Special Issue on “System of Systems Engineering in cooperative and competitive distributed decision making for complex dynamic systems”

IEEE Systems Journal
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The Seventh International Conference on System of Systems Engineering (SoSE) in July 2012 focused on cooperative and competitive distributed decision making for complex dynamic systems; specifically on SoSE control and simulation methodologies to support decisions in different application fields, among others transport, energy, industrial and environmental risk management.

SOSE2012 participants, specifically those mentioned among the best congress papers, as well as other researchers interested in the topics of the congress are invited to submit manuscripts that advance the science and practice of SoSE control and simulation technologies.

This special issue will collect original papers, that are either a further research progress with respect to those presented at SoSE 2012, or a work not discussed at that conference that addresses any aspect of the design, implementation and application of SoSE. Research areas of relevance to this issue include, but are not limited to, the following methodologies at system level:

- Decision support systems for sustainable energy systems
- Decision making for modeling complex system of systems
- Identification of sustainable energy system indicators
- Modeling system of systems
- Image processing and pattern recognition techniques for computer aided of system of systems
- Environmental modeling and system dynamics
- Risk management & mitigation
- Transportation systems
- Optimal control for system of systems
- SoSE modelling & optimisation.
- Design & control of innovative renewable hybrid energy systems for building.
- Intelligent Energy systems, Power Transmission and Distribution.
- Multi-criteria decision making in supply chain management
Case studies at any scale of detail (world, national, regional, …) are welcome.

The main aim of this special issue is to advance our theoretical and empirical understanding of the system-level issues of models and methods for the development of methodological and technological approaches to decision making SoSE. Theoretical, methodological and/or empirical research papers are welcome. Papers which provide methodologies on how to support decisions on a mathematical basis, as well as system of systems modeling approaches are of particular interest. All papers will be anonymously reviewed for publication by referees who look for original ideas that are clearly presented.

**Submission and Review Process**

Questions about the special issue should be directed to hanane.dagdougui@unige.it, E.Hubbard@lboro.ac.uk.

All manuscripts for this special issue should be submitted electronically to the IEEE Systems Journal website (http://www.ieeesystemsjournal.org/login.php).

Authors should indicate that their manuscript is being submitted for the Special Issue on System of Systems Engineering in cooperative and competitive distributed decision making for complex dynamic systems. A copy of the manuscript should be emailed in PDF format to hanane.dagdougui@unige.it, E.Hubbard@lboro.ac.uk

**Schedule:**

Submission Deadline: November 30, 2012
Notification of Acceptance: March 30, 2013
Target Publication: July, 2013

**Brief CVs**

**Michael J de C Henshaw**

Michael Henshaw received a BSc. (first class) and a PhD in Applied Physics from University of Hull, UK. He also holds an MBA. He pursued research in Plasma Physics in both Hull and York Universities before moving to British Aerospace as an Aeronautical Engineer. Following seventeen years working for BAE Systems in Aeronautical and, later Systems, engineering he joined Loughborough University as Professof of Systems Engineering in Aug. 2006. He is a co-chair of IEEE Technical Committee on Systems of Systems Engineering and an Associate Editor of both the IEEE Systems Journal and the Royal Aeronautical Society Journal. He is also Academic Director of INCOSE UK. He is a member at large of the NATO RTO Systems Concepts and Integration Panel and chairman of Working session A on Capability Planning and Management Allocation. His research has focused on Systems of Systems with particular concentraion on the themes of Network Enabled Capability, Through Life Systems Management, Autonomous Systems and latterly Cyber Security. In all of these areas complexity and interoperability between systems are the major challenges being addressed.

**Roberto Sacile**

Roberto Sacile (M’11) received the Laurea degree in Electronic Engineering from University of Genova, Genova, Italy, in 1990 and the Ph.D. degree from Milan Polytechnic, Milan, Italy, in 1994. He joined the French National Institute for Research in Computer Science and Control (INRIA), Sophia Antipolis, France, in 1995. He is currently with University of Genova where, since 2000, he has been
teaching the course of “Models and methods for the management of environmental systems”, and more recently “Model and methods for the management of logistic systems”. His main research interests are related to optimization and decision support methodologies, with specific applications to the environmental, logistics and transport domains and their sustainability and related risk assessment issues. He is associated editor of IEEE Systems Journal. He has been member of the NATO Science for Peace Panel during 2004-2011. He is currently an evaluator of the European Union VII Framework Programme, as well as of several National Research Programmes (France, Cyprus, Sweden, Russia). He is the head of joint laboratory between Eni (one of the most important petrol-chemical companies) and University of Genova, focusing on the risk and monitoring of dangerous goods transportation systems. His bibliography includes more than 60 papers on international peer reviewed journals, and he is co-author of one book on agent based systems for agile manufacturing.