

FINAL PROGRAM



1-3 December 2010

Maritim Jolie Ville Hotel

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المؤسسة العربية للعلوم والتكنولوجيا
Arab Science and Technology Foundation



MESM'2010 – GAMEON-ARABIA'2010 FINAL PROGRAMME

Overhead and LCD Projector are standard

The underlined authors are usually the presenters.

Conference Site: The [Maritim Jolie Ville Hotel Alexandria](#), 544, El Gueish Avenue, Sidi Bishr 10002 Alexandria

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Only papers in gray boxes are eligible for the best paper award

Wednesday, December 1, 2010

09.00 - 16.00 **Registration**

09.30 - 10.00 **Welcome**

Welcome Address

Professor Marwan Al-Akaidi, De Montfort University, Leicester, United Kingdom

Prof. Mostafa Sabet, Dean of the Higher Technological Institute

Assoc. Prof. Ghada L. Amer, Arab Science and Technology Foundation

10.00 - 10.30 **Coffee/Tea Break**

10.30 - 12.30 **Session I**

SIMULATION TOOLS

10.30-12.30

Session Chairperson:

Ghada L. Amer, Arab Science and Technology Foundation

MESM_TOOLS_01

Discrete Event Simulation Tool for Earthmoving Fleet Selection

Mohamed Marzouk and Magdy Omar **29**

MESM_TOOLS_02

Evaluation of single phase to earth fault protection methods in

Medium Voltage Networks using MATLAB

Abdallah R. Al-Zyoud and Jalal M. Abdallah **36**

Wednesday, December 1, 2010

MESM_TOOLS_03

Simulation Assisted Model-Based Control Development – Unifying UML AP and Modelica ML

Timo Vepsäläinen, David Hästbacka and Seppo Kuikka..... 43

MESM_TOOLS_04

Single Phase SVPWM for Grid-Tied Inverter Based on d-q Synchronous Reference Frame Controller

Jasim Farhood and John Gow 51

12.30 - 14.00 **Lunch Break**

14.00 - 15.00 **Session II**

NEURAL NETWORKS AND GAMING

14.00-15.00

Session Chairperson:

Ghada Al-Hudhud, Prince Sultan University, Riyadh, KSA

MESM_NEUR_01

CMAC Neural Network Modeling, Simulation and a comparative Study of Learning Algorithms

Magdy Abdelhameed, Ahmed Kassem and Amro Shafik 67

GAMEON-ARABIA_04

Learning a Representation of a believable Virtual Character's Environment with an Imitation Algorithm

Fabien Tence, Cedric Buche, Pierre De Loor and

Oliver Marc 141

15.00 - 15.30 **Coffee/Tea Break**

Wednesday, December 1, 2010

15.30 - 17.30 **Session III**

SIMULATION IN MANUFACTURING

15.30-18.00

Session Chairperson:

Ghada L. Amer, Arab Science and Technology Foundation

MESM_TOOLS_05

Adding intermodality to the microscopic simulation package SUMO

Michael Behrisch, Jakob Erdmann and Daniel Krajzewicz **59**

MESM_MANUF_01

A Flexible Lean Automation concept for robotized manufacturing industry

Fredrik Danielsson, Bo Svensson and Steve Gustavsson **101**

MESM_COMPLEX_01

Modeling Ready Mixed Concrete Operations using Computer Simulation

Mohamed Marzouk, Ahmed Younes and Moheeb El-Said **110**

18.00 -

FREE EVENING

Thursday, December 2, 2010

09.00 - 12.00 **Registration**

09.00 - 10.00 **Session IV**

KEYNOTE SPEECH

09.00-10.00 **Session Chairperson:**
 Ghada L. Amer, Arab Science and Technology Foundation

MESM_KEY_01
The Future of Wireless Communications: WIMAX?
Marwan Al-Akaidi

10.00 - 10.30 **Coffee/Tea Break**

10.30 - 12.30 **Session V**

SIMULATION METHODOLOGY

10.30-12.30- **Session Chairperson:**
 TBA

MESM_METH_01
Optimal Sizing and Location of PVDG Unit on Radial Distribution Feeder Avoiding Reverse Current Flow Constraint
Ammar Al-Sabounchi, John Gow, Marwan Al-Akaidi and Hamda Al-Thani..... **5**

