# FINAL PROGRAM

**14-16 November 2011**

**Arab Open University**

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# MESM'2011 – GAMEON-ARABIA'2011 FINAL PROGRAMME

Overhead and LCD Projector are standard
The underlined authors are usually the presenters.
Conference Site: Arab Open University, Behind Queen Alia Hospital and Close to the Association of Arab University – Tareq, P. O. Box 1339 Postal Code 11953
Tel. ++962 6 5630630 Fax ++962 6 5630610, http://www.aou.edu.jo

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

## Monday, November 14, 2011

09.30 - 16.00 **Registration**

09.30 - 10.00 **Welcome**

**Welcome Address**
Professor Dr. Marwan Al-Akaidi, AOU, Safat, Kuwait
Professor Abu Qudais, AOU, Amman, Jordan
Professor Mohammad Hamdan
Professor Ken Newman, HTC, Abu Dhabi

10.00 - 10.30 **Coffee/Tea Break**

10.30 - 12.30 **Session I**

### DATA SIMULATION AND MANAGEMENT

**10.30-12.30** **Session Chairperson:**
Marwan Al-Akaidi, AOU, Safat, Kuwait

**MESM_AI_06**
**Self-Organizing Maps and Principal Component Analysis for Tomato Yield Datasets**
Kefaya Qaddoum, Evor Hines, Daciana Illiescu and
Muhd Khairulzaman Abdul Kadir **.....5**

**MESM_AI_10**
**Smart Search: An Intelligent Search System for the Oman National Transport Company using Web Ontology Language**
Sherimon P.C., Raja Waseem Anwar, Youssef Saad Takroni,
Reshmy Krishnan and Vinu P.V**.....10**

# Monday, November 14, 2011

**MESM_WEB_01**
**A Plausible Ancestor Generator**
Ken Newman ..... **16**

**MESM_BIO_01**
**Modelling of the Biodynamic responses of the Feet to Vertical Vibration**
Naser Nawayseh ..... **73**

12.30 - 14.00 **Lunch Break**

14.00 - 15.00 **Session II**

## ENGINEERING SIMULATION

**14.00-15.00** **Session Chairperson:**
Marwan Al-Akaidi, AOU, Safat, Kuwait

**MESM_ENG_01**
**Numerical Simulation for the Formability Prediction of the Laser Welded Blanks (TWB)**
Hossein Mamusi, Abolfazl Masoumi and Ramezanali Mahdavinejad .... **55**

**MESM_AI_05**
**Investigative Model Reference Controller for Servomotor Tracking System based on Neural Network**
Raaed K. Ibrahem ..... **60**

15.00 - 15.30 **Coffee/Tea Break**

# Monday, November 14, 2011

15.30 - 18.30 **Session III**

## ELECTRONICS SIMULATION

**15.30-18.30** **Session Chairperson:**
Marwan Al-Akaidi, AOU, Safat, Kuwait

**GAMEON_AR_SER_01**
**A Self Evolving Controller for a Physical Robot: A new Introduced avoiding Algorithm**
Dan Marius Dobrea, Adriana Sirbu and Monica Claudia Dobrea ..... **65**

**MESM_AI_07**
**Fuzzy Modeling of Dynamic Electronic Devices**
Basil Sh. Mahmood and Omar Abd Al-Razzak Ibrahim ..... **23**

**MESM_AI_04**
**Simulation of Model Reference Neural Network for Network Routing Protocols**
Anas Ali Hussien ..... **31**

**MESM_MULTI_02**
**Simulation Methods for Delays and Packets Dropout Avoidance in Solar-Power Wireless Network**
Waleed Al-Azzawi, Marwan Al-Akaidi and John Gow..... **36**

**MESM_MULTI_01**
**Inter-Frame Retransmission for Video Surveillance over WIMAX**
Suherman, Marwan Al-Akaidi and Raouf Hamzaoui..... **42**

**MESM_PAR_01**
**Numerical Modeling of Load Balanced Multicore Servers in a Cloud Cluster**
Vasil Georgiev and Jouni Karvo ..... **48**

18.30 - **FREE EVENING**

# Tuesday, November 15, 2011

09.00 - 12.00 **Registration**

09.00 - 10.00 **Session IV**

## TERRITORIAL INTELLIGENCE ENGINEERING I

**09.00-10.00**

**Session Chairperson:**
Cyrille Bertelle, Université du Havre, Le Havre, France

**INTRO**
**Introduction to Territorial Intelligence Engineering**
Cyrille Bertelle

**MESM_WORK_01**
**European Structural Funds and regional interactions, which convergences for the European regions?**
Bernard Elissalde, Patrice Langlois and Dominique Goyat **..... 81**

