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Student Chapter Activity Serial

FROM THE EDITOR'S DESK

Student Chapters are one of the most important parts of the SCS society. The future of modeling and simulation lies in the hands of young students. They are tomorrow's leaders, scientists, engineers, inventors and entrepreneurs. Therefore making little investment into students today will produce both intellectual and financial returns tomorrow. We, the SCS community, understand this and have provided diverse opportunities and support for students.

This is the second article in the serial of student chapters' activities. Beihang University Student Chapter of SCS presents their rich and colorful activities in the past two years.

This news item is contributed by Yu Zhang.

ACTIVITY REPORT FROM SCS BEIHANG STUDENT CHAPTER

Jin Cui, Zehuan Lu, and Bowen Li

In the past two years, under the direction of Prof. Lin Zhang, Beihang University Student Chapter of the SCS (SCS-BH-SC) has participated in organizing a series of academic activities, and most of the events are open to the public.

M&S Courses

In order to disseminate and acquire knowledge regards M&S (Modeling and Simulation), some corresponding courses have been developed. In 2014, Prof. Ralph C. Huntsinger from California State University, USA, set up a Modeling and Simulation related course for Beihang International Summer School (BHISS). And in July, 2015, Prof. Huntsinger came to Beihang University again. He taught a course "Discrete System Simulation and Applications" for the undergraduate students from School of Automation Science and Electrical Engineering (SASEE), Beihang University. During that time, student chapter members lent a strong support to the Prof. Huntsinger's teaching tasks. For example, we performed the teaching assistant and helped to collect the corresponding teaching materials. Some advices have been proposed from our student chapter after we completed the course. Additionally, in the spring semester of each year, Prof. Lin Zhang teaches "Modern Simulation Technology" for the graduate students in SASEE.



Prof. Huntsinger

Conference Participation and Services

With regard to SCS conferences, four members participated in and gave presentations in the 15th Asia Simulation Conference 2015 during November 4-7, which was held in Jeju, Korea. And we have provided strong assistance to organize the 2016 International Simulation Multi-Conference (AsiaSim/SCS AutumnSim 2016) which will be held in Beijing.



Prof. Bohu Li in the Asia Simulation Conference 2015

SCS Publications

We also have made contributions to SCS publications, which includes the following items to the SCS Newsletter.

Zehuan Lu and Jin Cui, A SUCCESS STORY FROM THE BEIHANG UNIVERSITY STUDENT CHAPTER OF THE SCS, BEIHANG UNIVERSITY, BEIJING, CHINA (SCS Newsletter, April 2015).

Jin Cui, NEWS FROM SCS BEIHANG STUDENT CHAPTER (SCS Newsletter, September 2015).



NEWS FROM SCS BEIHANG STUDENT CHAPTER

Jin Cui

In the past few months, SCS Beihang Student Chapter has participated in organizing a series of academic activities, and most of the events are open to the public.

In May, Prof. Er Meng Joo from Singapore visited Beihang University. Prof. Er Meng Joo is currently a Full Professor in Electrical and Electronic Engineering, Nanyang Technological University. During his visit, Prof. Er Meng Joo made presentations on Cognitive Robotics and Machine Learning. As he serves as the Editor-in-Chief of 2 international journals, Prof. Er Meng Joo also talked about how to write a good scientific paper with the members of SCS Beihang Student Chapter. Besides, Prof. Er presented the symposium which is holding to review the Doctoral Dissertation Proposal of PhD candidates.

Our contributions to SCS publications

Exchange-Visitors

We have been involved in some other professional activities. During June 16 to August 16, 2014, Davide Scalzo and Carlo Martini from University of Genova, Italy, came to Beihang University as exchange visitors. Our student chapter had multiple communications in depth with them and provided help to them in many aspects. Meanwhile, profound friendship has been established among us. Zhiqiang Zhang, the former president of our chapter, has visited Ruhr-Universität Bochum, Germany, for three months. Additionally, Chun Zhao, a member of our student chapter, has visited the research group of Prof. Axel Lehmann at Universität der Bundeswehr München in Munich, Germany, for three months.



