21st International Conference on Computer Theory and Applications

ICCTA 2011

15-17 October 2011
Alexandria, Egypt

Conference Program
Day 1

Saturday, October 15th, 2011
DAY 1 - Saturday, October 15th, 2011

09:00 Registration

10:30 Opening Session

H.E. Prof. Dr. Youssry El Gamal
Chairman-Board of Trustees
Egypt-Japan University for Science and Technology
Former Minister of Education
President, Computer Scientific Society

"Human Resource Development in the IT Sector"
H.E. Prof. Dr. Mohamed Salem
Minister of Communications and Information Technology
Egypt

11:30 Coffee Break

12:00 Keynote Speech

"ROLE of ITIDA in the IT Industry Development"
Eng. Yasser Elkady
Chief Executive Officer
Information Technology Industry Development Agency (ITIDA)
Egypt

13:00 Keynote Speech

"Innovation for a Smarter Planet – A Local Perspective"
Prof. Dr. Ahmed Tantawy
Executive Director – Egypt Nanotechnology Center - Egypt

14:00 Keynote Speech

"Wireless Communication Technologies for the Smart Grid"
Prof. Dr. Hussein Mouftah
Senior Canada Research Chair and
Distinguished University Professor
School of Electrical Engineering and Computer Science
University of Ottawa, Ontario, Canada

15:00 Lunch
Day 2

Sunday, October 16th, 2011
DAY 2 - Sunday, October 16th, 2011

9:00 - 11:00 Two Parallel Sessions

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<td><strong>Computer Control and Industrial Applications – 1</strong></td>
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<td>An Artificial Intelligence Based Approach for High Impedance Faults Analysis in Distribution Networks Under Different Loading Conditions</td>
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<th>Intelligent Controller Design for Magnetic Levitation System</th>
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<td>Speed Sensorless Field Oriented Control of a Six-Phase Saturated Model of Induction Motors Drive with Online Stator Resistance Estimation Using ANFIS</td>
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<td>Applications of ANFIS for Improvement of the DTC Performance for The Three Phase Saturated Model of Induction Motor</td>
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11:00 Coffee Break

11:30 - 1:30 Two Parallel Sessions

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<td>Vibration and Position Control of a Flexible Manipulator using a PD-tuned Controller with Modified Genetic Algorithm</td>
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<td>Mohamed Tolba (PROMECH Engineering, Egypt), Sarah Deif, Mohammad Tawfik and Hani M. Negm (Cairo University, Egypt)</td>
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14:00 Lunch

Session III
- Improving Students’ Performance Using Association Rule Mining
  - Gamal A.Elnasser and Mahmoud F.Hussin (Arab Academy for Science and Technology, Egypt)
- Assessing the Evolution of Software Product Lines Maintainability
  - Walid Abdelmoez, Hatem Khater, and Noha El-shoafy (Arab Academy for Science and Technology, Egypt)
- Security Risk Assessment of Software Architecture
  - Fadi HajSaid (West Virginia University, USA), Youssef Hassounneh (Birzeit University, Palestine) and Hany Ammar (West Virginia University, USA)

Session IV
- A Robust Temperature Control in BMS Using Fuzzy Logic
  - Medhat El-Sengaby, Alaa Khalil, Ahmed Farouk Elsafy and Abdel-Halim Ahmed (Arab Academy for Science and Technology, Egypt)
- A GIS-Based System to Resolve Emergency Routing Problems in Tobruk City, Libya
  - Ahmed Attia, Hatem Khater, Saleh Elkaffas, Essam Abdel-Mawla, and Osama Badawy (Arab Academy for Science and Technology, Egypt)
- Maximum Power Point Tracking for PV Systems
  - Haitham Hassan Ibrahim, Mahmoud Abuzeid, and Moataz Soliman (Arab Academy for Science and Technology, Egypt)
- Batch Process Control Using Distributed Control System
  - Mostafa Abdel-Geliel (Arab Academy for Science and Technology, Egypt)

14:00 Lunch
Day 3

Monday, October 17th, 2011
### Session V  
**Networks and High Performance Computing**

**Chairs:** Prof. Dr. Mohamad Abou El-Nasr and Dr. Ayman Abdel-Hamid

- **Alternative Mobile Router Selection in Nested Network Mobility (NEMO)**  
  Atef Zaki Ghalwash (Helwan University, Egypt) and Mohamed Hassan Elgazzar (Vodafone, Egypt)

- **A Parallel Combined Binary/Decimal Fixed-Point Multiplier with Binary Partial Products Reduction Tree**  
  Mervat Mahmoud and Hossam A. H. Fahmy (Cairo University, Egypt)

- **Global Localization via Particle Filters**  
  Nabil Hassan (WVS Tubman College, Liberia)

### Session VI  
**Electronics and Wireless Communications**

**Chairs:** Prof. Dr Moustafa Hussein and Prof. Dr. Sharaf Eldin El Nahas

- **Radar ECCM Techniques Implementation Using Microcontrollers**  
  Ahmed Khairy Aboul-Seoud, Mohamed El-Barbry, and Alaa El-Din Sayed Hafez (Alexandria University, Egypt)

- **Infrared Search and Tracking System (IRST) for Near Range and Low Altitude Targets**  
  Ahmed Khairy Aboul-Seoud, Mostafa Hadhoda, and Alaa El-Din Sayed Hafez (Alexandria University, Egypt)

- **Efficient NLFM Waveform for High Resolution Surveillance Radar**  
  Alaa El-Din Sayed Hafez and Mohamed Abd El-latif (Alexandria University, Egypt)

### Session V  
**Networks and High Performance Computing**

- **MBMM vs. Random Walk Mobility Model: A simulation based Comparative Study**  
  Chibli Joumaa, Seifedine Kadry, and Ayman Abdallah (American University of the Middle East, Kuwait)

- **A Modified Version of Dijkstra's Algorithm**  
  Seifedine Kadry, Ayman Abdallah and Chibli Joumaa (American University of the Middle East, Kuwait)

### Session VI  
**Electronics and Wireless Communications**

- **SBD Barrier Height Control and Optimization Using Particle Swarm Algorithm (PSO)**  
  Mazhar Tayel, Ayman El-Shawarby, and Alaa Hafez (Alexandria University, Egypt).

- **Performance of Near-Ballistic Limit Carbon Nano Transistor (CNT) Circuits**  
  A. A. A. Nasser, Moustafa H. Aly, Roshdy A. AbdelRassoul and Ahmed Khourshed (Arab Academy for Science and Technology, Egypt)

- **Spatial Smoothing Performance of Smart Antenna Systems for UMTS and WIMAX applications**  
  Ayman Abdallah, Chibli Joumaa and Seifedine Kadry (American University of the Middle East, Kuwait)

**11:00 Coffee Break**
DAY 3-Monday October 17th, 2011 (Cont’d)

11:30 – 13:30 One Session

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<td>An Improved Ant Colony Algorithm Based on the Immune Strategy for Protein Structure Prediction Problem</td>
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<td>Marghny. H. Mohammed and Sara Salah (Assiut University, Egypt)</td>
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<td>A Framework for Protein Structure Prediction by Energy Minimization</td>
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14:00 Lunch

End of ICCTA 2011 Activities