

## Call for Papers

### 2014 Summer Simulation Multi-Conference (SummerSim'14)

**July 6 – 10, 2014 | | The Hyatt Regency Monterey | | Monterey, CA, USA**

<http://www.scs.org/summersim>

Motto: '*Between Now and the Future with Modeling and Simulation*'

#### **Important Dates:**

Special Sessions Proposals (Workshops, tutorials, etc.): extended to March 15<sup>th</sup>, 2014

Panel Discussion Proposal: extended to March 15<sup>th</sup>, 2014

Paper Submission: extended to March 15<sup>th</sup>, 2014

Notification of acceptance: April 22<sup>nd</sup>, 2014

Camera ready: May 15<sup>th</sup>, 2014

#### **Aims and Scope:**

The Summer Simulation Conference 2014 (SummerSim'14) 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. This year's focus is on hybrid, discrete and continuous systems, and advanced modern applications thereof. We encourage you to take this opportunity to experience the tutorials, tracks, and workshops that will be available.

#### **Organizing Committee:**

- General Chair: Dr. Justyna Zander, Humanoid Way, USA (justyna.zander@gmail.com)
- General Co-Chair: Dr. Saurabh Mittal, Dunip Technologies, L3 Communications, USA (smittal@duniptech.com)
- Honorary Program Chair: Dr. Andreas Tolk, SimIS Inc., Portsmouth, Virginia, USA (andreas.tolk@simisinc.com)
- Program Chair: Dr. Zhi Han, MathWorks, Inc., USA (zhi.han@mathworks.com)
- Proceedings Chair: Dr. Eugene Syriani, University of Alabama, USA (esyriani@cs.ua.edu)
- Publicity Chair: Prof. Dr. Gabriel Wainer, Carleton University, Canada (gwainer@sce.carleton.ca)
- Local Logistics Chair: John F. Richardson, SPAWAR Systems Center PACIFIC, USA (richards@spawar.navy.mil)

#### **Steering Committee:**

- Prof. Dr. Abdolreza Abhari, Ryerson University, Canada
- Prof. Dr. Francesco Longo, University of Calabria, Italy
- Prof. Dr. Pere Vila, University of Girona, Spain
- Dr. Pieter J. Mosterman, MathWorks, Inc., USA

**Advisory Committee:**

- Prof. Dr. Tuncer Ören, SITE, University of Ottawa, Canada
- Prof. Dr. Mohammad Obaidat, Monmouth University, USA
- Prof. Dr. Agostino Bruzzone, University of Genoa, Italy
- Prof. Dr. François Cellier, ETH Zurich, Switzerland
- Prof. Dr. Bernard P. Zeigler, University of Arizona, Tucson, USA

A selected group of the best papers of SummerSim 2014 will be invited to be published in a Special Issue devoted to SummerSim 2014. All authors are encouraged to submit extended versions of their papers to the Special Issue according to the guidelines found on the webpage. Please see more details at: <http://www.scs.org/summersim>.

Authors of accepted papers are expected to attend the conference, present their work to their peers, transfer copyright, and pay a conference registration fee at the time their camera-ready paper is submitted. All papers will be included in the conference proceedings and archived in both the SCS digital library and the ACM Digital Library, and will be indexed in DBLP and SCOPUS.

**SummerSim'14 includes the following events:**

- **International Conference on Bond Graph Modeling 2014 (ICBGM 2014)**

Chair: Dr. Jose J. Granda, California State University, USA

- **International Symposium on Performance Evaluation of Computer and Telecommunication Systems (SPECTS 2014)**

Chairs: Dr. Mohammad Obaidat, Monmouth Univ., NJ, USA and Dr. Mario Marchese, Univ. of Genoa, Italy

- **46<sup>th</sup> Summer Computer Simulation Conference 2014 (SCSC 2014)**

Tracks:

