <i>Abbona D., Sona B., Venturino E. (*University of Torino, Italy)</i>
10:25	A VIRTUAL ENGINEERING APPROACH FOR CHATTER PREDICTION <i>Barthel C. (*University Magdeburg, Germany)</i>
10:45	FEM MODELING OF PIEZORESISTIVE FORCE SENSOR FOR MEDICAL RETRACTOR AND DESIGN VERIFICATION <i>Penič S., Aljančič U., Vrtačnik D., Resnik D., Možek M., Makovec M., Bošnjak R., Amon S. (*University of Ljubljana, Slovenia)</i>
11:05	THREE-DIMENSIONAL FINITE ELEMENT ANALYSIS OF OSSEointegrated DENTAL IMPLANTS <i>Baggi L., Cappelloni I., Maceri F., Vairo G. (*University of Rome "Tor Vergata", Italy)</i>
11:25	MODELING AND SIMULATION OF DIFFUSION IN CHROMATOGRAPHIC RESIN USING SPATIALLY STRUCTURED RANDOM MEDIA AND A PARALLEL CELLULAR AUTOMATON <i>Nöh K., Finke M., Wiechert W., von Lieres E. (*Research Centre Jülich, Germany)</i>

Tuesday, 11 Sept. , Room: P7, 10:05	
TU-1-P7: MODELLING AND SIMULATION IN MEDICINE AND PHARMACY II (S14-II)	
Session Organizer(s): Drinovec J., Mrhar A., Atanasijević-Kunc M.	
Session Chair: Atanasijević-Kunc M. , Session Co-chair: Božíkov J.	
10:05	MEDICAL AND ECONOMIC BURDEN OF HYPERTENSION ASSESSED BY MODELLING AND SIMULATION <i>Bruderman M., Atanasijević-Kunc M., Drinovec J., Mrhar A. (*KRKA d.d., Novo mesto, Slovenia)</i>
10:25	A SIMULATION OF THE FORMATION OF MELANOCYTIC NEVI <i>Manestar-Blažić T., Božíkov J. (*University of Zagreb, Croatia)</i>
10:45	NUMERICAL MODELING OF ELECTRIC FIELD DISTRIBUTION IN SUBCUTANEOUS TUMORS TREATED WITH NEEDLE ELECTRODES <i>Čorović S., Miklavčič D. (*University of Ljubljana, Slovenia)</i>
11:05	BORDER FLUX BALLANCE APPROACH TOWARDS MODELLING ACID-BASE CHEMISTRY AND BLOOD GASES TRANSPORT <i>Kofránek J., Matoušek S., Andrlík M. (*Charles University in Prague, Czech Republic)</i>
11:25	PHYSIOLOGICAL FEEDBACK MODELLING IN MEDICAL EDUCATION <i>Wünsch Z., Matúš M., Kofránek J. (*Charles University in Prague, Czech Republic)</i>
11:45	MODELING ARTERIAL AND LEFT VENTRICULAR COUPLING FOR NON-INVASIVE MEASUREMENTS <i>Wassertheurer S., Mayer C., Breitenecker F. (*Austrian Research Centers GmbH, Vienna, Austria)</i>

Tuesday, 11 Sept., Room: P8, 10:05

TU-1-P8: PROCESS ENGINEERING II

Session Chair: **Kocijan J.**, Session Co-chair: **Vaja I.**

10:05	DYNAMIC MODEL OF A THERMAL SOLAR COLLECTOR <i>Gambarotta A., Vaja I.* (*University of Parma, Italy)</i>
10:25	GAS-LIQUID SEPARATOR MODELLING AND SIMULATION WITH GAUSSIAN PROCESS MODELS <i>Kocijan J.*, Likar B. (*Institut "Jožef Stefan", Ljubljana, Slovenia)</i>
10:45	DYNAMIC SIMULATION AND OPTIMIZATION OF A PLUG-FLOW REACTOR WITHIN THE MINLP SYNTHESIS OF OVERALL PROCESS SCHEMES <i>Ropotar M.*, Kravanja Z. (*Tanin Sevnica kemična industrija, d.d., Slovenia)</i>
11:05	MODELLING A FOOD INDUSTRY PROCES BY DECISION TREE <i>Sobota-Šalamon B., Dobša J.*, Mihoković V. (*University of Zagreb, Croatia)</i>
11:25	SIMULATION MODEL OF THE HYDRO POWER PLANT SHKOPETI <i>Prillwitz F.*, Al-Ali S. E., Haase T., Weber H., Sage L. (*University of Rostock, Germany)</i>
11:45	TRANSIENT STABILITY SIMULATION OF COMBINED POWER PLANT DURING FAULTS ON 400 AND 110 KV TRANSMISSION LINES <i>Nikolovski S., Marić P.*, Baus Z., Slipac G. (*J.J. Strossmayer University of Osijek, Croatia)</i>

Tuesday, 11 Sept., Room: P9, 10:05

TU-1-P9: SIMULATION IN ECONOMICS AND BUSINESS II (S02-II)

Session Organizer(s): **Štemberger M., Orsoni A.**

Session Chair: **Indihar Štemberger M.**, Session Co-chair: **Orsoni A.**

10:05	DYNAMIC SIMULATION OF A STUDENT E-LEARNING PERFORMANCE PROFILE THROUGH WEB-BASED DATA-LOG MINING <i>Karadimas N. V.*, Nikolopoulos V., Mpardis G., Orsoni A. (*National Technical University of Athens, Greece)</i>
10:25	PERFORMANCE MODELS FOR LIQUID BOND PORTFOLIO MANAGEMENT <i>Orsoni A.*, Iglesias D. (*Kingston University, United Kingdom)</i>
10:45	SELECTION OF THE SIMULATION SOFTWARE FOR THE MANAGEMENT OF THE OPERATIONS AT AN INTERNATIONAL AIRPORT <i>Otamendi J.*, Pastor J. M., García Higuera A. (*Universidad Rey Juan Carlos, Madrid, Spain)</i>
11:05	GRAPHICAL VISUALIZATION FOR THE MANAGEMENT OF SPREADSHEET SIMULATIONS <i>Pastor J. M., Otamendi J.*, García Higuera A. (*Universidad Rey Juan Carlos, Madrid, Spain)</i>
11:25	MODELING SMART MARKET PRICING MECHANISM IN PACKET-SWITCHED COMMUNICATION NETWORKS <i>Turk T.* (*University of Ljubljana, Slovenia)</i>
11:45	A SIMULATION OF THE MACROECONOMIC EFFECTS OF INTRODUCING THE EURO IN SLOVENIA <i>Weyerstrass K.*, Neck R. (*Institute for Advanced Studies, Vienna, Austria)</i>

Tuesday, 11 Sept., Room: P12, 10:05

TU-1-P12: DISCRETE EVENT SYSTEMS I

Session Chair: **Pechinkin V. A.**, Session Co-chair: **Bispo C.**

10:05	ANALYSIS OF MULTI-SERVER QUEUEING SYSTEM WITH SEMI-MARKOVIAN INPUT FLOW AND NEGATIVE CUSTOMERS ACTED UPON QUEUE END <i>Manzo R., Pechinkin A. V.*, Shorgin S. (*Russian Academy of Sciences, Moscow, Russian Federation)</i>
10:25	SIMULATING ACTIVITY NETWORKS IN JAVA <i>Rebelo M., Fernandes Z., Bispo C.* (*Instituto Superior Técnico, Lisboa, Portugal)</i>
10:45	A SIMULATOR FOR A GENERAL PACKET NETWORK DEVICE - SIMULATING A NEW SCHEDULER <i>Kos A.*, Tomažič S. (*University of Ljubljana, Slovenia)</i>
11:05	EXPERIMENTAL EVALUATION OF CUMULATIVE LOOKAHEAD IN CONSERVATIVE PARALLEL SIMULATION <i>Solčány V.*, Šafařík J. (*Slovak University of Technology, Bratislava, Slovakia)</i>
11:25	A GENERAL PROGRAMMING MODEL FOR DISCRETE-TIME DISTRIBUTED SIMULATION <i>Duarte J.* (*University of West Bohemia, Czech Republic)</i>
11:45	SIMULATION STUDY OF A PRIVATE DIAGNOSTIC CENTER <i>Altsitsiadis E.*, Agelis L., Gryllou E., Altsitsiadis A.*, Triarides K. (*Aristoteles University of Thessaloniki, Greece)</i>

Tuesday, 11 Sept., Room: P1, 13:30

PLENARY-III

Session Chair: **Šnorek M.**

13:30-14.15	EXPERIENCES AND TRENDS IN MODELLING AND SIMULATION OF INTEGRATED INDUSTRIAL PROCESSES <i>Juslin K.* (*VTT Technical Research Centre of Finland, Espoo, Finland)</i>
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Tuesday, 11 Sept., Room: P3, 14:35

TU-2-P3: MECHANICAL ENGINEERING II

Session Chair: **Munitić A.**, Session Co-chair: **Petrić J.**

14:35	START-UP SIMULATION FOR A SOLAR DESALINATION PLANT <i>Roca L.*, Yebra L., Berenguel M., Dormido S., Alarcón D. C. (*Convenio Universidad de Almería, Spain)</i>
14:55	SYSTEM DYNAMICS SIMULATION MODELING OF THE VESSELS SYSTEMS AND PROCESSES <i>Munitić A.*, Slišković M., Tomašević M., Ristov P. (*University of Split, Croatia)</i>
15:15	SYSTEM FOR INTERACTIVE 3D VEHICLE DYNAMICS ANALYSIS <i>Ambrož M.*, Prebil I. (*University of Ljubljana, Slovenia)</i>
15:35	DYNAMIC MODEL OF ELECTRICAL WHEELCHAIR WITH SLIPPING DETECTION <i>Emam H.*, Hamam Y., Monacelli E., Mougharbel I. (*University of Versailles Saint Quentin, France)</i>

15:55	MATHEMATICAL MODELING OF CLOSED-CIRCUIT HYDROSTATIC TRANSMISSION <i>Petrić J.*, Nižetić D., Ivanic I. (*University of Zagreb, Croatia)</i>
16:15	LINEAR AND NONLINEAR MODELING FOR AN ELECTRONIC THROTTLE BODY <i>Teuscher E., Alt B.*, Svaricek F., Blath J. P., Schultalbers M. (*University of German Armed Forces, Germany)</i>

Tuesday, 11 Sept. , Room: P4, 14:35

TU-2-P4: ROBOTICS

Session Chair: **Cafuta P.**, Session Co-chair: **Bonković M.**

14:35	ROBUST OPTIMIZATION UNDER UNCERTAIN FACTORS OF ENVIRONMENT FOR SIMPLE GAIT OF BIPED ROBOTS <i>Ito N.*, Hasegawa H. (*Shibaura Institute of Technology, Japan)</i>
14:55	HUMAN-INSPIRED JUMPING ROBOT - DEVELOPMENT AND CONTROL OF DYNAMIC MODEL <i>Omrčen D.*, Babič J. (*Institut "Jozef Stefan", Ljubljana, Slovenia)</i>
15:15	MODELING AND CONTROL OF AUTONOMOUS SKIING ROBOT <i>Lahajnar L.*, Kos A., Nemec B. (*Institut "Jozef Stefan", Ljubljana, Slovenia)</i>
15:35	MODIFIED BROYDEN METHOD FOR NOISE VISUAL SERVOING <i>Bonković M.*, Hace A., Cecić M. (*University of Split, Croatia)</i>
15:55	WRIST EXERCISER - EXERCISING FOR MODELING AND SIMULATION <i>Curk B., Cafuta P.* (*University of Maribor, Slovenia)</i>
16:15	PATH PLANNING FOR ELECTRICAL WHEELCHAIR, ACCESSIBILITY AND COMFORT FOR DISABLED PEOPLE <i>Taychouri F.*, Hamam Y., Monacelli E., Chebbo N. (*University of Versailles Saint Quentin, France)</i>

