International Defense and Homeland Security Simulation Workshop

(DHSS 2011)

Held at the International Mediterranean and Latin American Modeling Multiconference

Rome, Italy 12-14 September 2011

Editors:

Agostino Bruzzone John A. Sokolowski **Wayne Buck**

ISBN: 978-1-62993-479-2

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© (2011) 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

<u>Index</u>

Interface Forms for an Underwater Warfare Simulation Environment Kyung-Min Seo, Changbeom Choi, Jung Hoon Kim, Tag Gon Kim	1
Excel-Based Analysis and Dynamisation of Probabilities For Logistics Planning Markus Klug, Andreas Alexa	7
A Simulation Study of C4i Communications Network Under Cyber Attacks Agatino Mursia, Lucio Ganga, Alessandro Leonardi, Giacomo Morabito, Corrado Rametta, Lloyd Wihl	13
Modeling and Simulating Dynamic Healthcare Practices Eugene Santos Jr., Keum Kim, Fei Yu, Deqing Li, Phoebe Arbogast, Elizabeth Jacob, Joseph Rosen	19
Exploratory Sequential Data Analysis of a Cyber Defence Exercise Dennis Andersson, Magdalena Granåsen, Thomas Sundmark, Hannes Holm, Jonas Hallberg	27
Realtime Clustering of Unlabelled Sensory Data for Trainee State Assessment Keith Brawner, Avelino Gonzalez	33
The Impact of Student Expectations and Tutor Acceptance on Computer-Based Learning Environment Acceptance and Future Usage Intentions Heather Holden, Benjamin Goldberg	42
A Low-Cost Simulation Environment for Port Security Experimentation and Training Tania Randall, Allan Gillis	48
Visual Analytics Applications for Cyber Security and Intelligence Valérie Lavigne, Denis Gouin	56
Is LVC a Pandora for all Training Needs Ian McVeigh, Jon Sackett	66
Distributed Simulation of Electronic Warfare Command and Control Scenarios Sergio Tortora, Davide Cannone, Massimo Giovacchini, Giuseppe Italiano, Maurizio Naldi, Andrea Sindico	71
Simulated Realtime Multi-Channel IQ Data Generator for an Aesa Radar Romolo Gordini, Michele Giorgiutti	77
Distributed Simulation Science Margaret Loper	83
Research Gaps for Adaptive and Predictive Computer-Based Tutoring Systems Robert Sottilare, Stephen Goldberg, Paula Durlach	91
Cultural Considerations in a Simulated Emergency Elizabeth Whitaker, Rita Gonzalez, Ethan Trewhitt, Reid MacTavish, Margaret Loper	97
A Canadian Approach Towards Network Enabled Capabilities - I: Simulation Validation & Illustrative Examples Rick McCourt, Kevin Ng, Roy Mitchell	106
Incorporating Reflection Into Learner and Instructor Models for Adaptive and Predictive Computer-Based Tutoring Elaine Raybourn	117
Verification Methodology for Simulation Model based on System Morphism Changbeom Choi, Jangwon Bae, Minwook Yoo, Tag Gon Kim, Soohan Kim	123
Detecting Deception Within a Probabilistic Modelling Framework Ken R. McNaught	129

Devs-Based Validation of Uav Path Planning in Hostile Environments Alejandro Moreno, Luis de la Torre, José L. Risco-Martín, Eva Besada-Portas, Joaquín Aranda Almansa	135
Automatic Maritime Surveillance with Visual Target Detection Domenico Bloisi, Luca locchi, Michele Fiorini, Giovanni Graziano	141
CAPRICORN: Using Intelligent Agents and Interoperable Simulation for Supporting Country Reconstruction Agostino Bruzzone, Marina Massei, Alberto Tremori, Enrico Bocca, Francesca Madeo, Federico Tarone	146
Simulating Urban Environment for assessing impact of Alternative Command & Control Netcentric Maturity Models within Asymmetric Scenarios Agostino Bruzzone, Enrico Bocca, Federico Tarone	159
Authors' Index	167