



Registration of Participants – April 01, 2026

(10:00 - 11:00 AM Moscow | 09:00 - 10:00 AM EGY | 11:00 - 12:00 AM UAE)

Opening Speeches

The Opening Program will be started online in connection with all venues

(April 01, 2026) (11:00 - 12:30 AM Moscow | 10:00 - 11:30 AM EGY | 12:00 - 13:30 PM UAE)

Moderator:

- **Prof. Rania Elsharkawy**, Dean of Education (Cairo Campuses), AASTMT, Egypt

Speeches:

- His Excellency, **Prof. Ismail Abd El-Ghaffar**, AASTMT President, Egypt.
- His Excellency, **Prof. Alexander Tarasov**, MPEI Vice Rector for International Cooperation, NRU, Russia.
- His Excellency, **Mr. Mikhail Belov**, Science and Technology Counsellor, Embassy of the Russian Federation to Egypt.
- **Prof. Yasser Galal**, Dean of College of Engineering & Technology (Heliopolis) AASTMT, Egypt.
- **Prof. Ghaleb Hussein**, Associate Vice Chancellor Research, AUS, Emirates.
- **Prof. Ahmed Madyan**, Chairman of the IEEE Egypt Section.
- **Prof. Rinat Nasyrov & Prof. Mohamed Tolba**, General Chairs of the IEEE REEPE Conference.



Keynote Speeches

1- Title: Initiatives towards NET-ZERO

Prof. Ahmed M. Darwish

Former State Minister for Administration Development

Professor of Computer Engineering

Consultant to a number of international organizations (UNDP, UNIDO, WHO, UNICEF, ILO, UNESCO, FAO, ESCWA, European Union and World Bank), government organizations and companies in Egypt, Middle East, Africa, Europe and the United States

Eng. Mohamed Medhat Abdlel-Rahman

Deputy Head of the Energy Committee in the Net-Zero Egypt Chapter

Managing Director of the Sustainable Green Energy and Energy Systems

Business Unit in KORRA ENERGI

Certified Energy Manager (CEM).

2- Title: Building the Resilient Power Grid of the Future with HVDC

Prof. Khaled Ahmed

Professor of Power Electronics

Head of Power Electronics, Drives, and Energy Conversion (PEDEC) Research Group

University of Strathclyde, Glasgow, UK

3- Title: Start a new era of all-scenario Grid Forming

Dr. Carlos Alvarez

Director of Grid Connection

Huawei Middle East and Central Asia, Emirates

Conference Program (April 01, 2026)

American University of Sharjah (14:00 UAE)

{Each Participant has 15 minutes for introducing presentation + 5 minutes Q&A by attendees}

Section-A. Power Electronics, Drives, and Control Systems.

Time: 2: 00-5:00 PM UAE time

Chair: Dr. Jai Sayani (jsayani@aus.edu)

Link: <https://ausharjah.zoom.us/j/99808374459?pwd=IKYpuPIVFacVlRrTVsG3qeG5ciPeVdM.1>

Meeting ID: 998 0837 4459 **Passcode:** 216924

| No. | Paper ID | Paper Title | Authors |
|-----|----------|---|--|
| 1 | 26-0215 | A Cost-Effective Three-Level Converter With High Demagnetization Voltage for 8/6 SRM Drives | Mohammad Imran Mir, Subhendu Bikash Santra |
| 2 | 26-0252 | The Impact of the Clark-to-Park Transformation in Indirect Power Control-based FCS-MPC in Grid-Tied Inverter Applications | Nsilulu T. Mbungu, A. Elnady, Safia B. Bashir Mohamed, Ali A. Adam Ismail, Ahmed Galal Abokhalil |
| 3 | 26-0287 | Robust Position Tracking of a 3-DOF Manipulator Using Model Reference Adaptive Control | Mohamed H. Abdullah, Bara J. Emran |
| 4 | 26-0288 | Development of a 3-DOF UAV Testbed for Educational and Experimental Control Applications | Younis Elayyan, Mohamed H. Abdullah, Bara J. Emran |

Section-B. Intelligent Systems and Smart Infrastructure.

Time: 2: 00-5:00 PM UAE time

Chair: Dr. Yohanna Fseha (yfseha@aus.edu)

Link: <https://ausharjah.zoom.us/j/93445626850?pwd=Zeu4kmfGL6NgJEE4RQS9rYPLSMUOdd.1>

Meeting ID: 934 4562 6850 **Passcode:** 949255

| No. | Paper ID | Paper Title | Authors |
|-----|----------|--|---|
| 1 | 26-0280 | Model-Reference Inspired Adaptive Dynamic Window Approach | Mohamed H. Abdullah, Bara J. Emran |
| 2 | 26-0285 | AI-Driven Visible Light Communication for High-Speed and Secure Wireless Networks: A Review | Suhaib Raya, Khawla A. Alnajjar, Anwar Jarndal |
| 3 | 26-0233 | Spatial Identification and Risk Profiling for Copper Cable Theft in Power Distribution Substations | Ahmed R. Alshamsi, Khalid Al Suwaidi, Hamad Juma Alkuwaiti, Hassan Alzarooni, Sarah Kandil, Ayman Alzaatreh |
| 4 | 26-0238 | Joint Sizing and Optimal Daily Operation of Battery Swapping Stations under High EV Demand Scenarios | Sarah Kandil, Akmal Abdelfatah |

Section-C. Control, Optimization, and Security in Modern Energy Systems.

