2016 Winter Simulation Conference (WSC 2016)

Washington, DC, USA
11-14 December 2016

Pages 1-689

IEEE Catalog Number: CFP16WSC-POD
ISBN: 978-1-5090-4487-0

****** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP16WSC-POD
ISBN (Print-On-Demand):	978-1-5090-4487-0
ISBN (Online):	978-1-5090-4486-3
ISSN:	0891-7736

Additional Copies of This Publication Are Available From:

Curran Associates, Inc
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: (845) 758-0400
Fax: (845) 758-2633
E-mail: curran@proceedings.com
Web: www.proceedings.com

Table of Contents

Introduction to Simulation

Introduction to System Dynamics

Introduction to Agent Based Modeling

Performing Simulation Projects

Conceptual Modeling

Input Modeling

Simulation Output Analysis

Introduction to Hybrid Simulation

Simulation Programming Environments

Advanced Tutorials

A Tutorial on the Operational Validation of Simulation Models

Advanced Tutorial: Input Uncertainty and Robust Analysis in Stochastic Simulation

Analysis Methodology

Analysis for Simulation

Variance Reduction and Data Reuse

Rare-event Simulation

Input Models and Uncertainty

Simulation Output Analysis

Simulation Analytics

Input Modeling

Output Analysis

Simulation and Optimization

Metamodeling

Simulation Optimization

Large-scale Simulation Optimization

Random Search for Simulation Optimization

Sampling-based Simulation Optimization

Gradient-based Simulation Optimization I

Ranking & Selection I

Modeling Methodology

Simulation Architectures

Risk and Error Modeling

Generative Modeling

Modeling Tools

Process and State Modeling

Advances in Simulation Performance

Dynamic Data-Driven Application Systems

Supply Chain and Logistics

Traffic Flow and Urban Dynamics

Agent-Based Simulation

Modeling Methods

Public Health and Humanitarian Modeling

Panel on Reproducible Research in Discrete Event Simulation

Infrastructure Modeling

Hybrid Simulation

Hybrid Simulation in Health and Emergency Planning - I

Energy and Behavior

General and Scientific Applications

Energy and the Environment

Applications

Distributed Computing

Aviation

Healthcare Applications

Capacity Planning/Bed Allocation

Emergency Response

Emergency Department Capacity and Congestion Management

Policy Planning

Patient Scheduling

Clinical Care Planning

Patient Centered Outcomes

Patient Care Planning

Improving Care Delivery

JOS 10th Anniversary

Simulation: Past and Future

Logistics, SCM, Transportation

Simheuristics for Logistics, SCM and Transportation (1)

Distribution Logistics

Supply Chains

Uncertainty Modeling in Operations Planning

Simheuristics for Logistics, SCM and Transportation (2)

Intermodal Transport

Transportation Optimization

Simulation in Digitized Production and Logistics

Simheuristics for Logistics, SCM and Transportation (3)

MASM

MASM Keynote

Applied Analytics

Modeling and Optimization

Scheduling and Transportation

Qualification and Variability Management

Supply Chain Management

Cycle Time and Queuing Networks

Production and Capacity Planning

Scheduling

Manufacturing Applications

Smart Manufacturing

Scheduling and Maintenance in Manufacturing Systems

Logistics and Transportation for Manufacturing Systems

Simulation Optimization for Manufacturing

Advanced Control of Manufacturing Systems

Analysis of Manufacturing Processes

Modeling and Control of complex Manufacturing Systems

Military, Homeland Security, Emergency Response

Military Keynote

Simulation for Homeland Security

Engineering Applications in Defense Modeling

Defense Operational Analyses

Simulation in Military Training

Networks and Communications

NetCom I

NetCom II

Project Management and Construction

Building Energy

Emerging Issues in Construction

Machine-Oriented Construction

Construction Analysis

Facility and Infrastructure Management

Simulation Education

Simulation Education

Social and Behavioral Simulation

Markets and Policy

Human Behavior at the Workplace

Social Media and Influence

Crime and Migration

Industrial Case Studies

Industrial Case Studies - Aerospace

Industrial Case Studies - Logistics

Patrick Kirchhof, Tobias Stoehr

Industrial Case Studies - Healthcare 1

Helping Acute-Care Hospitals Run More Smoothly using Simulation and Census Data Analysis N/A

