

ICENCO 2017

Program

**2017 13th International Computer
Engineering Conference**

**Computer Engineering Department
Faculty of Engineering**

**Cairo University
Cairo, EGYPT**

"Boundless Smart Societies"

December 27-28, 2017



The Conference Venue

First Day:

The conference will be held at the Four Seasons Hotel – Giza. It's located in 35 Giza Street (Ex. Mourad st.). If you're taking a taxi, mention "Four Seasons El Giza, Sharie Mourad" (Four Seasons, Giza, Mourad st.)

Second Day:

The conference will be held at Faculty of Engineering, Cairo University, and Computer Engineering Department. You may phone +202-35678981.

Both Venues are shown in the map below





Conference in a Glance

Wednesday, December 27th,

At Four Seasons Hotel-First Residence, Giza

08:30-09:00 am	Registration
09:00-09:10 am	Soft Opening Prof. Samir Shaheen, ICENCO Chair and Past-Dean Faculty of Engineering, Cairo University
09:15-11:00 am	Session 1 Communications and Computer Networks
11:00: 11:15 am	Coffee Break
11:15 am-01:00 pm	Session 2 Image Processing and Computer Vision
01:00-02:00 pm	Lunch Break
02:00-03:45 pm	Session 3 Machine Intelligence
3:45:4:00 pm	Coffee Break
04:00-05:45 pm	Session 4 Control Applications and Embedded Systems
06:00–09:00 pm	Official Opening, Conf. Banquet and Honoring of Class 2007
	<u>Talk entitled:</u> POSTAL HISTORY In Modern Egypt Sherif El Kerdani Fellow of the Royal Academy of Surgeons Board Member of the Philatelic Society of Egypt Member Egypt Study Circle, London Member of the Royal Philatelic Society of London



Thursday, December 28th,

**Sessions: At Faculty of Engineering, Cairo University, Giza
(Building 3000, Sixth Floor, Conference Room)**

09:00-09:30 am	Registration
09:30-11:15 am	Session 5 Image Processing & Computer Vision and Big Data
11:15-11:30 am	Coffee break
11:30 am-1:15 pm	Session 6 Machine Intelligence
1:15-02:15 pm	Lunch
02:15-04:00 pm	Session 7 Communications and Computer Networks
4:00-4:15 pm	Coffee break
04:15-06:00 pm	Session 8 & Closing Miscellaneous



Conference Program

Date	Wednesday 27, December 2017
Location	Four Seasons Hotel -First Residence, Giza

Registration (08:30 am – 09:00 am)		
Soft Opening (09:00 am – 09:10 am) <i>Prof. Samir Shaheen Past-Dean Faculty of Engineering, Cairo University Conference Chair</i>		
Session 1: Communications and Computer Networks (09:15 am – 11:00 am)		
Moderators: Prof. Samir Shaheen Past-Dean Faculty of Engineering, Cairo U. & Prof. Omar Karam Dean of Informatics & Computer Science, BUC		
No	Ref. No.	Paper Title/authors
1	EG-62	Modified Capacity Enhanced PF (MCE-PF) Downlink Scheduling Algorithm for Heterogeneous LTE-Advanced Networks <i>Amany Sobhy Eladham, Nada ElShennawy and Amany Sarhan</i>
2	Ku-65	Performance Enhancement of Free Space Optical (FSO) Systems Using Polarized DWDM-OFDM technique under Atmospheric Disturbances <i>Abd El-Naser A. Mohamed, Ahmed Nabih Zaki Rashed, Mohamed S. F. Tabbour and Amira M. Ismail</i>
3	EG-24	Evaluating QoS using Scheduling Algorithms in MPLS/VPN/WiMAX Networks <i>Hassan H. Elkarash, Nada M. Elshennawy and Elsayed A. Sallam</i>
4	So-112	Cost-Efficient Architecture of IPsec Classification Engine with TCAM <i>Hayotjon Aliev, Won Sik Chae and HyungWon Kim</i>
5	So-98	Interoperability of Device Identification in Heterogeneous IoT Platforms <i>Jahoon Koo and Young-Gab Kim</i>
6	Ku-47	Performance Analysis For Diverse Simulation Scenarios for DSDV, DSR and AODV MANET Routing Protocols <i>Qutaiba Razouqi, Ahmed Boushehri and Mohamed Gaballah</i>
7	Jo-115	Fuzzy Logic-Based Clustering Approach with Mobile Sink for WSNs <i>Omar Banimelhem and Alaa Abu-Hantash</i>
8	So-96	Development of IoT Security Component for Interoperability <i>Se-Ra Oh and Young-Gab Kim</i>
9	So-49	Low overhead routing for IEEE 802.11-based Internet-of-Things networks <i>Hyoung-Gyu Choi, Seung-Jae Han, and Sunju Park</i>
10	UK-77	An Energy Efficient and Adaptive Clustering for Wireless Sensor Network (CH-leach) using Leach Protocol <i>Walid Abushiba, Princy Johnson and Saad Alharthi</i>



