



المؤتمر الدولي للهندسة الحاسوبية والنظم

THE 2006 INTERNATIONAL CONFERENCE ON COMPUTER ENGINEERING & SYSTEMS (ICCES'06)

November 5-7, 2006 [http:// www.iceec.org](http://www.iceec.org)
Faculty of Engineering - Ain Shams University
Computer Engineering & Systems Department
Cairo, EGYPT

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ICCES06

International Conference on Computer Engineering & Systems



November 5-7, 2006

Cairo, EGYPT

Ain Shams University
Faculty of Engineering
Computer Engineering & Systems Department

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ICCES'06 Program at a Glance

Sunday November 5, 2006		
08:30 - 09:00	Registration (Lobby)	
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09:30 - 10:00	Break (Lobby)	
10:00 - 11:30	Plenary talk I (Main Conference Room)	
11:30 - 12:45	TS1: Computer Architecture & Computer Aided Design I (Main Conference Room)	TS2: Control Systems I (Nefertity Room)
12:45 - 13:45	Lunch (Restaurant)	
13:45 - 15:15	TS3: Embedded Systems & Hardware/Software Co-Design (Main Conference Room)	TS4: Modeling & Simulation (Nefertity Room)
15:15 - 15:45	Break (Lobby)	
15:45 - 17:00	TS5: Computer Architecture & Computer Aided Design II (Main Conference Room)	TS6: Control Systems II (Nefertity Room)

Monday November 6, 2006		
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11:15 - 12:45	TS7: Computer Networks & Security I (Main Conference Room)	TS8: Signal Processing I (Nefertity Room)
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13:45 - 15:15	TS9: Computer Networks & Security II (Main Conference Room)	TS10: Signal Processing II (Nefertity Room)
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15:15 - 15:45	Break (Lobby)	
15:45 - 17:00	TS16: Artificial Intelligence & Evolutionary Computing II (Main Conference Room)	TS17: Database & Data Mining (Nefertity Room)
19:30 - 21:30	ICCES'06 Banquet (Restaurant)	

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ICCES'06 Technical Sessions

Sunday November 5, 2006

Plenary Talk I			
Chair: Prof. Mohamed Sheirah			
	Prof M. Adeeb R. Ghonaimy	<i>A Tutorial on Quantum Computation and Communication</i>	Egypt
TS1: Computer Architecture & Computer Aided Design I			
Chairs: Dr. Ayman Wahba and Prof. Luiza Mourelle			
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50	M.S. Abdel Wahab, A.S. Hussein, A.H. Abdel Aziz	<i>Distributed Reconstruction of Implicit Surfaces</i>	Egypt
57	M.Saber, M.Elmasry, M.Eldin Abo-Elsoud	<i>Quadrature Direct Digital Frequency Synthesizer Using FPGA</i>	Egypt
68	Nadia Nedjah and Luiza de Macedo Mourelle	<i>Evolutionary Synthesis of Synchronous Finite State Machines</i>	Brazil
TS2: Control Systems I			
Chairs: Prof. Safwat Mahrous and Prof. Ahmed Abd ElSatar			
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36	Ahmed Abdel Hadi and Abdel Latif Elshafei	<i>Hierarchical Fuzzy Controller for Robot Manipulator</i>	Egypt
37	Hasan A. Yousef, Manal A.Wahba and Bousmaha Bouchiba	<i>Indirect Adaptive Fuzzy Coordinated Excitation and SVC Control for Multi-Machine Power System</i>	Egypt
39	M. S. Al-Numay	<i>Discrete-Time Averaging of Converters with PWM DC-DC Feedback</i>	Saudi Arabia

