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**Amman, Jordan
14 – 16 May 2012**



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However, many organizations continue to approach FMEA either as a low priority task, or an after the design task meant for reporting and certification. The design of complex systems, systems with critical missions, and systems where high availability is a key to the designed systems must take FMEA more seriously. A detailed and in-depth analysis of failure modes and their effects has a direct impact on the system design, the cost of system ownership, and quite often on the safety and security of people. This tutorial provides compelling evidence on the values of FMEA through real examples from a wide range of industries. It provides detailed analysis of how FMEA is conducted and the impact FMEA has on the relevant industries. The tutorial will also discuss the obstacles and the reasons why so many organizations fail to realize the importance of carrying FMEA throughout the design process of complex systems.

The tutorial targets design engineers, architects, and managers. Design engineers will most likely ignore FMEA, unless it is required by the architects and projected by the managers in the overall project plan.

Schedule

Monday, May 14

09:30 - 10:30

Opening Session

10:30 - 11:00

Break

11:00 - 12:00

Keynote Speech 1

Chairs: Prof. Mohammad Mismar (Hashemite University, Jordan), Jose-Luis Sevillano (Universidad de Sevilla, Spain)

The Internet of Nanothings

Prof. Ian Akyildiz, Georgia Institute of Technology, USA

12:00 - 13:30

Signal and Image Processing

Chairs: Youcef Chibani (University of Sciences and Technology Houari Boumediene, Algeria), Munther Baker (Philadelphia University, Jordan)

SVM-DSmT Combination for Off-Line Signature Verification *****%

Nassim Abbas (University of Science and Technology Houari Boumediene & Speech Communication and Signal Processing Laboratory, Algeria); Youcef Chibani (University of Sciences and Technology Houari Boumediene, Algeria)

Image Retrieval System Based on Wavelet Network ******

Hamid Abdulla Jalab (Universiti Malaya, Malaysia)

Performance Comparison of Clustering and Thresholding Algorithms for Tuberculosis Bacilli Segmentation *****%\$

Muhammad Khusairi Osman (Universiti Teknologi Mara (UiTM), Malaysia); Mohd Yusoff Mashor (UNIMAP, Malaysia); Hasnan Jaafar (Universiti Sains Malaysia, Malaysia)

A Superior Support Vector Machine Digital Watermarking for Color Image *****%)

Saurabh Tiwari (Technical Education DEPTT GOVT OF M P, India); Ashish Dongre (Govt of M P, India)

Web Technology

Chairs: Joel J. P. C. Rodrigues (Instituto de Telecomunicações, University of Beira Interior, Portugal), Izzat M Alsmadi (Yarmouk University, Jordan)

A Secure NFC Application for Credit Transfer Among Mobile Phone

David Monteiro (Instituto de Telecomunicações, University of Beira Interior, Portugal); Joel J. P. C. Rodrigues (Instituto de Telecomunicações, University of Beira Interior, Portugal); Jaime Lloret (Universidad Politécnica de Valencia, Spain)

An Approach with Multidigraphs for Representing Multiple Business Processes of a SOA

Rodrigo Leme (IPT, Brazil); Marcelo Rezende (ESEG & IPT, Brazil)

Type-based Context-aware Service Recommender System for Social Network

Back Sun Sim (Sungkyunkwan University, Korea); Heeseong Kim (Sungkyunkwan University, Korea); Kwang Myung Kim (Sungkyunkwan University, Korea); Hee Yong Youn (Sungkyunkwan University, Korea)

A Conceptual SOA-Based Framework for e-Government Central Database

Rebhi S Baraka (Islamic University of Gaza, Palestine); Suhail Madoukh (Ministry of Telecom and IT, Palestine)

Enhancing Retrieval and Novelty Detection for Arabic Text Using Sentence Level Information Pattern

Esra'a AL-Shdaifat (Hashemite University, Jordan); Mohammed N. Al-Kabi (Yarmouk University, Jordan); Emad Shawakfa (Yarmouk University, Jordan); Abdullah Wahbeh (Yarmouk University, Jordan)

13:45 – 14:45

Lunch

14:45 - 16:15

Tutorial 1

Chairs: Ahmed Khaswneh, Hashemite University, Jordan and Jose-Luis Sevillano, University of Seville, Spain

Spectrum Management for Cognitive Radio Networks

Dr. Ian F. Akyildiz, Fellow of IEEE and Fellow of ACM, Georgia Tech, USA

Tutorial 2

Chairs: Omar R. Daoud, Philadelphia University, Jordan and Joel Rodrigues, Instituto de Telecomunicações, University of Beira Interior, Portugal

Failure Mode and Effect Analysis (FMEA): Theory and Practice

Dr. Mohammad Malkawi, Jadara University, Jordan.

