



The 2025 International Telecommunications Conference



Welcome

A warm Thanks to each and every one of you for being here with us today. We are very pleased to be able to welcome those of you who have been with us for a long time now as well as those who are new to the 2025 International Telecommunications Conference, ITC-Egypt'2025, Air Defense College, Egyptian Military Academy, Cairo, Egypt.

We are proud to be able to organize and host our conference today here at this wonderful place with all the participants.

Before we get started, we would like to express our sincere appreciation to all who generously helped us make this event come together to become a success.



About ITC-Egypt'2025

The Fifth International Telecommunications Conference (ITC-Egypt'2025) is organized by the Air Defense College (ADC), Egyptian Military Academy. The conference will be held in Air Defense College, Egyptian Military Academy, Cairo, Egypt, from July 28-31, 2025. The conference will feature a comprehensive high-quality technical program covering the latest research and innovation in communications technologies.

Telecom Empowerment

The 5th International Telecommunications Conference (ITC-Egypt'2025) at the Egyptian Military Academy unites global researchers and top communications labs, featuring a robust technical program with six tracks, workshops, and research panels.

- Global collaboration with top researchers
- Six specialized tracks in communications
- Workshops, panels, and technical insights

The conference will include six technical tracks, Tutorial, projects Competition, keynotes, and technical/industrial research panels with prominent research leaders addressing emerging communications technologies.

The ITC-Egypt'2025 conference is technically supported by the IEEE-MTT-S, IEEE-APS, IEEE Egypt Section, and IEEE-AESS.



Technical Sessions

Day / Date	Time	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6
Monday 28 July 2025	15:00 – 17:00	Track 1 - S1 Future 6G Applications	Track 4 – S1 Healthcare and Biomedical AI	Track 3 – S1 Intelligent Control, Optimization and Modeling for Cyber-Physical Systems	Track 4 – S2 Computer Vision & Image Processing	Track 6 – S1 Vehicular Technologies and Aircraft systems	Track 6 – S2 Security Enhancements based on AI Approaches
Tuesday 29 July 2025	12:00 – 14:00	Track 1 - S2 MIMO Antenna Arrays	Track 2 – S1 UAV and Counter-UAV Technologies	Track 3 – S2 Ad Hoc and IoT Networks	Track 4 – S3 Cyber security and Adversarial AI	Track 5 – S1 Renewable and Sustainable Energy Systems and Climate Change	Track 6 – S3 Auto ML classification and Agri tech Applications
	15:00 – 17:00	Track 1 - S3 Antenna Theory and Design	Track 2 – S2 Advanced Radar Signal Processing and Applications	Track 3 – S3 Secure and Privacy-Preserving Systems in Cyber-Physical and Medical Domains	Track 4 – S4 NLP & Large Language Models (LLMs)	Track 6 - S4 IoT & Indoor Technologies	Track 6 – S5 Advanced Communication Technologies
Wednesday 30 July 2025	12:00 – 14:00	Track 1 - S4 Electromagnetics and Metamaterial	Track 2 – S3 Navigation and Antenna Array Technologies	Track 3 – S4 Innovation in Smart Healthcare, Wearable's and Assistive Technologies	Track 4 – S5 Robotics, Control Systems and IoT	Track 5 – S2 AI-Driven Smart Grids and Intelligent Energy Management	Track 6 – S6 Advanced Mobile Communications Networks
	15:00 – 17:00	Track 1 - S5 Antenna Applications and Emerging Technologies	Track 2 – S4 Satellite Systems and Space Applications	Track 4 – S6 Wireless Networks and Optimization	Track 4 – S7 Emerging AI Applications		Track 6 – S7 Intelligent Biomedical Systems and Wearable Devices



Keynote Talks

Monday, July 28, 2025 | 10:45-11:00 | Main Hall

Opening Lecture

[UAV Classification Using Radars, Artificial Intelligence, and Digital
Twins](#)



Prof. George Shaker

Advancing Electromagnetic Sensing for Healthcare and Industry, University of Waterloo, Canada

Monday, July 28, 2025 | 12:25-13:10 | Main Hall

[Tactical eXtreme Edge Computing \(XEC\)](#)



Prof. Hossam S. Hassanein

Director of School of Computing, Queen's University, Canada. IEEE Fellow, IEEE ComSoc DL.



Keynote Talks

Tuesday, July 29, 2025 | 09:00-09:45 | Historical Building Hall
High Frequency Surface Wave Radars & Integrated Surveillance Systems



Prof. Levent Sevgi

Department of Electrical and Electronics Engineering, Istanbul Atlas University. IEEE Fellow, IEEE AP-S DL.

Wednesday, July 30, 2025 | 09:00-09:45 | Historical Building Hall
Recent Advances in Radar



Prof. Braham Himed

Prof at Air Force Research Laboratory, U.S.A. IEEE AESS President-Elected.



Keynote Talks

Thursday, July 31, 2025 | 09:00-09:45 | Main Hall

[Phase Shifters for Radar and Wireless Communication Systems](#)



Prof. Shibani Koul

Prof at Emeritus at the Indian Institute of Technology, Delhi. IEEE Fellow.

Invited Talks

Monday, July 28, 2025 | 13:10-13:40 | Main Hall

[Modeling and Simulation for Defense Applications](#)



Prof. Özlem Özgün

Professor, Hacettepe University, Dept. of Electrical and Electronics Engineering, Turkey



Invited Talks

Wednesday, July 30, 2025 | 09:45-10:15 | Historical Building Hall
[Modeling and Simulation for Defense Applications](#)



Prof. Ahmed Kishk

Department of Electrical and Computer Engineering, Concordia University, Canada. IEEE Fellow.

Wednesday, July 30, 2025 | 10:45-11:15 | Historical Building Hall
[Spectral X-ray technology for medical and security applications](#)



Prof. Karim S. Karim

*Professor in the Department of Electrical and Computer Engineering, University of Waterloo, Canada.
FCAE, FEIC.*



Panel Discussions

Monday, July 28, 2025 | 11:00-11:55 | Main Hall

Panel Discussion “Education in the AI Era”

Lt. Gen. Ashraf Salem Zaher

Superintendent of the Egyptian Military Academy, MOD, Egypt.

Prof. Hossam S. Hassanein

Director of School of Computing, Queen's University, Canada. IEEE Fellow, IEEE ComSoc DL.

Prof. Abdel Razik Sebak

Professor and Tier I Concordia University Research Chair in Millimeter-wave Antennas and Systems, Computer Engineering.

Prof. Mostafa Refaat

The Secretary General of the Supreme Council of Universities, Egypt.

Dr. Sharief Oteafy

Associate Professor, School of Computing, DePaul University, Telecommunication & Networking, Internet of Things.

Dr. Ayman Radwan

Associate Professor at the Department of Electrical and Computer Engineering (DEEC) at Instituto Superior Técnico (IST).



Prof. Hossam S.
Hassanein



Lt. Gen. Ashraf Salem
Zaher



Prof. Abdel Razik Sebak
(Panelist)



Dr. Mostafa Refaat
(Panelist)



Dr. Sharief Oteafy
(Moderator)



Dr. Ayman Radwan
(Panelist)



Panel Discussions

Tuesday, July 29, 2025 | 11:00-12:00 | Historical Building Hall
Panel Discussion “Industry 4.0 The Converge Revolution”

Prof. Shiban Koul

Prof at Emeritus at the Indian Institute of Technology, Delhi. IEEE Fellow.

Prof. Karim S. Karim

*Professor in the Department of Electrical and Computer Engineering, University of Waterloo, Canada.
FCAE, FEIC.*

Maj. Gen. Dr. Alaa Hafez

Director of Research Administration, Egyptian Armed Forces

Prof. George Shaker

Advancing Electromagnetic Sensing for Healthcare and Industry, University of Waterloo, Canada

Dr. Mike Hinchey

Director-Elect of IEEE Region 8, IEEE Computer Society BOG, Past Director of the NASA Software Engineering Lab., Ireland.



Prof. Shiban Koul
(Panelist)



Prof. Karim S. Karim
(Panelist)



Maj. Gen. Dr. Alaa Hafez
(Panelist)



Dr. George Shaker
(Moderator)



Dr. Mike Hinchey
(Panelist)



Tutorials

Tuesday, July 29, 2025 | 09:45-10:30 | Historical Building Hall
[Multi-Sensor Integrated Navigation Systems Tutorial](#)



About Prof. Aboelmagd Noureldin

Royal Military College of Canada (RMC).

IEEE Events

Tuesday, July 29, 2025 | 15:00-17:00 | Historical Building Hall



IEEE Young Professional

Wednesday, July 30, 2025 | 11:15-12:00 | Historical Building Hall



HTB Representative Keynote Speech



The image features a dark blue, monochromatic cityscape at night. In the foreground, a complex network of red and white lines connects numerous nodes, resembling a data or communication network. Vertical lines with glowing blue tips rise from the network, extending towards the top of the frame. The background shows a city skyline with various buildings and lights. The text 'DAY 1' is prominently displayed in the center in a large, white, sans-serif font. The overall aesthetic is futuristic and technological.

DAY 1

Oral Presentations

28 JULY 2025

Monday, July 28, 2025 | Time: 15:00 – 17:00

Room (1) / the Educational Complex | Track 1 - S1: Future 6G Applications

Chairs: *Session Chair: TBA*

- [A Camouflage Fire Sprinkler Antenna for Indoor Sub-6 GHz 5G and WiFi Applications](#)
Ahmed Alieldin (The Egyptian Technical Research and Development Centre, Egypt); Abdelrahman Mohamed El-Akhdar (MSA University, Egypt); Angie Eldamak (Ain Shams University, Egypt); Ahmed M. Elelimy Abounemra and Mohammad Darwish (Military Technical College, Egypt)
- [Reconfigurable Tunable Bandpass Filter with UltraWide Frequency Range for Sub-6 GHz 5G Applications](#)
Mahmoud Hatem Negm (Military Technical College, Egypt); Ahmed Alieldin (The Egyptian Technical Research and Development Centre, Egypt); Ahmed M. Elelimy Abounemra (Military Technical College, Egypt)
- [Wideband Reconfigurable Intelligent Surface for Programmable Beam Steering in 6G Wireless Networks](#)
Mohammad Ali and Abdel-Razik Sebak (Concordia University, Canada)
- [Full Duplex Log Periodic Dipole Array Antenna for 6G Communication Based on Substrate Integrated Waveguide Technology](#)
Syed Muhammad Muhammad Sifat (Toronto Metropolitan University, Canada & Concordia University, Canada); Shoukry Shams and Ahmed A Kishk (Concordia University, Canada)
- [Comparative Analysis of MMIC Conventional SPDT Switch and Quarter Wave Traveling Wave Switch Using GaAs Technology for X Band Applications](#)
Swati Sharma and Shikha Swaroop Sharma (University of Rome Tor Vergata, Italy); Patrick Ettore Longhi (University of Roma Tor Vergata, Italy); Sergio Colangeli and Ernesto Limiti (University of Rome Tor Vergata, Italy); Walter Ciccognani (Università of Rome Tor Vergata, Italy)

Oral Presentations

28 JULY 2025

- [MMIC LNA for ISL Applications Using Forward Combining Topology](#)
Vanya Sharma and Shikha Swaroop Sharma (University of Rome Tor Vergata, Italy); Patrick Ettore Longhi (University of Roma Tor Vergata, Italy); Swati Sharma and Ernesto Limiti (University of Rome Tor Vergata, Italy)