Coffee Break (11:00: 11:15 am)

Session 2: Image Processing and Computer Vision

(11:15 am– 01:00 pm)

**Moderators: Prof. Ahmed Darwish Former Minister of Administrative Develop.
 & Dr. Mayada Hadhoud Assistant Professor Computer
 Engineering Department, Cairo University**

No	Ref. No.	Paper Title/authors
1	EG-70	<i>Speeding up Dominant Object Video Segmentation</i> Ali Alabed, Omar A. Nasr and Elsayed Hemayed
2	EG-43	<i>Improving the speed of chaotic-maps-based image encryption using parallelization</i> Amany Elrefaey, Amany Sarhan and Nada M. El-Shennawy
3	EG-09	<i>Automatic Multi-Style License Plate Detection Using a Biologically Inspired Classifier</i> Amr A. El-Latief, Elsayed E. Hemayed, Dina Helal and Mohamed Rehan
4	Cz-79	<i>An investigation of key features of atherosclerotic plaques on B-images in comparison with histological patterns to ischemic stroke prediction</i> Jiri Blahuta, Jakub Skacel and Petr Cermak
5	Le-40	<i>Lebanese Automated Number Plate Reading Based on Neural Network Recognition</i> Moustafa M. Kurdi, Imad A. Elzein, Jalal Issa and Ibrahim Sayed Ahmad
6	Li-37	<i>Detection of Saliency Map as Image Feature Outliers Using Random Projections Based Method</i> Robertas Damaševičius, Rytis Maskeliūnas, Marcin Woźniak, Dawid Polap, Tatjana Sidekierskienė and Marcin Gabryel

Lunch Break

(1:00 pm – 2:00 pm)



Session 3: Machine Intelligence

(2:00 pm – 3:45 pm)

Moderators: *Prof. Reda Abdel Wahab Vice –Dean Faculty of Computer and Information Technology*
Prof. Nevin Darwish x-Chair Computer Engineering Department
Computer Engineering Department , Cairo University

No	Ref. No.	Paper Title/authors
1	SA-90	<i>Twitter Features Distributions across Similar Labelers</i> Amal Abdullah AlMansour
2	EG-23	<i>Prediction of DNA Methylation for Every CpG Loci in chromosome 18 in Embryonic stem cells using Support Vector machine</i> Asmaa Abo Bakr Kamel, Mai S. Mabrouk and Mohamed Waleed Fakhri
3	EG-06	<i>Observations on Exploration and Exploitation Effects on Solving Rubik's Cube Using Evolutionary Strategies</i> Ayman M. Abo El-Maaty and Magda B. Fayek
4	Ye-88	<i>A Fuzzy Classifier based Detection for Epileptic Seizure Signals</i> B. AL-Bokhity, Dalia Nashat and T. M. Nazmy
5	EG-14	<i>A Stacked Generalization Method for Disease Progression Prediction</i> Gamal Elkomy, Elsayed Sallam and Sherin Elgokhy
6	EG-57	<i>Learning the Sit-to-Stand Human Behavior: An Inverse Optimal Control Approach</i> Haitham El-Hussieny, Ahmed Asker and Omar Salah
7	Le-38	<i>Proposed System of ANN for Positioning and Navigation of UAV-UGV</i> Moustafa M. Kurdi, Alex K. Dadykin, Imad Elzein and Ibrahim Sayed Ahmad
8	Li-127	<i>Gender-Related Differences in Brand-Related Social Media Content: An Empirical Investigation</i> Ligita Zailskaitė-Jakštė and Robertas Damaševičius
9	UN-31	<i>A Novel Language-Adaptable Accent Reduction Software Template</i> Aaron Ward and Selim S. Awad
Coffee break (3:45 – 4:00 pm)		