Tuesday, 11 Sept. , Room: P6, 14:35

TU-2-P6: AGENT-BASED AND DYNAMIC APPROACHES TO MODELLING IN ECONOMICS (S19)

Session Organizer(s): **Wöckl J., Almeder C.**

Session Chair: **Wöckl J.**, Session Co-chair: **Almeder C.**

14:35	MARKDOWN MANAGEMENT IN PRACTICE <i>Weidinger W.*, Gimpl-Heersink L., Gimpl J., Taudes A. (*Prolytic, Vienna, Austria)</i>
14:55	TRANSITION TO PARENTHOOD: THE ROLE OF SOCIAL INTERACTIONS AND ENDOGENOUS NETWORKS <i>Diaz B. A., Fent T.*, Prskawetz A., Bernardi L. (*Vienna Institute of Demography, Austria)</i>
15:15	USING ANYLOGIC AND AGENT-BASED APPROACH TO MODEL CONSUMER MARKET <i>Garifullin M., Borshchev A.*, Popkov T. (*XJ Technologies Company, Saint Petersburg, Russian Federation)</i>
15:35	A HYBRID SIMULATION OPTIMIZATION APPROACH FOR SUPPLY CHAINS <i>Almeder C.*, Preusser M. (*University of Vienna, Austria)</i>
15:55	MODELLING ADVERTISING AND PRODUCTION STRATEGIES USING CELLULAR AUTOMATA <i>Wöckl J.* (*Vienna University of Economics and Business Administration, Austria)</i>

16:15	UNDERSTANDING RETAIL PRODUCTIVITY BY SIMULATING MANAGEMENT PRACTICES <i>Siebers P.*, Aickelin U., Celia H., Clegg C. W. (*University of Nottingham, United Kingdom)</i>
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Tuesday, 11 Sept. , Room: P7, 14:35

TU-2-P7: MANUFACTURING SYSTEMS

Session Chair: **Williams J. E.**, Session Co-chair: **Mušič G.**

14:35	SIMULATION HELPS EVALUATE AND REDESIGN SEAT ARMREST ASSEMBLY <i>Lammers E. J., Ulgen O. M., Williams E. J.* (*University of Michigan, Dearborn, MI, United States of America)</i>
14:55	CONTROL OF MANUFACTURING SYSTEM BY AGENTS OF MATERIALS, PARTS AND PRODUCTS <i>Mitrouchev P.*, Brun-Picard D., Jenko M. (*INPG-UJF-CNRS, Grenoble, Slovenia)</i>
15:15	OPTIMAL SELECTION OF INFORMATION TERMINALS FOR DATA ACQUISITION IN MANUFACTURING PROCESSES <i>Kleindienst J.*, Juričič D. (*Kolektor Sinabit d.o.o., Ljubljana, Slovenia)</i>
15:35	ADMISSIBLE BEHAVIOUR BASED ANALYSIS OF DEADLOCK IN PETRI NET CONTROLLERS <i>Mušič G.*, Matko D. (*University of Ljubljana, Slovenia)</i>
15:55	MODELING AND SIMULATION OF MANUFACTURING SYSTEMS <i>Bogdan S.*, Kovačić Z., Smolić-Ročak N. (*University of Zagreb, Croatia)</i>
16:15	TRANSPORT OPTIMIZATION IN JOB-SHOP PRODUCTION USING LINEAR PROGRAMMING <i>Lenart L.*, Tomšič M., Kušar J., Starbek M. (*Institut "Jožef Stefan", Ljubljana, Slovenia)</i>

Tuesday, 11 Sept. , Room: P8, 14:35

TU-2-P8: SIMULATION IN ELECTRIC POWER SYSTEMS (S13)

Session Organizer(s): **Mihalič R.**

Session Chair: **Mihalič R.**, Session Co-chair: **Ruhle O.**

14:35	SOPHISTICATED REAL-TIME TESTS ON PROTECTION RELAYS AND TURBINE CONTROLLERS WITH DINEMO-II AND PSSTMNETOMAC <i>De Wilde V., Duschl-Graw G.*, Pannhorst D., Ruhle O. (*TFH Berlin - University of Applied Sciences, Berlin, Germany)</i>
14:55	BLACK-OUT PREVENTION BY DYNAMIC SECURITY ASSESSMENT FOR LARGE ELECTRICAL POWER GRIDS <i>Lerch E., Ruhle O.* (*Siemens AG, Erlangen, Germany)</i>
15:15	SIMULATION OF LARGE WIND FARMS USING COHERENCY APPROACH <i>Rudion K.*, Ruhle O., Styczynski Z. A. (*Otto-von-Guericke-University Magdeburg, Germany)</i>
15:35	MODELLING OF FACTS DEVICES FOR TRANSIENT-STABILITY ASSESSMENT USING DIRECT METHODS <i>Ažbe V.*, Mihalič R. (*University of Ljubljana, Slovenia)</i>
15:55	MODELLING OF POWER ELECTRONICS BY PSCAD: FREQUENCY SCANNING METHOD <i>Blažič B.*, Papič I. (*University of Ljubljana, Slovenia)</i>

16:15	DEVELOPMENT OF NONLINEAR TRANSFORMER MODEL APPROPRIATE FOR LOSS CALCULATION WHEN HIGHER HARMONICS ARE PRESENT <i>Toman M.*, Šumberger G., Dolinar D. (*University of Maribor, Slovenia)</i>
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Tuesday, 11 Sept. , Room: P9, 14:35

TU-2-P9: MULTIDISCIPLINARY DESIGN OPTIMIZATION (S11)

Session Organizer(s): **Dellino G., Lino P., Meloni C., Rizzo A.**

Session Chair: **Meloni C.**, Session Co-chair: **Dellino G.**

14:35	CAD-BASED OPTIMIZATION AND APPLICATIONS IN AUTOMOTIVE ENGINEERING <i>Horváth Z.*, Morauszki T., Tóth K. (*Széchenyi István University, Győr, Hungary)</i>
14:55	OPTIMIZATION ISSUES IN MODELING IPMC DEVICES <i>Bonomo C., Dellino G.*, Fortuna L., Giannone P., Graziani S., Lino P., Meloni C., Rizzo A. (*Politecnico di Bari, Italy)</i>
15:15	MULTI OBJECTIVE OPTIMISATION OF AUTOMOTIVE COMPONENTS <i>Clarich A.*, Poian M., Poloni C. (*ESTECO srl, Trieste, Italy)</i>
15:35	MODELS FOR THE DESIGN AND OPTIMIZATION OF CNG INJECTION SYSTEMS <i>Dellino G., Lino P., Meloni C.*, Rizzo A. (*Politecnico di Bari, Italy)</i>
15:55	MULTIFORMALISM MBS MODELS FOR AN HIL APPLICATION IN VEHICLE DYNAMICS <i>Hahn M.*, Toepper S. (*iXtronics GmbH, Paderborn, Germany)</i>
16:15	NUMERICAL ANALYSIS OF MASONRY WALLS OUT-OF-PLANE LOADED <i>Milani G., Olivito R. S.*, Tralli A., Zuccarello F. A. (*University of Calabria, Italy)</i>

Tuesday, 11 Sept. , Room: P12, 14:35

TU-2-P12: BIOSCIENCES I

Session Chair: **Belič A.**, Session Co-chair: **Wozniak M.**

14:35	RULE-BASED CLASSIFIERS FOR THE ACUTE ABDOMINAL PAIN DIAGNOSIS □ COMPARATIVE STUDY <i>Wozniak M.* (*Wroclaw University of Technology, Poland)</i>
14:55	PHYSIOLOGY BASED MODEL OF CHOLESTEROL METABOLISM AND ITS INTERACTIONS WITH XENOBIOTICS <i>Belič A.*, Režen T., Kuzman D., Fon Tacer K., Rozman D., Karba R. (*University of Ljubljana, Slovenia)</i>
15:15	SELF-ASSEMBLED DNA COMPUTING FOR DIRECTED GRAPH PROBLEM MODELLING <i>Rajadee N.*, Ono O. (*Meiji University, Japan)</i>
15:35	ANALOG SIMULATION OF CARDIOVASCULAR PHYSIOLOGY: EXERCISE IN MAN <i>Dolenšek J., Podnar T.*, Runovc F., Kordaš M. (*University of Ljubljana, Slovenia)</i>
15:55	MODELING AND SIMULATION RESULTS ON HIGH SENSITIVITY SCATTERED GAMMA-RAY IMAGING <i>Driol C.*, Nguyen M. K., Truong T. T. (*Université de Cergy-Pontoise, France)</i>
16:15	MODEL BASED INERTIAL SENSING OF HUMAN BODY MOTION KINEMATICS IN SIT-TO-STAND MOVEMENT <i>Musić J.*, Kamnik R., Munih M. (*University of Split, Croatia)</i>

Tuesday, 11 Sept. , Room: P3, 17:00

TU-3-P3: SUCCESSFUL APPLICATION OF SIMULATION IN INDUSTRY II (S08-II)	
Session Organizer(s): Juslin K.	
Session Chair: Juslin K. , Session Co-chair: Schumann R.	
17:00	A COMPANY SPECIFIC SIMULATOR OF A DRINKING WATER TREATMENT PLANT <i>Worm I.*, Oudmans J., van Schagen K., Rietveld L. (*Duinwaterbedrijf Zuid-Holland, Voorburg, Netherlands)</i>
17:20	SIMULATION AS A MEANS TO TEST ADVANCED CONTROL ALGORITHMS IN SUPPRESSING ROTOR VIBRATIONS IN ELECTRIC MACHINES <i>Zenger K. F.*, Orivuori J., Sinervo A., Altowati A., Hrbcek J., Arkkio A., Laiho A., Tammi K. (*Helsinki University of Technology, Finland)</i>
17:40	DECISION SUPPORT AND SIMULATION METHODS FOR ASSEMBLY SYSTEM SALES ENGINEERS <i>Heilala J.*, Väätäinen O., Montonen J., Kulmala H., Laaksonen T. (*VTT Technical Research Centre of Finland, Finland)</i>
18:00	DYNAMIC SIMULATION OF PRODUCT PROCESS <i>Pesonen L. T.*, Salminen S. J., Ylén J., Riihimäki P. (*Nokia Corporation, Oulu, Finland)</i>
18:20	VIRTUAL PRODUCTION FOR INDUSTRIAL MANUFACTURING PLANTS WITH TRANSPORT SYSTEMS <i>Roßmann J., Stern O., Wischniewski R.* (*University of Aachen, Germany)</i>
18:40	UTILIZATION OF DYNAMIC SIMULATION IN THE IMPROVEMENT OF A PULPING PROCESS <i>Savolainen J.*, Kangas P., Tervaskanto M., Ahvenlampi T., Hietanen V. (*VTT Technical Research Centre of Finland, Finland)</i>
19:00	DYNAMIC MODELING OF MAINTENANCE STRATEGIES <i>Jokinen T.*, Ylén J. (*VTT Technical Research Centre of Finland, Finland)</i>

Tuesday, 11 Sept. , Room: P4, 17:00

TU-3-P4: PETRI NETS

Session Chair: **Tzionas P.**, Session Co-chair: **Denis B.**

17:00	MODELLING AND SIMULATION OF ALUMINIUM COILS PRODUCTION PROCESS USING COLOURED PETRI NETS <i>Papanagnou C., Tzionas P.*, Xanthopoulos C. (*Technological Educ. Institute of Thessaloniki, Greece)</i>
17:20	TEMPORAL PERFORMANCE EVALUATION OF CONTROL ARCHITECTURE IN AUTOMATION SYSTEMS <i>Meunier P., Denis B.*, Lesage J. (*LURPA / ENS Cachan, Cachan, France)</i>
17:40	SIMULATION AND DESIGN OF SYSTEMS WITH OBJECT ORIENTED PETRI NETS <i>Kočí R.*, Janoušek V. (*Brno University of Technology, Czech Republic)</i>
18:00	IMPROVEMENTS FOR A COLOURED PETRI NET SIMULATOR <i>Mújica M., Piera M. A.* (*Autonomous University of Barcelona, Spain)</i>
18:20	MODELLING AND SIMULATION OF THE CMS TIER0 INPUT BUFFER WITH YASPER <i>Wijnant L., Aerts A.*, Sinanis N., Willers I. (*CERN, Geneva, Switzerland)</i>