Monday, July 28, 2025 | Time: 15:00 – 17:00

Room (2) / the Educational Complex | Track 4 - S1: Healthcare and Biomedical AI

Chairs: *Session Chair: TBA*

- [Leveraging Deep Learning for Psoriasis Detection: an Innovative Approach to Skin Disease Diagnosis](#)
Farah Walid (Modern Science and Arts University, Egypt & MSA University, Egypt); Rawan Walid, Hanan Tarek, Mohamed Nagy and Marwa Solayman (Modern Science and Arts University, Egypt)
- [Emotion Recognition from EEG Signals Using Vision Transformer and CNN](#)
Merna Ahmed Mansour, Lamees Nasser, Ibrahim Sadek and Nancy M Salem (Helwan University, Egypt)
- [Enhanced Egyptian Arabic Speech Emotion Recognition](#)
Yosef Moustafa (University of Hertfordshire, Global Academic Foundation, Egypt); Lamees Nasser (Helwan University, Egypt)
- [Multi-Modal Depression Monitoring System](#)
Merna Youssef, Omar Abdelazeez, Kareem Hassan and Merna Bibars (Cairo University, Egypt); Lamees N. Mahmoud and Ibrahim Sadek (Helwan University, Egypt)
- [AI-Powered Mobile Application for Alzheimer's Screening Using Clock Drawing Test](#)
Safaa Moneer, Omnia Mohamed Kamal, Eman Mohamed Sharaf El-dein, Batool Yousry Sadeq, Mennatallah Ayman Mohamed and Lamees Nasser (Helwan University, Egypt)

Oral Presentations

28 JULY 2025

- [Hybrid Deep Learning Framework for White Blood Cell Classification Using Attention-Based Feature Fusion](#)
Samah Adel Gamel (Horus University, Egypt); Mervat El-Seddek (Associate Professor, Egypt)

Monday, July 28, 2025 | Time: 15:00 – 17:00

Room (3) / the Educational Complex | Track 3 – S1: Intelligent Control, Optimization and Modeling for Cyber-Physical Systems

Chairs: *Session Chair: TBA*

- [Model-Free MRAC Using Sensor-Based Reference Estimation and Real-Time Lyapunov Control](#)
Amir R. Ali (The German University in Cairo (GUC), Egypt & PI of the Applied-Science & Robotics Laboratory for Applied-Mechatronics ARATronics Laboratory, Egypt); Ayman Tarek (German University in Cairo (GUC), Egypt)
- [Route Optimization for School Buses Using Real-Time GPS and Geospatial Data](#)
Sameh Sherif (Egypt-Japan University of Science and Technology (E-JUST), Egypt); Rana Adel Zidan, Ms and Amira Hatem Sakr (Egypt Japan University, Egypt)
- [Gaining Sharing Knowledge Based Algorithm for Fixed Charge Transportation Problem](#)
Mahmoud Zaki Ghazi Moussa (Cairo University, Egypt); Naglaa Ragaa Hassan (University of Cairo, Egypt); Heba Sayed Roshdy (Cairo University, Egypt)
- [System Identification and Modeling of Actuation Dynamics for Fixed-Wing UAVs Using Empirical Servo Data](#)
Salah Shahen Salah (Egypt)
- [Adaptive Embedded Machine Learning on IoT Devices: a Review](#)
Omar Abozaid (École de technologie supérieure ÉTS, Egypt); Bassant Selim (ETS Montreal, Canada); Brigitte Jaumard (Concordia University, Canada)



Oral Presentations

28 JULY 2025

Monday, July 28, 2025 | Time: 15:00 – 17:00

Room (4) / the Educational Complex | Track 4 – S2: Computer Vision & Image Processing

Chairs: *Session Chair: TBA*

- [Palmpoint Recognition Using Siamese Networks with ResNet-18](#)
Tarek Awad Elbendary, Abeer Khalil and Mahmoud Saafan (Mansoura University, Egypt); Hossam El-Din Salah Moustafa (Mansoura University & Professor of Electronics and Communications Engineering, Founder of Biomedical Engineering Program, Egypt)
- [Anti \(UAVs and Drones\) System Using YOLOv9](#)
Ahmed Samir Zaki and Nada Raafat Ali, Sr (MISR University for Science and Technology, Egypt)
- [Robust Cross-Species Multi-Object Tracking: a Unified Pipeline for Zebrafish and Chickens](#)
Haidy Aboud Mahmoud Aboud and Eng. Hanan Tarek (October University for Modern Sciences & Arts, Egypt); Ayman Atia (October University for Modern Sciences and Arts (MSA), Egypt)
- [Real-Time Detection of Surface Cracks in Wood Using Deep Learning-Based Image Analysis for Quality Control](#)
Amir R. Ali (The German University in Cairo (GUC), Egypt & PI of the Applied-Science & Robotics Laboratory for Applied-Mechatronics ARAtronics Laboratory, Egypt); Mohamed W. A. Ramadan (The German University in Cairo, Egypt); Marwan Helal (German University in Cairo (GUC), Egypt)
- [Neural Network Modeling for the Meca500 Industrial Robot: Practical Implementation, Validation, and Testing](#)
Tarek Khaled (Ecole de Technologie Superior, Quebec University, Egypt); Ahmed Hashala (Westcliff University, Egypt); Ibrahem M. A. Ibrahem (Military Technical College, Egypt); Mostafa Korashy (ETS, Egypt & Assiut University, Egypt); Ouassima Akhrif (Ecole de Technologie Supérieure, Montreal, Quebec, Turkey); Ilian Bonev (ETS Montreal, Canada)

Oral Presentations

28 JULY 2025

- [Annotation-Free Object Segmentation Using Zero-Shot Detection and SAM for Fruit Classification](#)
Pierre Nabil and Khaled Mohamed (October University for Modern Sciences & Arts, Egypt); Steven H. Saad (MSA & MSA university, Egypt); Ayman Atia (October University for Modern Sciences and Arts (MSA), Egypt)
- [AI- Enhanced SegNet for Spacecraft Image Segmentation in Communication-Oriented and Structural Monitoring Applications](#)
Mayada Khairy (Electronics Research Institute, Egypt); Alaa Osman (Air Defense College, Egypt); Ahmed Farag (Suez University, Egypt)

Monday, July 28, 2025 | Time: 15:00 – 17:00

Room (5) / the Educational Complex | Track 6 – S1: Vehicular Technologies and Aircraft systems

Chairs: Session Chair: TBA

- [Optimizing Electric Vehicle Workplace Charging Patterns Using Feature Selection and Machine Learning Models](#)
Mohamed Elkanzi (Bahrain Polytechnic, Bahrain); El-Sayed M El-kenawy (Delta Higher Institute for Engineering & Technology, Egypt); Amel Ali Alhussan (Princess Nourah bint Abdulrahman University, India); Ali E. Takieldeem (Delta University for Science and Technology, Egypt & Cyber Security, Egypt); Khaled Sh Gaber (Delta Higher Institute of Engineering and Technology, Egypt); Marwa M Eid (Delta University for Science and Technology, Egypt)
- [Comparative Analysis of Fuel Types on Fuel Efficiency and CO2 Emissions in Light-Duty Vehicles with Machine Learning Prediction Models](#)
Abdelhameed Ibrahim (Bahrain Polytechnic, Bahrain); El-Sayed M El-kenawy (Delta Higher Institute for Engineering & Technology, Egypt); Ali E. Takieldeem (Delta University for Science and Technology, Egypt & Cyber Security, Egypt); Amel Ali Alhussan (Princess Nourah bint Abdulrahman University, India); Khaled Sh Gaber (Delta Higher Institute of Engineering and Technology, Egypt); Marwa M Eid (Delta University for Science and Technology, Egypt)

Oral Presentations

28 JULY 2025

- [Advancing Real Time Military Aircraft Detection: a Comprehensive Comparative Benchmark of Object Detection Frameworks](#)
Mohamed Rady, Nada Abd Elkarim, Youssef Maaod, Mohamed Abd Elaziz, Aly Maher Abdelfattah, Youssef Mohamed Elmeligy, Ammar Ramadan Abozaid and Mohamed Elsayed (Galala University, Egypt)
- [Slice-Based Resource Allocation for Intermediate UPF](#)
Yaseen Al Doori (Wind River & Southern Methodist University (SMU), USA); Leo Popokh (Southern Methodist University (SMU), USA); Raul Rodriguez (HPE, Spain); Suku Nair (Southern Methodist University, USA)
- [QAM Signal Watermarking with Constellation Warping for anti-Jamming and anti-Spoofing Applications](#)
Amgad Salama (ADC, Egypt & The Research and Development Centre, Egypt); George Dawood (Alexandria University, Egypt)
- [Performance Evaluation of Unsupervised Learning for LSFD Weights Prediction in Cell-Free Massive MIMO System](#)
Moustafa Mohamed Moustafa and Bassant Abdelhamid (Ain Shams University, Egypt)
- [Channel Modeling and Performance Enhancement for Cooperative Optical Inter-Satellite Links](#)
Mohamed Osman Musa M (Military Technical College, Egypt & HOME, Egypt); Mohamed Naguib (The Ohio State University, USA); Ahmed Hosni Elghandour (Military Technical College, Egypt); Alaa Eldin Rohiem (MTC, Egypt)

Monday, July 28, 2025 | Time: 15:00 – 17:00

Room (6) / the Educational Complex | Track 6 – S2: Security Enhancements based on AI Approaches

Chairs: Session Chair: TBA



Oral Presentations

28 JULY 2025

- [Face Detection & Recognition System for Enhancing Cybersecurity](#)

Ali E. Takieldean (Delta University for Science and Technology, Egypt & Cyber Security, Egypt); Nada Samir Elsayed, Ahmed Khaled, Ahmed Alaa, Mohamed Mekky, Ibrahim Tarek and Ahmed Wael (Delta University for Science and Technology, Egypt); El Sayed Hussein Haggag (Delta University, Egypt); Doaa M Darwish (Delta University for Science and Technology, Egypt)

- [Unlocking LLM Security: Automated Penetration Testing and Source Code Review Based on Vulnerability Analysis and NLP](#)

Ali E. Takieldean (Delta University for Science and Technology, Egypt & Cyber Security, Egypt); Nada Samir Elsayed (Delta University for Science and Technology, Egypt); El Sayed Hussein Haggag (Delta University, Egypt); Noor Hossam, Osama Elkassaby, Moaz Awad, Mahmoud Gomaa, Adham Ahmed and Ahmed Saad (Delta University for Science and Technology, Egypt)

- [Ethical Hacking Tool for Cybersecurity Testing and Exploration Device II](#)

Ali E. Takieldean (Delta University for Science and Technology, Egypt & Cyber Security, Egypt); Doniya Mohamed Abd-Elhady, Mariam Ayoub, Reem Reda and Ibrahim Hosny (Delta University for Science and Technology, Egypt)

- [Web Attack Intrusion Detection System Using Machine Learning Approaches for Cybersecurity](#)

Ali E. Takieldean (Delta University for Science and Technology, Egypt & Cyber Security, Egypt); Aya El-Metwaly, Rahma Fawzy, Rahma Rezk and Areej Lotfy (Delta University for Science and Technology, Egypt); El Sayed Hussein Haggag (Delta University, Egypt)

- [AI-Powered Vulnerability Detection in Code Using BERT-Based LLM with Transparency Measures](#)