TS3: Embedded Systems & Hardware/Software Co-Design			
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8	Fatma Abbes, Emmanuel Casseau, Mohamed Abid	<i>IP encapsulation: Approach and Case Study</i>	Tunisia
106	M. Popa, A.S. Popa, V. Cretu, M. Micea	<i>Monitoring Serial Communications in Microcontroller Based Embedded Systems</i>	Romania
116	Huy-Nam Nguyen, Vu-Duc Ngo, Hae-Wook Choi	<i>Assessing Routing Behavior on On-Chip-Network</i>	Korea
129	Fatma Abbes, Emmanuel Casseau, Mohamed Abid	<i>Interface Architecture Generation for IP Integration in SoC Design</i>	Tunisia
138	Ahmed K. Ghanem, Ahmed H. El-Mahdy, Ibrahim Abd El-Salam	<i>A Cycle-Accurate Micro-Architecture Simulation Framework for Embedded Processors</i>	Egypt
TS4: Modeling & Simulation			
Chairs: Prof. Hani Fikry and Prof. M. H. Hristov			
21	Hamdy. A. Ashour, Rania Ibrahim	<i>Comparison Analysis of AC on Voltage Controllers Based Experimental and Simulated Application Studies</i>	Egypt
51	D'Mark Hunter and Dale Joachim	<i>DF Experimentation through Parametric Simulation</i>	U.S.A.
61	Tarek Abdolkader	<i>Simulation of Quantum Transport in Ballistic Double-Gate MOSFETs using Transfer Matrix Method</i>	Egypt
104	M. S. Abdel-Wahab, A. S. Hussein, M. S. Gaber	<i>Adaptive Surface Reconstruction from Non Uniform Point Sets</i>	Egypt
112	B. M. Nikolova, G. T. Nikolov, M. H. Hristov	<i>Analogue Behavioural Modelling of Integrated Sensors</i>	Bulgaria

TS5: Computer Architecture & Computer Aided Design II			
Chairs: Prof. Ashraf Salem and Prof. Mohamed ElSharkawy			
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91	Bassem A. Hamed, Ashraf Salem, Gamal M.Aly	<i>A Multi-Engine LUT-Based Synthesis Framework</i>	Egypt
94	Mohamed M. Ahmed and Hany L. Abdel-Malek,	<i>Scheduling In High-Level Synthesis Using A Hybrid Constraint Logic Programming /Integer Programming Approach</i>	Egypt
144	Mona Safar, Mohamed Shalan, M. Watheq El-Kharashi, Ashraf Salem	<i>A Hardware Accelerator for SAT Solving</i>	Egypt
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124	Wahied Gharieb	<i>Software Quality in Ladder Programming</i>	Egypt
130	Mohamed Ali Sobh, Mohamed A. Sheirah	<i>Realistic Missile Modeling for Guidance Applications</i>	Egypt

Monday November 6, 2006

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Chair: Prof. Gamal Aly			
	Prof. T. Aaron Gulliver	<i>Modulation and Coding Techniques for Infrared Wireless Local Area Networks</i>	Canada
TS7: Computer Networks & Security I			
Chairs: Prof. Yasser Dakroury and Prof. Gamal Darwish			
19	Nada M. El-Shenawy, Mohamed N. El-Derini, Mahmoud M. Fahmy, El-Sayed M. El-Alfy	<i>Performance Comparison of CBT and PIM Multicast Routing Protocols over MPLS Networks</i>	Egypt
22	Zein M. Wali, Khaled M. F. Elsayed, Abdel-Karim S. O. Hassan	<i>Static RWA in All-Optical Network under Multifiber, Multiple Requests Assumption</i>	Egypt
27	Ayman M. Bahaa El-Din	<i>Key Exchange by Synchronization of two Chaotic Systems</i>	Egypt
41	Omar S. Essa	<i>A Novel Scalable Network Simulator Architecture (SNSA): Analysis, Design, and Implementation</i>	Egypt
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TS8: Signal Processing I			
Chairs: Prof. Amin Shokry and Dr. Hazem Abbas			
18	Nuha A. S. Alwan	<i>On the Effect of Tap Length on LMS Adaptive Echo Canceller Performance</i>	Iraq
35	Ahmed A. Abdelwahab and Huda A. Elmogazy	<i>Wavelet-Based Adaptive Embedded Fractal Image Coding</i>	Egypt
46	Shimaa M. Elsherief, Mahmoud E. Allam, Mohamed W. Fakhr	<i>Biometric Personal Identification Based on Iris Recognition</i>	Egypt
47	M. R. M. Rizk, E.M. Koosha	<i>A Comparison of Principal Component Analysis and Generalized Hebbian Algorithm for Image Compression and Face Recognition</i>	Egypt
63	I. I. Ibrahim, M. K. Ahmed, Z. B. Nossair, and F. A. Allam	<i>Comparative Study on Super-Resolution of Images</i>	Egypt

