

MESM'2004 FINAL PROGRAMME

The underlined authors are usually the presenters, Papers in grey boxes are candidates for the best paper award.

Conference Site: Philadelphia University (14th) Hotel Palmyra (15th and 16th, Amman, Jordan

Tel : + 962-6-5339939 – Fax: + +962-6-5339867

For the MESM2004 participants there will be a bus available from and to the university from 8.00 a.m to midnight.

Tuesday, September 14, 2004

09.00 - 16.00 **Registration at Philadelphia University**

10.00 - 10.30 **Welcome**

Welcome Address and Introduction

Dr. Ibrahim Badran (H.Chair). Philadelphia Unviersity

Prof. Dr. Adnan Badran (President of PU), Philadelphia University

Prof. Dr. Marwan Al-Akaidi, De Montfort University

10.30 - 11.00 **Session I**

KEYNOTE SPEAKER

10.30-11.00 Session Chairperson:

Prof Kasim Al-Aubidy, Philadelphia University

KEYNOTE

To be announced later

Prof. Dr. Marwan Al-Akaidi, De Montfort University

11.00 - 11.30 **Coffee- Tea Break**

11.30 - 13.00 **Session II**

SIMULATION METHODOLOGY I

11.30-13.00 Session Chairperson:

Prof. Mazin Jumah, Philadelphia University

24-METH

Tuesday, September 14, 2004

Classifying Software for Reusability
Zina Houhamdi5

NEW-79-METH-ELECTRON
Numerical Solution s Aspect of Nonlinear Schrodinger Equation in Monomode optical Fiber
Samar Y. Al-Dabagh13

NEW-70-TOOLS
Numerical Simulation of Static load on simply supported Beams
Omar O. Badran and Issam MS. Ammar.....18

13.00 - 14.00 **Lunch**

14.00 - 15.30 **Session III**

14.00-15.30 **SIMULATION METHODOLOGY II**
Session Chairperson:
Prof. Yehea Hindawi, Philadelphia University
NEW-METH
Reconstruction of the Parameters Space on the Base of Diagnostic Models of Object with using Volterra Models
Vitalij Pavlenko and Oleksandr Fomin.....30

80-METH
Simulation Model Used for Calculation of the Absorption Intensity of HI Molecules as a Function of the Variation of the Temperature
Zainab Sabih Sadik and Dhia Al-Amiedy

15.30 - 16.00 **Coffee -Tea Break**

16.00 - 17.30 **Session IV**

16.00-17.30 **SIMULATION IN ENERGY**
Session Chairperson:
Dr. Ibrahim Badran, Philadelphia University
19-ENERGY
Evaluation of Electricity Power Production System Options Using Fuzzy Sets Methodology
Rustom Mamlook and Salem Nijmeh.....41

Tuesday, September 14, 2004

43-ENERGY

**The Application of Computer-aided design tools and 3D TLM Formulation
for Thermal Modelling of High Power Insulated Gate Bipolar Transistors**

Rachida Hocine, Abdelkader Saidane

and Mohamed Amine Boudghene Stambouli.....**46**

19.00 - 22.00

Social Event

information will be provided at the conference

Wednesday, September 15, 2004

09.00 - 16.00 **Registration at the Palmyra Hotel**

09.30 - 11.00 **Session V**

09.30-11.00	SIMULATION IN AEROSPACE I	
	Session Chairperson:	
	Prof. Mohamed Zaki Khothar, Jordan University	
	07-AERO	
	The Space Training Centre	
	<u>Fred Doms</u> and <u>Marc Péré</u> 193	
	17-AERO	
	Designing an X Band Communication System for Low Earth Orbit Satellite	
	<u>Lahcène Hadj Abderrahmane</u> 55	
	36-AERO	
	Wheel Attitude Damping Thruster Disturbances Simulation of Low Earth Orbit Microsatellite	
	<u>A.M. Si Mohammed, S.Chouraqui</u> and <u>H.Benzeniar</u> 59	

11.00 - 11.30 **Coffee-Tea Break**

11.30 - 13.00 **Session VI**

11.30-13.00	SIMULATION IN AEROSPACE II	
	Session Chairperson:	
	Prof.Mazin Jumah, Philadelphia University	
	37-AERO	
	Orbit Filter of Low Earth Orbit Microsatellite Extended Kalman Filter using GPS Data	
	<u>A.M. Si Mohammed</u> and <u>M.Adjrad</u> 66	
	46-AERO-TELECOM	
	Horizon Sensor Modelling for Micro Satellite Attitude Determination	
	<u>Samira Chouraqui, Arezki Si Mohammed</u> and <u>Haider Benzeniar</u> 71	

Wednesday, September 15, 2004

47-AERO

Satellite Orbit Modeling and Simulation for Mission Analysis and Design

S. Chouraqui and Craig I. Underwood 76

NEW-69-AERO

Aircraft Performance Simulation utilizing Thrust Vectoring

Assim H.Yousif, Arif A.Al-Qassar and Wisam A.F.Mohammed

13.00 - 14.00 **Lunch**

14.00 - 15.30 **Session VII**

14.00-15.30

SIMULATION IN ENGINEERING

Session Chairperson:

Prof. Yehea Hindawi, Philadelphia University

25-ENGIN

Stability Analysis in the Black Diagram of a Controlled Blower System

Houda Ben Jmaa Derbel 83

NEW-67-CONTROL-ENGIN

An Improved Sliding Mode Control of an Induction Machine

Fatma Ben Salem and Nabil Derbel 89

ENGIN-NEW

Determination of Inductive Reactance Parameters for the Electromagnetic working Shaft System

Ali S. Al-akayleh

15.30 - 16.00 **Coffee-Tea Break**

16.00 - 17.30 **Session VIII**

16.00-17.30

INFORMATION SYSTEMS I

Session Chairperson:

Dr. Ibrahim Badran, Philadelphia University

27-INFOSYS-TELECOM

Security System Based On Fingerprint ID for Mobile Phone

A. Saleem and M. Al-Akaidi 97

Wednesday, September 15, 2004

28-INFOSYS

Speech Recognition by Computer, "A Survey Article"

A. Al-Zobaydi and M. M. Al-Akaidi..... 102

29-INFOSYS

Eliminating Repeated Patterns to achieve better Audio Compression

K. Samara and M. Al-Akaidi 108

17.30 - 18.30 **Session IX**

SIMULATION IN GRAPHICS

17.30-18.30

Session Chairperson:

Prof. Mohamed Zaki Khothar, Jordan University

44-GRAPH

Realistic Visualization in designing a 3D programming interface for Jordan Tourism

Hamed J. Al-Fawareh 167

NEW-72-GRAPH

A collaborative Virtual Training Architecture for Investigating the Aftermath of Vehicle Accidents

Ahmed BinSubaih, Steve Maddock and Daniela Romano 170

19.00 - 22.00 **Social Event**

Thursday, September 16, 2004

08.45 - 09.30	Registration at the Palmyra hotel
09.30 - 11.00	Session X
09.30-11.00	<p style="margin-left: 20px;">INFORMATION SYSTEMS II</p> <p>Session Chairperson: Prof. Mazin Jumah, Philadelphia University</p> <p>51-INFOSYS PalmPrint Authentication System (PPAS) <u>Qusay M. AL-Sadi</u> and Hilal M. Yousif..... 113</p> <p>52-INFOSYS Design and Implementation of Software Systems for Cellular Networks <u>Hayam A. Al-Yasiri</u>, Imad H. Al-Hussaini and Salan S. Al-Ani 121</p> <p>23-INFOSYS-ELECTRON Quantum Analysis of noise in Photonic System <u>Dhia Hamdi Al-Amiedy</u>, Ali Abud Al-Zaki and Huda Shawla Al-Ghrabi..... 133</p>
11.00 - 11.30	Coffee – Tea Break
11.30 - 13.00	Session XI
11.30-13.00	<p style="margin-left: 20px;">INFORMATION SYSTEMS III</p> <p>Session Chairperson: Prof. Yehea Hindawi, Philadelphia University</p> <p>53-TELECOM Design and Analysis of enhanced Performance GSM Software System Simulators <u>Hayam Al-Yasiri</u>, Imad Al-Hussaini and Salan S. Al-Ani 139</p> <p>INFOSYS-NEW Spatial Channel Models for MIMO Systems <u>A. Khan, M. Al-Akaidi</u> and S. A. Khan..... 195</p> <p>52-INFOSYS Design and Software Simulation of a Speech Cipher System <u>Saddeeq Y. Ameen</u>, Abbas A. Al-Sachi and Muhamad D. Al-Bayati</p>

Thursday, September 16, 2004

13.00 - 14.00 **Lunch**

14.00 - 15.30 **Session XII**

SIMULATION IN ELECTRONICS

14.00-15.30

Session Chairperson:

Dr. Ibrahim Badran, Philadelphia University

08-ELECTRON

Modelling and Simulation of High Speed Digital Circuits and Interconnects

Mohammad S. Sharawi..... 153

48-ELECTRON

Numerical Simulation of Power Electronic Circuit, Modelling of the Semi-Conductor as perfect Switches, Study of certain more Complex Cases

Faouzi Boulos 158

71-ELECTRON

Computational Safety analysis of Grounding Grid with Different Structures

Osama E. Gouda and Ghada M. Amer

15.30 - 16.00 **Coffee - Tea Break**

16.00 - 17.30 **Session XIII**

SIMULATION IN NEURAL NETWORKS

16.00-17.30

Session Chairperson:

Prof. Mohamed Zaki Khothar, Jordan University

64-NEURAL

Simulation Annealing and Genetic Algorithms for the Single Machine Scheduling Problem

Tarik S. Abdul Razaq and H.A. Mohammed..... 181

NEW-78-NEURAL

Neural Network for Direction of Arrival Estimation

Muaiad Shawqi Murad Al-Faysale

and Mohammad Najim Abdullah..... 186

Thursday, September 16, 2004

35-NEURAL

Design of Neuro-Fuzzy Controller for Water-Level Tank utilizing Genetic Algorithms

Mohammad Z.Al-Faiz and Sawsan Kamal

17.30 - 17.45

Closing Session

CLOSING SESSION AND BEST PAPER AWARD

17.30-17.45

Session Chairperson:

Prof. Dr. Marwan Al Akaidi, De Montfort University

Closing Announcements:

Philippe Geril, EUROSIS, Ghent University, Ghent, Belgium.



NOTES