Ali E. Takieldean (Delta University for Science and Technology, Egypt & Cyber Security, Egypt); Aida Nasr (Tanta University, Egypt); Nada Samir Elsayed, Saleh Tamer Abdallah, Abdelrahman Mohammed Mahmoud, Abdelrahman Abdelrahman Ahmed, Mohamed Walid, Khaled Ahmed and Merna Gamal (Delta University for Science and Technology, Egypt)



Oral Presentations

28 JULY 2025

- [Cybersecurity Threat Detection and Feature Selection Using Waterwheel Plant Optimization](#)

Abdelhameed Ibrahim (Bahrain Polytechnic, Bahrain); El-Sayed M El-kenawy (Delta Higher Institute for Engineering & Technology, Egypt); Amel Ali Alhussan (Princess Nourah bint Abdulrahman University, India); Ali E. Takieldein (Delta University for Science and Technology, Egypt & Cyber Security, Egypt); Khaled Sh Gaber (Delta Higher Institute of Engineering and Technology, Egypt); Marwa M Eid (Delta University for Science and Technology, Egypt)

- [Performance Evaluation of Advanced Encryption System Implementation for Data Security Applications](#)

Mustafa M Sallam (Mansoura University, Egypt); Mahmoud Mousa, Ebrahim Ebrahim, Eslam Amer Mohamed, Mohammed Abdelnaser Awad, Mustafa Anwar, Momen Tarek Abdelghany and Mahmoud Essam Mahmoud (Giza Engineering Institute, Egypt)



DAY 2



Oral Presentations

29 JULY 2025

Tuesday, July 29, 2025 | Time: 12:00 – 14:00

Room (1) / the Educational Complex | Track 1 – S2: MIMO Antenna Arrays

Chairs: *Session Chair: TBA*

- [A Multi-Mode Hexagonal MIMO Antenna Array for Wi-Fi Applications](#)
Ahmed Alieldin (The Egyptian Technical Research and Development Centre, Egypt); Assem H. Elfeky (Alexandria, Egypt); Walid M. Saad (Air Defence Technical Research and Development Center (ADTRC), Egypt); Ahmed Khairy (Egyptian Military Academy Air Defense College, Egypt)
- [Low-Profile MIMO Antenna System for High-Frequency 6G/THz Wireless Networks](#)
Naser Ojaroudi Parchin (Edinburgh Napier University, United Kingdom (Great Britain)); Mohamed Boumalkha (Moulay Ismail University Meknes, Morocco); Ahmed Sayed Ismail Amar (University of Bradford, United Kingdom (Great Britain)); Ahmed Khairy (Egyptian Military Academy Air Defense College, Egypt); Raed A Abd-Alhameed (University of Bradford, United Kingdom (Great Britain))
- [UWB Antenna Design with WLAN-Band Suppression for MIMO Systems](#)
Naser Ojaroudi Parchin (Edinburgh Napier University, United Kingdom (Great Britain)); Ahmed Sayed Ismail Amar (University of Bradford, United Kingdom (Great Britain)); Ahmed Khairy (Egyptian Military Academy Air Defense College, Egypt); Raed A Abd-Alhameed (University of Bradford, United Kingdom (Great Britain))
- [A Low-Profile MIMO Antenna with Closely-Spaced Resonators for 5 THz Wireless Applications](#)
Ahmed Sayed Ismail Amar (University of Bradford, United Kingdom (Great Britain)); Mohamed Boumalkha (Moulay Ismail University Meknes, Morocco); Haleh Jahanbakhsh Basherlou and Naser Ojaroudi Parchin (Edinburgh Napier University, United Kingdom (Great Britain)); Ahmed Khairy (Egyptian Military Academy Air Defense College, Egypt)
- [Compact Dual-Wideband THz MIMO Antenna Array for 6G Wireless Connectivity](#)
Haleh Jahanbakhsh Basherlou and Naser Ojaroudi Parchin (Edinburgh Napier University, United Kingdom (Great Britain)); Ahmed Sayed Ismail Amar (University of Bradford, United Kingdom (Great Britain)); Ahmed Khairy (Egyptian Military Academy Air Defense College, Egypt)

Oral Presentations

29 JULY 2025

- [A Compact High-Isolation 4-Port CPW-Fed MIMO Antenna for Enhanced Wi-Fi 6 and Sub-6 GHz 5G Connectivity](#)

Ali Raafat (Ahran Canadian University, Egypt)

Tuesday, July 29, 2025 | Time: 12:00 – 14:00

Room (2) / the Educational Complex | Track 2 – S1: UAV and Counter-UAV Technologies

Chairs: Session Chair: TBA

- [Hannibal ADS-C2: a Deep Surveillance Solution for Mitigating Mini-UAV Threats](#)

Tijeni Hedi Delleji (Military Research Center, Tunisia)

- [Robust UAV Classification in Noisy Environments: a Digital Twin-Driven CNN Approach with ROC Analysis](#)

Taher S. Ahmed (Military Technical College, Egypt); Ahmed N. Sayed (University of Waterloo, Canada); Ahmad Fouad Youssef (Military Technical College, Egypt); Magdy Elbahnasawy (Technical Research Center, Cairo & Senior IEEE Member, Egypt); George Shaker (University of Waterloo & Spark Tech Labs, Canada)

- [Machine Learning-Based Mitigation of NLOS GNSS Signal Interference in Threat Environments](#)

Mohamed A. EzzElArab (Air Defense College, Egyptian Military Academy, Egypt & Mansoura University, Egypt); Eman AbdElhalim (Mansoura University, Egypt); Ashraf Abosekeen (Military Technical College, Egypt)

- [Modeling and Evaluation of UAV Navigation Using IMU-GPS Sensor Fusion](#)

Khalid M Nasr, Sherif Mostafa, Ali Maher and Ahmed M. Kamel (Military Technical College, Egypt)

- [A Proportional Navigation Based Reinforcement Learning Approach: Efficiency Enhancements and Practical Applications](#)

Ashraf Ehab Khalaf and Ali Maher (Military Technical College, Egypt); Mohammed Abozied Hassan Abozied (MTC, Egypt); Ahmed M. Kamel (Military Technical College, Egypt)

Oral Presentations

29 JULY 2025

Tuesday, July 29, 2025 | Time: 12:00 – 14:00

Room (3) / the Educational Complex | Track 3 – S2: Ad Hoc and IoT Networks

Chairs: *Session Chair: TBA*

- [Age-Aware Irregular Repetition Slotted ALOHA for Direct-to-Satellite Internet of Things](#)
Dengke Wang (Chongqing University); Ahmed Elzanaty (Sinai University, Egypt)
- [User Priority-Aware Multiple Access and Dynamic Channel Reservation in Space-Based IoT](#)
Lihu Chen (National University of Defense Technology, China); Chengtao Wei (College of Aerospace Science and Engineering, China); Qingquan Liu (National University of Defense Technology, China & 国防科技大学空天科学学院, China); Songting Li (College of Aerospace Science and Engineering, China)
- [IRAM5G: Intelligent Resource Allocation in 5G Networks for Enhanced Mobile Computing](#)
Moustafa Ahmed (The British University in Egypt, Egypt); Abdelgwad Elashry and Alyaa A. Hamza (SUT, Egypt)
- [Impact of Node Dropout on Connectivity in One-Dimensional Wireless Ad Hoc Networks](#)
Nada A Abdelsalam (Port Said University, Egypt); Sherif M Abuelenin (Port-Said University, Egypt); Heba Nashaat and Saly Hassaneen (Port Said University, Egypt)
- [Velocity Estimation in IoT and Body Area Networks: a Review](#)
Mohamed Ahmed Aly Soliman (ADC, EMA, Egypt & Alexandria University, Egypt); Karim H Moussa (Xi'an Jiaotong-Liverpool University & School of Internet of Things, China); Ahmed H. EL-Sakka (Alexandria University, Egypt)

Oral Presentations

29 JULY 2025

Tuesday, July 29, 2025 | Time: 12:00 – 14:00

Room (4) / the Educational Complex | Track 4 – S3: Cybersecurity and Adversarial AI

Chairs: *Session Chair: TBA*

- [Adversarial Generation of Modbus TCP Packets Using WGANs for ICS Security Testing](#)
Mohamed Tawfik (Egyptian Russian University, Egypt); Wael Badawy (Egyptain Russian University, Egypt)
- [AI-Powered Cybersecurity: a Technical Review of Intrusion Detection Models, Tools, and Metrics](#)
Wael Badawy (Egyptain Russian University, Egypt)
- [CoverTrack-DQN: Enhancing Penetration Testing Efficiency with Deep Q-Networks for Trace Covering](#)
Muhammed Karam Fathi El Sayed (Adc, Egypt & Ain Shams University, Egypt); Khaled Metwally (Militray Technical College, Egypt); Ayman Bahaa-Eldin (Ain Shams University, Egypt)
- [Integration of AI-Driven Electronic Warfare Radio Monitoring Systems with Antenna Array Direction Finding for Advanced Signal Classification and Localization](#)
Mohamed Aboelazm (MTC, Egypt)
- [A Next-Generation Real-Time Optical Data Link for Air-Gapped Environments Using a Novel Firmware-Based Post-Quantum Methodology](#)
Zeyad E Badwi (ACME SAICO-Integrated Engineering Systems, Egypt & HST- H-Logic Security Technology, Egypt); Walid S. Mohamed (TRANSIT, Egypt); Yahia Z. Elrefaay (HST, Egypt); Mohmed F. Elsamman (ACME SAICO-Integrated Engineering Systems, Egypt)
- [Artificial Intelligence Technique for Solving Weapon Target Assignment](#)
Mohamed Ismail (Cairo University, Egypt); Naglaa Ragaa Hassan (University of Cairo, Egypt); Ali Wagdy (King AbdelAziz University-North Jeddah Branch & Faculty of Sciencse, Saudi Arabia)

Oral Presentations

29 JULY 2025

Tuesday, July 29, 2025 | Time: 12:00 – 14:00

Room (5) / the Educational Complex | Track 5 – S1: Renewable and Sustainable Energy Systems and Climate Change

Chairs: *Session Chair: TBA*

- [Dual Active Bridge-Based Emergency Mobile EV Charging System: Control Strategies and Performance Analysis](#)
Kareem Nada, Mohammed Alhasheem, Ibrahim Abdelsalam (Arab Academy for Science, Technology and Maritime Transport, Egypt)
- [Misalignment Detection and Correction for Dynamic Wireless Charging of Electric Vehicles](#)
Hasnain Mahdi, AbdelRahman AbdelTwab, Mohamed S. Hassan, Ahmed Osman (American University of Sharjah, UAE); Ahmed Mohammed Benaya Diab (AUS, UAE & Menoufia University, Egypt)
- [Mitigating EV Load Uncertainty: Optimal Siting and Sizing of PV-Integrated Charging Stations in Distribution Grid](#)
Mohamed Gamal, Mohamed Wagdy, Yosry Ahmed, Hadeer Ahmed, Omar Sherif, Youssiff Mohamed, Abdelrahman Farouk, Remon Hany, Rania Swief (Ain Shams University, Egypt)
- [Modular Flyback Converter for Green Hydrogen Production with PV/PEM Electrolyzer System](#)
Amr Awad Hassan, Ibrahim Abdelsalam (AASTMT, Egypt); Mostafa I. Marei (Ain Shams University, Egypt)
- [Leveraging IoT and Climate Insights for Soil Property Prediction in Precision Agriculture](#)
Warda Mohammed Shaban (Nile Institute, Egypt); Ali E. Takieldean (Delta University for Science and Technology, Egypt & Cyber Security, Egypt); Fatma M. Talaat (Kafrelsheikh University, Egypt)