Session 4: Control Applications and Embedded Systems (04:00 pm – 5:45 pm)		
Moderators: Prof. Ahmed Hassan, Computer Eng. Ain Shams University & Dr. Amr Wassal Computer Eng. Cairo University		
No	Ref.No.	Paper Title/authors
1	EG-13	<i>Modeling and Simulation of the Common Rail Fuel Injection System of the Diesel Engine</i> Mohamed H. Siliman, Ahmed S.Ali, Saleh abo-Elfadl
2	EG-50	<i>GWOMF: Grey Wolf Optimization for Motif Finding</i> Fatma Hashem, Mai S. Mabrouk and Walid Al-Atabany
3	EG-18	<i>Detecting genetic variants of Breast cancer using different power spectrum methods</i> Safaa M. Naeem, Mai S. Mabrouk and Mohamed A. Eldosoky
4	So-94	<i>IKE Hardware Engine Based on CAM for Concurrent Processing of Massive User Sessions</i> Shimaa Abdel Naby, Saad Arslan and HyungWon Kim
5	EG-129	<i>Hardware in the Loop of Position Tracking Control of Hydraulic Servo Mechanism</i> Mohamed El-Sayed M. Essa, Magdy A. S. Aboeleta, M. A. Moustafa Hassan and S. M. Abdrabbo
6	EG-54	<i>Experimental Nonlinear Identification of a Lab-Scale Helicopter System using MLP Neural Network</i> Mohammed Moness and Tarek Diaa-Eldeen
7	EG-10	<i>Fluid Catalytic Cracking Unit Control Using Model Predictive Control And Adaptive Neuro Fuzzy Inference System: A Comparative Study</i> Mohamed Zahran, M. E. Ammar, M. M. Ismail and M. A. Moustafa Hassan
8	EG-58	<i>Towards High Accuracy Measurements for Gas Flow Rate Using Ultrasonic Devices in Oil Fields</i> Waleed Sayed Khadrawy, M. M. Elsherbini, Reham S. Saad and Hala M. Abdel Kader
Official Opening (Banquet and Honoring of Class of 2007) (06:00 pm – 9:00 pm)		



Conference Program (cont.)

Date	Thursday 28, December 2017
Location	Computer Engineering Dept. Cairo University, Giza

Registration

(09:00 – 09:30 am)

Session 5: Image Proc. / Computer Vision and Big Data

(9:30 – 11:15 am)

Moderators: *Dr. Bassem Ibrahim Electronic Research Institute
 & Dr. Mayada Hadhoud Assistant Professor
 Computer Engineering Department, Cairo University*