- Modeling, Simulation, and Test for Cyber Physical Systems (MST4CPS'14)
  - Chair: Dr. Justyna Zander
- M&S for Intelligent, Adaptive and Autonomous Systems (MSIAAS'14)
  - Chair: Dr. Saurabh Mittal
- M&S in Medicine (MSM'14)
  - Chair: Prof. Dr. Jerzy Rozenblit
- M&S for Sustainability (MSS'14)
  - Chair: Dr. Björn Johansson
- Agent-Directed Simulation (ADS'14)
  - Chairs: Dr. Tuncer Ören, Dr. Levent Yilmaz
- Emergency Management Simulation (EMS '14)
  - Chair: Prof. Dr. Francesco Longo
- Computer Graphics for Simulation (CGS'14)
  - Chair: John F. Richardson
- Grand Challenges in Modeling and Simulation (GCMS'14) Pending
- Work in Progress Session (WIP'14) Pending

# 46<sup>th</sup> Summer Computer Simulation Conference 2014 (SCSC 2014)

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## Organizing Committee:

### General Chair:

Dr. Justyna Zander, Humanoid Way, USA (justyna.zander@gmail.com)

### General Co-Chair:

Dr. Saurabh Mittal, Dunip Technologies, L3 Communications, USA (smittal@duniptech.com)

### Program Chair:

Dr. Zhi Han, MathWorks, Inc., USA (zhi.han@mathworks.com)

### Publicity Chair:

Prof. Dr. Gabriel Wainer, Carleton University, Canada (gwainer@sce.carleton.ca)

### Proceedings Chair:

Prof. Dr. Eugene Syriani, University of Alabama, USA (esyriani@cs.ua.edu)

Come to Monterey, CA, USA for SCSC 2014 to witness the 46<sup>th</sup> edition of this leading conference in the field of Modeling and Simulation. SCSC 2014 features varied tutorials, tracks and workshops. The conference focuses on modeling and simulation, tools, theory, methodologies and applications, providing the latest R&D results in academia and industry. In parallel with technical presentations, companies and research groups will be exhibiting their most recent products. Further increasing SCSC's application focus, SCSC14 is adding to the conference program a set of with panels, hot topic sessions and invited industrial sessions.

This year the program is organized into various tracks. Current tracks include:

- *Modeling, Simulation, and Test for Cyber-Physical Systems (MSTCPS'14)*
- *Modeling and Simulation for Intelligent, Adaptive and Autonomous Systems (MSIAAS'14)*
- *Modeling and Simulation for Medicine (MSM'14)*
- *Modeling and Simulation for Sustainability (MSS'14)*
- *Agent-Directed Modeling and Simulation (ADS'14)*
- *Emergency Management Simulation (EMS'14)*
- *Computer Graphics for Simulation (CGS'14)*
- *Grand Challenges in Modeling and Simulation (GCMS'14) Pending*
- *Work in Progress (WIP'14) Pending*

Further, topics relevant to the scope of the conference also include (but are not restricted to) the following:

- Modeling and Simulation for Defense and Security
- Modeling and Simulation of Inventory and Materials Management
- Modeling and Simulation for Transportation
- Modeling and Simulation of Complex Social Systems
- Computer Graphics for Simulation

Paper Formatting Guidelines for the conference are found at the following link:  
[http://www.scs.org/upload/documents/Formatting\\_Kit.pdf](http://www.scs.org/upload/documents/Formatting_Kit.pdf). For paper submission to SCSC please submit your complete papers electronically to:

<http://www.softconf.com/scs/SCSC14/>

## SCSC'14 Track

### **Modeling, Simulation, and Test for Cyber-Physical Systems 2014 (MST4CPS'14)**

#### **General Chair:**

Dr. Justyna Zander, Humanoid Way, USA (justyna.zander@gmail.com)

#### **Program Co-Chair:**

Dr. Zhi Han, MathWorks, Inc., USA (zhi.han@mathworks.com)