Oral Presentations

29 JULY 2025

Tuesday, July 29, 2025 | Time: 12:00 – 14:00

Room (6) / the Educational Complex | Track 6 – S3: Auto ML classification and Agri tech Applications

Chairs: *Session Chair: TBA*

- [Sustainable Water Management: Predicting Water Quality Using H2O Framework and AI Techniques](#)
Shaymaa Mahmoud, Sama Amr Gouda and Mona Ibrahim (The American University in Cairo, Egypt); Sally Elghamrawy (MISR Higher Institute for Engineering and Technology & American University in Cairo AUC, Egypt)
- [Sentiment Analysis on Twitter Dataset Using Apache Spark and H2O Machine Learning Framework: A Comparative Study](#)
Katia Gabriel, Moustafa El Mahdy, Mahmoud Ghandour and Moheb Hany (The American University in Cairo, Egypt); Sally Elghamrawy (MISR Higher Institute for Engineering and Technology & American University in Cairo AUC, Egypt)
- [Tomato Plant Disease Classification Based on Attention-Based ConvNeXtTiny with Color LBP Features](#)
Yasmin Alsakar, Nehal Ahmed Sakr and Mohammed M Elmogy (Mansoura University, Egypt)
- [Agricultural Monitoring and Automation Enabler Feedback-Based Desktop Remotely Controlled System](#)
Noha Hussen (Egyptian Chinese University, Egypt & Horus University, Egypt); Mohamed Badawy Mohamed (The Egyptian Chinese University, Egypt); Omar Moustafa Salah (Egyptian Chinese University, Egypt)
- [Real-Time Human Activity Recognition Using the H2O Auto ML Framework and Imbalance Handling](#)
Eya Gammoudi (American University in Cairo, Egypt); Charbel El Fakhry, Farida Madkour and Selim Aly (The American University in Cairo, Egypt); Sally Elghamrawy (MISR Higher Institute for Engineering and Technology & American University in Cairo AUC, Egypt)
- [Multi-Tag Ambient Backscatter for IoT Networks](#)
Suneel Yadav (Indian Institute of Information Technology, India); Radhika Gour (IIIT Allahabad, India); Devendra Singh Gurjar (National Institute of Technology Silchar, India)

Oral Presentations

29 JULY 2025

Tuesday, July 29, 2025 | Time: 15:00 – 17:00

Room (1) / the Educational Complex | Track 1 – S3: Antenna Theory and Design

Chairs: *Session Chair: TBA*

- [Real-Time Tracking Antenna System for Moving Targets](#)
Adham Saad (Zewail City University of Science and Technology, Egypt); Aya Sherif Nassef (Zewail City of Science and Technology, Egypt & Zewailcity, Egypt); Mahmoud Mohamed Elshahed (Zewail City of Science and Technology, Egypt & Zewail City, Egypt); Mohamed Ismail Ahmed (Electronics Research Institute, Egypt & Egyptian Chinese University, Egypt)
- [Design and Simulation of a Dual CP ME-Dipole Antenna for Millimeter-Wave Communications](#)
Seyedeh Zahra Mousavirazi (Concordia University, Canada); Mohamed Mamdouh M. Ali (Assiut University, Egypt); Tayeb Denidni (INRS, Canada); Abdel R. Sebak (Concordia University, Canada)
- [Dual-Band High Gain Circular Microstrip Array Antenna for Wireless Applications](#)
Hassan Ali Ragheb (The British University in Egypt, Egypt); Mariam Hossam (University of Waterloo, Canada)
- [High-Efficiency Power Amplifier Design with a Broadband Performance](#)
Mahmoud Fathi Ghareeb (The Egyptian Technical Research and Development Centre, Egypt); Ahmed Sayed Ismail Amar (University of Bradford, United Kingdom (Great Britain)); Mohamed Boumalkha (Moulay Ismail University Meknes, Morocco); Eyad S. Oda (Associate Professor, Egypt); Sherief Fathi Nafea (Suez Canal University, Egypt)
- [Design of Directive Wideband Microstrip Antenna](#)
Rahma Reda (The British University in Egypt, Egypt); Mariam Hossam (University of Waterloo, Canada); Hassan Ali Ragheb (The British University in Egypt, Egypt)

Oral Presentations

29 JULY 2025

- [Design of UWB Circularly Slot Hexagonal Antenna for Biomedical Fields Application](#)
Salamatu Ibrahim (University of Bradford, United Kingdom (Great Britain)); Muftah Abdullahi (Nigeria Defense Academy, United Kingdom (Great Britain)); Isah Danjuma and Raed A Abd-Alhameed (University of Bradford, United Kingdom (Great Britain)); Karim Mohamed Elsayyad (Suez Canal University, Egypt); Naser Ojaroudi Parchin (Edinburgh Napier University, United Kingdom (Great Britain)); Ahmed Sayed Ismail Amar (University of Bradford, United Kingdom (Great Britain)); Ahmed Khairy (Egyptian Military Academy Air Defense College, Egypt)

Tuesday, July 29, 2025 | Time: 15:00 – 17:00

Room (2) / the Educational Complex | Track 2 – S2: Advanced Radar Signal Processing and Applications

Chairs: Session Chair: TBA

- [Radar-Based People Presence Estimation Using Digital Twin Simulation Framework](#)
Sebastian Ratto V and Ahmed N. Sayed (University of Waterloo, Canada); Arien Sligar (Ansys Inc., USA); Omar Ramahi (University of Waterloo, Canada); George Shaker (University of Waterloo & Spark Tech Labs, Canada)
- [Enhanced Radar Signal Processor for Small Radar Cross Section Target Detection](#)
Mohamed Gabr Kishk (Suze Canal University, Egypt); Amgad Salama (ADC, Egypt & The Research and Development Centre, Egypt); Mohamed Hussein Emam Mabrouk (University of Ottawa, Canada); Sherief Fathi Nafea (Suez Canal University, Egypt)
- [Direct Signal Suppression in Passive Radar Systems Using Beam-Space Processing](#)
Amgad Salama (ADC, Egypt & The Research and Development Centre, Egypt); Ahmed S Abdel-Rahman (Suez Canal University, Egypt)
- [Non-Uniform Grid for near-Field ISAC with Prior Information](#)
Ahmed A. Tawfik (Port Said University, Egypt); Sherif M Abuelenin (Port-Said University, Egypt); Ahmed Elzanaty (Sinai University, Egypt)
- [Performance Analysis of Polarimetric Through-Wall Micro-Doppler Radar for Human Target Detection](#)
Mohamed Gabr Kishk (Suze Canal University, Egypt); Amgad Salama (ADC, Egypt & The Research and Development Centre, Egypt); Mohamed Hussein Emam Mabrouk (University of Ottawa, Canada); Sherief Fathi Nafea (Suez Canal University, Egypt)

Oral Presentations

29 JULY 2025

Tuesday, July 29, 2025 | Time: 15:00 – 17:00

Room (3) / the Educational Complex | Track 3 – S3: Secure and Privacy-Preserving Systems in Cyber-Physical and Medical Domains

Chairs: *Session Chair: TBA*

- [Blockchain-Enabled Real-Time Risk and Interdependency Analysis for the Internet-of-Critical Infrastructures](#)
Hosny A Abbas, Sr and Bassem Abd-El-Atty (Luxor University, Egypt); Hamada Esmail (Aswan University, Egypt)
- [Privacy-Preserving Federated Learning in IoT Networks Using Homomorphic Encryption and Differential Privacy](#)
Fawad Khan (Coventry University, United Kingdom (Great Britain) & Centre for Intelligent Healthcare, United Kingdom (Great Britain)); Syed Yaseen Shah (Glasgow Caledonian University, United Kingdom (Great Britain)); Syed Aziz Shah (Coventry University, United Kingdom (Great Britain)); Jawad Ahmad (Prince Mohammad Bin Fahd University, Saudi Arabia); Shahzaib Tahir (National University of Sciences and Technology, Pakistan); Adnan Zahid (Heriot Watt University, United Kingdom (Great Britain))
- [Microsaccade-Based Biometric Authentication: a Secure and Privacy-Preserving Cryptographic Framework](#)
Khalid Mostafa Ezzat Ibrahim (Ain Shams University & Air Defense College, Millatry Academy, Egypt); Sameh Zarif Shenoda, S (Menofia University, Egypt); Mahmoud Ahmed Shawky (University of Glasgow, United Kingdom (Great Britain))
- [Digital Cosine Chaotic Maps Applied in Medical Image Encryption](#)
Mohamed Ahmed Aly Soliman (ADC, EMA, Egypt & Alexandria University, Egypt); Shady Hossny Elgohary (Air Defence College, Egypt); Wael Mohamed (Benha University & Benha Faculty of Engineering, Egypt); Tamer Omar Diab (Assistant Professor, Egypt); Wageda I El sobky (Benha University, Egypt)
- [Dynamic Cybersecurity Defense: A Real-Time Approach with Zeek and Metasploit](#)
Ali E. Takieldean, Doniya Mohamed Abd-Elhady, Ahmed Anwer Elmogy, Ali Khaled Elbably, Zeyad Hisham Elsaid Aboala, Ahmed Azzam (Delta University for Science and Technology, Egypt)

Oral Presentations

29 JULY 2025

Tuesday, July 29, 2025 | Time: 15:00 – 17:00

Room (4) / the Educational Complex | Track 4 – S4: NLP & Large Language Models (LLMs)

Chairs: *Session Chair: TBA*

- [SentiScan: Leveraging Multilingual NLP, RL, and XAI for Robust Governmental Intelligence Using Sentiment Analysis with Arabic Dialect Focus](#)
Haytham Tarek Mohamed Fetoooh and Eman Ali Metwally (Egypt)
- [Large Language Models in Intent-Based Networking: a Comprehensive Survey Across the Intent Lifecycle](#)
Marwa Tageldien (École de Technologie Supérieure, Egypt); Bassant Selim (ETS Montreal, Canada); Lokman Sboui (École de technologie supérieure & ÉTS, Canada)
- [Dual System with Large Language Models for Detecting and Supporting Low Confidence in Young Social Media Users](#)
Sara Mohamed Zayan (AAST, Egypt); Omneya Attallah (Arab Academy for Science Technology and Maritime Transport Colle, Egypt); Heba Fayed (Arab Academy for Science, Technology & Maritime Transport, Egypt)
- [Feature Fusion for Brain Tumor Classification Using Channel-Wise Attention and BLS](#)
Shaimaa E. Nassar (Nile Higher Institute of Engineering and Technology, Egypt & Mansoura University, Egypt); Ibrahim Yasser and Hanan M Amer (Mansoura University, Egypt); Mohamed Mohamed (Mansoura University, Egypt)

