

International Defense and Homeland Security Simulation Workshop

(DHSS 2012)

**Held at the International Multidisciplinary
Modeling and Simulation Multiconference**

**Vienna, Austria
19-21 September 2012**

Editors:

**Agostino Bruzzone
Francesco Longo
Robert Sottolare**

**Wayne Buck
John A. Sokolowski**

ISBN: 978-1-62993-482-2

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2012) by CAL-TEK S.r.l.
All rights reserved.

Printed by Curran Associates, Inc. (2014)

For permission requests, please contact CAL-TEK S.r.l.
at the address below.

CAL-TEK S.r.l.
Via Spagna 240-242
87036 Rende (CS)
Italy

Phone: +39 333 7042 612
Fax: +39 0984 937849

info@cal-tek.eu

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

Index

Underwater Warfare Simulation In Distributed System With Delta3d Won Kyung Hwam, Yongho Chung, Young N. Na, Yongjin Kwon, Sang C. Park	1
Beyond Serious Games: Transmedia For More Effective Training & Education Elaine M. Raybourn	6
Adaptive Game-Based Tutoring: Mechanisms for Real-Time Feedback And Adaptation Benjamin Goldberg, Keith Brawner, Heather Holden, Robert A. Sottolare	13
Considerations in the Development of an Ontology for a Generalized Intelligent Framework for Tutoring Robert A. Sottolare	19
Criticality Assessment via Opinion Dynamics Gabriele Oliva, Estefania Etcheves Micolino	26
Situation Awareness in Critical Infrastructures Vincenza Abate, Ludovica Adacher, Federica Pascucci	32
Detection of and Reaction to Cyber Attacks in a Critical Infrastructures Scenario: the CockpitCI Approach Donato Macone, Francesco Liberati, Andrea Simeoni, Francesco Delli Priscoli, Marco Castrucci, Stefano Panzieri, Serguei Iassinovski, Michele Minichino, Ester Ciancamerla	39
Heuristic Approach for Paths' Computing of a Marine Fleet for an Underwater Patrolling Mission Domenico Balestrieri, Giulia Vaccaro, Francesca Lancia, Fabio Portieri	45
Securing Freight Trains for Hazardous Material Transportation: a WSN-Based Monitoring System Valentina Casola, Alessandra De Benedicis, Annarita Drago, Mariana Esposito, Francesco Flammini, Nicola Mazzocca	52
A Smart Monitoring System Based on a Fast Classifier and a Semantic Post Reasoner Flora Amato, Valentina Casola, Mariana Esposito, Nicola Mazzocca, Antonino Mazzeo	60
Critical Infrastructure Protection: Threats Mining and Assessment Giusj Digioia, Stefano Panzieri	67
The Use of Artificial Intelligence for Enhanced Network Defense Michael Knight, Kortney Raulston, Kennard Lavers, Kenneth Hopkinson	73
Evidence Marshalling with Inference Networks: An Application to Homeland Security Ken McNaught, Peter Sutovsky	79
Application of UML for Risk Based Interdependencies Modelling in Critical Infrastructures	85

Anatolijs Zabasta, Oksana Nikiforova, Nadezhda Kunicina

**CAX Methodology for Civil Protection Purposes and Civil Military Co
operation** 91

Konstantinos Tsiakalos

Experimentation on CIMIC and PSYOPS simulators 101

Agostino Bruzzzone, Francesca Madeo, Claudia Frydman, Simonluca Poggi,
Marina Massei, Gregory Zacharewicz

Authors' Index 109