10.00 - 10.30 **Coffee/Tea Break**

10.30 - 12.30 **Session V**

## TERRITORIAL INTELLIGENCE ENGINEERING II

**10.30-12.30-**

**Session Chairperson:**
Cyrille Bertelle, Université du Havre, Le Havre, France

**MESM_WORK_06**
**From the event to the ephemeral city**
Françoise Lucchini, Bernard Elissalde and Sylviano Freire-Diaz **..... 88**

**MESM_WORK_04**
**Modeling Urban Cultural Systems with the Integrative Simulation Platform *ROUANTS***
Rawan Ghnemat, Françoise Lucchini and Cyrille Bertelle **..... 96**

# Tuesday, November 15, 2011

**MESM_WORK_03**
**SIMTRAP : A Multi-Agent Model for Decision Support in Spatial Planning of the Passengers' Spaces in Public Transport Systems**
Jérémy Fiegel, Cyrille Bertelle and Arnaud Banos **..... 101**

**MESM_WORK_05**
**Multi-Agent Constraint optimization Approach to Modeling of Demand Responsive Transport Systems**
Habib Abdulrab, Eduard Babkin and Eugene Ivlev **..... 105**

12.30 - 14.00 **Lunch Break**

14.00 - 15.00 **Session VI**

## TERRITORIAL INTELLIGENCE ENGINEERING III

**14.00-15.00** **Session Chairperson:**
Cyrille Bertelle, Université du Havre, Le Havre, France

**MESM_WORK_02**
**Multi-scale Analysis of the Vulnerability of Road Networks**
Cyrille Bertelle, Antoine Dutot, Michel Nabaa and Damien Olivier **..... 110**

**TIE ROUNDTABLE DISCUSSION**
Cyrille Bertelle

15.00 - 15.30 **Coffee Break**

# Tuesday, November 15, 2011

15.30 - 17.30 **Session VII**

## TUTORIAL

**15.30-17.30**

**Session Chairperson:**
Marwan Al-Akaidi, AOU, Safat, Kuwait

**MESM_TUT**
**Systems Thinking and Simulation Modeling for Complex Strategic Problems**
Yaman Barlas

19.00 - 22.00 **CONFERENCE DINNER**

REEM ALBAWADI Lebanese restaurant
Location: From Al Waha intersection on Gardens Street and Madina Street, head in the direction of Holiday Inn. Take the 1st right, then another right. Reem Al Bawadi will be on your left, opposite to Amman Mall.
962-6-5515419

# Wednesday, November 16, 2011

09.00 - 09.30 **Registration**

09.00 - 10.00 **Session VIII**

## E-LEARNING

**09.00-10.00** **Session Chairperson:**
Ken Newman, HTC, Abu Dhabi

**MESM_WEB_03**
**A Framework Model for an Accessible e-Learning Platform**
Jehad Al-Sadi ..... **119**

**MESM_WEB_01**
**Adopting e-Learning Strategy at The Arab Open University**
Bayan Abu-Shawar ..... **124**

10.00 - 10.30 **Coffee/Tea Break**

10.30 - 12.30 **Session IX**

## GAME DESIGN AND AI

**10.30-12.30-** **Session Chairperson:**
Ken Newman, HTC, Abu Dhabi

**MESM_AI_08**
**Teaching Object-Oriented Concepts with the Help of ALICE**
Khalid Al-Tahat ..... **131**

**GAMEON_AR_DES_01**
**MAPSH\D – AIM Framework for Game Design**
Russell B. Williams ..... **139**

**GAMEON_AR_SER_01**
**Sanctions, Punishment, and Game design: Designing MMORPGs for Fair Treatment of Players**
Georgios Christou ..... **144**

# Wednesday, November 16, 2011

**GAMEON_AR_AI_01**
**Fuzzy Q-Learning for First Person Shooters**
Youssef S. G. Nashed and Darryl N. Davis **.....149**

12.30 - 12.45 **Session X**

## CLOSING SESSION

**12.30-12.45-** **Session Chairperson:**
Professor Dr. Marwan Al-Akaidi, AOU, Safat, Kuwait

Best Paper Award Ceremony and closing statements

# Thursday, November 17, 2011

**CONFERENCE VISIT TO PETRA**

07.30 - 20.30 **Visit to Petra**
**Departure from the Amman Jerusalem Hotel and return to the Amman Jerusalem Hotel (exact time to be confirmed at the conference)**

## SEE YOU NEXT YEAR

## AT MESM 2012- GAMEON-ARABIA'2012
## (dates and location to be confirmed in December 2011)

**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 responsiblity 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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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.

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