18:40	PERFORMANCE ANALYSIS OF SYSTEM MODELS WITH UML AND GENERALIZED NETS <i>Koycheva E. *, Janschek K. (*Technical University of Dresden, Germany)</i>
19:00	DISCRETE EVENT SYSTEMS - PETRI NET BASED MODELING AND SIMULATION IN THEORY AND PRACTICE <i>Becker M.* (*University Hannover, Germany)</i>

Tuesday, 11 Sept., Room: P6, 17:00

TU-3-P6: ELECTRICAL ENGINEERING

Session Chair: **Zanasi R.**, Session Co-chair: **Albu M.**

17:00	MODELING, SIMULATING AND EXPERIMENTAL VALIDATION OF THE AC ELECTRIC ARC IN THE CIRCUIT OF THREE-PHASE ELECTRIC ARC FURNACES <i>Pănoiu M. *, Pănoiu C. *, Șora I., Osaci M., Muscalagiu I. (*Polytechnic University of Timisoara, Romania)</i>
17:20	ANALYTICAL CALCULATION OF SKIN AND PROXIMITY EFFECTS IN THE PRIMARY WINDING OF A PULSE TRANSFORMER <i>Bouaoune B., Marquis Y. M. *, Bernard Y. (*LACMÉ S.A.S., La Fleche, France)</i>
17:40	THE POG TECHNIQUE FOR MODELLING MULTI-PHASE PERMANENT MAGNET SYNCHRONOUS MOTORS <i>Zanasi R. *, Grossi F. (*University of Modena and Reggio Emilia, Italy)</i>
18:00	COMPARISON OF RESPONSES OBTAINED BY THE MAGNETICALLY NONLINEAR TRANSFORMER MODEL USING VARIABLE DYNAMIC AND STATIC INDUCTANCES <i>Seme S. *, Štumberger G. (*University of Maribor, Slovenia)</i>
18:20	ON THE MODEL OF A COMPACT FLUORESCENT LAMP AS LOAD OF A MIXED LV NETWORK <i>Albu M. *, Chirilă A., Deaconu I. (*Polytechnic University of Bucharest, Romania)</i>
18:40	FFT BASED COMPUTATIONAL MODEL FOR EM FIELD DEVELOPMENT ANALYSIS IN LASERS WITH ELECTRO-OPTICAL Q-SWITCH <i>Škrabelj D. *, Marinček M., Drevenšek-Olenik I. (*Fotona d.d., Ljubljana, Slovenia)</i>
19:00	NUMERICAL SIMULATION AND EXPERIMENTAL INVESTIGATION OF THE PULSE FORMATION IN PASSIVELY Q-SWITCHED ND:YAG LASERS <i>Žabkar J. *, Marinček M., Zgonik M. (*Fotona d.d., Ljubljana, Slovenia)</i>

Tuesday, 11 Sept., Room: P7, 17:00

TU-3-P7: CONTROL SYSTEMS I

Session Chair: **Krabbes M.**, Session Co-chair: **Moriwaki K.**

17:00	CHALLANGES OF CONVENTIONAL EQUIPMENT ON MODEL BASED CONTROL CONCEPTS <i>Krabbes M. *, Meißner C. (*University of Applied Sciences, Leipzig, Germany)</i>
17:20	COMPLEX SCHEMES OF FILTERING IN EXPERIMENTAL DATA ESTIMATION <i>Zorin A. * (*Saint Petersburg State University, Russian Federation)</i>
17:40	MATHEMATICAL MODELLING OF AN AUTONOMOUS VEHICLE FOR NAVIGATION CONTROL <i>Moriwaki K. *, Tanaka K. (*The University of Shiga Prefecture, Shiga, Japan)</i>

18:00	BOND GRAPH COMPONENTS FOR MODELLING AN ELECTRICALLY POWERED VEHICLE <i>Fakri A.*, Rocaries F. (*ESIEE - Paris, France)</i>
18:20	PIEZOELECRIC FUNCTIONALLY GRADED LAYERS IN VIBRATION CONTROL OF LAMINATED PLATES <i>Pietrzakowski M.* (*Warsaw University of Technology, Poland)</i>
18:40	STATISTICAL MODELING OF MULTI-DIMENSIONAL FIELDS <i>Boršnik Bračič A.*, Govekar E., Grabec I. (*University of Ljubljana, Slovenia)</i>
19:00	MODELING AND SIMULATION OF THE PRIMARY CIRCUIT OF THE PAKS NUCLEAR POWER PLANT FOR CONTROL AND DIAGNOSIS <i>Németh E., Fazekas C., Szederkényi G.*, Hangos K. M. (*Computer and Automation Research Institute, Budapest, Hungary)</i>

Tuesday, 11 Sept. , Room: P8, 17:00

TU-3-P8: SIMULATORS

Session Chair: **Murray-Smith D. J.**, Session Co-chair: **Brito C. A.**

17:00	A GRADUATE-LEVEL MULTI-PURPOSE EDUCATIONAL CASE STUDY ON MODELLING AND SIMULATION OF THE NEUROMUSCULAR SYSTEM <i>Murray-Smith D. J.*, Zhao S. (*University of Glasgow, United Kingdom)</i>
17:20	MODELLING OF THE RESPIRATORY SYSTEM FOR EXERCISE CONDITIONS: A CASE STUDY IN PHYSIOLOGICAL SYSTEM SIMULATION <i>Thamrin H.*, Murray-Smith D. J. (*University of Glasgow, United Kingdom)</i>
17:40	COMPUTER-BASED SURGICAL SIMULATION SYSTEM FOR STUDENTS TRAINING <i>Yaacoub F.*, Hamam Y., Abche A. (*ESIEE - Paris, France)</i>
18:00	TWO APPROACHES TO MOBILE ROBOTS SIMULATOR DESIGN <i>Klančar G.*, Brezak M., Petrović I., Matko D. (*University of Ljubljana, Slovenia)</i>
18:20	THE TRAINING SIMULATOR FOR THE GHAZI-BAROTHA HYDRO-POWERPLANT <i>Blažič S.*, Matko D. (*University of Ljubljana, Slovenia)</i>
18:40	HYDROELECTRIC POWER DAMS NETWORK SIMULATION <i>Brito A. C.* (*University of Porto, Portugal)</i>
19:00	HIGH PERFORMANCE CLUSTER COMPUTING ON A FLYING SIMULATOR <i>Kvasnica P.*, Kvasnica I.* (*University of Trenčín, Slovakia)</i>

Tuesday, 11 Sept. , Room: P9, 17:00

TU-3-P9: FUZZY SYSTEMS (S09)

Session Organizer(s): **Škrjanc I.**

Session Chair: **Škrjanc I.**, Session Co-chair: **Sáez D.**

17:00	A COMPARISON BETWEEN EQUIDISTANT PWL APPROXIMATIONS AND FUZZY CLUSTERING APPLIED TO THE INITIAL VALUE PROBLEM FOR ODES <i>García A., Oblak S., Agamennoni O.*, Škrjanc I. (*Universidad Nacionál del Sur, Bahía Blanca, Argentina)</i>
17:20	A HIERARCHICAL FUZZY APPROACH TO TEMPORAL PATTERN RECOGNITION <i>Herbst G.*, Bocklisch S. F. (*Technical University of Chemnitz, Germany)</i>

17:40	MULTIOBJECTIVE PREDICTIVE CONTROL BASED ON FUZZY HYBRID MODELLING <i>Sáez D. *, Škrjanc I., Núñez A., Oblak S. (*Universidad de Chile, Santiago, Chile)</i>
18:00	THE ROLE OF APPROXIMATION IN ANALYTICAL CONTINUOUS-TIME WIENER-MODEL PREDICTIVE CONTROL <i>Oblak S. *, García A., Škrjanc I., Agamennoni O. (*University of Ljubljana, Slovenia)</i>
18:20	FUZZY MODEL OF BIRD FLOCK FORAGING BEHAVIOR <i>Moškon M. *, Heppner F. H., Mraz M., Zimic N., Lebar Bajec I. (*University of Ljubljana, Slovenia)</i>
18:40	STAGE-DEPENDENT FUZZY LOSS FUNCTION IN MULTISTAGE CLASSIFIER - RESULTS OF SIMULATIONS <i>Burduk R. * (*Wroclaw University of Technology, Poland)</i>
19:00	FUZZY VECTORIAL DIRECTIONAL PROCESSING IN DENOISING OF MULTICHANNEL IMAGES <i>Ponomaryov V. *, Rosales A., Gallegos F., Romero A. (*National Polytechnic Institute of Mexico, Mexico-city, Mexico)</i>

Tuesday, 11 Sept. , Room: P12, 17:00

TU-3-P12: DIGITAL FACTORY/SIMULATION AND OPTIMIZATION OF INDUSTRIAL PROCESSES II (S07-II)

Session Organizer(s): **Jósvai J., März L.**

Session Chair: **März L.**, Session Co-chair: **Jósvai J.**

17:00	PRACTICAL OPTIMIZATION BY OR AND SIMULATION <i>van Dijk N. *, van der Sluis E. (*University of Amsterdam, Netherlands)</i>
17:20	MINIMUM STOCK COSTS AT GIVEN TIMES FOR DELIVERY WITH SIMULATION AND OPTIMIZATION <i>Thurnher P. *, März L. (*V-Research GmbH, Dornbirn, Austria)</i>
17:40	AUTOMATIC CREATION OF SIMULATION MODELS FROM DATA MODELS OF LOGISTIC AND MANUFACTURING PROCESSES <i>Tauböck S. *, Breitenecker F. (*Prosfactor Research & Solutions, Seibersdorf, Austria)</i>
18:00	OPTIMISATION OF SCHEDULING PROBLEMS BASED ON TIMED PETRI NETS <i>Löscher T. *, Mušić G., Breitenecker F. (*Vienna University of Technology, Austria)</i>
18:20	MACRO-REACHABILITY TREE EXPLORATION FOR D.E.S. DESIGN OPTIMIZATION <i>Latorre J. I., Jiménez E., Pérez M. * (*University of La Rioja, Spain)</i>
18:40	MODEL MIXING FOR LONG-TERM EXTRAPOLATION <i>Ettler P. *, Kárný M., Nedoma P. (*COMPUREG Plzen, s.r.o., Czech Republic)</i>
19:00	DEVELOPMENT OF SIMULATION-BASED ENVIRONMENT FOR MULTI-ECHELON CYCLIC PLANNING AND OPTIMISATION <i>Merkuryeva G., Napalkova L. * (*Riga Technical University, Latvia)</i>

WEDNESDAY

Wednesday, 12 Sept., Room: P1, 09:00

PLENARY-IV

Session Chair: **Jávor A.**

9:00-9:45	AN ODE FOR THE RENAISSANCE <i>Breitenecker F.*, Breitenecker K.*, Judex F., Popper N., Wassertheurer S. (*Vienna University of Technology, Austria)</i>
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Wednesday, 12 Sept., Room: P3, 10:05

WE-1-P3: MODELLING OF STRUCTURAL DYNAMIC SYSTEMS – MODEL REDUCTION METHODS (S24)