Carlo Martini and Davide Scalzo



Zhiqiang Zhang in Ruhr-Universität Bochum

Visiting Scholars

A number of famous scholars from world-class institutions have visited our university during the past two years. In July, 2014, Prof. Mohammed S. Obaidat from Monmouth University, USA visited Beihang University and made presentations titled "A Vertical Handoff Algorithm for Wireless Heterogeneous Networks" and "Recent Advances in Smart Homes and Cities and Samples of Our Related Efforts" respectively. And in 2015, more activities were organized. In May, Prof. Er Meng Joo from Nanyang Technological University, Singapore, visited Beihang University and made presentations titled "Cognitive Robotics: Recent Developments and Futuristic Trends" and "Design and Development of Cognitive and Meta-cognitive Machine Learning Techniques". In June, Prof. Richard Fujimoto from Georgia Institute of Technology, USA, came to pay a visit and made presentations titled "Parallel Discrete Event Simulation" and "On-Line Simulation for Real-Time Management of Systems" respectively. In October, Prof. Dr. Axel Lehmann from Universität der Bundeswehr München, Germany, came to Beihang University and two presentations titled "Why Modeling and Simulation (M&S) is an Engineering Discipline !?" and "International Standards and Experiences with M&S Verification and Validation" were made. Recently, in April, 2016, Prof. M. Jamal Deen, President of the Academy of Science, The Royal Society of Canada, visited Beihang University and delivered an academic report titled "Smart Sensors, Smart Homes and Smart Cities".



Prof. Mohammed S. Obaidat



Prof. Er Meng Joo



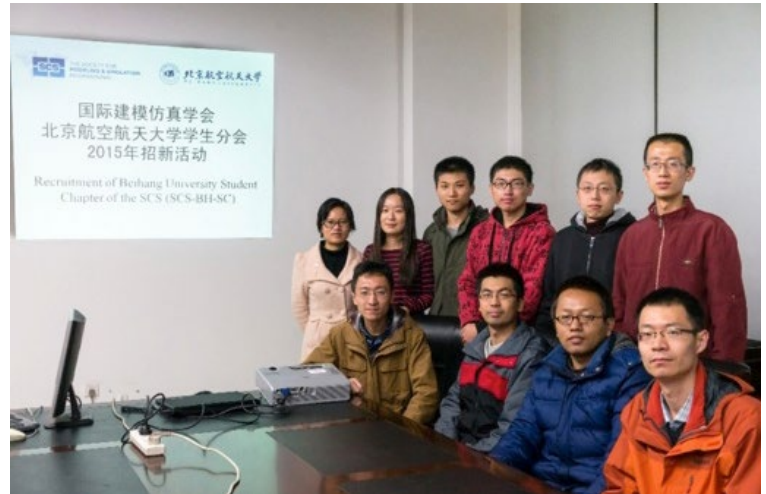
Prof. Lin Zhang and Prof. Axel Lehmann



Prof. M. Jamal Deen is delivering an academic report

Student Chapter Development

Finally, in the development of SCS-BH-SC, we have recruited 14 new members of our student chapter in the last two years. It should be noted that Prof. Tuncer Oren supported 10 members of our student chapter to be student members of SCS, since 2015 is his 50th year of involvement in simulation. So far, 40 members of our chapter have registered as student member of SCS successively.



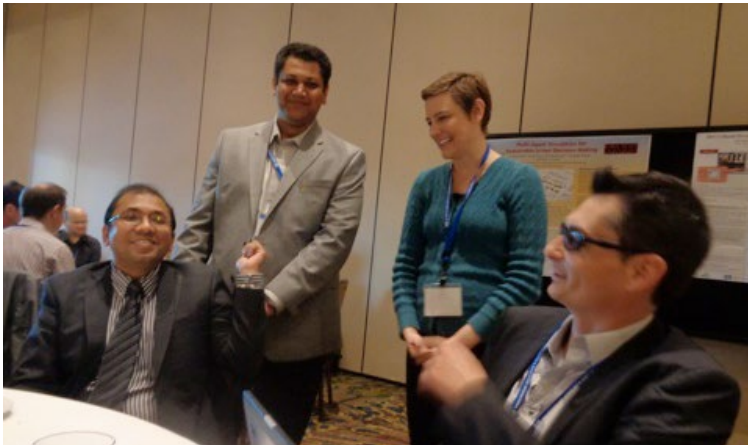
In the future, SCS-BH-SC will continue its efforts to organize or participate in more activities, especially the international academic activities and communication with other student chapters.

