




# MESM'2008 FINAL PROGRAMME

Overhead and LCD Projector are standard

The underlined authors are usually the presenters.

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## Tuesday, August 26, 2008

09.00 - 16.00 **Registration**

09.00 - 09.45 **Welcome**

### **Welcome Address**

Marwan Al-Akaidi, De Montfort University, Leicester, United Kingdom  
Kasim Al-Aubidy, Philadelphia University, Amman, Jordan

09.45 - 10.15 **Coffee/Tea Break**

10.15 - 11.15 **Session I**

## **SIMULATION PROGRAMMING AND TOOLS**

10.15-11.15

**Session Chairperson:**

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

### **MESM\_09\_METH**

**Optimistic parallel Process-Oriented DES in Java using Bytecode  
Rewriting**

**Andreas Kunert ..... 15**

### **MESM\_14\_METH**

**Analysis of a Linear Induction Motor by the Method of Coupling  
Matlab/Simulink and Vector Control**

**Sameer Khader ..... 22**

## Tuesday, August 26, 2008

11.15 - 11.45 **INVITE**

### INVITED SPEAKER

11.15-11.45 **Session Chairperson:**  
**Kasim Al-Aubidy, Philadelphia University, Amman, Jordan**

**INV**

**Numerical Simulations of Transient Flows in Shock Tube and Validations with experimental Measurements**

M. Z. Yusoff, A. Al-Falahi, N. H. Shuaib and T. Yusaf..... **5**

11.45 - 13.15 **Session II**

### SIMULATION IN ELECTRONICS

11.45-13.15 **Session Chairperson:**  
**Kasim Al-Aubidy, Philadelphia University, Amman, Jordan**

**MESM\_25\_TEL**

**QoS Enhancement of Voice over Internet Protocol Based On Neural Network Model**

Khaldoon Ghaidan ..... **95**

**MESM\_06\_TEL**

**Frequency Domain Iterative Compensation of High Power Amplifier Non-linearity**

Saqib Ali, Garik Markarian and Marwan Al-Akaidi..... **99**

**MESM\_07\_TEL**

**Unequal error protection using LT codes and block duplication**

Shakeel Ahmad, Raouf Hamzaoui and Marwan Al-Akaidi ..... **104**

13.15 - 14.30 **Lunch Break**

**Tuesday, August 26, 2008**

14.30 - 16.30 **Session III**

**SIMULATION AND AI**

**14.30-16.30**

**Session Chairperson:**

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

**MESM\_04\_ENG**

**Modelling of the Biodynamic Responses to Whole Body Vertical  
Excitation**

Naser Nawayseh..... 36

**MESM\_25\_AI**

**Toward Optimal Arabic Keyboard Layout using Genetic Algorithm**

Tareq M. Malas, Sinan S. Taifour, and Gheith A. Abandah ..... 50

**MESM\_12\_FUZ**

**Computer-Generated Music using grammatical Evolution**

Abdel Latif Abu Dalhoun, Manuel Alfonseca, Manuel Cebrian,

Rafael Sanchez-Alfonso and Alfonso Ortega..... 55

**MESM\_27\_TEL**

**Perceptual Modelling of Wavelet Coefficients for Grey Scale Images**

G. Al-Hudhud ..... 61

16.30 -

**FREE EVENING**

## Wednesday, August 27, 2008

09.00 - 12.00 **Registration**

09.00 - 10.00 **KEYNOTE**

### KEYNOTE SPEAKER

**09.00-10.00**

**Session Chairperson:**

**Kasim Al-Aubidy, Philadelphia University, Amman, Jordan**

**KEY**

**Complex systems, emergent computing and applications to engineering**

Cyrille Bertelle

10.00 - 10.30 **Coffee/Tea Break**

10.30 - 12.30 **Session IV**

### DECISION MAKING

**10.30-12.30-**

**Session Chairperson:**

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

**MESM\_10\_DEC**

**Modeling Prices in Computational Resource Markets**

R. Arfa and J. Broeckhove ..... 69

**MESM\_16\_DEC**

**A New Version of a Decision Support System for evaluating Takeover Bids in the Privatization of Public Enterprises and Services**

Silvija Vlah, Kristina Soric and Visnja Vojvodic Rosenzweig ..... 74

**MESM\_22\_DEC**

**A Simulation of Market-based Resource Management in Dynamic Grids**

K. Abdelkader and J. Broeckhove ..... 79

**Wednesday, August 27, 2008**

**MESM\_11\_DEC**

**Cache Replacement Policy Based on Fuzzy Decision System**

Ali A. Al-Titinchi and Munaf S. N. Al-Din ..... 200

12.30 - 13.30 **TUTORIAL**

**TUTORIAL**

**12.30-13.30**

**Session Chairperson:**

**Kasim Al-Aubidy, Philadelphia University, Amman, Jordan**

**TUT-01**

**Dynamic combinatorics, complex systems and applications to physics**

Gérard H.E. Duchamp

13.30 - 14.30 **Lunch Break**

14.30 - 16.30 **Session V**

**VIRTUAL ENVIRONMENTS**

**14.30-16.30**

**Session Chairperson:**

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

**MESM\_15\_FUZ**

**Using Dynamic Data Mining in Association Rule Mining**

Kifaya Qaddoum ..... 89

**MESM\_29\_VR**

**Accelerating Lean Practice Training using Virtual Reality**

Riham Khalil, Nathan Wright, David Stockton and Cliff Gillis ..... 111

**MESM\_28\_VR**

**Accelerating Lean Practice Training using Virtual Reality**

G. Al-Hudhud ..... 115

## Wednesday, August 27, 2008

**MESM\_26\_AI**

**Urban Dynamics Modelling using Ant nest Building**

Rawan Ghnemat, Cyrille Bertelle and Gerard H.E. Duchamp..... **124**

16.30 - 17.00      **CLOSING SESSION**

### **CLOSING SESSION AND BEST PAPER AWARD**

**16.30-17.00**

**Session Chairperson:**

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

19.00 - 22.00

### **CONFERENCE DINNER**

**Location to be announced at the conference**

**Thursday, August 28, 2008**

08.30 - 08.45 **Departure for Petra (exact time to be confirmed)**

17.00 - 17.030 **Departure from Petra (exact time to be confirmed)**

**SEE YOU NEXT YEAR**

**AT MESM 2009**

# eurosis

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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