

7th 2025 International Youth Conference on Radio Electronics, Electrical and Power Engineering (REEPE), IEEE

Registration of Participants – April 8, 2025, from 10:00 till 10:30am

Gamal Mokhtar Hall, College of Engineering and Technology, Heliopolis Campus,
AASTMT, Egypt.

Opening Program of EGYPT Venue

(April 8, 2025) (11:30 AM Moscow | 10:30 AM EGY | 12:30 PM UAE)

- His Excellency **Prof. Ismail Abdel Ghaffar**, President of AASTMT, Egypt.
- His Excellency **Prof. Alexander Tarasov**, Vice-Reactor for International Cooperation of MPEI, NRU, Russia.
- **Prof. Yasser Galal**, Dean of College of Engineering and Technology (Heliopolis), AASTMT, Egypt.
- **Prof. Fadi Aloul**, Dean of College of Engineering, AUS, Sharjah, Emirates.
- **Prof. Ahmed Madyan**, Chairman of the IEEE Egypt Section.
- **Prof. Mostafa Shaaban**, Director of Energy, Water and Sustainable Environment Research Center, AUS, UAE.
- **Prof. Rania El Sharkawy**, Dean of Education (Cairo Campus), AASTMT, Egypt.
- **Prof. Rinat Nasyrov** and **Prof. Mohamed Tolba**, General Chairs of the IEEE REEPE conference.

11:30AM – 12:00PM EGY

Plenary Speaker: **Prof. Yousry El-Gamal**

Former Minister of Education, Egypt

Prof. of Computer Engineering

Chairman of Computer Scientific Society

Senior Advisor, AASTMT

Chairman, Information & Communication Committee at the National Committee of Education, Culture, and Science (UNESCO, ALECSO, ISESCO)

Title: **Prospects of Intelligent Reconfigurable Surfaces and Augmented Connectivity.**

Coffee Break 12:00 - 1:00 PM EGY

Conference Program (April 8, 2025)

Starting the international participants' presentations (13:00 EGY)

{Each Participant has 7 minutes for presentation + 3 minutes Q&A by attendees}

First Session 1:00 – 2:30 PM EGY

<u>Power, Energy and Industry Applications</u> Prof. Gamal Mokhtar Auditorium		
Chaired by: Prof. Rania El- Sharkawy & Prof. Mohamed Tolba		
1	Advancing Energy-Efficient Optimization: Trends, Trade-Offs, and Applications in Wireless Networks A Review	<i>Mohamed Elsayed ElhajAbdou, Mohamed E.M Elhaj-Abdou, Waleed K. Badawi</i>
2	Interleaved Multi-Port Non-Isolated DC/DC Converter for Green Hydrogen production with PV/PEM electrolyzer system	<i>Ahmed Mahrous Soliman Elbakly, Ibrahim Abdelsalam, Mostafa I. Marei</i>
3	Optimal Design of a Grid-Connected Microgrid Incorporating Biomass: Case Study in New Valley, Egypt	<i>Mohamed Mahmoud Torad, Sayed Hosny Ahmed Elbanna, Mahmoud Abbas El-Dabah, Ahmed Abdelhamid Zaki Diab</i>
4	A Hybrid EV Fast Charging Station	<i>Kyrollos S. Marcus, Ibrahim Abdelsalam, Mostafa I. Marei</i>
5	Grid-Tied Three-port Converter for Enhanced Electric Vehicle Charging with Vehicle to Grid Capability	<i>Omar Yasser Galal, Ibrahim Abdelsalam, Mostafa I. Marei</i>
6	Mitigation of grid negative sequence voltage and its effect on motor loads	<i>Mohamed Hamdi, Mohammed Alhasheem, Yasser Galal</i>