19:00 – 21:00

Dinner in Jerash

Tuesday, May 15

09:00 - 10:00

Keynote Speech 2

Chairs: Ibrahim Badran, and Kasim Mousa Al-Aubidy, Philadelphia University, Jordan

Ubiquitous Intelligence and Hyperspace: Visions and Challenges

Prof. Laurence T. Yang, St. Francis Xavier University, Canada

10:00 – 10:15

Break

10:15 - 11:45

Modelling and Simulation

Chairs: Abdelhakim Hamzi (Al-Jouf University, Saudi Arabia), Jose-Luis Sevillano (Universidad de Sevilla, Spain)

Optimization of Threshold Voltage Nonvolatile Flash Memory Using Taguchi Method

Anees Abdul Aziz (Universiti Teknologi MARA, Malaysia); Nor Nadia Nor Hissam (UiTM, Malaysia)

Agent Based Platform for the Design and Simulation of Wireless Sensor Networks

Abdelhakim Hamzi (Al-Jouf University, Saudi Arabia); Mouloud Koudil (Ecole Nationale Supérieure d'Informatique, Algeria)

ETSI Compliant GeoNetworking Protocol Layer Implementation for IVC Simulations

Cihan Z Taysi (Yildiz Technical University, Turkey); Gokhan A. Yavuz (Yildiz Technical University, Turkey)

Design, Implementation and Validation of a Simulation Tool for Networked Virtual Environments

Juan Luis Font (University of Seville, Spain); Jose-Luis Sevillano (Universidad de Sevilla, Spain); Daniel Cascado Caballero (Universidad de Sevilla, Spain); Gema Lopez-Muñoz (University of Seville, Spain); Berhanu Regassa Balcha (University of Seville, Spain)

Information Technology

Chairs: Balqies Sadoun (Al-Balqa' Applied University, Jordan), Awni Itradat (The Hashemite University, Jordan)

An Interactive Predictive System for Weather Forecasting

Ayham Omary (Umm Al-Qura University, Saudi Arabia); Ahmad Zghoul (Yarmouk University, Jordan); Ahmad Banihani (Yarmouk University, Jordan); Ahmad Wedyan (Salman bin Abdulaziz University, Saudi Arabia); Izzat M Alsmadi (Yarmouk University, Jordan)

Evaluating Graphical and Statistical Techniques for Measuring Similarity in DNA Sequences

Maryam S Nuser (Yarmouk University, Jordan); Izzat M Alsmadi (Yarmouk University, Jordan)

Artificial Neuro Fuzzy Logic System for Detecting Human Emotions

Umaiya Murad (Middle East University, Jordan); Mohammad I. Malkawi (Jadara University & Aim Wireless Solutions, USA)

CAD File Conversion to GIS Layers: Issues and Solutions

Samih Samih Al Rawashdeh (Al-Balqa' Applied University, Jordan); Balqies Sadoun (Al-Balqa' Applied University, Jordan); Akif Akif Al Fukara (Al-Balqa' Applied University, Jordan)

Early Identification, Specification and Measurement for System Data Definition and Database Requirements

Ahmad Al-Khasawneh (Hashemite University, Jordan); Khalid Al-Sarayreh (Hashemite University, Jordan); Kenza Meridji (Petra University, Jordan)

11:45 – 12:00

Break

12:00 - 13:30

Software Engineering

Chair: Ali Aldahoud, (Al-Zaytoonah University, Jordan) and Omar Daoud (Philadelphia University, Jordan)

Evaluating the Correlation Between Software Defect and Design Coupling Metrics, ,
Arwa Abuasad (Yarmouk University, Jordan); Izzat M Alsmadi (Yarmouk University, Jordan)