Oral Presentations

29 JULY 2025

Tuesday, July 29, 2025 | Time: 15:00 – 17:00

Room (5) / the Educational Complex | Track 6 – S4: IoT & Indoor Technologies

Chairs: *Session Chair: TBA*

- [Transformer-Based Anomaly Detection in Satellite IoT: a Hybrid Approach with Rotary Embedding and Kernelized Attention](#)
Youssef Maaod, Ahmed Yasser Lotfy Belaih, Nabila Ahmed Ali, Jomana Farag Soliman Mohamed, Farah Mohamed Mahmoud Ahmed, Aly Maher Abdelfattah, Mohamad Fouad and Mohamed Abd Elaziz (Galala University, Egypt)
- [Optimizing Student Performance Prediction Through Feature Selection and Machine Learning Models](#)
El-Sayed M El-kenawy (Delta Higher Institute for Engineering & Technology, Egypt); Amal Alharbi (Princess Nourah bint Abdulrahman University, Saudi Arabia); Amel Ali Alhussan (Princess Nourah bint Abdulrahman University, India); Marwa M Eid (Delta University for Science and Technology, Egypt); Mark Emad Sobhi Abdelmalak (Delta Higher Institute of Engineering and Technology, Egypt); Doaa Sami Khafaga (Princess Nourah bint Abdulrahman University, Saudi Arabia)
- [A Hybrid IoT Fall Detection System Using Wearable Sensors and WiFi Channel State Information](#)
Sherif Abdelfattah, Fawwaz Ali and Sai Gowtham Kalleti (Bradley University, USA); Mohamed Baza (College of Charleston, USA); Mahmoud M Badr (SUNY Poly, USA); Amar A Rasheed (Sam Houston State University, USA)
- [Revolutionizing VANET Security: Decentralized Authentication with Edge Aggregation and Blockchain Logging](#)
Ahmed S. Zaghloul (Mansoura University, Egypt); Mohamed Mohamed (--Mansoura Uiversity, Egypt); Hanan M Amer (Mansoura University, Egypt); Mahmoud Ahmed Shawky (University of Glasgow, United Kingdom (Great Britain))

Oral Presentations

29 JULY 2025

- [60 GHz LOS Indoor Measurements and Simulations](#)
Huthaifa Obeidat (Jadara University, Jordan); Muhammad Ali Malik (University of Bradford, United Kingdom (Great Britain)); Mahmud Mahmud (The Instituto de Telecomunicacoes, Campus Universitario de Santiago, Aveiro, Por, United Kingdom (Great Britain)); Issa Elfergani (Instituto de Telecomunicações, Portugal); Raed A Abd-Alhameed (University of Bradford, United Kingdom (Great Britain)); Naser Ojaroudi Parchin (Edinburgh Napier University, United Kingdom (Great Britain)); Ahmed Sayed Ismail Amar (University of Bradford, United Kingdom (Great Britain)); Ahmed Khairy (Egyptian Military Academy Air Defense College, Egypt)

Tuesday, July 29, 2025 | Time: 15:00 – 17:00

Room (6) / the Educational Complex | Track 6 – S5: Advanced Communication Technologies

Chairs: Session Chair: TBA

- [A 50 Gbit/s Inter-Satellite Optical Wireless Communication System Based on PAM-4 Signal: Performance Evaluation](#)
Mehtab Singh (Chandigarh University, India); Amit Grover (SBSSTC, India); Somia A. Abd El-Mottaleb (Alexandria Higher Institute of Engineering and Technology, Egypt)
- [Unveiling the Threat: Quantum Factorization Techniques and Their Impact on RSA Cryptosystems](#)
Hanan Khaled (Electronics Research Institute, Egypt & Ain Shams University, Egypt); Maha A. Metawei and Sherif Saif (Electronics Research Institute, Egypt); Mohamed Taher (Ain Shams University, Egypt); Salwa Nassar (Computer & Control Department, Electronic Research Institute, Cairo, Egypt)
- [Machine Learning-Based Prediction of Smart Grid Stability for Enhanced Energy Management](#)
El-Sayed M El-kenawy (Delta Higher Institute for Engineering & Technology, Egypt); Amal Alharbi (Princess Nourah bint Abdulrahman University, Saudi Arabia); Amel Ali Alhussan (Princess Nourah bint Abdulrahman University, India); Marwa M Eid (Delta University for Science and Technology, Egypt); Mark Emad Sobhi Abdelmalak (Delta Higher Institute of Engineering and Technology, Egypt); Doaa Sami Khafaga (Princess Nourah bint Abdulrahman University, Saudi Arabia)

Oral Presentations

29 JULY 2025

- [Hermite Gaussian-Mode Division Multiplexing Enabled Underwater Optical Wireless Communication System: Performance Evaluation for Jerlov Waters](#)
Mehtab Singh (Chandigarh University, India); Amit Grover (SBSSTC, India); Somia A. Abd El-Mottaleb (Alexandria Higher Institute of Engineering and Technology, Egypt)
- [Bit-Activated Spatial Index Modulation for Low to Moderate SNR and Large MIMO Regimes](#)
Ahmed M Kabil, Ahmed Bendary and Ahmed F. Darwesh (Military Technical College, Egypt); Hisham Dahshan (AAST-Heliopolis, Egypt)
- [A Novel Real-Time Military Training Simulator Based on Improving War Scenario Using FSM Model](#)
Noha Hussen (Egyptian Chinese University, Egypt & Horus University, Egypt); Rahma Mohamed, Islam Hany and Youssef Hossam (Egyptian Chinese University, Egypt)



DAY 3



Oral Presentations

30 JULY 2025

Wednesday, July 30, 2025 | Time: 12:00 – 14:00

Room (1) / the Educational Complex | Track 1 – S4: Electromagnetics and Metamaterial

Chairs: *Session Chair: TBA*

- [Broadband Printed Ridge Gap Waveguide Antenna Augmented with Metamaterial Lens](#)
Syed Muhammad Muhammad Sifat (Toronto Metropolitan University, Canada & Concordia University, Canada); Haitham Mohamed Hamada (Higher Technological Institute HTI at 10th of Ramadan City, Egypt); Mohamed Mamdouh M. Ali (Assiut University, Egypt)
- [Analytical Approach for Orbital Angular Momentum Beam Generation Using Reconfigurable Holographic Surfaces](#)
Mohamed Mamdouh M. Ali (Assiut University, Egypt); Larbi Talbi (University of Quebec - Outaouais, Canada); Haitham Mohamed Hamada (Higher Technological Institute HTI at 10th of Ramadan City, Egypt); S i w a r L o u a t i (UQO, Canada); Khelifa Hettak (University of Quebec in Outaouais, Canada)
- [Metamaterial/Metasurface-Inspired Monopole Antenna Design for High-Gain Ultra-Wideband Communications](#)
Haleh Jahanbakhsh Basherlou, Martins Odiamenhi, Naser Ojaroudi Parchin and Chan Hwang See (Edinburgh Napier University, United Kingdom (Great Britain)); Ahmed Sayed Ismail Amar (University of Bradford, United Kingdom (Great Britain)); Ahmed Khairy (Egyptian Military Academy Air Defense College, Egypt); Raed A Abd-Alhameed (University of Bradford, United Kingdom (Great Britain))
- [Next-Gen Microwave Design: Enhancing EMF Shielding for Health and Sustainability](#)
Khaled Refaat Ali Oqda (Researcher at Mansoura University, Egypt); Hanaa Salem (Faculty of Engineering, Delta University, Egypt); Mohamed Metwalliy (Engineering, Egypt)
- [Waves Excitation in a Waveguide Filled with Inhomogeneous Magnetized Movable Plasma](#)
Amany Moustafa Gouda (Egyptian Atomic Energy Authority, Egypt & Virginia Commonwealth University, USA)



Oral Presentations

30 JULY 2025

- [High-Efficiency Polarization Conversion Metasurface for X-Band Applications](#) Kiran Ashfaq and Sadaf Rana (National University of Sciences and Technology, Pakistan); Abdelhady Mahmoud (Benha University, Egypt); Ahmed Sayed Ismail Amar (University of Bradford, United Kingdom (Great Britain)); Ahmed Khairy (Egyptian Military Academy Air Defense College, Egypt); Muhammad Tahseen (National University of Sciences and Technology, Pakistan)
- [Power Amplifier Design Using Filtering Matching Network for Sub-6-GHz 5G/6G Applications](#) Mohamed Boumalkha (Moulay Ismail University Meknes, Morocco); Raed A Abd-Alhameed (University of Bradford, United Kingdom (Great Britain)); Naser Ojaroudi Parchin (Edinburgh Napier University, United Kingdom (Great Britain)); Ahmed Khairy (Egyptian Military Academy Air Defense College, Egypt); Ahmed Gamal Abdellatif Ibrahim (Air Defense College & Alexandria University, Egypt); Mohamed Abd El-Latif (Air Defense College, Egypt); Ahmed Sayed Ismail Amar (University of Bradford, United Kingdom (Great Britain)); Ahmed Ibrahim Salem III (Damanhur University, Egypt).

Wednesday, July 30, 2025 | Time: 12:00 – 14:00

Room (2) / the Educational Complex | Track 2 – S3: Navigation and Antenna Array Technologies

Chairs: Session Chair: TBA

- [Optimized NARX-Based Noise Mitigation for Enhanced Navigation Accuracy of Low-Cost IMUs in GNSS-Denied Environments](#) Alaa Fekry (Military Technical College, Egypt); Eslam Mustafa, Sr (Cairo University, Egypt); Ahmed M. Kamel (Military Technical College, Egypt); Yehia Elhalwagy (MSA University, Egypt); Ashraf Abosekeen (Military Technical College, Egypt)
- [High Gain Frequency-Selective Surface Millimeter Magneto-Electric Dipole Using Printed-Ridge Gap Waveguide for 5G Wireless Applications](#) Hossam Helaly (Concordia University, Canada); Mohamed Mamdouh M. Ali (Assiut University, Egypt); Abdel-Razik Sebak (Concordia University, Canada)



Oral Presentations

30 JULY 2025

- [A Hybrid Algorithm for the Synthesis of Distributed Antenna Arrays with Dynamic Range Ratio Control](#)
Magdy Abdelhay (Alexandria Higher Institute of Engineering and Technology, Egypt); Mazen Youssef and Ghadir Madi (Al-Ayen University, Iraq)
- [Spatial Calibration of IMU/Radar Sensors Using Single Target and Differential IMU Measurements](#)
Divyam Sharma (Carleton University, Canada); Mohamed Atia (Carleton University & Queen's University, Canada); Sreeraman Rajan (Carleton University, Canada)
- [Learning to Calibrate Using a BiLSTM Framework for Full MEMS IMU Error Compensation](#)
Hany Mamdouh (Military Technical College, Egypt); Mohammed Abozied Hassan Abozied (MTC, Egypt); Ahmed M. Kamel (Military Technical College, Egypt); Yehia Elhalwagy (MSA University, Egypt)
- [An off-Grid Compressive Sensing-Based Approach for Sidelobe Level Suppression and Null Control in Linear Antenna Arrays by Perturbing the Positions of a Minimum Number of Elements](#)
Magdy Abdelhay (Alexandria Higher Institute of Engineering and Technology, Egypt); Ghadir Madi and Mazen Youssef (Al-Ayen University, Iraq)

Wednesday, July 30, 2025 | Time: 12:00 – 14:00

Room (3) / the Educational Complex | Track 3 – S4: Innovation in Smart Healthcare, Wearables and Assistive Technologies