Session Organizer(s): **Schwarz P., Breitenecker F.**

Session Chair: **Schwarz P.**, Session Co-chair: **Breitenecker F.**

10:05	AUTOMATED BEHAVIORAL MODELING AND ANALYTICAL MODEL-ORDER REDUCTION BY APPLICATION OF SYMBOLIC CIRCUIT ANALYSIS FOR MULTI-PHYSICAL SYSTEMS <i>Sommer R.*, Halfmann T., Broz J. (*IMMS gGmbH / Technical University Ilmenau, Germany)</i>
10:25	A TOOL-BOX APPROACH TO COMPUTER-AIDED GENERATION OF REDUCED-ORDER MODELS <i>Schwarz P.*, Bastian J., Clauß C., Haase J., Koehler A., Otte G., Schneider P. (*Fraunhofer Institute for Integrated Circuits, Dresden, Germany)</i>
10:45	STRUCTURE OF SIMULATORS FOR HYBRID SYSTEMS - GENERAL DEVELOPMENT AND INTRODUCTION OF A CONCEPT OF EXTERNAL AND INTERNAL STATE EVENTS <i>Breitenecker F.*, Judex F., Popper N., Troch I., Funovits J. (*Vienna University of Technology, Austria)</i>
11:05	NUMERICAL SIMULATION OF CONTINUOUS SYSTEMS WITH STRUCTURAL DYNAMICS <i>Enge-Rosenblatt O.*, Bastian J., Clauß C., Schwarz P. (*Fraunhofer Institute for Integrated Circuits, Dresden, Germany)</i>
11:25	DISCRETE HYBRID AUTOMATA APPROACH TO STRUCTURAL DYNAMIC MODELLING AND SIMULATION <i>Mušič G.*, Zupančič B. (*University of Ljubljana, Slovenia)</i>
11:45	CLASSICAL AND STATECHART-BASED MODELING OF STATE EVENTS AND OF STRUCTURAL CHANGES IN THE MODELICA – SIMULATOR MOSILAB <i>Zauner G.*, Judex F., Schwarz P. (*"Die Drahtwarenhandlung" – Simulation Services, Vienna, Austria)</i>
12:05	MODELING OF STRUCTURAL-DYNAMIC SYSTEMS BY UML STATECHARTS IN ANYLOGIC <i>Leitner D.*, Kropf J., Karpov Y., Senichenkov Y., Kolesov Y., Zauner G. (*Vienna University of Technology, Austria)</i>

Wednesday, 12 Sept., Room: P4, 10:05

WE-1-P4: ARTIFICIAL INTELLIGENCE METHODS III

Session Chair: Saito S., Session Co-chair: Šnorek M.

10:05	UNIVERSITY TIMETABLING IN MINIMUM AREA OF CLASSROOM USING EVOLUTIONARY COMPUTATION BY VIRUS EVOLUTIONARY THEORY <i>Saito S.*, Tanifuji C. (*Tokyo University of Science, Japan)</i>
10:25	ON VISUALIZATION OF DIVERSITY IN EVOLUTIONARY ALGORITHMS BASED ON SIMULATION OF PHYSICAL SYSTEM <i>Drchal J.*, Šnorek M. (*Czech Technical University in Prague, Czech Republic)</i>
10:45	CONTINUAL EVOLUTION ALGORITHM FOR BUILDING OF ANN-BASED MODELS <i>Buk Z.*, Šnorek M. (*Czech Technical University in Prague, Czech Republic)</i>
11:05	HYBRID GENETIC-ALGORITHM / BRANCH & BOUND TECHNIQUE TO SOLVE A TIME-DEPENDENT TRANSPORTATION PROBLEM <i>Brudaru O.*, Valmar B. (*Technical University "Gh. Asachi" Iasi, Romania)</i>
11:25	ADAPTIVE PLAN SYSTEM WITH GENETIC ALGORITHM BASED ON SYNTHESIS OF LOCAL AND GLOBAL SEARCH METHOD FOR MULTI-PEAK OPTIMIZATION PROBLEMS <i>Hasegawa H.* (*Shibaura Institute of Technology, Japan)</i>
11:45	MODELING THE LASER DROPLET-FORMATION PROCESS AND OPTIMIZING WITH GENETIC ALGORITHMS <i>Kokalj T.*, Grabec I., Govekar E. (*Institute of Metals and Technology, Ljubljana, Slovenia)</i>

Wednesday, 12 Sept., Room: P6, 10:05

WE-1-P6: MODELLING OF CRYOGENIC SYSTEMS AND THEIR APPLICATIONS (S03)

Session Organizer(s): Rachid A., Chadli M., Coppier H.

Session Chair: Coppier H., Session Co-chair: Chadli M.

10:05	DYNAMIC SIMULATION OF LARGE SCALE HELIUM REFRIGERATOR: THE 400 WATT @ 1.8 K TEST FACILITY <i>Deschildre C., Barraud A., Bonnay P., Briend P., Girard A., Poncet J. M., Roussel P.*, Sequeira S. (*CEA-Grenoble, France)</i>
10:25	A DYNAMIC SIMULATOR FOR LARGE SCALE CRYOGENIC SYSTEMS <i>Bradu B.*, Gayet P., Niculescu S. (*CERN, Geneva, Switzerland)</i>
10:45	FROM IDENTIFYING AND MODELING TO CONTROL: THE MULTICONTROLLER, AN ADVANCED CONTROL LOOP STRATEGY FOR CRYOGENIC SYSTEMS AT CERN <i>Cabaret S.* (*CERN, Geneva, Switzerland)</i>
11:05	PROCESS IDENTIFICATION THROUGH TESTS ON CRYOGENIC SYSTEM <i>Pezzetti M.*, Rachid A., Chadli M., Coppier H. (*CERN, Geneva, Switzerland)</i>
11:25	MODELLING WORKSTATION FOR A KRYPTON CONDENSER SYSTEM <i>Moraux A. P. H.*, Pezzetti M., Coppier H., Rachid A., Chadli M. (*CERN, Geneva, Switzerland)</i>

Wednesday, 12 Sept., Room: P7, 10:05

WE-1-P7: CONTROL SYSTEMS II

Session Chair: **Guidorzi R.**, Session Co-chair: **Huba M.**

10:05	VIRTUAL PID TOOLBOX (VPT) <i>Kozák Š. (*Slovak University of Technology, Bratislava, Slovakia)</i>
10:25	IDENTIFICATION TECHNIQUES IN VNAV AUTOPILOT DESIGN FOR A LIGHT SPORT AIRCRAFT <i>Guidorzi R.*, Diversi R., Soverini U. (*University of Bologna, Italy)</i>
10:45	THE COMPARISON OF UNMANNED UNDERWATER VEHICLES' CONTROL STARTEGIES <i>Podržaj P.*, Kariž Z. (*University of Ljubljana, Slovenia)</i>
11:05	SIMULATION OF SINGLE INPUT DISTRIBUTED PARAMETER SYSTEMS VIA VIRTUAL CONTROLLER DESIGN <i>Schlake J.*, Konigorski U. (*Technical University of Darmstadt, Germany)</i>
11:25	CONSTRAINED POLE ASSIGNMENT CONTROL FOR SECOND ORDER PLANT WITH STABLE ZERO <i>Huba M.*, Čapák P. (*Slovak University of Technology, Bratislava, Slovakia)</i>
11:45	ROBUST CONTROL DESIGN METHODS FOR REDUCED ORDER MODELS <i>Ahrholdt U.*, Konigorski U. (*Technical University of Darmstadt, Germany)</i>

Wednesday, 12 Sept., Room: P8, 10:05

WE-1-P8: COMPUTATIONAL INTELLIGENCE AND DISCRETE SIMULATION (S05)

Session Organizer(s): **Huyet A.L, Pierreval H.**

Session Chair: **Huyet A.**, Session Co-chair: **Pierreval H.**

10:05	HIERARCHICAL CONTROL FOR CONTINUOUS FLOW SIMULATION OF MANUFACTURING SYSTEMS <i>Tamani K.*, Boukezzoula R., Habchi G. (*University of Savoie, France)</i>
10:25	AN AUTOMATED APPROACH TO INPUT DATA MANAGEMENT IN DISCRETE EVENT SIMULATION PROJECTS: A PROOF-OF-CONCEPT DEMONSTRATOR <i>Skoogh A., André J.*, Dudas C., Svensson J., Moris M. U., Johansson B. (*Chalmers University of Technology, Gothenburg, Sweden)</i>
10:45	COMBINING SIMULATION AND ARTIFICIAL NEURAL NETWORKS: AN OVERVIEW <i>Mouelhi W.*, Huyet A., Pierreval H. (*LIMOS/IFMA, Aubiere, France)</i>
11:05	SIMULATION OF ATTITUDE TRANSFORMATION BY USING AUTOMATA NETWORKS <i>Robert-Demontrond P., Thiel D.* (*University of Nantes, France)</i>
11:25	INTELLIGENT SHORT TERM SCHEDULING OF A PRODUCTION CELL WITH PARALLEL FACILITIES <i>Juuso E. K.*, Jagdev H. S. (*University of Oulu, Finland)</i>
11:45	APPLICATION OF STOCHASTIC PROGRAMMING FOR SUPPLY CHAIN INVENTORY OPTIMIZATION UNDER UNCERTAIN DEMAND AND LEAD TIME <i>Soshko O.*; Merkuryev Y., Van Landeghem H. (*Riga Technical University, Latvia)</i>

Wednesday, 12 Sept., Room: P9, 10:05

WE-1-P9: SIMULATION OF MULTIFIELD AND MULTISCALE PROBLEMS IN STRUCTURAL AND MATERIAL ENGINEERING (S18)

Session Organizer(s): **Callari C.**, **Maceri F.**

Session Chair: **Callari C.**, Session Co-chair: **Maceri F.**

10:05	A SURVEY ON RECENT DEVELOPMENTS IN SECOND-ORDER INTEGRATION METHODS FOR J2 PLASTICITY MODEL <i>Artigli E.*, Auricchio F., da Veiga L. B. (*University of Pavia, Italy)</i>
10:25	A TIME DISCONTINUOUS PROCEDURE FOR THE HYDRAULIC CRACK SIMULATION IN COHESIVE POROUS MEDIA <i>Secchi S.*, Simoni L., Schrefler B. (*CRN - ISIB, Padova, Italy)</i>
10:45	SIMULATION OF STRAIN LOCALIZATION IN MULTI-PHASE MEDIA BY A MULTI-SCALE APPROACH <i>Callari C.*, Armero F., Abati A. (*Universita degli Studi del Molise, Termoli, Italy)</i>
11:05	COLLISIONS AND FRACTURES: A PREDICTIVE THEORY <i>Freddi F.*, Frémond M. (*University of Parma, Italy)</i>
11:25	INFLUENCE OF MICRO-CRACKING ON THE EFFECTIVE PROPERTIES OF COMPOSITE MATERIALS <i>Bruno D., Greco F.*, Lonetti P., Nevone Blasi P. (*University of Calabria, Italy)</i>

Wednesday, 12 Sept., Room: P12, 10:05

WE-1-P12: BIOSCIENCES II

Session Chair: **Al-ani T.**, Session Co-chair: **Belič A.**

10:05	SELECTING A NEW ROBOT FOR THE CLINICAL LABORATORY BY USING A SIMULATION MODEL <i>Ruohonen T. P.*, Neittaanmäki P., Leppänen E., Lähdevaara H. (*University of Jyväskylä, Finland)</i>
10:25	EVALUATING THE EFFECTS OF A PNEUMATIC TUBE DELIVERY SYSTEM ON THE PATIENT'S LENGTH OF STAY IN AN EMERGENCY DEPARTMENT BY USING A SIMULATION MODEL <i>Ruohonen T. P.*, Neittaanmäki P., Teittinen J. (*University of Jyväskylä, Finland)</i>
10:45	SIMULATING THE EFFECTS OF SCHOOL CLOSING INTERVENTIONS AGAINST PANDEMIC INFLUENZA <i>Schwehm M.*, Vidondo B., Brockmann S., Eichner M. (*University of Tübingen, Germany)</i>
11:05	IDENTIFICATION OF WIENER MODELS USING OPTIMAL LOCAL LINEAR MODELS <i>Kozek M.*, Sinanović S. (*Vienna University of Technology, Austria)</i>
11:25	REALISTIC SIMULATION OF AN INSECT CHORUS BASED ON COUPLED SONG OSCILLATORS <i>Hartbauer M.* (*Karl-Franzens University Graz, Austria)</i>
11:45	MIMICKING THE SPATIAL SELF DEFENSE EFFECT IN A TOXIC PHYTOPLANKTON - ZOOPLANKTON SYSTEM <i>Chattopadhyay J., Chatterjee S.*, Venturino E. (*University of Torino, Italy)</i>

