2017 Summer Simulation Multi-Conference (SummerSim 2017)

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MODELING AND SIMULATION AS A SERVICE (MSaaS'17)

TRACK CHAIRS

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AIMS AND SCOPE

Modeling & Simulation as a Service (*MSaaS*) is gaining momentum as an effective approach to bringing the benefits of service-oriented architectures and cloud computing into the modeling and simulation (M&S) field, so as to enhance interoperability, composability, reusability and reduce the cost of M&S efforts.

MSaaS is intended to be a means of delivering on demand M&S applications, capabilities and resources, as well as the associated data. MSaaS is at its early stages and is being addressed and investigated by international efforts, such as the NATO MSG-136 ("Modelling and Simulation as a Service - Rapid deployment of interoperable and credible simulation environments"), as a promising approach to provide the technical and organizational foundations for service-based M&S ecosystems.

The MSaaS SCSC track aims to bring together researchers and practitioners from academia, industry, defense and government to present innovative ideas, experiences, and challenges that address service-oriented and cloud-based issues in the field of M&S and vice versa.

The track organizers invite high quality submissions describing relevant, original and unpublished theoretical and/or practical contributions related to (but not limited to) the topics illustrated below.

TOPICS

Theory and methodology

- MSaaS and service orientation
- MSaaS and cloud service model
- MSaaS-based parallel and distributed simulation
- MSaas reference architecture
- MSaaS-based modeling approaches (web-based modeling languages, metamodels, model transformations)
- Model-based approaches for MSaaS
- Verification, validation and accreditation
- QoS and SLA issues
- Data exchange and interoperability issues
- Privacy, security and ownership issues
- Synchronization and communication
- Resource management, load balancing and scheduling
- Sensor/IoT and multimedia data management
- Cost estimation models
- Service descriptions
- Ontologies for MSaaS
- MSaaS governance
- MSaaS standardization

Tools and platforms

- MSaas middleware

- Service repositories
- Service discovery, composition and orchestration
- MSaaS deployment
- MSaaS programming models
- Open source platforms
- Enterprise service bus
- Public/private cloud providers
- Virtualization and containerization
- IoT and mobile development

Application domains and case studies

- Military and defense systems
- Manufacturing systems
- Business administration, finance and economy (business process management, enterprise resource planning, etc.)
- Governance and Government Policy Making
- Medicine and healthcare
- Space
- TLC
- Education
- Games and entertainment
- Emergency management and critical infrastructures
- Cyber physical systems
- Cyber security
- Business intelligence
- Energy management
- Systems engineering (systems of systems, ultra large scale systems)

SUBMISSION GUIDELINES

Papers of max 8 pages can be submitted through the SCS conference management system and must be formatted according to the SCS authors kit (available at http://www.scs.org/summersim). They will be peer reviewed and – if accepted, registered and presented at the conference - submitted to the ACM Digital Library.