

SW14 PROGRAMME

DAY 1 (Tuesday 1 April 2014)

09:00 – 09:45 **Registration & Coffee**

09:45 – 10:00 **Welcome and Presentation of K.D. Tocher Award**

Benny Tjahjono (*Cranfield University*)
Stewart Robinson (*President of The OR Society*)

10:00 – 11:00 **Keynote**

Keynote Chair: Benny Tjahjono (*Cranfield University*)

Why Good Simulations Go Bad

Barry Nelson (*Northwestern University, USA*)

11:00 – 11:30 **Coffee Break**

11:30 – 12:30 **Session 1: Simulation Methodology 1**

Session Chair: Cathal Heavey (*University of Limerick*)

**Model building in system dynamics and discrete-event simulation:
A comparison of analysts' language**

Roger McHaney (*Kansas State University*), Antuela Tako (*Loughborough University*) and
Stewart Robinson (*Loughborough University*)

**Towards a methodology for building large-scale distributed hybrid agent-
based and discrete-event simulations: The case of emergency medical services**

Anastasia Anagnostou and Simon J E Taylor (*Brunel University*)

11:30 – 12:30 **Session 2: Practitioners Case Study 1**

Session Chair: Durk-Jouke van der Zee (*University of Groningen*)

How Simulation is making a difference to British Airways

Andrew Beck (*British Airways*)

Unlocking Airport Capacity: Airport Simulation at NATS

Simon Martin (*NATS*)

12:30 – 14:00 **Lunch**

14:00 – 15:00 **Session 3: Simulation Methodology 2**

Session Chair: Bhakti Stephan Onggo (*Lancaster University*)

Towards automated simulation input data

Panagiotis Barlas and Cathal Heavey (*University of Limerick*)

An investigation on test driven discrete event simulation

Shahriar Asta, Ender Ozcan and Peer-Olaf Siebers (*The University of Nottingham*)

- 14:00 – 15:00 **Session 4: Simulation in Operations Management**
Session Chair: Benny Tjahjono (*Cranfield University*)
- A Discrete Event Simulation for the Analysis of the Harvesting, Transportation and Processing Systems of a Seasonal Vegetable Production Operation**
Nicky Yates (*Cranfield University*)
- A Framework for Developing Simulation-based Serious Games for Operations Management Education**
Durk-Jouke van der Zee and Steffan Sloot (*University of Groningen*)
- 15:00 – 15:30 **Poster presentations**
Session Chair: Tom Monks (*University of Exeter*)
- 15:30 – 16:00 **Coffee Break**
- 16:00 – 17:00 **Session 5: Simulation Software**
Session Chair: Peer-Olaf Siebers (*The University of Nottingham*)
- "JaamSim" described in three simple examples**
Harry King, Harvey Harrison and Matt Chudleigh (*Ausenco*)
- Extending an open-source discrete event simulation platform with new objects**
Georgios Dagkakis, Ioannis Papagiannopoulos and Cathal Heavey (*University of Limerick*)
- 16:00 – 17:00 **Session 6: Simulation in Healthcare**
Session Chair: Russell Cheng (*University of Southampton*)
- Modelling the dental workforce in Sri Lanka**
Sally Brailsford (*University of Southampton*) and Dileep De Silva (*Ministry of Health*)
- Simulating the surgical booking process**
Marion Penn (*University of Southampton*), Chris Potts (*University of Southampton*) and Paul Harper (*University of Cardiff*)
- 17:00 – 17:30 **AnyLogic 7: New Features Overview**
David Buxton (*DSE Consulting*)
- 17:00 – 17:30 **Celebrating 20 years of SIMUL8 in 2014**
(*SIMUL8 Corporation*)
- 19:30 **Conference Dinner** (Henley & Arden Suite)

DAY 2 (Wednesday 2nd April 2014)

- 09:00 – 10:30 **Session 7: Cloud-Based and GPGPU Simulation**
Session Chair: Shane Kite (*Saker Solutions*)

The need for cloud-based simulation from the perspective of simulation practitioners

Bhakti Stephan Onggo (*Lancaster University*), Simon J E Taylor (*Brunel University*) and Arman Tulegenov (*InnoForce CA LLP*)

CloudSME: Developing a cloud computing-based platform for simulation in manufacturing and engineering

Simon J E Taylor (*Brunel University*), Tamas Kiss (*University of Westminster*), Peter Kacsuk (*STAK*), Gabor Terstyanszky (*University of Westminster*) and Nicola Fantini (*Scaletools*)

The Use of Massively Parallel Processors in Simulation: An Assessment

Russell Cheng (*University of Southampton*)

09:00 – 10:30

Session 8: Practitioners Case Study 2

Session Chair: Andrew Beck (*British Airways*)

Management of Simulation Information

Simon Hughes and Jacqueline Bishop (*Sellafield Ltd.*)

Simulation of Manufacturing Energy Usage and Load Profiles

Alan Arokiam (*University of Greenwich*), Hafid Belaidi (*University of Greenwich*), John Ladbrook (*Ford Motor Company*) and Joel Wilson (*University of Greenwich*)

Managing Customer Needs in Fabric Roll Production

Scott Mason (*Clemson University*), Kasin Ransikarbum (*Clemson University*), Robert Allen (*Clemson University*), Brad Willett (*Glen Raven Custom Fabrics*)
Kevin Taaffe (*Clemson University*)

10:30 – 11:00

Coffee Break

11:00 – 12:30

Session 9: Conceptual Modelling

Session Chair: Roger McHaney (*Kansas State University*)

Generating insights: the effectiveness of simulation models in creative problem solving

Anastasia Gogi, Antuela Tako and Stewart Robinson (*Loughborough University*)

Graphical representation of agent-based models in Operational Research and Management Science using UML

Peer-Olaf Siebers (*The University of Nottingham*) and Bhakti Stephan Onggo (*Lancaster University*)

Conceptual modelling: Lessons from computer science

Fahim Ahmed, Stewart Robinson and Antuela Tako (*Loughborough University*)

11:00 – 12:30

Session 10: Simulation in Management Decision Making

Session Chair: Kevin Taaffe (*Clemson University*)

Simulation of Competition in Revenue Management

Christine S.M. Currie (*University of Southampton*)

Developments in the quality assurance of government models used to support business critical decisions

Alan Robinson and Paul Glover (*Defence Science and Technology Laboratory*)

Considering Volunteer Assignments and Behaviour During Relief Efforts

Abdelwahab Alwahishie and Kevin Taaffe (*Clemson University*)

12:30 – 14:00

Lunch

14:00 – 15:30

Panel Discussion

Session Chair: Simon J.E. Taylor (*Brunel University*)

Simulation Analytics: The Future of Simulation?

Panellists: Barry Nelson (*Northwestern University, USA*), Mark Elder (*SIMUL8*), Ken McNaught (*Cranfield University*) and Christine Currie (*University of Southampton*)

15:30

Close

Teas and coffees will be available in the Warwick room at this time.