TS9: Computer Networks & Security II			
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54	Gamal Hussein	<i>Randomized Cryptosystems Attacks and Defenses</i>	Egypt
69	Said E. El-Khamy, Mansour Abed	<i>Performance Enhancement of Downlink Multiuser DS-CDMA Detectors Using Processing by Independent Component Analysis</i>	Egypt
76	Hassan M. Elkamchouchi, Abdel-Aty M. Emarah, Esam A. A. Hagra	<i>A New Public Key Signcrypted Challenge Response Identification (PKS-CR-ID) Protocol Using Smart Cards</i>	Egypt
97	Ibrahim I. Ibrahim, Maged H. Ibrahim, Ali M. Allam	<i>A Method for Fast Revocation of Certificateless Public Key Cryptography</i>	Egypt
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87	Seif El-Dawlatly, Hossam Osman, and Hussein I. Shahein	<i>Enhanced SVM versus Several Approaches in SAR Target Recognition</i>	Egypt
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99	Hanfeng Chen, T. Aaron Gulliver and Wei Li	<i>Ultra-Wideband Communication with BCH Errors-and-Erasures Decoding</i>	Canada

TS11: Computer Networks & Security III			
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118	Amr M. Hassan, Mohamed I. Youssef, Mohamed M. Zahra	<i>Evaluation of Ad Hoc Routing Protocols in Real Simulation Environments</i>	Egypt
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142	Mahmoud I. Khalil	<i>Digital Image Watermarking: Scalar Wavelets versus Multiwavelets</i>	Egypt
161	Mohamed. H. El-Shafey	<i>Effect of the Sampling Time on the Accuracy of Estimating the Frequencies of Multiple Sinusoids</i>	Egypt

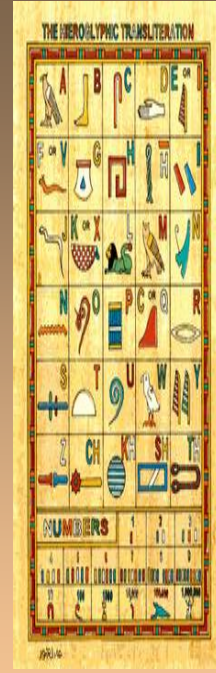
Tuesday November 7, 2006

Plenary Talk III			
Chair: Prof. Hussein Shahien			
	Prof. Said E. El-Khamy	<i>Advanced Signal Processing Techniques for the Enhancement of Secure Wireless Communication Systems Utilizing Spread-Spectrum Signaling and Smart Antennas</i>	Egypt
TS13: Multimedia & Web Applications			
Chairs: Prof. Mohamed Sheirah and Prof. Abd ElMoneim Wahdan			
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95	R. O. Badr, H. M. Hosny	<i>An HCI Pattern Language Management Tool</i>	Egypt
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59	Ali I. El-Desouky, Hesham A. Ali, Sally El-Ghamrawy	<i>An Automatic Label Extraction Technique for Domain-Specific Hidden Web Crawling (LEHW)</i>	Egypt
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In Egypt a civilization started and illustrated marvelously what Egyptians can achieve. Egypt though is not just a by-gone past still keeping its glamour, it is now the sincere aspiration of its scientists for a better future.

Cover designed by Prof. Hossam M.A. Fahmy