

ACIT2020 The 21st International Arab
Conference on Information
Technology (ACIT)
Egypt

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LIVE
CONFERENCE
ORGANIZATION



ACIT'2020

THE INTERNATIONAL ARAB CONFERENCE ON INFORMATION TECHNOLOGY

MISR UNIVERSITY FOR SCIENCE & TECHNOLOGY

28 – 30, November, 2020, 6 of October, Egypt

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Welcome Message

On behalf of the organizing committee, we welcome you to The International Arab Conference on Information Technology ACIT'2020, 6th October, Egypt. The conference is organized by Misr University for Science & Technology, Egypt. The International Arab Conference on Information Technology (ACIT'2020) is a forum for scientists, engineers, and practitioners to present their latest research, results, ideas, developments, and applications in all areas of information technology

The conference program exhibits exciting presentations to contributed papers and state-of-the-art lectures by invited keynote speakers. Tutorials on current issues and special sessions on new trends related to information technology and software industry could be organized.

The conference is online with **LIVE** connection for all delegates from around the world.

LIVE Virtual Presentations.

LIVE Pre-Recorded Presentations.

ACIT'2020 TOPICS

- AI & Expert Systems
- Algorithms & Applications
- Natural Lang. Processing (Arabic)
- Bioinformatics
- Computer Architecture
- Computer Ethics
- Computer Graphics
- Computer Networks
- Computer Simulation
- Database Systems
- Decision Support Systems
- Digital Telecommunications
- E-Commerce
- E-Learning
- Geographic Information Systems
- Human Computer Interaction
- Information Security
- Information Systems
- Web semantics
- IT & Society
- Machine Learning
- Multimedia & Image Processing
- Neural Networks
- Parallel & Distributed Systems
- Pattern Recognition
- Reliability & Fault-Tolerance
- Remote Sensing
- Software Engineering
- Virtual Reality Systems
- Pervasive & adaptive systems
- Engineering Systems

DETAILED PROGRAM

Saturday, November 28,2020	
9:30 – 10:30	Opening Ceremony <ul style="list-style-type: none"> • Speech of the Conference Chairman (Egypt) • Speech of the Secretary General of Colleges of Computing and Information Society (Jordan) • Speech of the President of Misr University for Sciences and Technology (Egypt) • Speech of the Chancellor of the Board of Trustees of Misr University for Sciences and Technology (Egypt) • Speech of Former Minister of Higher Education and the Secretary General of Association of the Arab Universities (Jordan)
10:30 – 11:15	Keynote speaker: Dr. Ahmed Bahaa Ph.D., Microsoft Regional Director & MVP, Vice Dean of FCAI, Beni-Suif University – Egypt.
11:15 – 11:30	Break
11:30 – 13:30	Session 1 AI Chair: Prof. Amin Shoukry - Egypt <ul style="list-style-type: none"> • Collaborative Team Construction in Open Multi-Agents System. • An embedded system for identifying memory systems and mental image schemas after the Intellectual Style Inventory. • Content-Based Venue Recommender Approach for Publications. • A Structured Approach towards Robust Database Collection for Language Identification. • Comparison of Tree Based Classifications And Neural Network Based Classification. • Fuzzy logic Applied to Smart Baby’s Health and Feeding Sequence Monitoring System. • Arabic handwriting recognition: Between handcrafted methods and deep learning techniques.
	Session 2 AI/ Pattern Recognition Chair: Prof. Gamal Mabrouk - Egypt <ul style="list-style-type: none"> • Building an Intelligent Telemonitoring System for Heart Failure: The Use of the Internet of Things, Big Data and Machine Learning. • The Role of E-diagnosis Knowledge Based System on Omani Society: Skin Disease as Case. • Longest Common Sub-sequence based Multistage Collaborative Filtering for Recommender Systems. • A New Hybrid Shape Moment Invariant Techniques for Face Identification in Thermal and Visible Visions. • A New Approach in Islamic Learning: Performance Evaluation of Motion Recognition System for Salat Movement. • DNA Sequence Error Corrections based on TensorFlow. • Machine Learning and Soft Robotics.