THURSDAY

Thursday, 13 Sept., Room: P1, 09:00

PLENARY-V

Session Chair: **Schumann R.**

9:00-9:45	THE CHALLENGE OF MODELING HIGH SPEED FLOWS <i>Longo J. M. A.*, Hannemann K., Hannemann V. (*German Aerospace Center (DLR), Braunschweig, Germany)</i>
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Thursday, 13 Sept., Room: P3, 10:05

TH-1-P3: ALTERNATIVE MODELLING AND COMPARISONS AND BENCHMARKING IN MODELLING AND SIMULATION II (S22-II)

Session Organizer(s): **Breitenecker F., Wiechert W.**

Session Chair: **Wiechert W.**, Session Co-chair: **Popper N.**

10:05	THE INFLOW BOUNDARY CONDITION IN LBGK BLOOD FLOW SIMULATIONS <i>Leitner D.*, Kropf J., Wassertheurer S. (*Austrian Research Centers GmbH, Vienna, Austria)</i>
10:25	MODELLING THE RADIOACTIVE GROUND POLLUTION BY TRANSURANIUM ELEMENTS USING CELLULAR AUTOMATA <i>Breitenecker K.*, Brandl A., Böck H., Villa M. (*Atomic Institut of the Austrian Universities, Vienna, Austria)</i>
10:45	COMPARING THE EFFICIENCY OF PARALLELISATION TECHNIQUES FOR SIMULATION TASKS BY MEANS OF THE ARGESIM BENCHMARKS FOR PARALLEL SIMULATION <i>Fink R.*, Breitenecker F., Höfinger G., Pawletta S. (*IAV GmbH, Wismar, Germany)</i>
11:05	MODELLING SIR-TYPE EPIDEMICS BY ODES, PDES, DIFFERENCE EQUATIONS AND CELLULAR AUTOMATA - A COMPARATIVE STUDY <i>Schneckenreither G.*, Popper N., Zauner G. (*Vienna University of Technology, Austria)</i>
11:25	A CLASSIFICATION OF MODELLING AND SIMULATION APPROACHES BASED ON THE ARGESIM BENCHMARKS <i>Pawlak S.*, Popper N., Breitenecker F. (*Vienna University of Technology, Austria)</i>
11:45	WHEN SIMULATION IS AS COMPLEX AS REALITY: VISUALIZATION AS A DATA EVALUATION TOOL FOR MANY-PARTICLE MODELS <i>Reichardt R., Grollius S., Droste P., Wiechert W.* (*University of Siegen, Germany)</i>
12:05	A DEVICE FOR ESTIMATING THE FOOTWEAR QUALITY AND PHYSIOLOGICAL SIMULATION OF THE HUMAN FOOT <i>Babić M.*, Mekjavić I., Lenart B., Vrhovec B. (*Institut "Jožef Stefan", Ljubljana, Slovenia)</i>

Thursday, 13 Sept., Room: P4, 10:05

TH-1-P4: COMPLEX SYSTEMS

Session Chair: **Manesis S.**, Session Co-chair: **Hrubý M.**

10:05	MULTI-ZONE MODELING AND SIMULATION OF INDUSTRIAL LARGE-LENGTH CONTINUOUS FURNACES FOR BRICK PRODUCTION <i>Manesis S.*, Mourtzoukos S. (*University of Patras, Greece)</i>
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10:25	MODELLING AND SIMULATION OF TRANSPORTATION SYSTEMS: PLANNING FOR A BUS PRIORITY SYSTEM <i>Papageorgiou G., Damianou P., Pitsillides A., Aphamis T., Ioannou P. (*University of Cyprus, Cyprus)</i>
10:45	MODELLING THE STRUCTURED AND COMPLEX DECISION SITUATIONS <i>Hrubý M. (*Brno University of Technology, Czech Republic)</i>
11:05	A SYSTEM DYNAMICS MODEL FOR THE DIABETES PREVALENCE IN AUSTRIA <i>Kristöfel P. *, Breitenecker F., Gyimesi M., Popper N. (*Vienna University of Technology, Austria)</i>
11:25	SIMULATOR FOR MULTI-SCALE MUSCULOSKELETAL MODELS WITH REFLEX CIRCUITS <i>Fazekas C. *, Csercsik D., Szederkényi G., Hangos K. M. (*Computer and Automation Research Institute, Budapest, Hungary)</i>
11:45	CONCEPTUAL MODELLING OF CONTINUOUS - DISCRETE PRODUCTION SYSTEMS <i>Perši N. *, Dušak V. (*University of Zagreb, Croatia)</i>

Thursday, 13 Sept., Room: P6, 10:05

TH-1-P6: STOCHASTIC SYSTEMS

Session Chair: **Rădulescu M.**, Session Co-chair: **Morales-Menendez R.**

10:05	NETWORK-INDUCED DELAY MODEL USING HMM FOR CAN-BASED NETWORKED CONTROL SYSTEMS EVALUATION <i>Vargas-Rodriguez R., Morales-Menendez R. * (Center for Innovation in Design and Technology, Monterrey, Mexico)</i>
10:25	GRID-INDEPENDENT METROPOLIS SAMPLING FOR VOLUME VISUALISATION <i>Tanaka S. *, Hatta T., Rambu Ngana F., Saitoh A., Sakamoto N., Nonaka J., Koyamada K. (*Ritsumeikan University, Japan)</i>
10:45	PERFORMANCE MODELLING OF A COMPUTER INTEGRATED MANUFACTURING AND MANAGEMENT SYSTEM <i>Lewoc J. B. *, Izworski A., Skowronski S. (*Design, Research and Translation Agency Leader, Wroclaw, Poland)</i>
11:05	MODELLING UNCERTAINTY IN JOINTS USING COMPONENT MODE SYNTHESIS AND A STOCHASTIC REDUCED BASIS METHOD <i>Dohnal F. *, Mace B., Ferguson N. (*University of Southampton, United Kingdom)</i>
11:25	CROP PLANNING UNDER RISK AND ENVIRONMENTAL CONSTRAINTS <i>Rădulescu M. *, Rădulescu S. *, Rădulescu C. Z. * (Casa Academiei Romane, Bucharest)</i>
11:45	DYNAMICS IN THE MUTATION-SELECTION BALANCE IN HAPLOIDS: AN APPROACH TO THE FITNESS COMPOSITION OF INDIVIDUAL GENES IN AN INFINITE ASEXUAL POPULATION <i>Fukshansky A. * (Royal Holloway University of London, United Kingdom)</i>

Thursday, 13 Sept., Room: P7, 10:05

TH-1-P7: CONTROL SYSTEMS III

Session Chair: **Alexík M.**, Session Co-chair: **Huba M.**

10:05	HOW WELL IS FREE SOFTWARE ABLE TO REPLACE MATLAB IN SOLUTION OF COMMON CONTROL PROBLEMS? (SURVEY) <i>Ondera M., Huba M. * (Slovak University of Technology, Bratislava, Slovakia)</i>
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10:25	REAL TIME SIMULATION EXPERIMENTS WITH SELF TUNING CONTROL ALGORITHM <i>Alexik M.* (*University of Žilina, Slovakia)</i>
10:45	MODELING AND CONTROL OF WIND TURBINE GENERATOR CONNECTED TO INFINITE BUS <i>Abu-Tabak N.*, Auloge J., Auriol P. (*AMPERE, Ecole Centrale de Lyon, France)</i>
11:05	SELF-ADAPTIVE PREDICTIVE FUNCTIONAL CONTROL OF TEMPERATURE IN AN EXOTHERMIC BATCH REACTOR <i>Karer G.*, Škrjanc I., Zupančič B. (*University of Ljubljana, Slovenia)</i>
11:25	A NOE MODEL IDENTIFICATION ALGORITHM USING PIECEWISE LINEAR FUNCTIONS <i>Castro L.*, Álvarez M. P., Agamennoni O. (*Universidad Nacionál del Sur, Bahia Blanca, Argentina)</i>
11:45	COMPUTER SIMULATION OF DISTRIBUTED THERMAL CONTROL FOR POLYMERIC COMPOSITE SPAR CURING PROCESS <i>Shevtsov S. N.*, Hmelevska T. A., Axenov V. N. (*South Center of Russian Academy, Rostov-on-Don, Russian Federation)</i>
12:05	SMART CONTROL PARAMETER SETTING FOR THE SIMULATION OF ELECTRIC DRIVE SYSTEMS <i>Kapeller H.*, Giuliani H., Pirker F. (*Arsenal Research, Vienna, Austria)</i>

Thursday, 13 Sept., Room: P8, 10:05

TH-1-P8: LOGISTICS / SUPPLY CHAINS

Session Chair: **Piera A. M.**, Session Co-chair: **Georgijević M.**

10:05	SIMULATION AS LOGISTIC SUPPORT TO DEVELOPMENT PROCESSES (PROBLEMS IN APPLICATION) <i>Georgijević M.*, Bojančić V., Bojančić G. (*University of Novi Sad, Serbia)</i>
10:25	AN EFFICIENT CPN MODELING APPROACH TO TACKLE THE PALLET PACKING PROBLEM <i>Piera M. A.*, Mujica M., Guasch T. (*Autonomous University of Barcelona, Spain)</i>
10:45	ANALYSIS OF VARIOUS FORECASTING APPROACHES FOR LINEAR SUPPLY CHAINS BASED ON DIFFERENT DEMAND DATA TRANSFORMATIONS <i>Schmidt R.* (*University of Bern, Switzerland)</i>
11:05	CONTINUOUS-REVIEW REPLENISHMENT WITH CAPACITY CONSTRAINTS AND BREAKDOWNS <i>Enns S. T.* (*University of Calgary, Canada)</i>
11:25	IMPROVEMENT OF DELIVERY TIMES BY DYNAMIC VEHICLE ROUTING IN AUTOMATED MATERIAL HANDLING SYSTEMS FOR SEMICONDUCTOR INDUSTRY <i>Böttlinger F.*, Fischmann C., Weidele S., Wertz R. (*Fraunhofer Institute Manufacturing Engineering and Automation, Stuttgart, Germany)</i>
11:45	THE SIMULATION ANALYSIS OF MULTI-SHUTTLE AUTOMATED STORAGE AND RETRIEVAL SYSTEMS <i>Lerher T.*, Šraml M., Potrč I. (*University of Maribor, Slovenia)</i>

Thursday, 13 Sept., Room: P9, 10:05

TH-1-P9: SIMULATION ENVIRONMENTS

Session Chair: **Jiménez E.**, Session Co-chair: **Abche A.**

10:05	VIRTUAL REALITY FOR A HUMAN-CENTERED DESIGN METHODOLOGY <i>Mahdjoub M.*, Gomes S., Sagot J., Bluntzer J. (*University of Technology of Belfort-Montbéliard, France)</i>
10:25	DEVELOPMENT OF TERRAIN SIMULATION APPLICATIONS WITH VRML-WEB3D AND GRAPHIC LIBRARIES <i>Jiménez E.*, Martínez E., Pérez M., Sanz F. (*University of La Rioja, Spain)</i>
10:45	COMPARISON OF DIFFERENT 3D (STEREO) VISUALIZATION METHODS - EXPERIMENTAL STUDY <i>Vajta L., Urbancsek T.*, Vajda F., Juhász T. (*Budapest University of Technology and Economics, Hungary)</i>
11:05	VIRTUAL TUTORS IN VIRTUAL ENVIRONMENTS <i>Wloka D., Chaouch K., Holbein L.*, Tümmler J. (*Universität Kassel, Germany)</i>
11:25	INITIALIZATION OF 3-D ITERATIVE IMAGE REGISTRATION TECHNIQUES USING POINT MARKERS <i>Abche A.*, Tzanakos G. S., Micheli-Tzanakou E., Karam E. (*University of Balamand, Lebanon)</i>
11:45	MODELING AND BISTATIC SIMULATION OF A HIGH RESOLUTION 3D PMD-CAMERA <i>Peters V.*, Loffeld O., Hartmann K., Knedlik S. (*University of Siegen, Germany)</i>
12:05	REALISTIC ENVIRONMENTS FOR ONLINE MARITIME SIMULATORS <i>Raicu G.*, Barsan E., Paul A., Hanzu R., Chiotoroiu L. (*Constanta Maritime University, Romania)</i>