No	Ref. No.	Paper Title/authors
1	EG-87	<i>A Novel Implementation for FastSLAM 2.0 Algorithm Based on Cloud Robotics</i> Shimaa S. Ali, Abdallah Hamad and Adly S. Tag Eldien
2	EG-102	<i>A Reactive Fault Tolerance Approach For Cloud Computing</i> Eman AbdElfattah, Mohamed Elkawkagy and Ashraf El-Sisi
3	EG-74	<i>An Economic Model for Cloud Service Composition Based on User's Preferences</i> Hala Hassan, Ali El-Desoky and Abd El-Hameed Ibrahim
4	EG-126	<i>Concurrency Control Algorithm for Shared Disk Cloud DBMS</i> Islam Eisa and Rashid Salem
5	EG-134	<i>Automatic Diagnosis of Autoimmune Diseases by Classifying HEp-2 Cells</i> Maryam A. G. Kasem, Marwa M. A. Hadhoud, Mohammed A. A. ELdesoky
6	EG-76	<i>Improving Instance Selection Methods for Big Data Classification</i> Mohamed Malhat, Mohamed El Menshawy, Hamdy Mousa, and Ashraf El Sisi
7	EG-111	<i>Non-Uniform Quantized Huffman Compression Technique for EEG Data</i> Ramez Moh. Elaskary, Mohamed Saeed and Tawfik Ismail
8	EG-92	<i>Record Linkage Approaches in Big Data: A State Of Art Study</i> Randa M. Abd El-Ghafar, Mervat H.Gheith, Ali H. El-Bastawissy and Eman S. Nasr
9	EG-26	<i>Providing QoS in Contention Management for Software Transactional Memory</i> Sherif F. Fahmy, Zakaria Senousy and Ahmed F. Amin
10	EG-131	<i>Novel selection policies for Container-based Cloud Deployment Models</i> Walid A. Hanafy, Amr E. Mohamed and Sameh A. Salem
		Coffee Break (11:15 – 11:30)



Session 6: Machine Intelligence

(11:30 – 1:15)

***Moderators: Prof. Nevin Darwish x-Chair Computer Engineering Department
 & Prof. Amir. F. Atiya x-Director Scientific Computation Centre
 Computer Engineering Department , Cairo University***

No	Ref. No.	Paper Title/authors
1	EG-81	<i>A Data Mining Experimentation Framework to Improve Six Sigma Projects Ahmed F. Fahmy, Ahmed H. Yousef and Hoda K. Mohamed</i>
2	EG-82	<i>On the Use of Predictive Analytics Techniques for Network Elements Failure Prediction in Telecom Operators Ahmed F. Fahmy, Ahmed H. Yousef and Hoda K. Mohamed</i>
3	EG-17	<i>Enhancing Stock Prediction Clustering Using K-Means with Genetic Algorithm Eslam Nader Desokey, Amr Badr and Abdel Fatah Hegazy</i>
4	EG-46	<i>Customer Churn Prediction Model using Data Mining techniques Ibrahim M. M. Mitkees, Sherif M Badr and Ahmed Ibrahim Bahgat ElSeddawy</i>
5	EG-133	<i>Location Category Classification using Tree Based Models with Novelty Discrimination Khaled Yasser and Elsayed Hemayed</i>
6	EG-132	<i>A Novel Model based on Non Invasive Methods for Prediction of Liver Fibrosis Mahmoud Nasr, Khalid El-Bahnasy, M. Hamdy and Sanaa M. Kamal</i>
7	EG-35	<i>An Algorithmic Approach for Overcoming Brain Tumor Using Swarm Robots Mohamed Abd Elhamid Abbas</i>
8	EG-124	<i>Classification of right and left hand movement using nonlinear analysis Muhammed Al-suify, Walid Al-Atabany and Mohamed.A.A.Eldosoky</i>
9	EG-97	<i>Improve the Compression of Bacterial DNA Sequence Nour S. Bakr and Amr A. Sharawi</i>
10	EG-20	<i>A New Hybrid Approach for Document Clustering Osama Ismael</i>
<i>Lunch Break</i> <i>(01:15 – 02:15)</i>		



Session 7: Communications and Computer Networks

(02:15pm – 4:00 pm)

**Moderators: Prof. Samir Shaheen Past-Dean Faculty of Engineering, Cairo Uni.
Prof. Ehab Ali x- Chair Computer Department, Helwan Uni.**