Saturday, November 28, 2020

11:30 – 13:30	Session 3 Cloud Computing	<p>Chair: Prof. Mohamed Odeh – UK</p> <ul style="list-style-type: none"> • Practice of Applied Edge Analytics in Intelligent Learning Framework. • A multi-agent broker framework and decision support to enhanced cloud computing discovery. • Cloud Computing Faulures, Recovery Approaches and Management Tools. • Towards a Hybrid Data Partitioning Technique for Secure Data Outsourcing. • Optimization of Migration Cost for Network Function Virtualization Replacement. • Concurrency Control in Distributed Database. • A Novel Method to Verify the Search Results of Database Queries on Cloud Computing.
	13:30 – 14:00	Break
14:00 – 16:00	Session 4 Computer Networks	<p>Chair: Prof. Gasmelseed Ibrahim - Sudan</p> <ul style="list-style-type: none"> • Modified Clustering algorithms for Energy Harvesting Wireless Sensor Networks. • Wireless Sensor Network MAC Energy - efficiency Protocols: A Survey. • An Improved Cluster Head Selection Technique to Minimize Energy Consumption Using K-Means Algorithm. • Channel Capacity in a random MIMO and beam forming in MIMOOFDM using MATLAB. • An Efficient Routing Strategy For Energy Management In Wireless Sensor Network Using Hybrid Routing Protocols. • Internet of Vehicles (IoV): A Survey of Challenges and Solutions.
	Session 5 Computer Networks / IT Security	<p>Chair: Prof. Mohamed Ezz - Saudi Arabia</p> <ul style="list-style-type: none"> • Effect Of Window Size On Papr Reduction In 4g Lte Network Using Peak Windowing Algorithm In Presence Of Non-Linear Hpa. • Trust and reputation in Wireless Sensors networks. • Supermodular Game-Based Distributed Joint Beacon Power and Beacon Rate in VANETs. • Optimizing the Energy Consumption Level in LoRaWAN Networks. • Security Issues in IPv6 over Low-Power Wireless Personal Area Networks (6LoWPAN): A Review. • Random Tree Encryption Algorithm with Order Face to Cloud Environment. • AccessNet: AThree AccessNet: A Three Layered Visual Based Access Authentication System in Restricted Zone.

Saturday, November 28, 2020		
14:00 – 16:00	Session 6 E-learning/ Web Services	Chair: Prof. Mona Nasr - Egypt <ul style="list-style-type: none">• Students' Perception of Online Assessment During the COVID-19 Pandemic: The Case of Undergraduate Students in the UAE.• Virtual Reality Applications in Education Domain.• Investigating the Lack of Utilization of Information and Communication Technologies in Saudi Schools.• An analytical study of student satisfaction with the Statistics courses in elearning as a new experience after Covid-19 at Al Ain University.• COVID-19 Impact on eCommerce in UAE.• Social-aware Web APIs Recommendation in IoT.
16:00 – 16:30	Break	
16:30 – 17:30	CCIS General Committee Meeting	