Thursday, 13 Sept., Room: P12, 10:05

TH-1-P12: DISCRETE EVENT SYSTEMS II

Session Chair: **Medina-Marín J.**, Session Co-chair: **Dalle O.**

10:05	MODEL-DRIVEN SOFTWARE DEVELOPMENT AND DISCRETE EVENT SIMULATION <i>Sandu T.*, Knaak N., Page B. (*University of Hamburg, Germany)</i>
10:25	ALGORITHM FOR DEVS STRUCTURE CHANGES <i>Baati L., Frydman C., Giambiasi N. (*Domaine Universitaire de Saint-Jérôme, France)</i>
10:45	AN INSTRUMENTATION FRAMEWORK FOR COMPONENT-BASED SIMULATIONS BASED ON THE SEPARATION OF CONCERNS PARADIGM <i>Dalle O.*, Mrabet C. (*Université de Nice Sophia Antipolis, France)</i>
11:05	CONSTRAINT-BASED SIMULATION OF OUTFITTING PROCESSES IN SHIPBUILDING AND CIVIL ENGINEERING <i>König M.*, Beißert U., Steinhauer D., Bargstädt H. (*Bauhaus-University of Weimar, Germany)</i>
11:25	THE ROLE OF KNOWLEDGE THROUGHOUT THE SIMULATION LIFECYCLE: WHAT DOES A SIMULATION MODEL KNOW? <i>Neumann G.* (*University of Magdeburg, Germany)</i>
11:45	A PETRI NET BASED SIMULATOR FOR ACTIVE DATABASE SYSTEMS <i>Medina-Marín J.*, Montufar-Benítez M. A., Pérez-Rojas A., Montano-Arango O., Corona-Armenta J. R., Garnica-González J. (*Autonomous University of Hidalgo State, Mexico)</i>

12:05	A FLOW REGULATION BY GENERALIZED PETRI NET <i>Bourcerie M.* (*University of Angers, France)</i>
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Thursday, 13 Sept., Room: P3, 13:45

TH-2-P3: MECHANICAL ENGINEERING III

Session Chair: **Hać M.**, Session Co-chair: **Naghshzadegan M.**

13:45	NUMERICAL MODELING OF THERMAL EXPANSION OF AL-BASED METAL MATRIX COMPOSITES REINFORCED WITH SiC PARTICLES <i>Nam T. H.*, Requena G., Degischer H. P. (*Vienna University of Technology, Austria)</i>
14:05	ON ELASTIC-RIGID COUPLING IN MODELLING OF MOTION OF ELASTIC LINKAGES BY FEM <i>Hać M.* (*Warsaw University of Technology, Poland)</i>
14:25	EXPERIMENTAL ANALYSIS OF BUBBLE PUMP WATER-BASED WORKING FLUIDS <i>Monsef H., Naghashzadegan M.*, Roohi S., Farshadmanesh M. (*University of Gulian, Iran)</i>
14:45	EXPERIMENTAL ANALYSIS OF BUBBLE PUMP LIBR SOLUTION WORKING FLUIDS FOR ABSORPTION REFRIGERATION SYSTEM <i>Roohi S., Naghashzadegan M.*, Monsef H. (*University of Gulian, Iran)</i>
15:05	ELIMINATION OF CYBERNETIC IMPERFECTIONS OF THE FATIGUE TESTING MACHINE <i>Jerman B.*, Kramar J. (*University of Ljubljana, Slovenia)</i>

Thursday, 13 Sept., Room: P4, 13:45

TH-2-P4: ARTIFICIAL INTELLIGENCE METHODS IV

Session Chair: **Al-ani T.**, Session Co-chair: **Gubina A.**

13:45	AUTOMATIC SLEEP SCORING BASED ONLY ON ELECTROCARDIOGRAM RECORDS <i>Al-ani T.*, Kazbunda R., Novák D. (*ESIEE - Paris, France)</i>
14:05	NEW TRENDS IN SIMULATION OF NEURAL NETWORKS <i>Koutník J.*, Šnorek M. (*Czech Technical University in Prague, Czech Republic)</i>
14:25	APPLICATION OF LOCAL ANN CONTROLLERS FOR POWER SYSTEM SECONDARY VOLTAGE CONTROL <i>Gubina A.*, Golob R. (*University of Ljubljana, Slovenia)</i>
14:45	ARTIFICIAL NEURAL NETWORKS FOR OPTIMISATION OF TABLET PRODUCTION <i>Belič A.*, Zupančič-Božič D., Škrjanc I., Vrečer F., Karba R. (*University of Ljubljana, Slovenia)</i>
15:05	APPLICATION OF SELF-ORGANIZING MAPS IN ANALYSIS OF WAVE SOLDERING PROCESS <i>Liukkonen M.*, Havia E., Leinonen H., Hiltunen Y. (*University of Kuopio, Finland)</i>

Thursday, 13 Sept., Room: P6, 13:45

TH-2-P6: MATHEMATICAL / NUMERICAL METHODS III

Session Chair: **Menshikov Y.**, Session Co-chair: **Teufelsbauer H.**

13:45	AUTOMATIC PARALLELIZATION OF OBJECT ORIENTED MODELS ACROSS METHOD AND SYSTEM <i>Lundvall H.*, Fritzson P. (*Linköping University, Sweden)</i>
14:05	A TWO-DIMENSIONAL SNOW PACK MODEL <i>Teufelsbauer H.* (*University of Natural Resources and Applied Life Sciences, Vienna, Austria)</i>
14:25	WAVEGUIDE MODEL OF WIRELESS COMMUNICATION CHANNELS INSIDE BUILDINGS <i>Chaiko Y.* (*Riga Technical University, Latvia)</i>
14:45	JOINT DYNAMICS OF FLUID AND STRUCTURE <i>Gale J.*, Tiselj I. (*Institut "Jožef Stefan", Ljubljana, Slovenia)</i>
15:05	IDENTIFICATION OF EXTERNAL LOAD MODELS TO SYSTEMS WITH INEXACT DESCRIPTION <i>Menshikov Y.* (*University of Dnepropetrovsk, Dnepropetrovsk, Ukraine)</i>

Thursday, 13 Sept., Room: P7, 13:45

TH-2-P7: COMMUNICATIONS

Session Chair: **Rumley S.**, Session Co-chair: **Savić D.**

13:45	DISTRIBUTED AND COMPONENT ORIENTED TOOLS FOR COMMUNICATION NETWORKS USING WEB SERVICES <i>Rumley S.*, Gaumier C., Trefois C. (*Ecole Polytechnique Fédérale de Lausanne, Switzerland)</i>
14:05	SIMULATING DISTRIBUTED APPLICATION IN AN ACTIVE NETWORK <i>Koutny T.*, Safarik J. (*University of West Bohemia, Czech Republic)</i>
14:25	STORING AND EXCHANGING SIMULATION RESULTS IN TELECOMMUNICATIONS <i>Savić D.*, Potorti F., Furfarri F., Bešter J., Tomažič S., Pustišek M. (*University of Ljubljana, Slovenia)</i>
14:45	USING ADAPTIVE MULTIMEDIA MOBILE AGENT IN HETEROGENEOUS WIRELESS NETWORKS <i>Raiyn J.* (*University of Hannover, Germany)</i>
15:05	CROSSTALK MODELING FOR CALCULATION OF ADSL2+ DOWNSTREAM BIT RATES <i>Mikac V.*, Bažant A., Ilić Ž. (*University of Zagreb, Croatia)</i>

Thursday, 13 Sept., Room: P8, 13:45

TH-2-P8: INCREASED PREDICTABILITY OF CRASH MODELS (S06)

Session Organizer(s): **Eichberger A.**

Session Chair: **Eichberger A.**, Session Co-chair: **Haufe A.**

13:45	BIORID II – TOOL FOR ANALYSING REAR IMPACTS <i>Rieser A.*, Nußbaumer C. (*The Virtual Vehicle - Competence Center (VIF), Graz, Austria)</i>
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14:05	FINITE SPOTWELD ELEMENT – HYBRID TREFFTZ FORMULATION <i>Heubrandtner T., Scharrer G.* (*The Virtual Vehicle - Competence Center (VIF), Graz, Austria)</i>
14:25	THE DEVELOPMENT OF A 3D-NAVIER-STOKES CODE FOR THE SIMULATION OF AN AIRBAG INFLATION <i>Sinz W.*, Steffan H. (*Graz University of Technology, Austria)</i>
14:45	NEW DEVELOPMENTS FOR MODELING CONNECTED PARTS OF THE BODY IN WHITE: SPOT WELDING AND ADHESIVE BONDING IN CRASH SIMULATIONS WITH LS-DYNA <i>Hause A.*, Kolling S., Feucht M., Münn T. (*DYNAmore GmbH, Stuttgart, Germany)</i>
15:05	A NOVEL VIRTUAL DEVELOPMENT PROCESS FOR SIDE IMPACT AT MAGNA STEYR BASED ON NUMERICAL SIMULATIONS VERIFIED BY COMPONENT TESTING <i>Eichberger A.*, Michbronn D., Wörgötter F., Fellner B. (*Graz University of Technology, Austria)</i>

Thursday, 13 Sept., Room: P9, 13:45

TH-2-P9: DOMAIN MODELLING THROUGH AUTONOMOUS DISCOVERY (S20)

Session Organizer(s): **Bratko I.**

Session Chair: **Bratko I.**, Session Co-chair: **Di Palma F.**

13:45	ON AN ONTOLOGY OF SPATIAL RELATIONS TO DISCOVER OBJECT CONCEPTS IN IMAGES <i>Schlemmer M. J.*, Vincze M. (*Vienna University of Technology, Austria)</i>
14:05	DESIGN OF EXPERIMENT FOR QUALITATIVE EQUATION DISCOVERY: A COMPARISON <i>Di Palma F.*, Reggiani M., Fiorini P. (*University of Verona, Italy)</i>
14:25	Q-POLE: A QUALITATIVE PREDICTION-OBSERVATION LOOP FOR LEARNING BY EXPERIMENTATION <i>Mohan A., Juarez A., Henne T.* (*University of Applied Sciences Bonn-Rhein-Sieg, Sankt Augustin, Germany)</i>
14:45	AUTOMATED MODELING IN A ROBOT-OBJECT DOMAIN <i>Sah S.*, Bratko I., Šuc D. (*University of Ljubljana, Slovenia)</i>

Thursday, 13 Sept., Room: P12, 13:45

TH-2-12: MODELS NETWORKS FOR PROCESS SYSTEMS SIMULATION (S16)

Session Organizer(s): **Savković-Stevanović J.**

Session Chair: **Savković-Stevanović J.**, Session Co-chair: **Žerajić S.**

13:45	DISCRETE EVENT SIMULATION OF THE PHARMACEUTICAL ENGINEERING <i>Savković-Stevanović J.* (*University of Belgrade, Serbia)</i>
14:05	COMPLEX SYSTEM FOR COGNITIVE PRODUCTS MODELLING <i>Savković-Stevanović J.*, Mošorinac T. (*University of Belgrade, Serbia)</i>
14:25	PROCESS PLANT KNOWLEDGE BASED SIMULATION FOR DESIGN AND MANUFACTURING <i>Peruničić M., Krstić S.*, Milivojević M. (*University of Belgrade, Serbia)</i>
14:45	PROCESS ESTERIFICATION AND PRODUCT QUALITY SIMULATION <i>Ivanović M.*, Djurović J. (*University of Belgrade, Serbia)</i>
15:05	INTEGRATED SOFTWARE ENVIRONMENT FOR BIOPROCESS SIMULATION <i>Žerajić S.* (*University of Niš, Serbia)</i>

Thursday, 13 Sept., Room: FOYER, 15:30

TH-3-FOYER: POSTER SESSION

Session Organiser: Blažič S.