Chairs: Session Chair: TBA

- [A Developed Design of Low-Cost Insulin Pump for Automated Insulin Delivery \(AID\) System](#)
Kamel A. Elshorbagy, Yasser Abuouf and Moustafa Zaky Sharaf (Alexandria University, Egypt)
- [Non-Invasive Tissue Damage Detection Using Micro Interdigitated Electrodes and Arduino-Based Impedance Spectroscopy](#)
Mariam Abdelbaki (Egypt-Japan University of Science and Technology (E-JUST), Egypt); Rofida Esmail (Egypt-Japan University of Science and Technology (EJUST), Egypt); Hanin Eltabakh (Egypt-Japan University of Science and Technology (E-JUST), Egypt); Omnia Salman (EJUST, Egypt & Ejust, Egypt); Mennatallah Habiba and Joumana Mourad (Egypt-Japan University of Science and Technology (EJUST), Egypt); Sameh Sherif (Egypt-Japan University of Science and Technology (E-JUST), Egypt)

Oral Presentations

30 JULY 2025

- [A Wearable Belt-Based Gyroscope System for Real-Time Spinal Posture Monitoring and Feedback](#)
Mariam Zaki and Sohaila AbuHamad Hashem Mohmmmed (MSA University, Egypt); Ahmed ElShafee (Modern Sciences and Arts University, Egypt); Ahmed Samir Abdelatif and Olfat Abd Elrahman Diab (MSA University, Egypt)
- [AF-Intellect: Intelligent Classification System for Atrial Fibrillation](#)
Ayman Ibrahim and Ashraf Sameh (Suez Canal University, Egypt); Doaa Gamal (SCU, Egypt)

Wednesday, July 30, 2025 | Time: 12:00 – 14:00

Room (4) / the Educational Complex | Track 4 – S5: MIMO Antenna Arrays

Chairs: Session Chair: TBA

- [A Lightweight DeepLabv3+ Model for Real-Time Polyp Segmentation in Colonoscopy Images](#)
Asmaa Hekal (Modern University for Technology & Information (MTI), Egypt); Abeer Abdelhamid (Mansoura University, Egypt); Amir Essam Almslmany (Alexandria University, Egypt); Shaimaa E. Nassar (Nile Higher Institute of Engineering and Technology, Egypt & Mansoura University, Egypt)
- [Imitation Learning for Obstacle Avoidance Using End-to-End CNN-Based Sensor Fusion](#)
Lamiaa H. Zain (Nile University, Egypt & Coventry, Egypt); Hossam Hassan Ammar (University of Hertfordshire, United Kingdom (Great Britain)); Raafat E. Shalaby (Nile University, Egypt & Menofia University, Egypt)
- [Artificial Neural Network Control for Stabilizing an Inverted Pendulum Using Bond Graph Modeling](#)
Mohamed W. A. Ramadan (The German University in Cairo, Egypt); Amir R. Ali (The German University in Cairo (GUC), Egypt & PI of the Applied-Science & Robotics Laboratory for Applied-Mechatronics ARATronics Laboratory, Egypt)
- [Discrete Indoor Three-Dimensional Visible Light Communication Localization System Based on Machine Learning Algorithms](#)
Alzahraa Mohammed Ghonim, Al (High Institute of Engineering and Technology (HIET), Egypt & No, Egypt); Hossam Shalaby (Alexandria University, Egypt); Ashraf A. M. Khalaf (Minia University, Faculty of Engineering, Egypt); Wessam Salama (Pharos University, Egypt)

Oral Presentations

30 JULY 2025

- [Spiking Convolutional Architecture for Action Recognition in Temporal-Encoded and Event-Based Imaging](#)
Karim Gabr and Shady Ahmed Nagy (German University in Cairo, Egypt); Mohammed A.-Megeed Salem (German University in Cairo & Ain Shams University, Egypt)
- [Pattern Recognition of sEMG Signals by CNN-BiLSTM Algorithm for Bio-Robotics Applications](#)
Anas Hassan Abdelmoneam (The British University in Egypt, Egypt & None, Egypt); Mostafa Abdelaziz Ghazal (The British University in Egypt, Egypt); Nourhan Zayed (The British University in Egypt, Egypt & Electronics Research Institute, Egypt)

Wednesday, July 30, 2025 | Time: 12:00 – 14:00

Room (5) / the Educational Complex | Track 5 – S2: AI-Driven Smart Grids and Intelligent Energy Management

Chairs: Session Chair: TBA

- [Techniques of the Intelligent Electronic Devices and Network Monitoring System in Smart Grid](#)
Mustafa Ali (Smart Power System, Egypt & Alfanar Company, Egypt); Ahmed Elshenawy, Hussien Eldosouki, Mostafa S. Hamad (Arab Academy for Science, Technology and Maritime Transport, Egypt)
- [AI at the Core of Smart Grids: Leveraging LLMs for Resilience and Efficiency](#)
Adam Aberbach (The American University in Cairo, Egypt); Jason Bluhm, Mohamed Baza (College of Charleston, USA); Mahmoud M. Badr (SUNY Poly, USA); Amar A. Rasheed (Sam Houston State University, USA)
- [Rationalization of Energy Consumption in Smart Cities Using AI Algorithms](#)
Mohamed Ayman Elgharably, Naglaa Ragaa Hassan (University of Cairo, Egypt); Mohamed Ismail (Cairo University, Egypt)
- [Sustainable Technology: Refining Web Resources Using Green Computing Analysis to Enhance Climate Action](#)
Rania Elsayed Ibrahim (National Authority for Remote Sensing and Space Sciences, Egypt); Tshiamo Motshegwa (National Research Foundation, South Africa); Mai Ramadan Ibraheem (University of Kafrelsheikh, Egypt)



Oral Presentations

30 JULY 2025

Wednesday, July 30, 2025 | Time: 12:00 – 14:00

Room (6) / the Educational Complex | Track 6 – S6: Advanced Mobile Communications Networks

Chairs: *Session Chair: TBA*

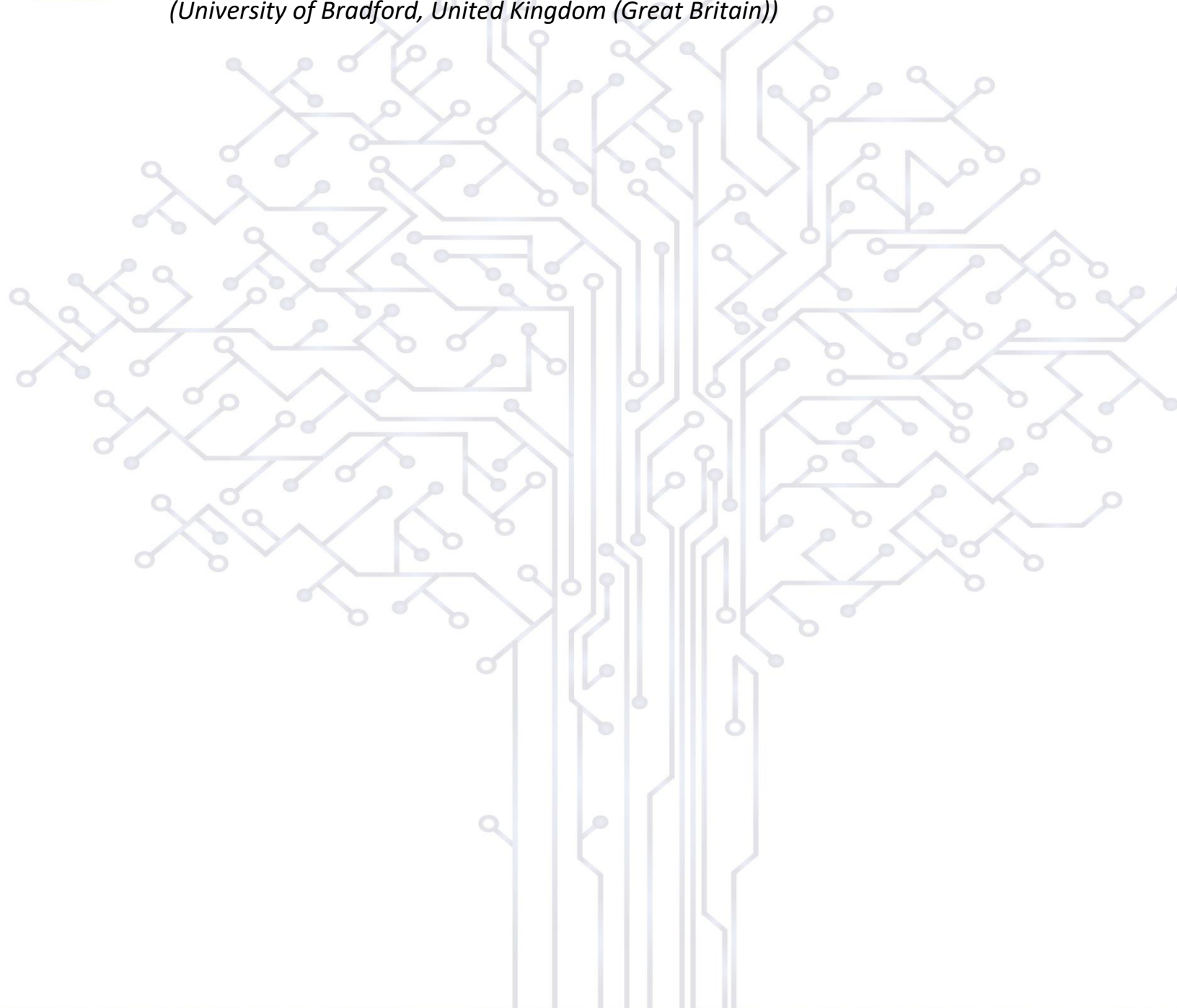
- [Polarization Diversity on the Downlink of 5G/6G Mobile Communication Systems](#)
Walid Dyab (Prince Sultan University, Saudi Arabia); Ahmed Sakr (Polytechnique Montreal, Canada) Multiple Finite Intelligent Reflecting Surfaces for Indoor Wireless Communication
Nasreldeen Abdulmuein (Ain Shams University, Egypt & Electronics Research Institute, Egypt); Eman M. Eldesouki (Electronics Research Institute, Egypt); Angie Eldamak (Ain Shams University, Egypt); Ahmed M. Attiya (Electronics Research Institute, Egypt); Hadia M. elhennawy (Ain Shams University, Egypt)
- [Performance of Multi-User Hybrid Beamforming Technique for Millimeter Wave Massive MIMO Systems](#)
Mohamed G. Tolba and Mohammad M Abdellatif (The British University in Egypt, Egypt)
- [Partially-Connected Hybrid Precoders for Massive MIMO with Finite-Resolution Phase Shifters](#)
Ahmed Osama (Assuit University, Egypt); Mahmoud Elsaadany (ETS, Canada); Shoukry Shams (Concordia University, Canada); Ghyslain Gagnon (ETS, Canada)
- [Pushing the Limits of MIMO Beamforming: Innovations, Challenges, and the Path to 6G](#)
Mohamed Ahmed Aly Soliman (ADC, EMA, Egypt & Alexandria University, Egypt); Karim H Moussa (Xi'an Jiaotong-Liverpool University & School of Internet of Things, China); Hesham M. Tolba (Alexandria University, Egypt); Abdel-Razik Sebak (Concordia University, Canada)
- [Multi-Band THz Antenna Array for High-Capacity 6G Communications](#)
Haleh Jahanbakhsh Basherlou and Naser Ojaroudi Parchin (Edinburgh Napier University, United Kingdom (Great Britain)); Ahmed Sayed Ismail Amar (University of Bradford, United Kingdom (Great Britain)); Ahmed Khairy (Egyptian Military Academy Air Defense College, Egypt); Raed A Abd-Alhameed (University of Bradford, United Kingdom (Great Britain))

