Editors: Nikos E. Mastorakis, Valeri Mladenov

ADVANCES IN VISUALIZATION, IMAGING AND SIMULATION

3rd WSEAS International Conference
on VISUALIZATION, IMAGING and SIMULATION (VIS '10)

University of Algarve, Faro, Portugal, November 3-5, 2010

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Preface

This year the 3rd WSEAS International Conference on VISUALIZATION, IMAGING and SIMULATION (VIS '10) was held at the University of Algarve, Faro, Portugal, November 3-5, 2010. The conference remains faithful to its original idea of providing a platform to discuss imaging sensors, color and texture analysis, motion and tracking, stereo vision, biometrics recognition, machine learning, image manipulation and compression, medical imaging, motion analysis, cognitive vision, face and gesture recognition, scientific and mathematical visualization, multiresolution techniques, signal segmentation, visual inspection, human computer interaction and communication, numerical grid generation, eigenvalue problems, optimization, systems and control, fluid mechanics, heuristic algorithms, cryptology, undersea systems etc. with participants from all over the world, both from academia and from industry.

Its success is reflected in the papers received, with participants coming from several countries, allowing a real multinational multicultural exchange of experiences and ideas.

The accepted papers of this conference are published in this Book that will be indexed by ISI. Please, check it: www.worldses.org/indexes as well as in the CD-ROM Proceedings. They will be also available in the E-Library of the WSEAS. The best papers will be also promoted in many Journals for further evaluation.

A Conference such as this can only succeed as a team effort, so the Editors want to thank the International Scientific Committee and the Reviewers for their excellent work in reviewing the papers as well as their invaluable input and advice.

The Editors

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Plenary Lecture 1

Distributed Simulation Environment Access

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Abstract: Nowadays the decision making becomes very difficult and risky process due to complexity of the sociotechnical systems, which are information capacious. Due to the reasons mentioned above topical are the requirements for situations forecasting before the decision making. For solving the problems mentioned above the varied simulation tools and environments are used. Unfortunately some serious problems still exist related with standards compatibility, formats harmonization, concepts consistency and access. Today does not possible to design highly functional distributed simulation models without the specific knowledge in programming, therefore common access to the models created before in different industries and environments are still limited for IT non-professionals. The aim of the report is to clarify the situation and to offer some ways how to solve the problems related with distributed simulation access.

Brief Biography of the Speaker: Director of Sociotechnical Systems Engineering Institute at the Vidzeme University of Applied Sciences. Full time professor at the Vidzeme University of Applied Sciences. He is member of Institute of Electrical and Electronics Engineers (IEEE). Prof. Egils Ginters is member of the Board of Association of Computer Technologies of Latvia and IT expert of Latvian Council of Sciences. He is an author of data processing systems designing methodology LISTechnology and more than 100 publications related with logistics information systems and simulation. Prof. Egils Ginters was participant of some EU funded projects: INCO Copernicus AMCAI 0312 (1994-1997), INCO Copernicus DAMAC-HP PL976012 (1998-2000), FP5 IST BALTPORTS-IT (2000-2003), FP6 IST e-LOGMAR-M No.511285 (2004-2006) and coordinator of Leonardo da Vinci LOGIS LV-PP-138.003 (2000-2002), LOGIS MOBILE LV/B/F/PP-172.001 (2004-2006) and SocSimNet LV/B/F/PP-172.000 (2004-2006).

Plenary Lecture 2

Some Relevant Aspects of Developing a Customized Remote Control System

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Manufacturing Department
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Abstract: Developing a customized product requires thorough analysis of the problems involved, so that performances and efficiency could be stated. This paper presents the way computer aided technologies, dealing with modeling, simulation (by SolidWorks and Autodesk Inventor) and rapid prototyping (by Ink Jet 3D printing), were applied and used so as to a check, to determine, to improve and correct the possible design errors of a remote control system's components.

Brief Biography of the Speaker: Has graduated in 1989, "POLITEHNICA" Institute of Bucharest, ROMANIA and in1989 – 1991 worked as an engineer – in the Design Department of a Romanian peripheral equipment factory, FEPER

Since 1991 has been working, as a teacher in "POLITEHNICA" University of Bucharest, ROMANIA – Manufacturing Department, in 2004, being Associate professor. The Doctoral Thesis, in 2000 – was on Quality and Machinability of Thermal Sprayed Layers.

Teaches courses and works into the fields of: Applied Statistics for Engineers; Metal Forming; Manufacturing Technologies; Injection Moulding, being scientific researcher, in about 30 Research Projects and Grants. First-author or, co-author, of about 95 studies and papers - published to International/National Conferences, Sessions, Workshops, Platform Meetings etc; of 12 books on Statistics, Manufacturing Technology, Geometrical Precision Inspection. Member of some professional associations, as Plastics Industry Producers Association – ASPAPLAST, ROMANIA, Rapid Manufacturing Association – RAPIMAN; has some international awards as: Best Innovation Award - at Brussels INNOVA Fair, 2007, Golden Medal – in INVENTIKA –2008, Bucharest, Romania.

Has papers presented in WSEAS Conferences, in 2008, 2009 and, also published in WSEAS Journals. Was invited Plenary Speaker in WSEAS Conferences, like Venice – November, 2008 ; Cambridge – February, 2009; Baltimore – November 2010. Has performed organizing activities for WSEAS Conferences in Bucharest, in June and, specially, in November, 2008 – when was General Chairman.

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