#### Main topic areas:

- Modeling and simulation for Cyber-Physical Systems (CPS)
- Modeling and simulation of emergent behavior in CPS
- Test, validation, and verification for CPS-specific features
- Multi-definition of computation in the context of modeling and simulation
- Roadmap on computational applications in CPS
- Connection of modeling and simulation with hardware – theory, application, and practice (e.g., Raspberry Pi, Arduino, humanoids)
- Modeling, simulation, and computation for solving human grand challenges in the CPS context
- Application of modeling, simulation, and computation to solve human-related problems
- Addressing problems of current computation theory and practice in the context of modeling and simulation (e.g., semantics, reliability, accuracy, timing, verification and validation)

Focus should be on practical application of the described concepts including novel methodologies, innovations, cross-technologies, and tools. Case studies and demonstrations are warmly invited. Support online material is enabled.

The Paper Formatting Guidelines for the conference are found at the following link:  
[http://www.scs.org/upload/documents/Formatting\\_Kit.pdf](http://www.scs.org/upload/documents/Formatting_Kit.pdf). For paper submission to MST4CPS please submit your complete papers electronically to:

<http://www.softconf.com/scs/SCSC14/>

## SCSC'14 Track

### **Modeling and Simulation for Intelligent, Adaptive and Autonomous Systems 2014 (MSIAAS'14)**

#### **General Chair:**

Dr. Saurabh Mittal, Dunip Technologies, L3 Communications, USA (smittal@duniptech.com)

#### **Honorary Program Chair:**

Dr. Andreas Tolk, SimIS Inc., USA (andreas.tolk@simisinc.com)

Heterogeneous systems are the norm today. A system deployed in a netcentric environment eventually becomes a part of a system of systems (SoS). This makes design, analysis and testing for the system-at-hand a complex endeavor in itself. Testing in isolation is not the same as a real-system operation and we need advanced M&S frameworks to facilitate SoS design. The subject of emergent behavior and M&S of emergent behaviors takes the center-stage in such systems as it is unknown how a particular system responds in the face of emergent behavior arising out of interactions with other systems. Intelligent behavior is also defined as an emergent property in some complex systems. Consequently, systems that respond and adapt to such behaviors may be called intelligent systems as well. This track aims to focus on M&S of these aspects of complex SoS engineering and aims to bring researchers, developers and industry practitioners working in the areas of complex, adaptive and autonomous SoS engineering that may incorporate human as an integral part of SoS operations.

The conference will focus on (but is not limited to) the following topical areas:

- Theory for adaptive and autonomous systems
- Intelligence-based systems
- Computational intelligence and cognitive systems
- Human-in-the-loop systems
- M&S Frameworks for intelligent behavior
- Methodologies, tools, and architectures for adaptive control systems
- Knowledge engineering, generation and management in IAAS
- Weak and Strong emergent behavior
- Emergent engineering
- Testing and Evaluation processes
- Verification and validation frameworks
- Practices and Lessons Learned
- Complex adaptive systems
- Self-organization and collaborative behavior in IAAS
- Applications to robotics, unmanned vehicles systems, swarm technology, semantic web technology, and multi-agent systems
- Netcentric IAAS
- Live, Virtual and Constructive (LVC) environments
- Simulator design for IAAS systems
- Modeling tools for IAAS design

Focus should be on practical application of the described concepts including case studies, methodologies, inventions, technologies, and tools. Support online material is enabled.

The Paper Formatting Guidelines for the conference are found at the following link:

[http://www.scs.org/upload/documents/Formatting\\_Kit.pdf](http://www.scs.org/upload/documents/Formatting_Kit.pdf). For paper submission to MSIAAS please submit your complete papers electronically to: <http://www.softconf.com/scs/SCSC14/>

## SCSC'14 Tracks

### **Modeling and Simulation for Sustainability 2014 (MSS'14)**

#### **General Chair:**

Dr. Björn Johansson, Chalmers University of Technology, Sweden (bjorn.johansson@chalmers.se)