Sunday, November 29, 2020

10:00 – 12:00	Session 7 IoT/ Data Mining	<p>Chair: Prof. Mohamed Khafagy - Egypt</p> <ul style="list-style-type: none"> • An IoT Based Healthcare using ECG. • Design and Performance Evaluation of IoT-fog based Smart-Building Security System. • Scheduling Model for Internet of Things to Minimize Service Latency in Hybrid Fog-Cloud Computing. • Studying And Analyzing The Fog-Based Internet Of Robotic Things. • QoS-aware service composition in Fog-IoT computing using multipopulation genetic algorithm. • A Distributed Fault Tolerance Mechanism for an IoT Healthcare system. • A Cluster Center Initialization Method Using Hyperspace-Based Multi-Level Thresholding (Hmlt): Application To Color Ancient Document Image Denoising.
	Session 8 Machine Learning / Data Mining	<p>Chair: Prof. Osama Badawy - Egypt</p> <ul style="list-style-type: none"> • Sensitivity of different optimization solvers in LSTM algorithm for temperature forecast over Mars at Jezero Crater landing site. • A Long-Short-Term-Memory Based Model for Predicting ATM Replenishment Amount. • A Deep CNN Approach for Plant Disease Detection. • Predicting the type of tumor in cancer patients by using the Naive Bayes and AdaBoost algorithms. • Electronic stethoscope for detecting heart abnormalities. • Comparative Analysis of Machine Learning Techniques for Classification and Detection of Malware. • A Framework for Improving Data Quality in Data Warehouse: A Case Study.
	Session 9 Machine Learning / Data Mining	<p>Chair: Prof. Ahmed Madian - Egypt</p> <ul style="list-style-type: none"> • Learning the Structure of the Tree and Tree-Augmented Naive Bayesian from Incomplete and Impalanced data. • Comparison study between conventional machine learning and distributed multi-task learning models. • House Price Prediction using Machine Learning Algorithm - The Case of Karachi City, Pakistan. • Diabetes Disease Prediction Using Artificial Intelligence. • Recognition of Alzheimer and Mild Cognitive disease using Automated deep learning techniques. • MOOC's Student Results Classification by Comparing PNN and other Classifiers with Features Selection. • Evaluation of Class Decomposition based on Clustering Validity and K-means Algorithm.
12:00 – 12:30	Break	

Sunday, November 29, 2020		
12:30 – 14:30	Session 10 NLP / Data Mining	Chair: Prof. Hany Harb - Egypt <ul style="list-style-type: none"> • On Detecting Online Radicalization and Extremism Using Natural Language Processing. • Sentiment Analysis and Classification of Restaurant Reviews using Machine Learning. • Applicable strategy to choose and deploy a MOOC platform with multilingual AQG feature. • A seq2seq Neural Network based Conversational Agent for Gulf Arabic Dialect. • Arabic Reading Comprehension Benchmarks Created Semiautomatically. • Sense Inventories for Arabic Texts. • Mining Patients' Reviews in Online Health Communities for Adverse Drug Reaction Detection of Antiepileptic Drugs.
	Session 11 NLP/ Computer Applications	Chair: Prof. Islam Harb – Virginia, USA <ul style="list-style-type: none"> • Improving Arabic dependency parsers by using dependency relations. • Transfer Learning to improve Arabic handwriting text Recognition. • Recovery of Mobile Game Design Patterns. • Managing Moral Hazard Impact in Decision Making Process. • A Genetic Algorithm-Based XML Information Retrieval Model. • A WebGIS Decision Support System for Wadi El Natrun Rural Land Management. • Invasive Weed Optimization for Feature Selection in Clustering varied Size of Data.
	Session 12 Image Processing/ Computer Applications	Chair: Prof. Mohammad Ayache - Lebanon <ul style="list-style-type: none"> • Real Time Pedestrian Detection Using Robust Enhanced Tiny-YOLOv3. • A New Technique of ECG Denoising based on LWT and Total Variation Minimization. • Automated Brain Tumor Segmentation in MRI using Superpixel Oversegmentation and Classification. • Algerian Dialect Sentiment Analysis: Sate of Art. • Issues And Challenges For Content-Based Video Search Engines: A Survey. • Performance Analysis of Lane Detection Algorithm using Partial Hough Transform. • Modified Fuzzy C-Means Clustering Approach to Solve the Capacitated Vehicle Routing Problem.
14:30 – 15:00	Break	
15:00 – 17:00	Steering Committee Meeting	