Oral Presentations

30 JULY 2025

- [Broadband Terahertz Phased Array Utilizing Compact Dipole Resonators for 6G Systems](#)

Haleh Jahanbakhsh Basherlou, Martins Odiamenhi, Naser Ojaroudi Parchin and Chan Hwang See (Edinburgh Napier University, United Kingdom (Great Britain)); Mohamed Boumalkha (Moulay Ismail University Meknes, Morocco); Ahmed Sayed Ismail Amar (University of Bradford, United Kingdom (Great Britain)); Ahmed Khairy (Egyptian Military Academy Air Defense College, Egypt); Raed A Abd-Alhameed (University of Bradford, United Kingdom (Great Britain))



Oral Presentations

30 JULY 2025

Wednesday, July 30, 2025 | Time: 15:00 – 17:00

Room (1) / the Educational Complex | Track 1 – S5: Antenna Applications and Emerging Technologies

Chairs: *Session Chair: TBA*

- [Coaxial-to-Waveguide Adapter Using Machine Learning Approach](#)
Mahmoud Gadelrab Ahmed Gadelrab (Egypt); Ahmed Osama (Assuit University, Egypt); Shoukry Shams (Concordia University, Canada); Mahmoud Elsaadany and Ghyslain Gagnon (ETS, Canada)
- [60-GHz TPGW-Based Device Body Interaction with Comprehensive Safety Profile Investigation](#)
Haitham Mohamed Hamada (Higher Technological Institute HTI at 10th of Ramadan City, Egypt); Mohamed Mamdouh M. Ali (Assiut University, Egypt); Shoukry Shams (Concordia University, Canada); Abdelmegid Allam (German University in Cairo, Egypt)
- [Design of Dual-Polarised Multi-Pixel Patch Antennas for Simultaneous Wireless Information and Power Transfer in IoT Sensor Networks](#)
Martins Odiamenhi, Haleh Jahanbakhsh Basherlou, Chan Hwang See, Keng Goh, Hongnian Yu and Naser Ojaroudi Parchin (Edinburgh Napier University, United Kingdom (Great Britain)); Ahmed Sayed Ismail Amar (University of Bradford, United Kingdom (Great Britain)); Ahmed Khairy (Egyptian Military Academy Air Defense College, Egypt)
- [Dual-Band Rectenna for Simultaneous Wireless Information and Power Transfer in IoT Nodes](#)
Martins Odiamenhi, Haleh Jahanbakhsh Basherlou, Chan Hwang See, Keng Goh, Hongnian Yu and Naser Ojaroudi Parchin (Edinburgh Napier University, United Kingdom (Great Britain)); Ahmed Sayed Ismail Amar (University of Bradford, United Kingdom (Great Britain)); Ahmed Khairy (Egyptian Military Academy Air Defense College, Egypt)

Oral Presentations

30 JULY 2025

Wednesday, July 30, 2025 | Time: 15:00 – 17:00

Room (2) / the Educational Complex | Track 2 – S4: Satellite Systems and Space Applications

Chairs: *Session Chair: TBA*

- [Star Image Extraction Algorithm for Star Trackers Disturbed by Stray Light Based on Improved YOLO](#)
Xifang Zhu and Feng Wu (Changzhou Institute of Technology, China); Cheng Wang (Suzhou University of Science and Technology, China); Weilin Ji (Changzhou Institute of Technology, China)
- [Design and Validation of Hybrid Couplers for Satellite Feed Networks in Ka and QV Bands](#)
Mahmoud Gadelrab Ahmed Gadelrab (Egypt); Ahmed Elsaadany (Scientific Microwave Corporation, Canada); Shoukry Shams (Concordia University, Canada); Mahmoud Elsaadany and Ghyslain Gagnon (ETS, Canada)
- [Astro-VOS: Tracking Supernova Evolution Using Video Object Segmentation](#)
Jing-Wen Chen (University of British Columbia, Canada); Mohamed S Shehata (University of British Columbia, Canada & Memorial University, Canada); Alex S Hill (University of British Columbia, Canada)
- [Comparative Synthesis of Linear and Nonlinear Model Predictive Controllers for Satellite Attitude Control System](#)
Khaled Mohsen, Mohamed Ibrahim and Ahmed M. Kamel (Military Technical College, Egypt); Mahmoud Mohamed Ashry (Arab Academy for Science, Technology, and Maritime Transport, Egypt)
- [Wheels in Space: Modeling and Comparative Control Analysis of a Reaction Wheel Pendulum for Space Attitude Stability](#)
Sherif I. Abdelmaksoud (New Cairo Technological University, Egypt); Mohammed H. Al-Mola (University of Mosul, Iraq); Sherif Hassan Mohamed (New Cairo Technological University, Egypt)

Oral Presentations

30 JULY 2025

Wednesday, July 30, 2025 | Time: 15:00 – 17:00

Room (3) / the Educational Complex | Track 4 – S6: Wireless Networks and Optimization

Chairs: *Session Chair: TBA*

- [Toward 6G: Energy-Efficient AI-Based Fog RAN Architecture with Lower Latency](#)
Eman A. Anowr (Port Said University, Egypt); Mohamed I. Ismail (Idaho State University, USA & Modern Academy for Engineering and Technology, Egypt); Mona Nashaat Ali Elmowafy (Port Said University, Egypt); Mohamed Mohamed (-- Mansoura University, Egypt); Mostafa M Fouda (Idaho State University, USA); Heba M. Abdel-Atty (Port Said University, Egypt)
- [Optimizing Video Streaming over 6G Networks: Codec Adaptation, Quality Metrics, and AI-Driven Topologies](#)
Hegazi Ibrahim (Egyptian Chinese University, Egypt & Nile Higher Institute of Engineering and Technology, Egypt); Mohamed Elmowafy (Electronic Research Institute, Egypt)
- [Sum-Rate Maximization for NOMA-Aided Wireless-Powered Mobile Networks](#)
Noor Breesam and Walid A. Al-Hussaibi (Southern Technical University, Iraq); Rana Zubo (University of Bradford, United Kingdom (Great Britain) & Northern Technical University, Iraq); Falah H. Ali (University of Sussex, United Kingdom (Great Britain)); Israa Al-Musawi (Southern Technical University & Basra Engineering Technical College, Iraq); Raed A Abd-Alhameed (University of Bradford, United Kingdom (Great Britain)); Naser Ojaroudi Parchin (Edinburgh Napier University, United Kingdom (Great Britain)); Ahmed Sayed Ismail Amar (University of Bradford, United Kingdom (Great Britain)); Ahmed Khairy (Egyptian Military Academy Air Defense College, Egypt)
- [Comparative Analysis of XGBoost, Fuzzy Logic, and Hybrid Models for Acetone, Ethanol, and Methanol Gas Concentration Prediction](#)
Rana Mohamed Abdelghani (Alexandria Higher Institute of Engineering and Technology, Egypt & Teaching Assistant, Egypt); Iman Gamal Eldin Morsi (Arab Academy for Science and Technology, Egypt); Abdelhady B. Kashyout (City of Scientific Research and Technological Applications (SRTA-City), Egypt); Walid El-Shafie (Menoufia University, Egypt); Taha El-Sayed (Minoufiya University, Egypt)

Oral Presentations

30 JULY 2025

- [Enhancing Water Quality Classification Using Stacking Models and XGBoost Optimization](#)
Ahmed Mohamed Elsheshetawy (Cairo University & Graduate Studies for Statistical Research, Egypt); Aboul Ella Otifey Hassanien (University of Cairo, Egypt); Nagy Ramadan Darwish (Institute of Statistical Studies and Research, Egypt)
- [Hybrid RF-MLP Model for Enhanced Fault Detection in Power Transmission Systems Using Data Resampling Techniques](#)
Amir R. Ali (The German University in Cairo (GUC), Egypt & PI of the Applied-Science & Robotics Laboratory for Applied-Mechatronics ARATronics Laboratory, Egypt); Hossam Kamal (German University in Cairo (GUC), Egypt)

Wednesday, July 30, 2025 | Time: 15:00 – 17:00

Room (4) / the Educational Complex | Track 4 – S7: Emerging AI Applications

Chairs: Session Chair: TBA

- [An Enhanced Pseudorandom Number Generator Based on 5D-Memrestive Hyperchaotic Map](#)
Ahmed M Mohy El Den (Arab Academy for Science and Technology, Egypt); Karim H Moussa (Xi'an Jiaotong-Liverpool University & School of Internet of Things, China); Amira Zaki (Arab Academy for Science, Technology and Maritime Transport, Egypt); Mohamed Khedr (Arab Academy for Science and Technology, Egypt)
- [Advancing Toxicology Through Machine Learning and Deep Learning-Based Toxicity Prediction](#)
Sameh Zarif Shenoda, S (Menofia University, Egypt); Alaa Taha El Maria (Mansoura National University, Egypt & Benha University, Egypt); Mahmoud Ahmed Shawky (University of Glasgow, United Kingdom (Great Britain)); Ahmed Gamal Abdellatif Ibrahim (Air Defense College & Alexandria University, Egypt); Shuja Ansari (University of Glasgow, United Kingdom (Great Britain)); Islam M Ibrahim (Lecturer at the Egyptian Chinese University, Cairo, Egypt); Marian Wagdy (Tanta University, Egypt)
- [Palm-Print Recognition Enhancement Using a Deep Learning -SVM Hybrid Approach](#)
Tarek Awad Elbendary, Abeer Khalil and Mahmoud Saafan (Mansoura University, Egypt); Hossam El-Din Salah Moustafa (Mansoura University & Professor of Electronics and Communications Engineering, Founder of Biomedical Engineering Program, Egypt); Ahmed Khairy (Egyptian Military Academy Air Defense College, Egypt)

Oral Presentations

30 JULY 2025

- [A Simplified CNN Model for UAVs Images Classification by Deep Learning Algorithm](#)
Ahmed M Abdelmonem (Zagazig University, Egypt & EMA, Egypt); Mohamed Maher Ata (Zewail City of Science and Technology, Egypt); Abdelhamied A. Ateya (Prince Sultan University, Saudi Arabia); Abd elhamid Shalaan (Zagazig University, Egypt); Rania Ahmed Elsayed (Zagazig University, Egypt)
- [Integrating Half Wavelet Attention Blocks in U-Nets for Enhanced Pediatric Dental Image Segmentation](#)
Rowan Hossam (Arab Academy for Science and Technology, Egypt & N/a, Egypt); Nour Elmadany (AAST, Egypt); Omneya Attallah (Arab Academy for Science Technology and Maritime Transport College, Egypt)
- [Enhancing Stock Price Forecasting with a Multi-Agent System and Time Series Analysis](#)
Abdallah Mashaly, Ahmed Hereiz and Khaled Elhady (Mansoura University, Egypt); Mohammed Ayman (Mansoura, Egypt); Omar Allam and Sarah M. Ayyad (Mansoura University, Egypt)

Wednesday, July 30, 2025 | Time: 15:00 – 17:00

Room (6) / the Educational Complex | Track 6 – S7: Intelligent Biomedical Systems and Wearable Devices