MESM_METH_02
Capturing Image Outlines using Simulated Annealing Approach with Conic Splines
Muhammad Sarfraz **11**

Thursday, December 2, 2010

MESM_METH_03

Modelling of a Non-Linear System

Kahtan I. Aziz..... 19

MESM_NEW

Simulation of Stand Alone Wind Energy System accompanied with Battery

Osama Gouda, Ghada Amer Tamer Elkhodargy and Mona bayoumi

12.30 - 14.00 **Lunch Break**

14.00 - 15.00 **Session VI**

SIMULATION AND AI

14.00-15.00

Session Chairperson:

Ghada L. Amer, Arab Science and Technology Foundation

MESM_AI_02

Evolutionary Step Towards Co-operative Nanorobots: Adapting Self-Controlling and Coordinating of Communications

G. Al-Hudhud..... 87

MESM_AI_03

Using Genetic Algorithm To Cryptanalyse A Simple Substitution Cipher

Dalal A. Hammood, Safaa S. Omran and Ali S. Al-Khalid 93

15.00 - 15.30 **Coffee Break**

Thursday, December 2, 2010

15.30 - 17.00 **Session VI**

TELECOM SIMULATION

15.30-17.00

Session Chairperson:

Ghada Al-Hudhud, Prince Sultan University, Riyadh, KSA

MESM_TEL_01

Error Resilient Packet-Switched Video Telephony with Adaptive Rateless Coding and Reference Picture Selection

Muneeb Dawood, Raouf Hamzaoui, Shakeel Ahmad and

Marwan Al-Akaidi..... 121

MESM_NEW_02

Modelling and Simulation of Solar Wireless Network Control System based on robust Model Predictive Controller

Waleed Al-Azzawi and Marwan Al-Akaidi..... 126

MESM_MANUF_03_TEL

A Real-Time Data Grid Model With Centralized Job Scheduling

Mustafa Mujdat Atanak, Safai Tandoğan and Atakan Doğan 133

17.00 - 17.15 **CLOSING SESSION**

CLOSING SESSION- BEST PAPER AWARD- FP7 MIDDLE EAST PROPOSAL

17.00-17.15

Session Chairperson:

Marwan Al-Akaidi, De Montfort University, Leicester, UK

Philippe Geril, EUROSIS-ETI, Ostend, Belgium

Call for participants to the EUROSIS FP-7 Middle East Proposal

19.00 - 22.00 **CONFERENCE DINNER**

Friday, December 3, 2010

09.00 - 09.30 **Departure for El-Alamein (exact time to be confirmed)**
17.00 - 17.30 **Departure from El-Alamein (exact time to be confirmed)**

SEE YOU NEXT YEAR

AT MESM 2011

(dates and place to be confirmed later in December 2010)

ALL SESSION CHAIRPERSONS IN THIS PROGRAM ARE PROVISIONAL

Session Chairs are chosen on a voluntary basis by proposals by either authors or local committee members or are appointed by the Track Chairs, General Program Chair or General Conference Chair. They are responsible for their assigned session. They make sure their speakers are available, take care of the timing within the session, chair the discussion after each presentation and introduce each speaker based on the CV's given to them by the authors. **If a session chair is not available then the first author takes on the responsibility to chair**

THE NUMBERS NEXT TO THE PRESENTATIONS DENOTE THE PAGE-NUMBERS IN THE PROCEEDINGS. IF NO NUMBERS ARE MENTIONED THEN THIS PAPER IS NOT PUBLISHED IN THE PROCEEDINGS

THE AUTHORS WHO ARE UNDERLINED ARE NORMALLY THE PRESENTERS

PAPERS IN GREY BOXES ARE THE EXTENDED PAPERS ELIGIBLE FOR THE BEST PAPER AWARD

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<http://www.eurosis.org>

BEWARE: As some of the authors might not be granted an Egyptian visa it is possible that some of the papers might not be presented.

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EUROSIS was borne out of discussions with the European Community to set up a new kind of Society, which would be project-driven instead of driven by pure membership and conferences.

The aim of the Society is to set up topic related Technical Committees which will link directly to European Projects in the field of computer simulation and related areas and to act as a knowledge pool for future European Networks of Excellence, like MOSAIC.

If you would like to receive more information about EUROSIS, please contact

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