1	MODELING OF COUNTERCURRENT HEAT EXCHANGERS <i>Adamski M.* (*Bialystok Technical University, Poland)</i>
2	SIMULATION OF POWER FLOWS IN CROATIAN POWER SYSTEM <i>Fekete K.*, Nikolovski S., Baus Z. (*J.J. Strossmayer University of Osijek, Croatia)</i>
3	SIMULATION STUDY OF A PULSED CORONA DISCHARGE BY MEANS AN ELECTRICAL MODEL <i>Rodríguez-Méndez B. G., López-Callejas R., Pena-Eguiluz R., Mercado-Cabrera A., Valencia-Alvarado R., Barocio S. R.*; de la Piedad-Beneitez A., Benítez-Read J. S., Pacheco-Sotelo J. O. (*Instituto Nacional de Investigaciones Nucleares, Mexico)</i>
4	MATHEMATICAL MODEL OF A DIELECTRIC BARRIER DISCHARGE IN ATMOSPHERIC PRESSURE HELIUM SUPPLIED BY A MULTICELL INVERTER <i>Flores-Fuentes A., Pena-Eguiluz R., López-Callejas R., Mercado-Cabrera A., Valencia-Alvarado R., Barocio S. R.*; de la Piedad-Beneitez A., Benítez-Read J. S., Pacheco-Sotelo J. O. (*Instituto Nacional de Investigaciones Nucleares, Mexico)</i>
5	FINITE ELEMENT ANALYSIS OF CRACK INITIATION IN PARTIALLY ELECTRODED PZT TRANSDUCERS <i>Dolezal R., Novak J.* (*Technical University of Liberec, Czech Republic)</i>
6	TRANING SIMULATOR FOR ANALYSIS OF ENVIRONMENTAL CONSEQUENCES OF ACCIDENTAL RADIOACTIVITY RELEASES <i>Pecha P.*, Hofman R., Pechova E. (*Czech Academy of Sciences, Prague, Czech Republic)</i>
7	BOND GRAPH-BASED FAULT DIAGNOSIS STRATEGY APPLIED TO THE THREE-PHASE INDUCTION MOTOR <i>Gonzalez-Contreras B. M.*; Rullán-Lara J. L. (*Autonomous University of Tlaxcala, Mexico)</i>
8	FROM PSEUDO-MOS TRANSISTOR TO A SOI-MOSFET WITH A NANO-CAVITY <i>Ravariu C.*, Rusu A., Ravariu F.*; Dobrescu D., Dobrescu L. (*Polytechnic University of Bucharest, Romania)</i>
9	TESTING OF OPTIMAL FISHING EFFORT FOR SARDINE IN THE EASTERN ADRIATIC USING SYSTEM DYNAMICS <i>Slišković M.*; Munitić A., Jelić-Mrčelić G. (*University of Split, Croatia)</i>
10	ALGORITHM FOR THE REFERENCE TEMPERATURE CALCULATION IN BUILDINGS <i>Vrečko D.*; Strmčnik S., Vodopivec N. (*Institut "Jožef Stefan", Ljubljana, Slovenia)</i>
11	LARGE SCALE TRAFFIC NETWORK SIMULATION - A HYBRID APPROACH <i>El hmam M. S.*; Abouaissa H., Jolly D. (*Université d'Artois, Béthune, France)</i>
12	SIMULATING TRACTOR'S STATIC STABILITY IN RELATION TO ITS POSITION ON A SLOPE <i>Demšar I.*; Duhovnik J. (*University of Ljubljana, Slovenia)</i>
13	A FUNDAMENTAL STUDY FOR ACUPUNCTURE TECHNIQUE ANALYSIS <i>Chen L.*; Shoda A., Yagihashi M., Narita H., Fujimoto H. (*Nagoya Institute of Technology, Japan)</i>
14	NUMERICAL SIMULATION OF A PLATE-GAP BIOSENSOR WITH AN OUTER POROUS MEMBRANE <i>Ivanauskas F.*; Baronas R. (*Vilnius University, Lithuania)</i>

15	FUZZY ELLIPSOIDAL TECHNIQUES TO INVESTIGATE NECKING PHENOMENA IN METALLIC SHEETS <i>Buonsanti M.*, Calacagno S., Morabito F. C., Versaci M. (*University of Reggio Calabria, Italy)</i>
16	SIMULATION OF ENERGY DEVELOPMENT SCENARIOS IN LATVIA ON REGIONAL LEVEL <i>Vostriks S.*, Turlajs D., Kundzina A., Sarma U. (*Riga Technical University, Latvia)</i>
17	DETERMINING THE OPTIMAL OPERATING POINT OF AN INDUCTION GENERATOR <i>Ropoša S.*, Štumberger G. (*University of Maribor, Slovenia)</i>
18	MODELLING REAL-TIME RISK MANAGEMENT SYSTEM <i>Minkevics V.*, Vulfs G., Slihte J. (*Ministry of Finance, Riga, Latvia)</i>
19	ENABLING TOOLS AND TECHNIQUES FOR THE OPTIMIZATION OF THE HERACLES SIMULATION PROGRAM <i>Audit E., Gautard V.*, Pomarede D., Thooris B. (*CEA/DAPNIA/SACLAY, France)</i>
20	A DYNAMIC NUMERICAL MODEL OF TRANSMEMBRANE VOLTAGE INDUCEMENT AND ELECTROPORATION ON IRREGULARLY SHAPED CELLS <i>Pucihar G.*, Kotnik T., Miklavčič D. (*University of Ljubljana, Slovenia)</i>
21	AUGMENTED REALITY BASED TECHNOLOGIES FOR SUPPORTING ASSEMBLY WORK <i>Sääski J.*, Salonen T., Siltanen S., Hakkarainen M., Woodward C. (*VTT Technical Research Centre of Finland, Finland)</i>
22	VERIFICATION OF CONTACT MODELING WITH COMSOL MULTIPHYSICS SOFTWARE <i>Pennec F.*, Achkar H., Peyrou D., Plana R., Pons P., Courtade F. (*Toulouse University, France)</i>
23	NUMERICAL SIMULATION OF NEWTONIAN AND NON-NEWTONIAN FLUIDS IN CHANNEL GEOMETRIES <i>Prokop V.*, Keslerová R., Kozel K. (*Czech Technical Univ. in Prague, Czech Republic)</i>
24	SEISMOMETER CALIBRATION: REMOTE NUMERICAL PROCEDURE APPROACH <i>Tasič I.*, Runovc F. (*Environ. Agency of the Republic of Slovenia, Ljubljana, Slovenia)</i>
25	PLASTIC DEFORMATION OF ALUMINUM BONDING WIRE IMPRESSED BY WEDGE BONDING TOOL <i>Košel V.*, Zarbakhsh J., Glavanovics M. (*KAI Kompetenzzentrum Automobil- und Industrie-Elektronik GmbH, Villach, Austria)</i>
26	MODELING DAMPING EFFECTS IN VEHICLE-TRACK INTERACTION <i>Buonsanti M.*, Leonardi G., Scopelliti F. (*University of Reggio Calabria, Italy)</i>
27	MODEL-BASED PRODUCTION CONTROL <i>Gradišar D.*, Zorzut S., Jovan V. (*Institut "Jožef Stefan", Ljubljana, Slovenia)</i>
28	MODEL-BASED DESIGN OF EMBEDDED SYSTEMS USING MATHWORKS TOOLS - A CASE STUDY <i>Fábián L.*, Somlay G., Márkus J. (*Budapest University of Technology and Economics, Hungary)</i>
29	NEURAL MECHANISMS ON SELF-OTHER DISCRIMINATION BASED ON VISUAL AND PROPRIOCEPTIVE FEEDBACKS <i>Shimada S.* (*Meiji University, Japan)</i>
30	IMPLEMENTATION OF SIMULATION PROCESS UNDER INCOMPLETE KNOWLEDGE USING DOMAIN ONTOLOGY <i>Mikov A., Zamyatina E.*, Kubrak E. (*Perm State University, Russian Federation)</i>

MEETINGS

Monday, 10 Sept., *Multimedia room*, 13:00

SIMPRA Editorial Board Meeting

Tuesday, 11 Sept., *Multimedia room*, 12:15

ASIM Meeting

Tuesday, 11 Sept., *Multimedia room*, 14:00

EUROSIM Executive Board Meeting

Tuesday, 11 Sept., *Multimedia room*, 15:00

29th EUROSIM Board Meeting

CONGRESS PUBLICATIONS

Congress Proceedings will be published in two Proceedings Volumes distributed to all participants upon registration in Ljubljana.

Title of the Publication:

Proceedings of 6th EUROSIM Congress on Modelling and Simulation

Vol. 1: Book of Abstracts

Vol. 2: Full Papers (CD)

Editors: Borut Zupančič, Rihard Karba, Sašo Blažič

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Title Abbrev.: Proc. EUROSIM 2007

The best papers will be published by Elsevier in a special issue of the EUROSIM journal *Simulation Modelling Practice and Theory*.

If the author is not notified within five months after the date of the congress that the paper will appear in the journal mentioned above, then the paper is released for publication elsewhere. In this case, the publication must contain reference to the paper having been presented at the EUROSIM congress.

SOCIAL AND TOURIST PROGRAMME

Social Programme

Sunday, 9 September 2007

- 19.00 Welcome reception at the Faculty of Electrical Engineering

Included in the fee for participants and accompanying persons

Monday, 10 September 2007

- 20.30 An evening reception hosted by the Mayor of Ljubljana in the Castle of Ljubljana

19.45 Meeting point: Cankarjev dom (crossing Prešernova and Veselova, in the centre of Ljubljana, see map on page 53), organised bus transfer, return app. 22.00

Dress: Informal

Included in the fee for participants and accompanying persons

Wednesday, 12 September 2007

- 16.00 Excursion to Postojna Cave – the main tourist attraction in Slovenia.

Meeting point: Tivoli (parking near Tivoli hall, crossing Celovška, Ruska – 10 min. walk from the centre, see map on page 53), organised bus transfer to Postojna.

Dress: Informal, the temperature in the cave 9°C – take also warm clothing. The visit in the cave lasts app. 1h 30min.

- 19.00 Congress dinner in Jamski dvorec, a mansion at the very entrance into Postojna Cave, return app. 22.30

Included in the fee for participants and accompanying persons

Postojna Cave, an impressive, two million years old underground world of fabulous stalactites, stalagmites, pillars, and translucent curtains, constitute one of the most beautiful natural attractions in Europe. A ride by electric train will be followed by a guided walk through a series of illuminated halls and underground channels of a total length of 27 km. The underground waters are the home of the world's unique, rare, and endangered amphibian Proteus anguinus.

Additional programme for accompanying persons

Excursions

Monday, 10 September 2007

10.00 – 12.00 Sightseeing tour of Ljubljana

The guided walking tour will take you through the centre of the Slovenian capital past its many tourist attractions. From the tower of the Ljubljana castle, you will enjoy a magnificent view over the city and its surroundings. In addition, you will stroll through the streets of Ljubljana during the different historical periods in the Virtual Museum. For more information, see <http://www.ljubljana-tourism.si>.

Included in the fee for accompanying persons.

Meeting point: Tivoli (parking near Tivoli hall, crossing Celovška, Ruska – 10 min. walk from the centre, see map on page 53).