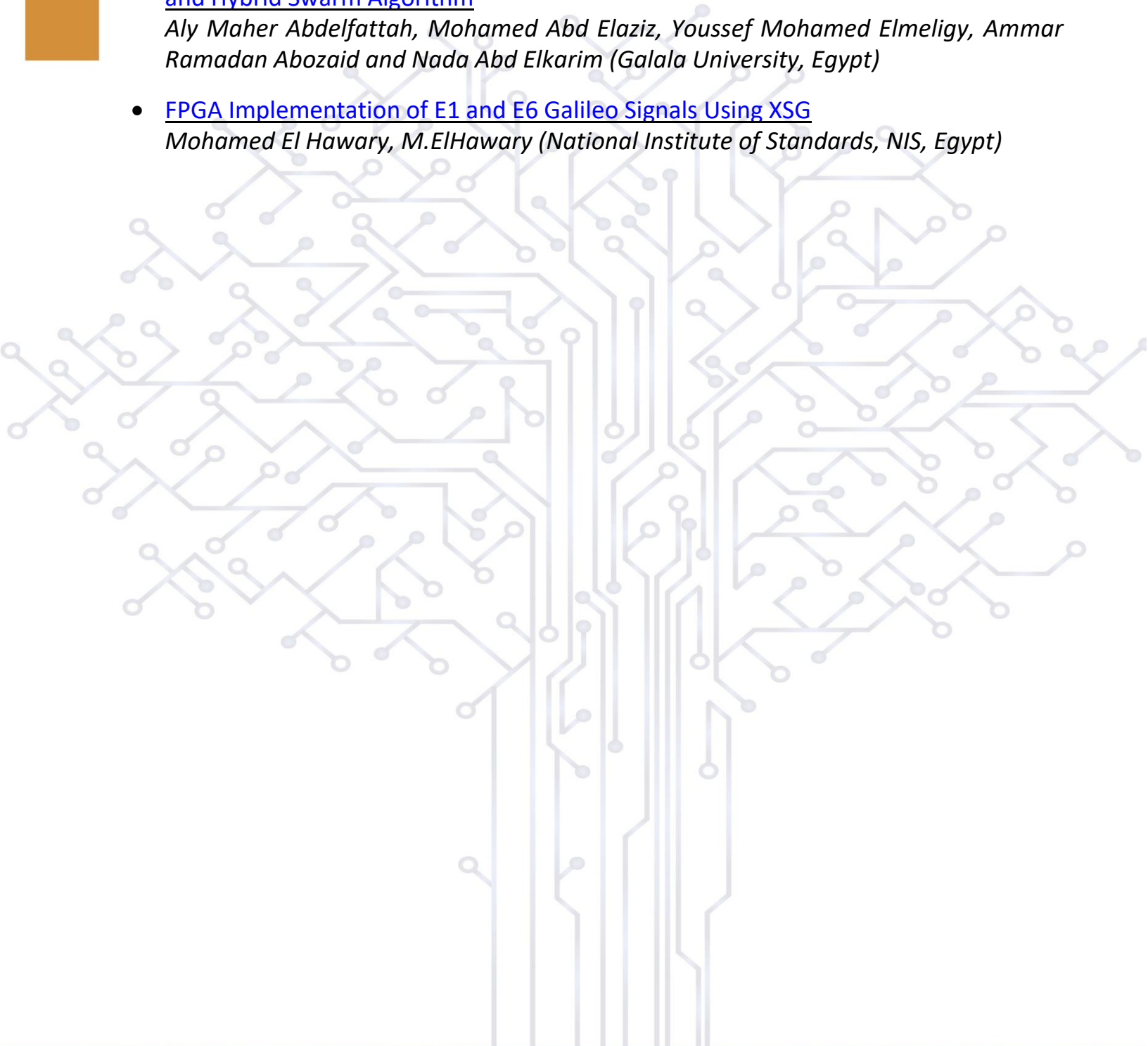
Chairs: Session Chair: TBA

- [Personalized Federated Deep Reinforcement Learning System for Diabetes Management with LLM Integration](#)
Amima Shifa and Sherif Abdelfattah (Bradley University, USA); Mahmoud M Badr (SUNY Poly, USA); Mohamed Baza (College of Charleston, USA); Amar A Rasheed (Sam Houston State University, USA)
- [Explainable MobileNetV2 Model for Different BI-RADS Breast Cancer Diagnosis Using Mammogram Scans](#)
Israa Abdelsabour, Ahmed Elgarayhi, Mohammed Sallah and Mohammed M Elmogy (Mansoura University, Egypt)
- [Swin Transformer for Bone Metastasis Classification: a Comparative Study with Transfer Learning Models](#)
Aly Maher Abdelfattah, Mohamed Abd Elaziz, Youssef Mohamed Elmeligy, Ammar Ramadan Abozaid, Abdelrahman Osheba, Khaled Samy Samah, Youssef Maaod and Ahmed Abou-El-Ela (Galala University, Egypt)

Oral Presentations

30 JULY 2025

- [Thermal and SAR-Based Limits for Human Skin Exposed to Terahertz Radiation](#)
Samar Elmaadawy (Northeastern University, USA); Josep M Jornet (Northeastern University & Institute for the Wireless Internet of Things, USA)
- [Enhanced Gender Classification in Panoramic Dental X-Rays Based on Deep Learning and Hybrid Swarm Algorithm](#)
Aly Maher Abdelfattah, Mohamed Abd Elaziz, Youssef Mohamed Elmeligy, Ammar Ramadan Abozaid and Nada Abd Elkarim (Galala University, Egypt)
- [FPGA Implementation of E1 and E6 Galileo Signals Using XSG](#)
Mohamed El Hawary, M.ElHawary (National Institute of Standards, NIS, Egypt)



ORGANIZING COMMITTEE

- **Honorary Chair**

- Prof. Yahia M. Antar , Royal Military College of Canada & Queen's University, Canada, IEEE-Antennas and Propagation Society President.

- **General Co-Chairs**

- Prof. Abdel Razik Sebak, Concordia University, Canada Maj.
- Brig. Gen.Dr. Ahmed Khairy, ADC, Egyptian Military Academy, Egypt.

- **Executive Co-Chairs**

- Brig. Gen.Dr. Shady Elgohary, ADC, Egyptian Military Academy, Egypt.

- **Program Chair**

- Prof. Ayman Radwan , Universidade de Aveiro, Portugal.
- Col. Dr. Amir. Almslmany, ADC, Egyptian Military Academy, Egypt.

- **Program Vice Chairs**

- Prof. Sharief M.Oteafy , Depaul University, USA
- Eng. Mohammed Aly, ADC, Egyptian Military Academy, Egypt.

- **Panel Chairs**

- Dr. George Shaker, University of Waterloo, Canada.

- **Project Poster Co-Chairs**

- Brig. Gen.Dr. Shady Elgohary, ADC, Egyptian Military Academy, Egypt
- Prof. Marwa Emara , CEO of Techno space technological company.
- Col. Dr.Ehab Ali , ADC, Egyptian Military Academy, Egypt

- **IEEE Liaison**

- Prof. Ahmed Madian, Nile University, Egypt.

- **Award Co-Chairs**



-
- Brig. Gen.Dr. Youssef Fayyad, ADC, Egyptian Military Academy, Egypt
 - Col. Dr. Mostafa Elhoshy , ADC, Egyptian Military Academy, Egypt.
 - **Publicity Co-Chairs**
 - Prof. Angie Eldamak, Ain Shams University, Egypt.
 - Dr. Ahmed Hamed Alieldin, R&D, ADF, Egypt.
 - Dr. Mohamed Abd Elfattah, MET, Mansoura, Egypt.
 - Dr. Abdulrahman Mohammed, MD Officer IEEE Egypt Section
 - **Comm. And Public Relations Coordinator Chair**
 - Eng. Mohammed Aly, ADC, Egyptian Military Academy, Egypt.
 - **Publication Chair**
 - Dr. Mahmoud Shawky, ADC, Egyptian Military Academy, Egypt.
 - **Registration Co-Chairs**
 - Brig.Gen.Dr. Mohamed Morsy, ADC, Egyptian Military Academy, Egypt
 - Eng. Mohamed Akmal, ADC, Egyptian Military Academy, Egypt.
 - **Local Arrangement and Exhibition Chairs**
 - Col. Mohamed Salah, Egyptian Military Academy, Egypt.
 - Col. Hesham El Sedwry, Egyptian Military Academy, Egypt.
 - Eng. Noor Eldin Thabet , ADC, Egyptian Military Academy, Egypt.
 - **Media Co-Chairs**
 - Col. Ahmed Makram, ADC, Egyptian Military Academy, Egypt.
 - Eng. Ahmed Mahmoud Saad, ADC, Egyptian Military Academy, Egypt.
 - Eng. Mohamed Zakaria, ADC, Egyptian Military Academy, Egypt.

Steering Committee

Prof. Mohammed Darweesh, Nile Unv., Egypt

Dr. Islam Tharwat, Nile Unv., Egypt.

Maj. Gen. Dr. Alaa Hafez, ADF, Egypt

Prof. Maha Elsabroty, E-Just, Egypt

Advisory Committee

Prof. Hossam S. Hassanein, Queen's University, Canada

Prof. Walaa Hamouda, Concordia University, Canada

Prof. Goutam Chattopadhyay, NASA Agency

Prof. Gina Elfeky Academy of Scientific Research & Technology, Egypt

Prof. Said Elkhamy, Faculty of Engineering, Alexandria University, Egypt

Prof. Ghada Amer Technology Expert Decision Support Center - Cabinet, Egypt

Dr. Ahmed F. Miligy, ADC, Egyptian Military Academy, Egypt.





Prof. Yahia M. M. Antar
Royal Military College, Canada



Prof. Abdel Razik Sebak
Concordia University, Canada



Dr. Ahmed Khairy
About Dr. Ahmed Khairy
ADC, Egyptian Military
Academy, Egypt



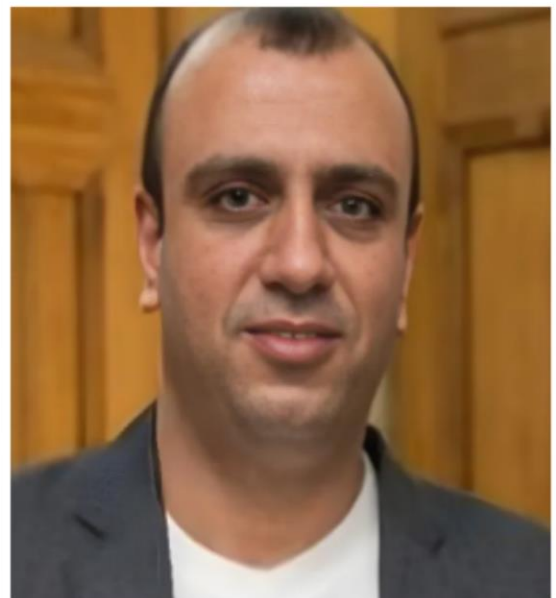
Dr. Shady Elgohary

ADC, Egyptian Military
Academy, Egypt



Dr. Ayman Radwan

Instituto Superior Técnico,
Lisbon, Portugal



Dr. Amir Almslmany

ADC, Egyptian Military
Academy, Egypt



Dr. Sharief Oteafy
DePaul University, USA



Eng. Mohammed Aly
ADC, Egyptian Military
Academy, Egypt



The 2025 International Telecommunications Conference

(ITC-Egypt'2025)



28-31 JULY 2025
ADC, EGYPTIAN MILITARY
ACADEMY, CAIRO, EGYPT