News from SCS Network

The Spring Simulation Multi-Conference 2016 (SpringSim'16) has successfully concluded on April 6. Dr. Tuncer Ören, a long time SCS leader and contributor, brought us some photos that he took during the conference. Please enjoy them.



The SCS Registration Desk: Oletha Darensburg, Carmen Ramirez, Aleah Hockridge



At authors breakfast: Nav Mustafee, Saurabh Mittal, Aleah Hockridge, Gregory Zacharewicz (from left to right).



A session of the Agent-directed Simulation Symposium. Dr. Lin Zhang, the president of SCS is on front-left.



Andreas Tolk

From left to right: Agostino Bruzzone, Tuncer Ören, Lin Zhang.



Organizers and students from the Simulation for Planetary Space Exploration track

SpringSim 2016 Best Paper & Other Awards

Congratulations to all the winners!

Student Best Presentation Awards:

Modeling Team Collaboration as a System of Systems Against Adversaries: An Agent-Based Model (Edwin Torres)
Human Mobility Modeling Framework: Utilizing Real-Life Footprints Through Agent-Based Simulation and Data-Driven Approaches (Hamdi Kavak and Jose J. Padilla)

ANSS Best Paper:

Collaborative Design in the Sustainable Infrastructure Planning Game (Paul T. Grogan, Olivier L. de Weck)

ANSS Best Paper Runner Up:

Quantitative Analysis of the Mission Impact for Host-Level Cyber Defensive Mitigations (Neal Wagner, Cem Safak Sahin, Diana Hanson, Jaime Pena, Era Vuksani, Brady Tello)

CNS Best Paper:

Reducing the Effect of Signal Multipath Fading in RSSI-Distance Estimation Using Kalman Filters (Sam Shue, James M. Conrad)

CNS Best Paper Runner Up:

The Need for Realism When Simulating Network Congestion (Kevin Mills and Chris Dabrowski)

HPC Best Paper:

AMR-Aware In Situ Indexing and Scalable Querying (Xiaocheng Zou, David A. Boyuka II, Dhara Desai, Daniel F. Martin, Suren Byna, Kesheng Wu)

HPC Best Paper Runner Up:

On the Efficiency of the Accelerated Processing Unit for Scientific Computing (Issam Said, Pierre Fortin, Jean-Luc Lamotte, Romain Dolbeau, Henri Calandra)

TMS/DEVS Best Paper:

DesignDEVS: Reinforcing Theoretical Principles in a Practical and Lightweight Simulation Environment (Rhys Goldstein, Simon Breslav, Azam Khan)

TMS/DEVS Best Paper Runner Up:

A Kernel for Embedded Systems Development and Simulation Using the Boost Library (Daniella Niyonkuru and Gabriel Wainer)

SpringSim'16 Best Overall Paper:

DesignDEVS: Reinforcing Theoretical Principles in a Practical and Lightweight Simulation Environment (Rhys Goldstein, Simon Breslav, Azam Khan)

SpringSim'16 Best Overall Paper Runner Up:

AMR-Aware In Situ Indexing and Scalable Querying (Xiaocheng Zou, David A. Boyuka II, Dhara Desai, Daniel F. Martin, Suren Byna, Kesheng Wu)

DEVS Ph.D. Award:

Title: Automatic Compilation and Semi-Automatic Validation of Abstract DEVS Models
Awardee: Diego A. Hollman

SCS Board of Directors Awards:

Outstanding Service Award – Gregory Zacharewicz
Distinguished Service Award – Gabriel Wainer

SCS Names New Fellows

Dr. Tuncer Ören, Ph.D. (University of Ottawa), Dr. Gabriel Wainer, Ph.D. (Carleton University), and Dr. Andreas Tolk, Ph.D. (MITRE), recently became Fellows of the Society for Modeling and Simulation International, (SCS), the world's premier professional society devoted to modeling and simulation (M&S).