<u>Computing, Signal Processing and Analyses</u> Room 107		
Chaired by: Prof. Yahia Mohasseb & Prof. Sherif Fadel		
1	Analyzing the Impact of Uncertain Parameters in Reverse Supply Chain network using Fuzzy Alpha-Cut Approach	<i>Mahmoud Mostafa El Ashwah, Nahid Hussein Afia Abdelhalim, Wael Abbas Mahfouz Mohamed. Tamer Ahmed Aly Aly Ismail</i>
2	An Inference Spatiotemporal Machinery Prognostics Approach Based on Graph Learning	<i>Ahmed Ayman, Omneya Attallah, Ahmed Onsy, Iman Morsi, Hadley Brooks</i>
3	Intelligent Speed and Separation Monitoring in Human-Robot Collaboration Safety	<i>Mohamed Hosni Mohamed Ali, Mostafa Rostom Atia, Moustafa Ahmed Fouz</i>
4	Free-Hand-Sketched Logic Circuit Detection using Vision Transformers	<i>Mohamed Waleed Fakhr, Fahima Maghraby, Noha Aly ElMasry</i>
5	SwinArabert : an Encoder-Decoder Approach for Arabic Handwritten Text Recognition	<i>Muhammed S. Sobeh, Marwa A.Elmenyaw, Mohamed Waleed Fakhr, Ashraf S. Mohra</i>

Coffee Break 2:30 - 3:00 PM EGY /

Second Session 3:00 – 4:30 PM EGY

Engineering Applications

Prof. Gamal Mokhtar Auditorium

Chaired by:

Prof. Mohamed Aboul-Dahab & Prof. Ahmed Abd El-Latif

1	Design of Natural Circulation Evaporator for Intermediate Level Radioactive Liquid Waste Treatment: Modeling, Control and Optimization studies	<i>Hala A. Abdel-Halim, M. E. Hammad, Manar O. Outdated, Rehab O. Abdel Rahman</i>
2	Enhancements of Digital Twinning in Reducing the Carbon Footprint of Mobile Communication Networks	<i>Seif Eldin Ahmed Elwesemy, Ahmed Wael Ali, Mahmoud Emad Eldin Riyad, Belal Alaa Eldin Ahmed, Hesham Mohamed Elbadawy</i>
3	A Simplified Current Source Converter SPWM On-line Mapping Scheme	<i>Bader N. Alajmi, Ibrahim Abdelsalam, Mostafa I. Marei, Nabil a. Ahmed</i>
4	Numerical Analysis of HTL-Free Ba₃NCI₃ -Based Pb-Free PSC for Indoor and Outdoor Applications	<i>Omar Abdelsamad, Ahmed Sayed, Arwa Hesham, Mostafa Salah</i>
5	Development of Night Owl UAV: Embedded Control system for Imaging and Autonomous flight	<i>Ahmed Emad, Ahmed Hatem, Salah Eldeen Mohamed, Mohamed Emad, Youssef Wael, Mostafa Mesbah</i>
6	A Comparative Study of Control Moment Gyro for Improved Performance in Two-Wheel Robot	<i>Ahmed Amin, Moustafa Fouz, Ahmed Elsawaf</i>

Power, Energy and Industry Applications

Room 107

Chaired by:

Prof. Eman Beshr & Prof. Ibrahim Abdullah

1	Techno-Economic Analysis of Hybrid PV-Fuel Cell Systems for Rural Agricultural Areas in Egypt	<i>Rawan A. Hafez, Rania A. Ibrahim, Amany El-Zonkoly</i>
2	A three-Phase Totem-Pole AC-DC Converter based off-board Charger for Electric Vehicles	<i>Tony Mamdouh Farg, Ibrahim Abdelsalam, Mostafa I. Marei"</i>
3	Photovoltaic Solar System for Energy Management Enhancement in an Educational Building: A Case Study	<i>Ahmed Seliman Abouzeid, Ahmed Mohamed Abdelrahim, Ahmed Anas Helal</i>
4	An investigation of non-conventional alternatives for manufacturing the specimen for the tensile test of metal sheets	<i>Mostafa R. A. Atia, S M A Mahdy, M Abdel Mohsen, Eslam N. El-Ganzoury</i>
5	Optimizing Cascade Control for Load Frequency Management Using Harris Hawks Algorithm	<i>Mahmoud Abuelneel, Ali M. El-Rifaie, Mayar Abdelaziz, Tamer Mohamed Barakat, Mokhtar Said, and Mohamed Barakat</i>
6	Novel real-time SoH estimation for batteries using a Kalman filter integrated with machine learning models	<i>Diaa-Eldin A. Mansour, Ahmed S. Abdallah Youssef Ellassal, Alaa Soliman, Tamer F. Megahed"</i>