Tuesday, 11 September 2007

9.00 – 15.00 Excursion to Bled

Admire the most popular tourist resort in Slovenia - Bled. It is often referred as the "pearl of the Alps" owing to its emerald-green lake, a church on the island in the middle of the lake and the medieval castle from the 11th century, perched on a cliff over the lake. After the visit of Bled castle you will have free time to visit gift shops or to taste unique Bled cream cake "kremšnita". Stop for a lunch in a typical local inn in Radovljica - one of the towns that preserved the medieval form. For more information, see <http://www.bled.si>. Meeting point: Congress square (slov. Kongresni trg, in the centre of Ljubljana)

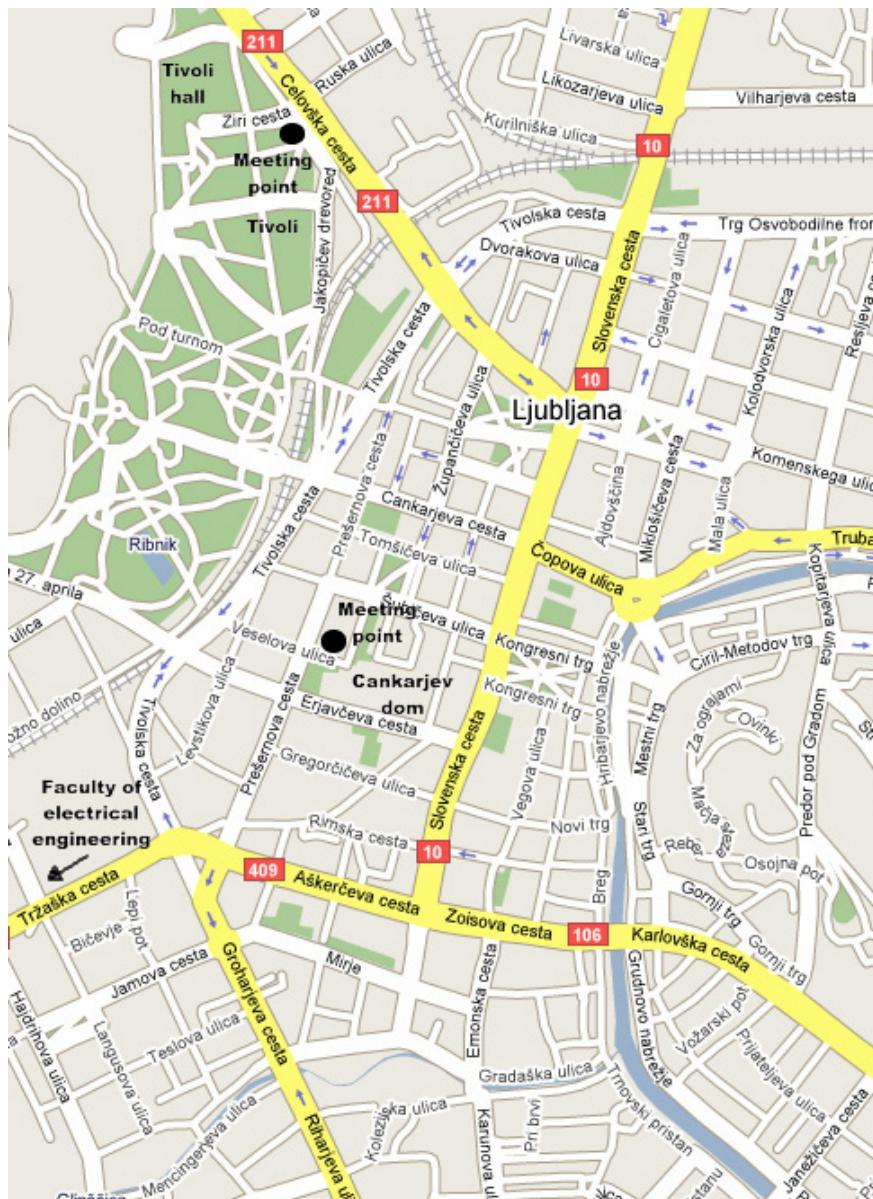
Price: 48 EUR per person (minimum 20 persons)

The price includes: transfer, English-speaking guide, admittance to Bled castle, lunch in Radovljica.

Optional: ride with "pletne" boats to the Bled island, tasting of "kremšnita" cake - Bled cream cake: 9 EUR

Meeting point: Tivoli (parking near Tivoli hall, crossing Celovška, Ruska – 10 min. walk from the centre, see map on page 53).

Meeting Points – Map



Post Congress tours

Friday, 14 September 2007

9.00 – 15.00 Excursion to Bled

Admire the most popular tourist resort in Slovenia - Bled. It is often referred as the "pearl of the Alps" owing to its emerald-green lake, a church on the island in the middle of the lake and the medieval castle from the 11th century, perched on a cliff over the lake. After the visit of Bled castle you will have free time to visit gift shops or to taste unique Bled cream cake "kremšnita". Stop for a lunch in a typical local inn in Radovljica - one of the towns that preserved the medieval form. For more information, see <http://www.bled.si>.

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Optional: ride with "pletna" boats to the Bled island, tasting of "kremšnita" cake - Bled cream cake: 9 EUR

Meeting point: Tivoli (parking near Tivoli hall, crossing Celovška, Ruska – 10 min. walk from the centre, see map on page 53).

Friday, 14 September 2007

9.00 – 18.00 Breathe Mediterranean (Portorož & Piran)

Take some time to visit the Mediterranean world of the coastal region of Slovenia. We invite you to join us to visit the most beautiful and the oldest Slovenian coastal town Piran, where you can admire its charming Venetian architecture.

Our first stop will be in a small fishing town of Izola, where we board a boat to take us along the coast to Piran. A walking tour through the medieval town of Piran will take place and afterwards you will have plenty of time to take a swim in the Adriatic or have lunch in one of the numerous fresh fish restaurants.

Proceed to Sečovlje Salina regional park and experience this unique landscape (a must for all birdwatchers, nearly 300 bird species nest here in this area – do not forget your camera) and the ones who want to meet Slovenia heritage and learn more of old fashion salt collecting.

Price: 50 EUR per person

The price includes: bus transport, English speaking guide, visit to Sečovlje, Salina regional park.

Meeting point: Tivoli (parking near Tivoli hall, crossing Celovška, Ruska – 10 min. walk from the centre, see map on page 53).

REGISTRATION

The registration fee includes:

	Normal and reduced	Student	Acc. person
Proceedings: Vol. 1 - Book of Abstracts Vol. 2 - Full Papers (CD)	*	*	
Admission to all scientific sessions and tutorials	*	*	
Coffee breaks	*	*	
Welcome reception	*	*	*
An evening reception hosted by the Mayor	*		*
Excursion to Postojna Cave and Congress dinner	*		*
Sightseeing tour of Ljubljana			*

Registration and Information Desk

The Registration Desk will be located in the Foyer of the Faculty and open as follows:

Sunday	9 September	12.00 – 20.00
Monday	10 September	8.00 – 18.00
Tuesday	11 September	8.00 – 18.00
Wednesday	12 September	8.00 – 16.00
Thursday	13 September	8.00 – 18.00

INTERNET CONNECTION

- Free access to the internet is available on personal computers in the Foyer.
- In the INTERNET/PREVIEW room P5 (entrance from the Foyer) 30 computers with internet access are available.
- For your own notebook – a special EUROSIM 2007 wireless internet connection is available in the P 05 computer room (entrance from the Foyer) and in the Foyer. The network is unprotected, so you do not need a login and password. You must just find the **eurosim** network with your computer.

GENERAL INFORMATION

Congress Identification Badge

A congress identification badge will be included in the congress material provided upon Registration. There will be no admittance to the Scientific Sessions without the congress badge.

A Certificate of Attendance

A Certificate of Attendance will be issued to all registered participants.

Smoking

Smoking is prohibited in all areas of Congress venue, inside and outside the building.

Liability and Insurance

All participants are reminded that neither the Organising Committee nor the technical organiser Cankarjev dom, Cultural and Congress Centre are liable for any losses, accidents, or damage to persons or private property. Participants and accompanying persons are requested to make their own arrangements in respect of health and travel insurance.

Coffee Breaks

During session breaks, refreshments will be served free of charge to participants wearing symposium identification badges.

Money Exchange

The Slovenian legal tender is EUR. Foreign currency may be exchanged at banks, exchange offices, travel agencies, hotels, airports and railway stations.

Automatic Cash Dispensers

Automatic cash dispensers accepting Visa, Eurocard/Mastercard, American Express credit cards and Maestro Cirrus are situated at all main banks in Ljubljana and also at Ljubljana Airport.

Credit Cards

All major credit cards, such as American Express, Visa, Eurocard/Mastercard, Diners, are widely accepted in hotels, restaurants, and shops.

Public Transportation

Ljubljana has a good bus transportation system payable with tokens (available in kiosks, in post offices and at the Congress Registration Desk) or cash. A flat rate fare applies, regardless of the distance travelled. Also available are daily and weekly passes.

Taxis

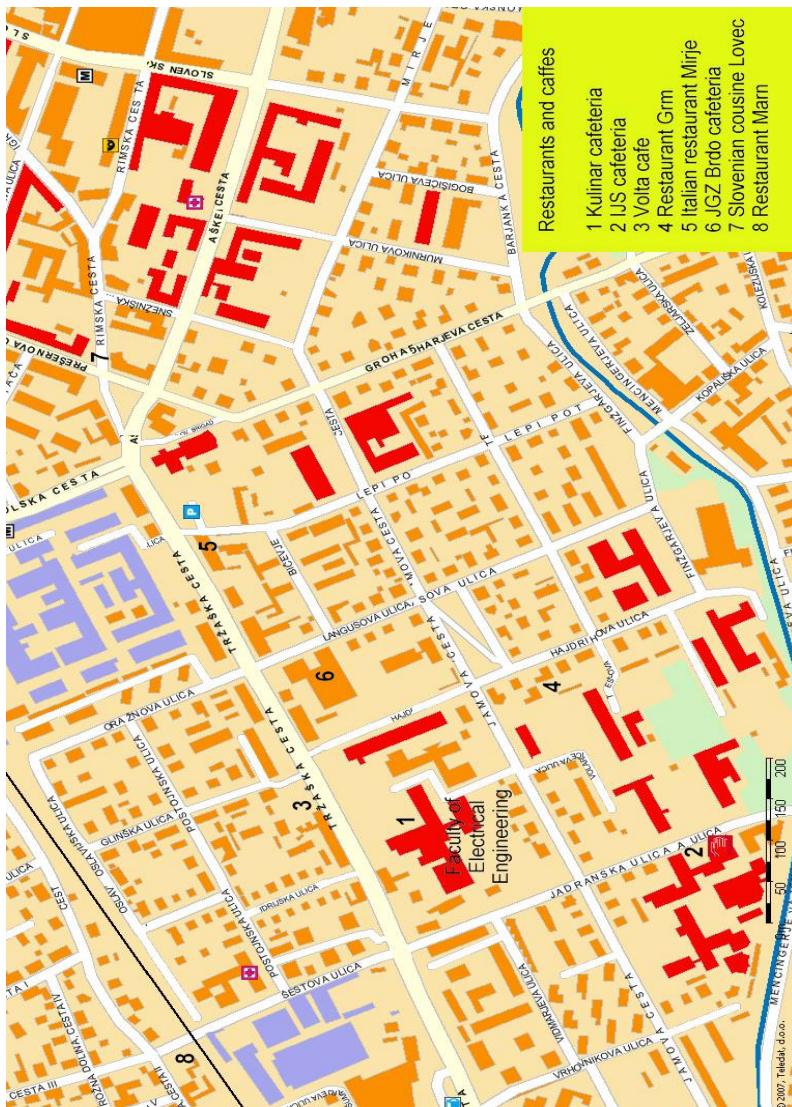
Taxi service is available day and night. To order, dial +386 41 970 970 or +386 41 73 881.

Shopping

Many antique shops, sales galleries, arcades, and the open-air market create the spirit of the Old Town. Normal shopping hours during the week are 9.00 to 19.00, Saturdays 9.00 to 13.00. On Sundays, there is a flea market in centre city at the banks of the Ljubljanica river.

RESTAURANTS NEARBY (with a map)

Meals are not included in the congress fee. For meals including the lunch, for refreshments and meetings, the restaurant Kulinar in the conference building (entrance from the foyer) is recommended. Especially for the lunch the capacity can represent a bottleneck and we recommend also other restaurants nearby – see map below.



PROGRAMME AT A GLANCE