

ANNSIM'21 Agenda

Monday - July 19, 2021

MSBSE (11:30-13:00)

Chairs: Andrea D'Ambrogio & Fernando Barros

SIMULATION-BASED EVALUATION OF MODEL SENSITIVITIES IN FINISHED VEHICLE LOGISTICS

Kerstin Herrmann, Sebastian Risse and Tilo Weller

X LANGUAGE: AN INTEGRATED INTELLIGENT MODELING AND SIMULATION LANGUAGE FOR COMPLEX PRODUCTS

Lin Zhang, Fei Ye, Yuanjun Laili, Kunyu Xie, Pengfei Gu, Xiaohan Wang, Chun Zhao, Xuesong Zhang and Minjie Chen

A WEB BASED MODELING AND SIMULATION ENVIRONMENT TO SUPPORT THE DEVS SIMULATION LIFECYCLE

Bruno St-Aubin, Jon Menard and Gabriel Wainer

A TUTORIAL INTRODUCTION TO COLORED PETRI NETS FRAMEWORK FOR MODEL-DRIVEN SYSTEM DESIGN AND ENGINEERING

Vijay Gehlot

A MODEL BASED SYSTEMS ENGINEERING APPROACH TO AUTOMATED MUSIC ARRANGEMENT

Jalal Possik, Charles Yaacoub, Simon Gorecki, Greg Zacharewicz and Andrea D'Ambrogio

TMS (11:30-13:00)

Chairs: Hoda Khalil & Andrea Vandin

UNIFIED PROPERTY EVALUATIONS OF CONSTRAINED-DEVS MODELS FOR SIMULATION AND MODEL CHECKING

Soroosh Gholami and Hessam Sarjoughian

TOWARDS A UNIVERSAL REPRESENTATION OF DEVS: A METAMODEL-BASED DEFINITION OF DEVS FORMAL SPECIFICATION

Maria Blas, Silvio Gonnet and Bernard Zeigler

TOWARDS A CATEGORICAL SEMANTICS OF DEVS

Jean-Pierre Müller

COMBINING DEVS AND SEMANTIC TECHNOLOGIES FOR MODELING THE SARS-COV-2 REPLICATION MACHINERY

Ali Ayadi, Claudia Frydman, Wissame Laddada, Lina F. Soualmia, Cecilia Zanni-Merk, India L'Hote, Emeline Grellet and Isabelle Imbert

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MSES-MSCS (13:30-15:00)

Chairs: James Nutaro & Sachin Shetty

A CASE STUDY IN SIMULATION METHODS FOR POWER ELECTRONIC CIRCUITS

James Nutaro, Kalyan Perumalla and Suman Debnath

CD2: A TOOL FOR AUTOMATION OF CELL-DEVS CARBON DIOXIDE DIFFUSION MODELS

Hoda Khalil and Gabriel Wainer

GAUSSIAN PROCESS REGRESSION FOR AGGREGATE BASELINE LOAD FORECASTING

Kadir Amasyali and Mohammed Olama

COMPARATIVE ANALYSIS OF ELLIPTIC CURVE AND LATTICE BASED CRYPTOGRAPHY Amanda Davenport and Sachin Shetty

MODELING AND SIMULATION APPROACHES FOR CYBERSECURITY IMPACT ANALYSIS: STATE-OF-THE-ART

Alvi Jawad and Jason Jaskolka

TMS-MSBSE (13:30-15:00)

Chairs: Alonso Inostroza & Andrea D'Ambrogio

OPTIMAL CONTROL OF A DISCRETE TIME STOCHASTIC MODEL OF EPIDEMIC SPREADING IN ARBITRARY NETWORKS

Fabrizio Angaroni, Chiara Damiani, Giulia Ramunni and Marco Antoniotti

SCENARIO MODELING OF LANDSCAPE CHANGE AND TELE-COUPLING IN SOCIO-ECOLOGICAL SYSTEMS: A SIMULATION OF LAND USE CHANGE AND RECREATIONAL ACTIVITIES IN SOUTHERN IDAHO, UNITED STATES

Li Huang, Daniel Cronan and Andrew Kliskey

A NEW DISCRETE-EVENT SIMULATION BASED APPROACH FOR VALIDATING ACTUATION CONFLICT MANAGEMENT IN IOT SYSTEMS

Laurent Capocchi, Jean-Francois SANTUCCI, Jean Yves Tigli, Thibault Gonnin, Stéphane Lavirotte and Gérald Rocher

EXTENDING RC4 TO CONSTRUCT SECURE RANDOM NUMBER GENERATORS

Lih-Yuan Deng, Dale Bowman, Ching-Chi Yang and Henry Lu

STRATEGIC ENGINEERING APPLIED TO COMPLEX SYSTEMS WITHIN MARINE ENVIRONMENT

Agostino Bruzzone, Marina Massei, Kirill Sinelshchikov and Antonio Giovannetti

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TUTORIAL A (15:15-16:45)

Chair: Xiaolin Hu

MODEL-BASED MONITORING AND STATE ESTIMATION FOR DIGITAL TWINS: THE KALMAN FILTER

Hao Feng, Cláudio Gomes, Peter Gorm Larsen and Alexandros Iosifidis

TUTORIAL B (15:15-16:45)

Chair: Salim Chemlal

VARIABILITY MODELING AND SIMULATION USING MULTIPLE SIMULATORS

Thorsten Pawletta, Hendrik Folkerts and Christina Deatcu