Dr. Gabriel Wainer received his M.Sc. at the University of Buenos Aires, Argentina, in 1993 and received his Ph.D. with highest honors at the Université d'Aix-Marseille.III, France in 1998. He currently holds a Full Professor position and is Associate Chair for Graduate Studies at Carleton University in the Department of Systems and Computer Engineering. He is the head of the Advanced Real-Time Simulation lab at Carleton University's Centre for advanced Simulation and Visualization (V-Sim). Throughout his career, he has written three books, over 320 research articles, and edited four other books. He has lent his talents in organizing many conferences as well as being one of the founders of the Symposium on Theory of Modeling and Simulation, SIMTools, and SimAUD. Prof. Wainer has also contributed to SCS in many ways but not limited to being a member of the Board of Directors, Special Issues Editor of SIMULATION, a journal for SCS, member of the Editorial Board of IEEE Computing in Science and Engineering, Wireless Networks (Elsevier), Journal of Defense Modeling and Simulation (SCS). He previously was Vice-President of Conferences and Vice-President of Publications for SCS.

"[Gabriel Wainer's] contribution to the advancement of DEVS has provided ground-breaking work that has influenced many fields [and] his service as Vice President of conferences for SCS has brought the delivery of SCS conferences to the best position it has seen in recent history," says John Sokolowski, Senior Member and President Elect of SCS.

Dr. Andreas Tolk received his Ph.D. and Master's Degree in Computer Science, from the University of the Federal Armed Forces in Munich, Germany. He currently holds the position of Computer Science Principal in the Simulation Engineering Department of MITRE Corp., Hampton, VA. He is also an adjunct Full Professor for Engineering Management and Systems Engineering and Modeling, Simulation, and Visualization Engineering Department at Old Dominion University, Norfolk, VA. He has edited six books and published more than 250 journal articles, book chapter, and conference papers. He is a member of the Winter Simulation Conference Advisory Board, and is a member of the Board of Directors for SCS as well as for the Association for Computing Machinery (ACM) Special Interest Group Simulation (SIGSIM). He is also a senior member of SCS, ACM, and IEEE.

"[Andreas Tolk] has twice served as an officer of SCS, 1 year as secretary and four years as VP of Membership [and] has served as a guest editor for three special issues of Simulation, Transactions of the Society for Modeling and Simulation- the flagship publication of SCS," says Drew Hamilton, Mississippi State University, and Fellow of SCS.

Dr. Tuncer Ören has contributed to the field of simulation since 1965. He is professor emeritus of computer science at the school of Electrical Engineering and Computer Science at the University of Ottawa, Canada. He has over 500 publications including 38 books and proceedings. His research interests include: advanced modeling and simulation methodologies, agent-directed simulation, agents for cognitive and emotive simulations, body of knowledge and taxonomies, multilingual terminology of simulation, and reliability, quality assurance, failure avoidance, and ethics. He has over 500 publications including 38 books and proceedings and has contributed to almost 500 conferences and seminars held in 38 countries. He has been keynote or invited speaker or honorary chair in over 240 of them. He has also been the Founding Chair of the Executive Committee of the Chairmen of the Canadian Computer Science Departments. A book was edited by Prof. Levent Yilmaz (2015): Concepts and Methodologies for Modeling and Simulation: A Tribute to Tuncer Ören. Springer.

"Professor Ören's numerous publications...have been instrumental in forging M&S into a discipline," says Bernard Zeigler, University of Arizona, former president and Fellow of SCS.

A Fellow is recognized by his/her unusual distinction in the profession, as well as dedication and contributions to the field. The accomplishments honored have to have contributed importance to the advancement or application of modeling and simulation which have brought significant value to the society. Some of the requirements to become a Fellow are to have achieved Senior Membership status and to have been nominated by a current SCS member.