Time: 2: 00-5:00 PM UAE time

Chair: Dr. Abdelfattah Ali (abdelfatahm@aus.edu)

Link: <https://ausharjah.zoom.us/j/93569983247?pwd=ldl0n5VKU3gpirIf2GukPVCQ8BlaoP.1>

Meeting ID: 935 6998 3247

Passcode: 188838

| No. | Paper ID | Paper Title | Authors |
|-----|----------|--|--|
| 1 | 26-0343 | Improved Dynamic Performance of Integrated LFC-AVR Systems Using WHO-Tuned Cascaded Control | Ahmed O. Badr, Omar M. Hesham, Mahmoud A. Attia, S. Mansour, Ahmed M. Mosaad, Mostafa F. Shaaban |
| 2 | 26-0300 | Comparative Performance Assessment of Floating and Land-Based Photovoltaic Systems | Hanaa Abd El-Salam, Karar Mahmoud, Abdelfatah Ali, Mostafa F. Shaaban |
| 3 | 26-0360 | Robust Anomaly Detection for Secure Water Treatment Systems under Adversarial Attack Scenarios | Rania J. Alnatsheh, Ahmed Maged, Mostafa F. Shaaban |
| 4 | 26-0301 | Adaptive Hybrid Wide-Deep Bi-GRU Framework for Scalable Electricity Theft Detection | Mohamed Ezaldine, Abdelfatah Ali, Mostafa F. Shaaban, and Karar Mahmoud |
| 5 | 26-0351 | Techno-Economic Assessment of a 10 MW Hybrid Wind, Solar, Battery, Diesel Power System for a Remote Island in Sharjah, UAE | Hamad K. Al Ali, Rami J. Alsodi, Fatima T. Alketbi |

Section-D. Sustainable and Integrated Energy Systems for Emerging Applications.

Time: 2: 00-5:00 PM UAE time

Chair: Dr. Ahmed Safy (asibrahim@aus.edu)

Link: <https://ausharjah.zoom.us/j/96558255215?pwd=oXltMyY3p2o6zGrk9aW2uA72wTaLsZ.1>

Meeting ID: 965 5825 5215

Passcode: 938021

| No. | Paper ID | Paper Title | Authors |
|-----|----------|--|---|
| 1 | 26-0102 | Optimization of PEMFC membranes using a hybrid design of experiments and machine learning approach | Ryan Alshaikh, Amani Al-Othman, Abdulrahim Shamayleh, Paul Nancarrow, Muhammad Tawalbeh |
| 2 | 26-0292 | Experimental and Numerical Thermal Performance Analysis of a PV Based Vehicle Ventilation System | Bereket K. Bedada, Saron T. Araya, Preetha Sreekumar, Pradeep Hegde, Karlo Calpotura |
| 3 | 26-0311 | Data-Driven PV Calibration and Coordinated Energy Dispatch for Building-Scale EV Charging: A UK Case Study | Madathodika Asna, Hussain Shareef, Yuchao Shen, Sanchari Deb |
| 4 | 26-0220 | Stream-Based Thermal Bus Modeling for Industrial Energy Hubs | Ahmed A. Abdelsamad, Mostafa S. Hamad, Hany A. Hamed, Ayman S. Abdel-Khalik |
| 5 | 26-0289 | Towards Sustainable Computing: Optimal Energy and Emissions-Aware Design of Renewable-Powered Data Centers | Fatemeh Marzbani, Sarah Kandil |

Section-E. Sustainability in Industry and Supply Chains.

Time: 2: 00-5:00 PM UAE time

Chair: Dr. Amitkumar Chanchpara (achanchpara@aus.edu)

Link: <https://ausharjah.zoom.us/j/96239714195?pwd=jsM7mbuPISMZ2oldGs2H1Q9f8CjWEV.1>

Meeting ID: 962 3971 4195 **Passcode:** 76425

| No. | Paper ID | Paper Title | Authors |
|-----|----------|---|---|
| 1 | 26-0272 | Smart IoT-Based Waste Management System | <i>Albara Ksaibati, Akram M. Z. Eltayeb, Hamad E. Alteneiji, Nour Sandakli, Antar S. H. Abdul-Qawy, Anwar Jarndal</i> |
| 2 | 26-0284 | A Sustainability Index Framework for Transparent Performance Assessment in Supply Chains | <i>Junu Jahana Chembakath, Malick Ndiaye</i> |
| 3 | 26-0290 | Design and Implementation of a Vision-Based Inchworm Robot System with Real-Time Safety Protocols for Agricultural Automation | <i>Safwan I. Khan, Bara J. Emran</i> |
| 4 | 26-0354 | Sustainability Performance Measurement in Supply Chains: Current Practices and Measurement Gaps | <i>Junu Jahana Chembakath, Malick Ndiaye</i> |