The track “Modeling and Simulation for Sustainability” calls for contributions dealing with theory and practice in this area. Typical topics will be papers addressing sustainability by utilizing modeling and simulation by incorporating such as social, economic and ecologic aspects of sustainability for decision-making. The contribution could range from theoretical approaches/descriptions such sustainability awareness, sustainability frameworks, sustainability in research, to more applied, such as sustainability metrics, sustainability monitoring, sustainability applied in production. In particular a multidisciplinary approach is of interest for this track where two or more aspects on sustainability are combined in order to achieve better understanding of the total context of a problem/situation. Examples could be but are not limited to combinations of two or more of the following: Economical: Cost calculations, marketing, OEE, performance metrics. Social: Workplace design, ergonomics, social well being, Social LCA. Environmental: LCA, Simplified LCA, Carbon footprint, ECO labeling etc...

The Paper Formatting Guidelines for the conference are found at the following link: [http://www.scs.org/upload/documents/Formatting\\_Kit.pdf](http://www.scs.org/upload/documents/Formatting_Kit.pdf). For paper submission to MSS please submit your complete papers electronically to <http://www.softconf.com/scs/SCSC14/>

## SCSC'14 Tracks

### Modeling and Simulation in Medicine 2014 (MSM '14)

#### **General Chairs:**

Dr. Jerzy Rozenblit, University of Arizona, USA ([jr@ece.arizona.edu](mailto:jr@ece.arizona.edu))

#### **Program Co-Chairs:**

Dr. Roman Lysecky, University of Arizona, USA ([rlysecky@ece.arizona.edu](mailto:rlysecky@ece.arizona.edu))

Dr. Ryszard Klempous, Wroclaw University of Technology, Poland ([ryszard.klempous@pwr.wroc.pl](mailto:ryszard.klempous@pwr.wroc.pl))

The past decade has brought about a dramatic increase in the deployment of simulation-based techniques in medicine and its related healthcare fields. Simulation scenarios are used extensively for training of medical personnel, students, first responders, and emergency response coordinators. Rapid advances in computer technologies, biomedical engineering, and systems engineering drive the development of cyber physical systems that serve as simulation based training platforms. However, it is clear that methodological and theoretical foundations need to be strengthened to provide integrated, connected, and cross-cutting solutions for modeling and simulation in healthcare. Thus, this meeting will attempt to “connect” researchers, developers, and medical practitioners in an attempt to define unifying themes for such solutions.

The conference will focus on (but is not limited to) the following topical areas:

- Modeling and simulation in medicine: fundamental research
- Training and education
- Care delivery, outcomes, and patient's safety
- Robotics and its applications in training and “in vivo”
- Life-critical systems
- Systems integration: “connected health”

Papers are solicited to address the above and related areas with focus on both the underlying methodological and theoretical foundations and practical applications.

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## SCSC'14 Tracks

### **Emergency Management Simulation (EMS'14)**

#### **General Chair:**

Dr. Francesco Longo, Modeling & Simulation Center—Laboratory of Enterprise Solutions (MSC-LES), University of Calabria, Italy (francesco.longo@unical.it)

Nowadays continuous incidents, terrorist threats, catastrophic events have strongly underlined the need to plan and organize better responses to emergency situations.

The track offers the possibility to present scientific results and critical issues concerning emergency responses procedures using Modeling and Simulation. Topics of interest include aspects such as:

- Simulation and testing of emergency scenarios;
- Personnel training through Simulation;
- Modeling & Simulation of human crowd behavior;
- Modeling & Simulation of critical incidents;
- Synthetic and Virtual Environments for emergency situations;
- Medical emergency Simulation;
- Police, fire emergency Simulation;
- Emergency response Simulation;
- Simulation games for incidents and threats management;
- Modeling & Simulation of terrorist attacks;
- Modeling & Simulation of natural disasters;
- Emergency management systems;
- Emergency response Simulation in supply chain and logistic networks.

Nevertheless different topics concerning Emergency Simulation are welcome. Authors are kindly invited to include in their papers and presentations all the research works, case studies and application both theoretical and applied.