The Society for Modeling and Simulation International, (SCS) is privileged to bestow the status of Fellow to Tuncer Ören, Gabriel Wainer, and Andreas Tolk.

For more information regarding the Fellow status, please contact the office at (858) 277-3888, by e-mailing scs@scs.org, or at <http://scs.org/>.



Upcoming Conferences

2016 SUMMER SIMULATION MULTI-CONFERENCE (SUMMERSIM'16)

July 24-27, 2016

Palais des congrès de Montreal
(Montreal Convention Ctr); Montreal, Canada

<http://scs.org/summersim>

The Summer Simulation Conference 2016 (SummerSim'16) is SCS's premier international conference in cooperation with ACM SIGSIM. The conference focuses on modeling and simulation, tools, theory, methodologies and applications and provides a forum for the latest R&D results in academia and industry. We encourage you to take this opportunity to experience the tutorials, tracks, and workshops that will be available.

The conference includes keynote speeches presented by technology and industry leaders, technical sessions, professional development courses and seminars, as well as vendor exhibits. Scientists, engineers, managers, educators, and business professionals who develop or use simulation tools are invited to participate and present original papers. Proposals are solicited for papers, panels, tutorials, workshops, seminars, exhibits, social activities and for other presentation, discussion and sponsorship formats. People are always welcome to benefit by taking an organizing role. SummerSim'16 offers many ways to promote simulation products and to enhance corporate images. You are invited to use the Summer Simulation Multi-conference in ways that best serve your interests.

SummerSim'16 will include invited speakers, quality refereed papers, timely topical workshops, joint plenary sessions, consolidated registration, and access for registrants to all Multi-conference activities.

The following symposia are scheduled:

- International Symposium on Performance Evaluation of Computer and Telecommunication Systems 2016 (SPECTS'16)
- International Conference on Bond Graph Modeling 2016 (ICBGM'16)
- Summer Computer Simulation Conference 2016 (SCSC'16) - See website for a full list of sub-tracks in this symposium.

ASIASIM/SCS AUTUMNSIM 2016

October 8-11, 2016

China National Convention Center; Beijing, China

Aims and Scope

The 2016 International Simulation Multi-Conference is a joint conference of the 16th Asia Simulation Conference and the 2016 Autumn Simulation Multi-Conference (AsiaSim / SCS AutumnSim 2016). The Asia Simulation Conference (AsiaSim) is an annual international conference started in 1999. In 2011, the Federation of Asian Simulation Societies (ASIASIM) was set up and the AsiaSim became an annual conference of ASIASIM. The SCS Autumn Simulation Multi-Conference (AutumnSim) is one of the premier conferences of the Society for Modeling & Simulation International (SCS), which provides a unique opportunity to learn about emerging M&S applications in many thriving fields. The 2016 International

Simulation Multi-Conference focuses on the theory, methodology, tool and application for M&S of complex systems and will provide a forum for the latest R&D results in academia and industry. Together with the conference, the International Simulation Expo 2016 will be held.

Topics within the scope of the conference will include, but are not limited to:

- M&S theory & methodology
- Simulators
- M&S of systems of systems (SoS)
- Visualization and Virtual Reality
- High performance computing and simulation
- M&S for Cyber Physical System and IoT
- Verification, Validation and Accreditation
- M&S for intelligent manufacturing
- Simulation language and software
- M&S for smart city
- Model Engineering for SoS
- M&S for energy, environment and climate
- Cloud based Simulation
- M&S for health care and medical service
- Simulation and Big Data
- M&S for life and biomedical engineering
- Parallel and distributed simulation
- M&S for brain science
- Agent-based simulation
- M&S for education and training
- Embedded simulation
- M&S for society and economics
- Intelligent and optimization algorithms
- M&S for defense and military
- Intelligent system simulation
- M&S for mobile internet
- SBA/virtual prototyping engineering technology
- M&S for gaming/entertainment/sports

Paper Submission and Publication: Please submit full papers to the conference website address <http://www.asia-scs-sim2016.org>. All submitted papers should be in the form of .pdf file with the template of CCIS. This template is available from the website. Accepted papers will be published by Springer, in the Communications in Computer and Information Science Series (CCIS). CCIS is abstracted/indexed in EI, DBLP, Google Scholar, Mathematical Reviews, SCImago, and Scopus. Selected papers from the conference proceedings will be considered for extension and publication in several peer-reviewed SCI/EI journals. Papers will be published in the conference proceedings only if at least one of the authors is officially registered. Each registration covers one paper.

