



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 Mouffah

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

Session I Artificial Intelligence and Data Mining	Session II Computer Control and Industrial Applications – 1
Chairs: Prof. Dr. Amin Shoukry and Prof. Dr. Ossama Badawy	Chairs: Prof. Dr. Medhat ElSengaby and Prof. Dr. Abdel Baith Mohamed
FOREX Daily Trend Prediction using Machine Learning Techniques Areej Baasher and Mohamed Waleed Fakhr (Arab Academy for Science and Technology, Egypt)	An Artificial Intelligence Based Approach for High Impedance Faults Analysis in Distribution Networks Under Different Loading Conditions M. S. Abdel Aziz (Shaker Consultancy Group, Mearag City Egypt), M. A. Moustafa Hassan and E. A. Zahab (Cairo University, Egypt)
Course Timetable Scheduling Using Bees Algorithm: First Steps Marwa Abdel Aziz A. Khamis, M. B. Abdelhalim, and Ramadan Moawad (Arab Academy for Science and Technology, Egypt)	Corrosion Fitness-for-Service Assessment of Pipelines Using a New Algorithm M Shehadeh, Aly H. Batran and M. Anany (Arab Academy for Science and Technology, Egypt)

Session I Artificial Intelligence and Data Mining	Session II Computer Control and Industrial Applications – 1
Stocks Prices Trend Prediction in the Egyptian Stock Exchange using Data Mining Tools Mahmoud Ahmed Fayez (Egyptian Stock Exchange, Egypt) and Ramadan Moawad (Arab Academy for Science and Technology, Egypt)	Intelligent Controller Design for Magnetic Levitation System Nader A. Mansour and Ahmed A. Ramadan (Egypt-Japan University of Science and Technology, Egypt)
Tabu Search with Adaptive Search Memory for Data Clustering Abdel-Rahman Headr and Amr M. Abdel-Aziez (Assiut University, Egypt)	Speed Sensorless Field Oriented Control of a Six-Phase Saturated Model of Induction Motors Drive with Online Stator Resistance Estimation Using ANFIS M. Mahmoud Ismail (Helwan University, Egypt) and M. A. Moustafa Hassan (Cairo University, Egypt)
	Applications of ANFIS for Improvement of the DTC Performance for The Three Phase Saturated Model of Induction Motor Mohamed Mahmoud Ismail (Helwan University, Egypt)

DAY 2 - Sunday, October 16th, 2011 (Cont'd)

11:00 Coffee Break

11:30 - 1:30 Two Parallel Sessions

Session III Software Engineering and Information Systems	Session IV Computer Control and Industrial Applications – 2
Chairs: <i>Dr. Essam Kosba and Dr. Mohamed Kholief</i>	Chairs: <i>Prof. Dr. Mahmoud Abu Zeid and Prof. Dr. Ossama Ismail</i>
Assessing the Evolution of Software Product Lines Maintainability Walid Abdelmoez, Hatem Khater, and Noha El-shoafy (Arab Academy for Science and Technology, Egypt)	Vibration and Position Control of a Flexible Manipulator using a PD- tuned Controller with Modified Genetic Algorithm Sarah Deif, Mohammad Tawfik and Hanan A.Kamal (Cairo University, Egypt)
Security Risk Assessment of Software Architecture Fadi HajSaid (West Virginia University, USA), Yousef Hassouneh (Birzeit University, Palestine) and Hany Ammar (West Virginia University, USA)	Adaptive Genetic Algorithm Application in Controlling a Four DOF Robot Manipulator Based on Inverse Kinematics Mohamed Tolba (PROMECH Engineering, Egypt), Sarah Deif, Mohammad Tawfik and Hani M. Negm (Cairo University, Egypt)

Session III Software Engineering and Information Systems	Session IV Computer Control and Industrial Applications – 2
Improving Students' Performance Using Association Rule Mining Gamal A.Elnasser and Mahmoud F.Hussin (Arab Academy for Science and Technology, Egypt)	A Robust Temperature Control in BMS Using Fuzzy Logic Medhat El-Sengaby , Alaa Khalil, Ahmed Farouk Elsafty 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

DAY 3-Monday October 17th, 2011

9:00 - 11:00 Two Parallel Sessions

Session V Networks and High Performance Computing	Session VI Electronics and Wireless Communications
Chairs: Prof. Dr. Mohamad Abou El-Nasr and Dr. Ayman Abdel-Hamid	Chairs: Prof. Dr Moustafa Hussein and Prof. Dr. Sharaf Eldin El Nahas
Alternative Mobile Router Selection in Nested Network Mobility (NEMO) Atef Zaki Ghalwash (Helwan University, Egypt) and Mohamed Hassan Elgazzar (Vodafone, Egypt)	Radar ECCM Techniques Implementation Using Microcontrollers Ahmed Khairy Aboul-Seoud, Mohamed El-Barbry, and Alaa El-Din Sayed Hafez (Alexandria University, 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)	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)
Global Localization via Particle Filters Nabil Hassan (WVS Tubman College, Liberia)	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	Session VI Electronics and Wireless Communications
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)	SBD Barrier Height Control and Optimization Using Particle Swarm Algorithm (PSO) Mazhar Tayel, Ayman El-Shawarby, and Alaa Hafez (Alexandria University, Egypt).
A Modified Version of Dijkstra's Algorithm Seifedine Kadry, Ayman Abdallah and Chibli Joumaa (American University of the Middle East, Kuwait)	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

Session VII Multimedia Processing and Pattern Recognition
Chairs: <i>Prof. Dr. Khaled Mahar and Dr. Mahmoud Farouk</i>
Spoken Language Identification Using Ergodic HMM Acoustic Modeling
Ahmed Y. Hashem and M. Waleed Fakhr (Arab Academy for Science and Technology, Egypt) and Sherif Abdou (Cairo University, Egypt)
An Improved Ant Colony Algorithm Based on the Immune Strategy for Protein Structure Prediction Problem
Marghny. H. Mohammed and Sara Salah (Assiut University, Egypt).
A Framework for Protein Structure Prediction by Energy Minimization
Walaa F. Ahmed and Khaled M. Mahar (Arab Academy for Science and Technology, Egypt)
Generic FPGA Architecture for Fast Search Block-Based Motion Estimation Algorithm
M. Rehan (British University in Egypt), A. Hashad, and H. Elhawary (Arab Academy for Science and Technology, Egypt)
Dynamic Management of Audio Quality for Real Time Streaming
Ahmed Moustafa Salem and Ihab Abdalla El-Aff (Arab Academy for Science and Technology, Egypt)

14:00 Lunch

End of ICCTA 2011 Activities