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## SCSC'14 Tracks

### Agent-Directed Simulation (ADS'14)

#### **General Chairs:**

Dr. Tuncer Ören, University of Ottawa, Canada (oren.tuncer@sympatico.ca)

Dr. Levent Yilmaz, Auburn University, USA (yilmaz@auburn.edu)

Agent-directed Simulation (ADS) is the premier platform to explore all three aspects of the synergy of simulation and agent technologies. The purpose of the ADS session is to facilitate dissemination of the most recent advancements in the theory, methodology, application, and toolkits of agent-directed simulation. Agent-directed simulation is comprehensive in the integration of agent and simulation technologies, by including models that use agents to develop domain-specific simulations, i.e., agent simulation (this is often referred to as agent-based simulation -when other two important aspects are not considered), and by also including the use of agent technology to develop simulation techniques and toolkits that are subsequently applied, either with or without agents.

Hence, agent-directed simulation consists of three distinct, yet related areas that can be grouped under two categories as follows:

1. Simulation for Agents (agent simulation): simulation of agent systems in engineering, human and social dynamics, military applications etc.
2. Agents for Simulation (which has two aspects): agent-supported simulation deals with the use of agents as a support facility to enable computer assistance in problem solving or enhancing cognitive capabilities; and agent-based simulation that focuses on the use of agents for the generation of model behavior in a simulation study.

The ADS session will bring together agent technologies, tools, toolkits, platforms, languages, methodologies, and applications in a pragmatic manner. In this session, researchers, educators, and students are encouraged to come together and discuss the benefits of agent technology in their use and application for simulation.

The theme of the ADS session is based on the following observations:

- The growth of new advanced distributed computing standards is providing a new context that acts as a critical driver for the development of next generation systems. These standards revolve around service-oriented technologies, pervasive computing, web-services, Grid, autonomic computing, ambient intelligence etc. The supporting role that intelligent agents play in the development of such systems is becoming pervasive, and simulation plays a critical role in the analysis and design of such systems.
- The use of emergent agent technologies at the organization, interaction (e.g., coordination, negotiation, communication) and agent levels (i.e. reasoning, autonomy) are expected to advance the state of the art in various application domains. However, modeling and testing complex agent systems that are based on such technologies is difficult. Using agent-supported simulation techniques for testing complex agent systems is up and coming field.
- To facilitate bridging the gap between research and application, there is a need for tools, agent programming languages, and methodologies to analyze, design, and implement complex, non-trivial agent-based simulations. Existing agent-based simulation tools are still not mature enough to enable developing agents with varying degrees cognitive and reasoning capabilities.

The ADS session will provide a forum to bring together researchers and practitioners from diverse simulation societies within computer science, social sciences, engineering, business, education, human factors, and systems engineering. The involvement of various agent-directed simulation groups will enable the cross-fertilization of ideas and development of new perspectives by fostering novel advanced solutions, as well as enabling technologies for agent-directed simulation.

### **Program Topics**

- Theory/methodology:
  - High-level agent specification languages for modeling and simulation.
  - Agent programming and simulation modeling languages.
  - Distributed simulation for multi-agent systems.
  - Formal models of agents and agent societies.
  - Advanced agent features for agent-directed simulation: e.g.,
    - Holonic agents for cooperation and competition modeling and simulation. Agents with personality, agents with dynamic personality, agents with emotions, agents having different types of intelligence such as emotional intelligence, agents with multi-intelligence.
    - Influence of cultural backgrounds in agent-directed simulation.
    - Agents with several types of understanding abilities such as multivision and switchable understanding abilities,
    - Trustworthy agents, and moral agents in simulation.
    - Agent-based simulation to monitor multi-simulation studies.
    - Agents in design and monitoring of simulation experiments and analysis of results.
    - Verification, validation, testing; quality assurance; as well as failure avoidance in agent-directed simulations.
- Technology, toolkits, and environments:
  - Agent infrastructures and supporting technologies (e.g., interoperability, agent-oriented software engineering environments).
  - Modeling, design, and simulation of agent systems based on service-oriented technologies, pervasive computing, web-services, grid computing, autonomic computing, ambient intelligence.
  - Agent architectures, platforms, and frameworks.
  - Standard APIs for agent simulation programming.
- Applications:
  - Simulation modeling of agent technologies at the organization, interaction (e.g., communication, negotiation, coordination, collaboration) and agent level (e.g., deliberation, social agents, computational autonomy).
  - Application of agent simulations in various areas such as biology, business, commerce, economy, engineering, environment, individual, group, and organizational behavior, management, simulation gaming/training, social systems.
  - Conflict management simulation with holonic agents.
  - Modeling and simulation of emergence.