Important Dates:

Deadline for submission of full papers: Apr 30, 2016 *EXTENDED*

Notification of acceptance: May 30, 2016

Deadline for submission of final manuscripts: Jun 30, 2016

For further information, please visit <http://www.asia-scs-sim2016.org> or contact the SCS office (scs@scs.org or 858-277-3888).

10TH INTERNATIONAL WORKSHOP ON MULTI-AGENT SYSTEMS AND SIMULATION (MAS&S 2016)

Gdansk, Poland, September 11-14, 2016

<https://www.fedcsis.org/2016/mass> and <https://fedcsis.org/>

E-mail: mass2016@fedcsis.org

We would like to cordially invite you to consider contributing a paper to MAS&S 2016 - held as a part of the Federated Conference on Computer Science and Information Systems (FedCSIS 2016).

Multi-Agent Systems (MASs) provide powerful models for representing both real-world systems and applications with an appropriate degree of complexity and dynamics. Several research and industrial experiences have already shown that the use of MASs offers advantages in a wide range of application domains (e.g. financial, economic, social, logistic, chemical, engineering, Internet of Things). When MASs represent software applications to be effectively delivered, they need to be validated and evaluated before their deployment and execution, thus methodologies that support validation and evaluation through simulation of the MAS under development are highly required. MASs are designed for representing systems at different levels of complexity through the use of autonomous, goal-driven and interacting entities organized into societies which exhibit emergent properties. The agent-based model of a system can then be executed to simulate the behavior of the complete system so that knowledge of the behaviors of the entities (micro-level) produce an understanding of the overall outcome at the system-level (macro-level). In both cases (MASs as software applications and MASs as models for the analysis of complex systems), simulation plays a crucial role that needs to be further investigated.

TOPICS

MAS&S'16 aims at providing a forum for discussing recent advances in Engineering Complex Systems by exploiting Agent-Based Modeling and Simulation. In particular, the areas of interest are the following (although this list should not be considered as exclusive):

- Agent-based simulation techniques and methodologies
- Discrete-event simulation of Multi-Agent Systems
- Simulation as validation tool for the development process of MAS
- Agent-oriented methodologies incorporating simulation tools
- MAS simulation driven by formal models
- MAS simulation toolkits and frameworks
- Testing vs. simulation of MAS
- Industrial case studies based on MAS and simulation/testing
- Agent-based Modeling and Simulation (ABMS)
- Agent-based Ambient Systems
- Agent Computational Economics (ACE)
- Agent Computational Finance (ACF)
- Agent-based simulation for energy systems
- Agent-based simulation of networked systems
- Scalability in agent-based simulation

PAPER SUBMISSION AND PUBLICATION

Papers should be submitted by April 18, 2016. Preprints will be published on a USB memory stick provided to the FedCSIS participants. Only papers presented during the conference will be submitted to the IEEE for inclusion in the Xplore Digital Library. Furthermore, proceedings, published in a volume with ISBN and ISSN numbers will be posted at the conference WWW site. Extended versions of selected papers presented during the conference will be invited to:

- the Special Issue of Scalable Computing; Practice and Experience

- Complex Adaptive Systems Modeling (publication fee waiver for the papers that are going to be selected is expected)
- Multiagent and Grid Systems
- Computer Science Journal (7 points in current ranking of MNIISW - this is something cryptic to the outsiders, but will be clear for scientists from Poland)

IMPORTANT DATES

- Paper submission: April 18, 2016 (strict deadline)
- Position paper submission: May 30, 2016
- Acceptance decision: June 13, 2016
- Final version of paper submission: July 4, 2016
- Final deadline for discounted fee: July 31, 2016
- Conference dates: September 11-14, 2016