No	Ref No	Paper Title/authors
1	EG-25	<i>Optimization of FBG Performance Parameters under Gamma Radiation and Temperature Effects</i> Abd El-Naser A.Mohamed, Ahmed Nabih Zaki Rashed, Ahmed I.Elsaket, M. M. Zaky and Mohamed A. Gaheen
2	EG-114	<i>Multicast Security Model for Internet of Things Based on Context Awareness</i> Hussein Harb, Ashraf William, Omayma A. El-Mohsen and Hala A. Mansour
3	EG-66	<i>Cooperative Spectrum Sensing and Clustering Schemes in CRN:A Survey</i> Ibrahim Salah, Waleed Saad, Mona Shokair and Mohamed Elkordy
4	EG-55	<i>Energy Aware Ad-hoc On Demand Multipath Distance Vector (EA-AOMDV)</i> Mahmoud M. Shawara., Amany M. Sarhan and Nawal A. Elfishawy
5	EG-99	<i>A study in WPA2 enterprise recent Attacks</i> Mohamed A. Abo-Soliman and Marianne A. Azer
6	EG-34	<i>Robust Pre-Authentication Protocol for Wireless Network</i> Mohammed Aly Abdrabou
7	EG-52	<i>A Novel Approach for Resource Utilization and Management in SDN</i> Mohamed I. Hamed, Basem M. ElHalawany, Mostafa M. Fouda and Adly S. Tag Eldien
8	EG-75	<i>An Adaptive Algorithm for Channel Assignment and Load Balancing in Elastic IEEE 802.11 WLANs</i> Noureen Heiba, Masoud Alghoniemy, Mohamed Elwekeil, Amr Mokhtar and Mohamed R. M. Rizk
9	EG-123	<i>SLUM: Smart Location Update Mechanism for Random Mobility Model</i> Lamiaa Menshawy, Heba Nashaat and Rawya Y. Rizk
10	EG-67	<i>A Novel Multiuser MIMO Scheduling Technique for Limited Feedback Systems</i> Yasser Naguib Ahmed
11	EG-71	<i>A Novel Determinant Based Transmit Antenna Selection Technique in Single User MIMO Systems</i> Yasser Naguib Ahmed
12	EG-73	<i>A Spectrum-Sensing Decision Framework Based on Self Organized Map for Cognitive Radio Ad Hoc Networks</i> Zahraa Abd El-Hamid, Salah El Agouz, Abd El-Halim A. Zekry and Fathi E. Abd El-Samie
Coffee Break (4:00 – 4:15 pm)		



Session 8: Miscellaneous

(4:15 pm – 6:00 pm)

Moderators: *Prof. Ihab Talkhan Chair Computer Engineering Department
 & Dr. Khaled Ibrahim Tech. Computer Systems Developer
 Computer Engineering Department, Cairo University.*

No	Ref.No.	Paper Title/authors
1	EG-95	<i>High-Level Synthesis Hardware Implementation and Verification of HEVC DCT on SoC-FPGA</i> Belal Mohamed, Amr Elsayed, Omar Amin, Eslam Khafagy, Maher Abdelrasoul, Ahmed Shalaby and Mohammed S. Sayed
2	EG-86	<i>Using Ontology-Based Concept Maps for Requirements Engineering: A Case Study</i> Karama Ali Mohamed, Mahmoud Abd Ellatif and Marwa Salah Farhan
3	EG-106	<i>Happy Feet Maya plugin to generate customized gait cycles for 3D characters</i> Mary Guindy and Rimon Elias
4	EG-117	<i>Internet of Things Security Framework</i> Amira Hagag Imam and Marianne A. Azer
5	EG-119	<i>Correlation Between Protocol Selection and Packet Drop Attack Severity in Ad Hoc Networks</i> Mahmoud Reda and Marianne A. Azer
6	EG-68	<i>Efficient Microcontroller System to Test an SRAM Chip Using Signature Analysis</i> Mahmoud S. Ragab , Mohamed H. El-Mahlawy, and Emad A. El-Samahy
7	EG-107	<i>Design and Simulation of Authenticated Encryption AENOTP Stream Cipher Algorithm</i> Mohamed Nabil Hussein, Mohamed Helmy Megahed and Mohamed Hassan Abdel Azeem
8	EG-22	<i>Analysis of Faults Fixing System Using Rough Sets: A Case Study in Large-Scale Telecommunication Company (Telecom Egypt)</i> O. E. Emam, M. S. Farhan and A. A. Abohany

Closing Session