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

Registration of Participants – April 8, 2025, from 12:00 till 12:30PM UAE

AUS-Emirates, Engineering Science Building (ESB), Ground Floor "Main entrance"

Opening Program (Link will be shared)

(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.

Lunch Break 13:30 - 14:30 PM UAE – (Room-ESB 2051)

Conference Program (April 8, 2025)

Starting the international participants' presentations (14:30 UAE)

Engineering Science Building (ESB)

{Each Participant has 12 minutes for presentation + 5 minutes Q&A by attendees}

Session A: Room ESB 1003

1.	**Design and Implementation of a Bandgap Voltage Reference-1.8V and a Low Drop-Out Circuit using 180nm BiCMOS Technology**	*Joel Georgeous, Lutfi Albasha*
2.	**A 2.4 GHz Input Cascaded CMOS Variable Gain Amplifier with 50 dB Gain Control for RF Applications**	*Malak Mneimneh* *Prof. Lutfi Albasha*
3.	**Feasibility Study of Noise-Cancelling Low Noise Amplifiers for Millimeter-Wave Wi-Fi 8 Applications**	*Hassan Alhilo, Lutfi Albasha, Djuradj Budimir*
4.	**Roles of UAVs, Robots, and AI in Earthquake Disaster Management**	*Mohamed S. Abdalzaher, Mostafa Shaaban, Moez Krichen*
5.	**Enhancing Frequency Stability in Johnson Dividers Using Precision Resistors**	*Abdullah Siddiqui, Mayur Jhamnani, Syed Zahid Abbas, Lutfi Albasha*
6.	**IoT-Based Vehicle Occupant Detection and Alert System for Child and Pet Safety**	*Hagar H. N. Morsy, Shaima J. Ali Alhammadi, Khawla S. A. Albastaki, Noor ul Misbah Khanum and Anwar Jarndal*
7.	**Small-Signal Modeling of GaN HEMTs for mm-Wave Applications**	*Aisha Mansour, Anwar Jarndal*
8.	**Intelligent IoT-Enabled Self-Nursing Framework for Automated Pre-Consultation Medical Assessments**	*Lamia A. Alamrzooqi, Shaima A. Alzarouni, Maryam A. Aljasmi, Alya Y. Alhammadi, Sam Ansari, Anwar Jarndal*

Session B: Room ESB 1005

1.	**Single Stage Differential Inverter Based on Single- Ended Primary-Inductor Converter Connected to A Photovoltaic System**	*Mohamed A. Ismeil, Abdelfatah Ali, Mostafa F. Shaaban*
2.	**Adaptive and Enhanced Hydrogen Production Using Dynamic Particle Swarm Optimization for PV-PEM Systems**	*Mena Maurice Farag, Abdul-Kadir Hamid, Safia Babikir Bashir*
3.	**Detecting Electricity Theft in Smart Grids: A Hybrid CNN-RF Approach**	*Safia Babikir Bashir, Mena Maurice Farag, Abdul-Kadir Hamid, Ali Ahmed Ismail, Ramesh C. Bansal, A. Elnady*
4.	**Wireless Electric Vehicle-to-Vehicle Charging: Simulations and Analysis**	*Anwar Jarndal, Kassen Dautov, and Azizulrahman Shafiqurrahman*
5.	**Energy Management System for Green Hydrogen Production – An Overview**	*Said Halwani, Ramesh C. Bansal, Chaouki Ghenai*
6.	**Wild Horse Based Controllers to Enhance the Load Frequency Control System with Wind Penetration**	*Omar M. Hesham, S. Mansour, Mahmoud A. Attia, Mostafa F. Shaaban*

7.	**A Novel 17-Level Inverter with Suppressed Inrush Current and Reduced Components**	*Majid Hosseinpour, Hossein Mansourizadeh, Ali Seifi*

Session C: Room ESB 1009

1.	**Linear Antenna Array Optimization using Particle Swarm Optimization Algorithm**	*Zainab Abuowda, Amer Zakaria, Mostafa Shaaban*
2.	**Open-Ended Coaxial Probe Based Chloride Concentration Prediction in Water Using Machine Learning Algorithms**	*Hanima Kannan C H, Veena Venugopal, Deepa Gupta, Priyanka Mathur, Parul Mathur, Dhanesh G Kurup*
3.	**High Gain Multilevel Boost Converter-Based Synergetic MPPT Controller for Standalone Photovoltaic Array**	*Afaf Zeita Melika Gaid, Abdul-Kadir Hamid, Mena Maurice Farag*
4.	**Optimal Design and Operation of the Hydrogen Supply Chain for Efficient Hydrogen Refueling Station Deployment**	*Abdelfatah Ali, Mostafa F. Shaaban, and Malick Ndiaye*
5.	**Wireless Charging for Electric Vehicles: The Impact of Air Gap Distance and Coil Alignment on Power Transfer Efficiency**	*Rafia Bin Yaroof Alsuwaidi, Ahmed G. Abokhalil, Mamdouh El Haj Assad, AlAmir Hassan*
6.	**Performance parameters analysis of a Multispectral Penta-Supercell Metamaterials as a Refractive Index Biosensor**	*Hamid Heidarzadeh, Younes Majd Shokorlou*
7.	**Analysis and Design of 4-port MIMO Antenna for 5G V2X Applications**	*Matteddula Umapriya, Matteddula Thanulatha, Deekshitha B., Chandana H. N., Ajay Kumar Dwivedi, Vivek Singh*

Session D: Room ESB 1011

1.	**Ethical Considerations in Artificial Intelligence (AI) Applications in Smart Grid**	*Kadhim Hayawi, Sakib Shahriar, A. R. Al-Ali*
2.	**Economic Viability of Renewable Energy: The UAE**	*Nsilulu T. Mbungu, Ali A. Adam Ismail, Ramesh C. Bansal, Ahmed G. Abokhali, Abdul K. Hamid, Mukwanga W. Siti*
3.	**Multi-Layer Perceptron Regression Model for Material Characterization in the Microwave Frequency Range with Cross-Dataset Validation**	*Hanima Kannan C H, Tilesh Sanjay Chaudhary, Deepa Gupta, Priyanka Mathur, Parul Mathur, Dhanesh G Kurup*
4.	**Vision Transformer for Diabetic Retinopathy Diagnosis: A Deep Learning Approach Beyond CNN**	*Khawla Ahmed Al-Tayeb, Anwar Jarndal, Talal Bonny*
5.	**Lightweight AI for Drones: A Survey**	*Moez Krichen, Mohamed S. Abdalzaher, Mostafa Shaaban, Raafat Aburukba*
6.	**Using Aerial Videos for Natural Disaster Damage Assessment**	*Moez Krichen, Mohamed S. abdalzaher, Mostafa Shaaban, Raafat Aburukba*
7.	**Improved Light Absorption in Solar Cells: A Comparative Study of Multilayer Nanostructures and Blazed Gratings**	*Alireza Pilehroudi, Javad Javidan*