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## SCSC'14 Tracks

### Computer Graphics for Simulation (CGS'14)

**General Chair:** John F. Richardson, SPAWAR Systems Center PACIFIC, USA

Simulations can consist of focused physical simulations to complex interconnected systems. Simulations can be used to produce numbers. Some simulations can produce theories of human behaviors. Other simulations test security while others investigate industrial control. In some cases the result is just a number or statistic. In many cases, the result is anthropomorphic.

Many simulations use graphics to present the results. Many simulations use virtual objects to represent the input to simulations. In many cases, the simulation must be visualized to reveal useful patterns in processes and models.

This workshop/paper track is designed to elicit papers that present novel results in simulation visualization. The workshop/paper track focuses on several topic areas. The General Computer Graphics topic area is designed to solicit papers that apply state of the art graphics techniques to visualizing simulation results and simulation virtual environments. The Web3D / **WebGL** / **HTML5** topic area is designed to extract from the research community, state of the art techniques for visualizing distributed simulations. Many physically based simulations require solutions of complex systems of equations that must have efficient computational grids to produce realistic results with minimal computer resources. The 3-D modeling and animation systems topic is an application topic that asks how mature and existing modeling and animation systems can be integrated into the task of visualizing simulations. The art and esthetics topic invites researchers to present their work on pure art applied to simulation visualization.

Many of the topic areas involve advanced computer graphics techniques and in some cases, **art** of high caliber. Authors are encouraged to attach supplementary high-resolution renderings to their submissions for presentation in an exhibition at the conference [Fame and Glory is the reward]. **WebGL**, **GPGPU computing** and **HTML5** are new hot topics in Computer Graphics heavily promoted at **SIGGRAPH 2011** through **2013**. **iOS** and **Android** mobile simulations are a significant path to the future.

Accepted papers will be published in the ACM digital library.

Technical papers are solicited, but not limited to the following topics:

General Computer Graphics

- DEVS, simulation methodologies and Computer Graphics
- Rendering strategies and algorithms for architecture
- Modeling and animation of machinery simulations
- Modeling and animation support for Industrial Processes

- Solid modeling for simulation
- Visualizing gas, explosion and fluid simulation
- Volume visualization for simulation (medical, structural, geological, fluids, gases)
- Visualizing terrain effects on simulations (fluid, telecommunications, transport, security, military)
- Transportation visualization (structures, flight, vehicles, subways, tunnels, construction, security, military)
- Level of detail strategies for simulation visualization
- Massive virtual environments
- Visualization of mathematical objects
- Visualization of chemical and biological Objects
- Visualization of astronomical simulations
- Time and memory complexity of scientific visualizations
- Visualizing and graphing simulation data
- Verifying Accuracy of visualizations against simulation results
- Interaction techniques and haptic devices for simulation
- Visualizing damage to military and civilian transport
- Realistic lighting for simulation

#### Web3D / WebGL / HTML5 / iOS / Android for Simulation

- VRML/X3D for simulation and WebGL for Distributed Simulations
- COLLADA / OSG / KML / Game simulations / DEVS and CG / Coupled DEVS and CG
- Scenegraphs and strategies for simulation visualization optimization
- Collaborative medical simulation
- Data acquisition for simulation
- Distributed military simulation visualization
- Interoperability between military and civilian file formats
- NVIDIA CUDA, OpenCL [Open Compute Language for CPU/GPU Scheduling]