Wei Wang, Yugang Jia, Douglas Ranahan, Therese Fitzpatrick, Carole Miserendino, Nathan Cohen

MD Anderson R8 Simulation Study N/A

Zhanting Gao, Olivia Pewzer

Application of Emergency Department Simulation Modeling for New Hospital Operational Planning N/A

Atipol Kanchanapiboon, Paula Antognoli

Industrial Case Studies - Healthcare 2

Eradicating the Average: Answering Complex Healthcare Questions Using Discrete Event Simulation N/A

Laura Silvoy

Computer Simulation of Administrative Processes for Resource Planning and Risk Management N/A

Antonio R. Rodriguez, Joseph J. Wolski

University of Utah Ambulatory Care Complex N/A

Angela Chupa, Zhanting Gao

Industrial Case Studies - NIST Panel

Standards Supporting Simulations of Smart Manufacturing Systems N/A

Kevin Lyons, Conrad Bock, Guodong Shao, Ronay Ak

Industrial Case Studies - Homeland Security

Enhanced Operational Resilience of Airport Baggage Handling Systems N/A

Maurizio Tomasella, Bilyana Hristova, Zuzana Vancova, Burak Buke, Paul Hancock

Simulations Pay for Themselves at the National Guard Bureau N/A

Jason Bewley

Using Adaptive Modeling to Validate Cbrn Response Enterprise (cre) Capabilities N/A

James Rollins

Industrial Case Studies - Military

Improving Navy Recruiting With Data Farming N/A

Allison Hogarth, Thomas Lucas, Connor McLemore

RPS Simulation of U.S. Air Force F-16 Fleet Phase Maintenance Cycle N/A

Christopher J. Bevelle

A Simulation-Optimization Framework for Manpower Modeling and Forecasting N/A

Aristotelis E. Thanos

Industrial Case Studies - Financial/Government/Healthcare

A 401(k) Market Simulation To Evaluate Autoportability For Small Investors N/A
Ricki G. Ingalls

Process Optimization - Helping the Knowledge Worker and Consumer N/A
Lloyd Dugan

Leveraging Simulation for Customer Management Needs: Virginia DMV Staffing Analysis N/A
Carrie E. Thompson

Industrial Case Studies - Manufacturing

Automatically generating Flow Shop Simulation Models from SAP Data N/A
Patrick Kirchhof

A Simulation Study on the Evaluation of Alternative Plans and Drawing an Upper Limit for the Productivity Improvement of a Flow Shop Considering the Work Waiting Time N/A
Jong Hun Woo, Philippe Lee

Vendor Track

Vendor Session M1

The Impact of ExtendSim on Industry N/A
Anthony Nastasi

New Features and Capabilities in Arena 15.0 N/A
Robert A. Kranz, Nancy B. Zupick

Vendor Session M2

Introduction to Simio N/A
Katie Prochaska, Renee M. Thiesing

AnalyticSolver.com: Simulation, Optimization and Predictive Analytics in Your Web Browser N/A
Daniel H. Fylstra

Vendor Session M3

What The Cloud Can Do For Your Simulation Modeling N/A
Derek Magilton

Automod® : Outlasting the Competition through Performance, Scalability and Accuracy N/A
Daniel Muller

Vendor Session T1

Innovative ExtendSim Solutions N/A
Anthony Nastasi

Twenty-Two Critical Pitfalls in Simulation Modeling and How to Avoid Them N/A

Ph.D. Colloquium Presentations II

General and Ph.D. Poster Session

Poster Briefings

Poster Briefing