EVENT CHAIRS

- Fortino, Giancarlo, Universita della Calabria, Italy
- Fuentes-Fernández, Rubén, Universidad Complutense de Madrid, Spain
- Niazi, Muaz A. - COMSATS Institute of Information Technology, Pakistan
- Seidita, Valeria, Università degli Studi di Palermo, Italy

STEERING COMMITTEE

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- Fortino, Giancarlo, Universita della Calabria, Italy
- Gleizes, Marie-Pierre, Universite Paul Sabatier, France
- Hilaire, Vincent, Université de Belfort-Montbéliard, France
- Pavon, Juan, Universidad Complutense de Madrid, Spain
- Russo, Wilma, Universita della Calabria, Italy

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- Antunes, Luis, Universidade de Lisboa, Portugal
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- Petta, Paolo, OFAI, Austria
- Ribino, Patrizia, ICAR-CNR, Italy
- Vizzari, Giuseppe, Università di Milano Bicocca, Italy

20TH IEEE/ACM INTERNATIONAL SYMPOSIUM ON DISTRIBUTED SIMULATION AND REAL TIME APPLICATIONS

21 - 23 September, 2016, London, UK

<http://ds-rt.com/2016>

The Symposium

The 2016 IEEE/ACM International Symposium on Distributed Simulation and Real Time Applications (DS-RT 2016) promises to be a grand affair and will take place in London, UK. DS-RT 2016 serves as a platform for simulationists from academia, industry and research labs for presenting recent research results in Distributed Simulation and Real Time Applications.

DS-RT 2016 targets the growing overlap between large distributed simulations and real time applications, such as collaborative virtual environments, pervasive and ubiquitous application scenarios, motor-, controller-, sensor- and actuator systems.

The conference features prominent invited speakers as well as papers by top researchers in the field. DS-RT 2016 will include contributed technical papers, invited papers, and panel discussions. The proceedings will be published by IEEE-CS press.

Call for Papers

DS-RT provides an international forum for the discussion and presentation of original ideas, recent results and achievements by researchers, research students, and systems developers on issues and challenges related to distributed simulation and real time applications. Authors are encouraged to submit both theoretical and practical results of significance. Demonstration of new tools/applications is very encouraged.

The scope of the symposium includes, but is not limited to:

- Paradigms, Methodology and Software Architectures for Large Scale Distributed and Real-Time Simulations (e.g. Parallel and Distributed Simulation, Multi-Agent Based Distributed Simulation, HLA/RTI, Web, Grid and cloud based Simulation, hardware-software co-design for extreme scale simulations)
- Paradigms, Modelling, Architecture and Environments for Large Scale Real-time Systems and Concurrent Systems with hard and soft Real-Time Constraints
- Advanced modelling techniques (reuse of models, new modelling languages, agent-based M&S, and spatial M&S)
- Non-functional Properties of Distributed Simulation and Real-Time Systems (e.g. Dependability, Availability, Reliability, Maintainability, Safety, Security, Trustworthiness, QoS)
- Theoretical Foundations of Large Scale Real-Time and Simulation Models (e.g. Event Systems, Causality, Space-Time Models, Notions of Time, Discrete and Continuous Systems, Simulator Coordination)
- Simulation Studies at Large and Very Large Scale (e.g. Industrial, Commercial, Ecological and Environmental, Societal, Power and Energy, Pervasive and Ubiquitous Computing Systems)
- Performance and Validation of Large Scale and Distributed Simulations (e.g., benchmarking and analytical results, empirical studies DIS, HLA/RTI studies)
- Algorithms and methods for parallel or distributed simulation (synchronization, scheduling, memory management, and load balancing)
- Languages and Tools, Development Environments, Data Interfaces, Network Protocols and Model Repositories that address Very Large Simulations
- Data Management and Distribution Issues, Interest Management, Semantic Modelling, Multi-resolution Modelling, Dead-Reckoning