#### Computational Grids for Simulation / GPGPU Computing for Simulation

- 2-D and 3-D irregular grids for simulation
- Adaptive grids for simulation
- Parallel algorithms for computational grids
- Grids for very large virtual environments

#### 3-D Modeling and Animation Systems use in Simulation [including DEVS]

- 2-D and 3-D commercial modeling and animation

- 2-D and 3-D open source modeling and animation
- Use of video to visualize simulation
- Video input to simulations
- 2-D drawing and sketching for use in simulation
- Use of commercial and open source export formats in simulation

#### Art and Esthetics in Simulation

- Art and design strategies for simulated objects
- Color
- Creating realistic textures for simulation visualization
- Art in constructing virtual environments

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## SCSC'14 Tracks

### PENDING TRACK: Grand Challenges in Modeling and Simulation 2014 (GCMS'14)

#### **General Chair:**

TBD

GCMS'14 is the 8<sup>th</sup> annual organization of two unique conferences on grand challenges related to modeling and simulation (M&S) on the Methodology, Tools, and Software Applications (MTSA) and M&S issues concerned with Very Large and Complex Systems (VLCS). The specific topics of each conference include but are not limited to:

#### VLCS'14

- Models as Specifications
- Advanced Building-Block Methods
- Multidiscipline & Multi-Rate Simulation
- Simulation-Based Acquisition
- Complex and Complicated Systems
- Simulation Methods for System Development
- Standard Models, Reference Models, and Model Libraries
- Validation and Verification
- Simulation Methods for Nonlinear, Discontinuous, and Dynamic Systems
- Cognitive Processes for Very Large System Simulations

#### MTSA'14

- Industrial Logistics
- Information Assurance and Telecommunication Security
- Bioinformatics & Biological Systems
- Games and Information Technology
- Environmental Modeling & Simulation
- Chemical Engineering Pollution Control
- Discrete Systems Simulation
- Emergency Modeling
- Mechanical and Chemical Systems /Energy Systems
- Aerospace Systems Simulation
- Continuous Simulation Languages and Applications
- Bio-Mechanical Engineering Systems

The Paper Formatting Guidelines for the conference are found at the following link:

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## SCSC'14 Tracks

### PENDING TRACK: Work in Progress Session (WIP'14)

#### **General Chair:**

TBD

We are seeking outstanding submissions for presentation in a work in progress session at the 2014 Summer Simulation Multi-conference. These papers should present work that is currently in progress or not quite ready for full-length articles. Student papers are especially welcome as this track provides an excellent forum for graduate students to present and get feedback for thesis, project or dissertation work. All papers will undergo a peer-review process and accepted papers in this track will also be published in the SummerSim'14 conference proceedings. Paper submission is encouraged in any modeling and simulation related areas including but not limited to the below:

- Computer/Communication Networks with Special Emphasis on Modeling and Simulation
- Numerical Simulation and Optimization as Applied to Business and Industry
- Use of Modeling and Simulation in the Area of Computer Security
- Modeling and Simulation in the area of Neural Networks
- Modeling and Simulation related to Image/Video Compression/Processing and Robotic Vision
- Any Aspect of Modeling and Simulation related to the Military Modeling, Analysis and Simulation of Telecommunication Systems
- Web-based Modeling and Simulation
- High-performance Computing and Simulation
- Network/Internet Traffic Modeling and Workload Characterization
- Simulation Languages, Tools, and Environments
- Simulation of Parallel Systems, Distributed Systems and Databases
- Simulation of Clusters, Grids and Wireless Systems
- Simulation of Multimedia Applications and Systems
- Modeling and Simulation of Real-Time and Embedded Systems
- Simulation Methodology, Theory and Philosophy
- Parallel and Distributed Simulators and Simulation Techniques
- Application of Modeling and Simulation in Biology
- Discrete Event Modeling and Simulation

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### International Program Committee

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