Study the Impact of Improving Source Code on Software Metrics - '
Qosai Zoubi (Yarmouk University, Jordan); Izzat M Alsmadi (Yarmouk University, Jordan); Belal Abul-Huda (Yarmouk University, Jordan)

Selecting a Standard Set of Attributes for Cost Estimation of Software Projects - ,
Nesreen Al khalidi (Yarmouk University, Jordan); Ahmad A. Saifan (Yarmouk University, Jordan); Izzat M Alsmadi (Yarmouk University, Jordan)

Relational Database Approach for Execution Trace Analysis %\$'
Sahel Alouneh (German-Jordanian University, Jordan); Sa'ed Abed (The Hashemite University & Engineering Faculty, Jordan); Bassam Jamil Mohd (Hashemite University, USA); Ahmad Al-Khasawneh (Hashemite University, Jordan)

Computer and Communication Systems

Chairs: Ming Lei (Zhejiang University, P.R. China), Ahmed Otoom (Hashemite University, Jordan)

Channel Estimation Based on Cyclic Orthogonal Training Sequence for Relay-Assisted Cooperative Communication System %\$+

Ming Lei (Zhejiang University, P.R. China); Minjian Zhao (Zhejiang University, P.R. China); Jie Zhong (Zhejiang University, P.R. China); Zhipeng Zhang (Zhejiang University, P.R. China)

Approaches to Cloud Computing Fault Tolerance %&

Alain Tchana (Université Joseph Fourier & INRIA, France); Laurent Broto (IRIT, France); Daniel Hagimont (INPT, France)

FPGA Hardware of the LSB Steganography Method %&

Bassam Jamil Mohd (Hashemite University, USA); Sa'ed Abed (The Hashemite University & Engineering Faculty, Jordan); Thaier Saleh Hayajneh (The Hashemite University, Jordan); Sahel Alouneh (German-Jordanian University, Jordan)

Power-Controlled Reduction of Exposed Terminals in Ad-Hoc Wireless LANs %&&

Alexandros Panagiotakis (Aristotle University, Greece); Panagotis Melidis (Aristotle University, Greece); Petros Nicopolitidis (Aristotle University, Greece); Mohammad S. Obaidat (Monmouth University, USA)

13:30 - 15:00

Lunch

15:00 - 16:30

Wireless Networking

Chairs: Chandan Tilak Bhunia (National Institute of Technology, India), Ibrahim Al-Oqily (Hashemite University, Jordan)

Detecting Blackhole Attacks on DSR-based Mobile Ad Hoc Networks +

Isaac Woungang (Ryerson University, Canada); Sanjay Kumar Dhurandher (Netaji Subhas Institute of Technology, India); Rajender Dheeraj Peddi (Ryerson University, Canada); Mohammad S. Obaidat (Monmouth University, USA)

Enhancing Query Retrieval Efficiency Using BGIT Coding &

Ameen A Al-Jedady (Yarmouk University, Jordan); Izzat M Alsmadi (Yarmouk University, Jordan); Emad Shawakfa (Yarmouk University, Jordan); Mohammed N. Al-Kabi (Yarmouk University, Jordan)

Preventing Packet Dropping and Message Tampering Attacks on AODV-based Mobile Ad Hoc Networks +

Mohammad S. Obaidat (Monmouth University, USA); Isaac Woungang (Ryerson University, Canada); Sanjay Kumar Dhurandher (Netaji Subhas Institute of Technology, India); Vincent Koo (Ryerson University, Canada)

Interference Mitigation in Coexisting Bluetooth and WLAN Network Using Power Efficiency Method &

Anika Binte Kasem (North South University & British Council, Bangladesh); Amatus Samiu Binte Awal (North South University, Bangladesh); Mohammad Rashedul Hasan (North South University & University of North Carolina at Charlotte, Bangladesh)

Several Modifications of Aggressive Packet Combining Scheme for Wireless Networks +

Chandan Tilak Bhunia (National Institute of Technology, India)

16:30 - 17:00

Closing Session

20:00 - 23:00

Banquete

Wednesday, May 16

Petra Trip

For those who registered in it