Mechanisms

- Pervasive and Ubiquitous Computing Architectures and Applications that involve Simulations and/or adhere to Real-Time Constraints
 - Simulation based Virtual Environments and Mixed Reality Systems (e.g. Interactive Virtual Reality, Human Communication through Immersive Environments)
 - Collaborative Virtual and Augmented Reality, Shared Interaction Spaces, Telepresence Systems and Shared Workspaces, 3D Video and Acoustic Reconstruction, Shared Object Manipulation
 - Serious Gaming and Massive Multiplayer Online Games (MMOG) applications, architectures and scalability issues
 - Visual Interactive Simulation Environments (e.g., Generic Animation, Visual Interactive Modelling, Interactive Computer Based Training and Learning, Scientific Visualization, High-End Computer Graphics)
 - Design Issues, Interaction Designs, Human Computer Interaction Issues raised by Large Scale DS-RT Systems
 - Media Convergence (e.g. New Technologies, Media Theory, Real-Time considerations of Multi Modality, etc.)
 - Innovative Styles of Interactions with Large Scale DS-RT Systems (e.g. Implicit, Situative and Attentive Interaction, Tangible Interaction, Embedded Interaction, etc.)
 - Technologies for Living Labs (e.g. Mirror World Simulation, Interoperability, Large Scale Multi Sensor Networks, Global Wireless Communication, Multi Stakeholder Understanding and Innovation)
 - Environmental and Emerging Simulation Challenges (e.g. Growth of Human Population, Climate Change, CO2, Health Care, Ecosystems, Sustainable Development, Water and Energy Supply, Human Mobility, Air Traffic, World Stock Markets, Food Supply Chains, Megacities, Smart Cities, Disaster Planning, etc.)
 - Advanced Simulation Studies and Technologies (e.g. Discrete event, continuous Simulation, etc.)
 - Cognitive Modelling and Simulation, Artificial Intelligence in Simulation, and Neural Network Models and Simulation
 - Service-oriented Computing and Simulation, Web-based Modelling and Simulation, and Simulation of Multimedia Applications and Systems
 - Advances in Simulation Methodology and Practices
 - Smart Network Design and Traffic Modelling
- Authors of selected papers will be invited to submit extended versions of their papers to the Journal of Simulation.

Important Dates Full Papers

- Paper Submission Deadline: 2nd May 2016
- Notification of Acceptance: 9th June 2016
- Camera Ready version due: 9th July 2016
- Author registration deadline: 9th July 2016
- Symposium presentation: 21 - 23 September 2016

Important Posters/Demos

The 20th IEEE/ACM International Symposium on Distributed Simulation and Real Time Applications (DS-RT 2016) also solicits posters and technical demonstrations that report on recent original results or ongoing research in the area of distributed simulation and real time applications.

Poster submission deadline: 17nd May 2016

Notification of acceptance: 5th June 2016

Camera-ready deadline: TBA

Submission

Papers must be unpublished and must not be submitted for publication elsewhere. All papers will be reviewed by Technical Program Committee members and other experts active in the field to ensure high quality and relevance to the conference.

Accepted papers will appear in the conference proceedings to be published by IEEE-CS press.

General information regarding submission can be found at

<http://ds-rt.com/2016>

Questions from authors may be directed to the Program Co-Chairs.

IMPORTANT: ATTENDANCE BY AT LEAST ONE AUTHOR IS MANDATORY

ORGANIZING COMMITTEE

General Chair:

Simon J.E Taylor, Brunel University London, UK

Program Co-Chairs:

Gary Tan, National University of Singapore, Singapore

Georgios Theodoropoulos, Durham University, UK

Publicity Chair:

Mirela Notare, Faculdade de Tecnologia em Transporte Aéreo, Brazil

Alfredo Garro, University of Calabria, Italy

Special Session Co-Chair

Robson De Grande, DIVA Strategic Research Network, Canada

Anthony Ventresque, Univ. COLlege Dublin, Ireland

Finance and Local Chair

Anastasia Anagnostou, Brunel University London, UK

Poster Chair

Gabriele D Angelo, Univ. of Bologna, Italy