

# THE INTERNATIONAL DEFENSE AND HOMELAND SECURITY SIMULATION WORKSHOP

SEPTEMBER 19-21 2012  
VIENNA, AUSTRIA



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PRINTED IN RENDE (CS), ITALY, SEPTEMBER 2012

ISBN 978-88-97999-00-3 (paperback)  
ISBN 978-88-97999-08-9 (PDF)

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ISBN 978-88-97999-00-3 (PAPERBACK)

ISBN 978-88-97999-08-9 (PDF)

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## GENERAL CO-CHAIRS' MESSAGE

### *WELCOME TO DHSS 2012!*

Welcome to the International Defense and Homeland Security Simulation 2012 (DHSS 2012) Workshop Proceedings. There was significant excitement in the air this year as simulation experts from around the world assembled for our second DHSS workshop held in Vienna, Austria in September 2012. Selected articles cover different technical topics ranging from intelligent agents to mobile learning to serious games.

Simulation is presented as a tool of choice to train security methods within both military and civilian organizations. Within the DHSS 2012 articles Scientists share methods to enhance the performance of individuals and teams, reduce time and cost to develop simulation systems, and accelerate learning through intelligent agents. Engineers demonstrate practical tools to train, analyze, and deliver military and homeland security simulations. For reference a short description of the most important topic of the DHSS workshop tracks is described below:

Context Simulation for DHS/HLS provides a meta-analysis of what is needed to support first the training of first responders. Ports and Littoral Protection explores a wide variety of topics at the interface of port security, safety and port operations, with an emphasis on technical tools using mathematical modeling, risk analysis, and new algorithmic approaches to inspection of cargo, nuclear materials, vehicles entering ports, vessel movements in waterways and port operations.

Serious Games investigates the use of commercial games technologies, development of best practices, and barriers to further exploitation and ways these barriers might be overcome. Urban Area Security explores the unique challenges for training to maintain security in complex environments while CyberSecurity assesses methods for analyzing, recognizing, and remedying problems associated with information technology threats.

Adaptive and predictive computer-based tutoring focuses on tools and methods to support automated adaptation of instruction based on the learner's cognitive and affective states. Next generation C4ISR Modeling & Simulation technology examines simulation tools and methods including mixed reality, crowd sourcing, and interoperability between command and control and simulation architectures to support operations, training, and analysis.

Simulations as tools to develop intuitive contextual sensitivity, re-framing, and mental agility explore a sophisticated employment of simulation technology to enhance cognitive capabilities and stimulate brain plasticity. Finally, homeland security offers the possibility of representing results and identifying critical issues in complex homeland security environments.

Again, welcome and we hope you will find many useful topics in these proceedings and to meet your defense and homeland security training, analysis and operational needs and you will enjoy the wonderful framework of Vienna!



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## ACKNOWLEDGEMENTS

The DHSS 2012 International Program Committee (IPC) has selected the papers for the Conference among many submissions; therefore, based on this effort, a very successful event is expected. The DHSS 2012 IPC would like to thank all the authors as well as the reviewers for their invaluable work.

A special thank goes to all the organizations, institutions and societies that have supported and technically sponsored the event.

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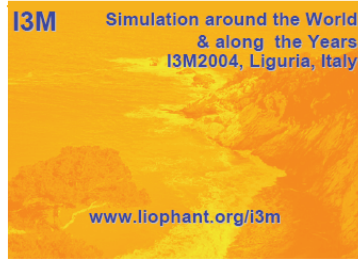
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If you are interested in receiving the DHSS 2012 Conference Proceedings including the full papers reported in the Index, please contact:

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