Monday, November 30, 2020		
10:00 – 12:00	Session 13 Information Security/ Big Data	Chair: Prof. Eman Karam - Egypt <ul style="list-style-type: none"> • Application Of Encryption Algorithms With Rmi Protocol. • Password Security Through Keystroke Identifier Using Fuzzy Logic. • Hybrid SMS Spam Filtering System Using Machine Learning Techniques. • Android Ransomware Detection using Machine Learning Techniques: A Comparative Analysis on GPU and CPU. • IoT-Fog based Smart-Building Security System Design and Performance Evaluation. • A secure and efficient anonymous certificateless signcryption for Key Distribution Scheme for Smart Grid. • An Analytic Framework for Enhancing the Performance of Big heterogeneous Data Analysis.
	Session 14 Information Security/ DB-System	Chair: Prof. Saeed El-Zoghdy - Egypt <ul style="list-style-type: none"> • Visual Steganography And Encryption Techniques With Hardware Implementation. • MultiLayer Perceptron inspired encryption algorithm. • Human Gait Identification System Based on Transfer Learning. • Holochain-Based Digital forensics Investigation Framework For Evidence Preservation. • A Hybrid Model for Anomaly-Based Intrusion Detection in Complex Computer Networks. • Exploring Cyber Security Measures in Smart Cities. • Migrating Relational Databases Into Xml Documents.
12:00 – 12:30	Break	
12:30 – 14:00	Closing Ceremony	

ACIT 2020 Keynote Speaker

Dr. Ahmed Bahaa



Keynote Title: Ph.D., Microsoft Regional Director & MVP, Vice Dean of FCAI, Beni-Suif University – Egypt.

Dr. Ahmed Bahaa is a software engineer, consultant, and Microsoft Regional Director currently living in Cairo, Egypt. He is a principal technical consultant in an Egyptian Microsoft Gold partner (Compu Pharaohs). Academically, He is the Vice Dean of the Faculty of Computers & AI, Beni-Suif University. And an Associate Professor in the Faculty of Computers & AI, Helwan University. Moreover, He is an ISO advisory committee member for ISO JTC1.

Dr. Bahaa has been awarded many international awards in the ICT field. This includes but is not limited to; fifteen Most Valuable Professional (MVP) international awards for fourteen years in a row in the software engineering and cloud computing fields. He is the only Arab and African in history to win the Golden Global Impact Award from Microsoft of Redmond-WA in the USA as one of the top 60 worldwide technology influencers. Microsoft also chose him as one of the top ten software engineering and ALM's worldwide consultants. Based on this, he joined the Microsoft Testing Tools' Customer Advisory Council.

Ahmed is a mentor and reviewer of multiple books that are available on Amazon.com.

ACIT 2020 Committees

ORGANIZING COMMITTEE GENERAL CHAIRS

- **Mr. Khalid Altokhy**, President of Board of Trustees, MUST University, Egypt.
- **Prof. Dr. Mohammed Elazzazi**, MUST University President, Honorary President of the Conference, MUST University, Egypt.
- **Prof. Dr. Hany Harb**, College of Information Technology Dean, President of the Conference, MUST University, Egypt.

SCIENTIFIC CHAIR

- **Prof. Dr. Hany Harb**, MUST, Egypt.

LOCAL ORGANIZING MEMBERS

- **Dr. Islam Harb**, Virginia Tech, USA.
- **Eng. Shaimaa Bahaa Eldin**, MUST, Egypt.
- **Mrs. Nevien Mohamed**, MUST, Egypt.

Venues

Misr University for Science & Technology – 6th of October City



The main campus of Misr University for Science & Technology is located in the elegant city of 6th of October, which is located approximately 38 kilometers west of the capital Cairo, and about 17 kilometers from the great pyramids of Giza. 6th of October city is known as a higher education city, it hosts Egyptian students and students from various countries such as the Arabian Gulf, Jordan, Nigeria, Cameroon, Syria, Iraq and the Palestinian territories, who study at its private universities.

The city's name commemorates the commencement of the 1973 Arab–Israeli War on the 6th October 1973, the same date is chosen as Egypt's Armed Forces Day.



MISR UNIVERSITY
FOR SCIENCE & TECHNOLOGY

THE INTERNATIONAL ARAB CONFERENCE ON INFORMATION TECHNOLOGY ACIT 2020

28th – 30th, November 2020. 6th of October, Egypt.

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