

**ICSMARTGRID 2025**

**13<sup>TH</sup> INTERNATIONAL CONFERENCE ON SMART GRID**

**May 27-29, 2025, Glasgow/United Kingdom**

**Best Papers Awards**

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First Best Papers Awards	Country
<p><b>ID:34 Three-phase Nine-level Modular Inverter with High-voltage Gain and Reduced Blocking Voltage</b>  Daniel Ferreira (Fct - Cts-uninova and Lasi); Armando Cordeiro (Isel - ipl)*; Paulo Gambôa (Isel-ipl); Rui Guerreiro (Isel-ipl); Joaquim Monteiro (Isel-ipl); Daniel Foito (Estsetúbal-ips); João F. Martins (Fct - Cts-uninova and Lasi); José F. Silva (Ist-ul); Vitor F. Pires (Estsetúbal-ips)</p>	Portugal
<p><b>ID:41 A Novel Fractional-order Damping Control Method for Enhancing Synchronization in Grid-forming Converters</b>  Mohamed Abouyehia (University of Strathclyde)*; Ayse Colak ( University of Strathclyde); Reem Nasser (Alexandria University); Agustí Egea-àlvarez (University of Strathclyde); Khaled H. Ahmed (University of Strathclyde)</p>	UK
<p><b>ID:79 Evaluation of Hydrogen Fuel Cell as A Backup Power for Telecommunication Base Stations</b>  Junliang Xiao (Ntt Docomo, inc. )*; Masaki Nakamura (Ntt Docomo, inc. )</p>	Japan
<p><b>ID:163 High-efficiency Lead-free Dual-absorber Perovskite Solar Cells Employing V<sup>2</sup>O<sub>5</sub> and CdS Transport Layers: A Scaps-1d Study</b>  Rukon Uddin (Gazi University)*; Hidir Duzkaya (Gazi University)</p>	Turkiye
<p><b>ID:164 Power Hardware in The Loop Test Bed for Ai-based Grid Control</b>  Andreas Stadler (Helmut Schmidt University)*; Yuzhuo Fu (Helmut Schmidt University/university of The Federal Armed Forces Hamburg); Nils Pinke (Helmut Schmidt University/university of The Federal Armed Forces Hamburg); Detlef Schulz (Helmut Schmidt University/university of The Federal Armed Forces Hamburg)</p>	Germany
<p><b>ID:185 Designing and Integrating A Battery-electrolyser Energy System for Communities in Sub-Saharan Africa</b>  Soustain Chigalu (Loughborough University); Devine Matare (Renew'n'able); Elizabeth Ashton (Loughborough University)*; John Barton (Loughborough University); Martin Bliss (Loughborough University); Matthew Brenton (Loughborough University); Radoslav Andreev (Monbat Group); Dani Strickland (Loughborough University); Carl Telford (Consortium For Battery innovation); Jonathan Wilson (Loughborough University); Toby Williams (Loughborough University)</p>	UK

Second Best Papers Awards	Country
<p><b>ID 23 Standalone DC nanogrid cluster design in rural areas and optimal energy management with Markov decision process</b>  Fatımanur Tepe, Seyfettin Vadi, Erdal Irmak</p>	Turkiye
<p><b>ID:81 Proposed Hybrid Intelligent Control for Optimized Photovoltaic Systems</b>  Saloua Belaid (Université De Bejaia); Djamil Rekioua (University of Bejaia)*; Mahamadou Abdou-tankari (Univ Paris Est Créteil Certes, iut De Sénart Fontainebleau); Pierre-olivier Logerais (Univ Paris Est Créteil Certes, iut De Sénart Fontainebleau); Toufik Rekioua (Université De Bejaia)</p>	France
<p><b>ID:93 Hyperparameter Optimization Techniques for Enhanced Machine Learning Energy Forecasting: A Comparative Analysis</b>  Amirhossein Adib (Royal Holloway University of London)*; Onyema Nduka (Royal Holloway University of London)</p>	UK
<p><b>ID:96 Possible Legal Forms for Energy Communities</b>  Merilin Metsik (Taltech)*; Narmin Eynizada (Taltech); Tarmo Korõtko (Taltech)</p>	Estonia
<p><b>ID:103 Building Energy Consumption Prediction Through Energyplus–matlab Co- Simulation</b>  Sarra Bendahou (University of Paris-est Créteil)*; Jura Arkhangelski (University of Paris-est Créteil); Mahamadou Abdou-tankari (University of Paris Est-créteil); Gilles Lefebvre (University of Paris-est Créteil); Jimmy Ata (Department of Public Construction and Architecture City of Paris)</p>	France
<p><b>ID 106 Enhanced MPPT Performance in PV-Based Water Pumping Systems Using Type-2 Fuzzy Super Twisting Sliding Mode Control</b>  Ruhi Zafer Caglayan (TED University,  Korhan KAYISLI (Gazi University)*,  Firat Hardalac (Gazi University</p>	Turkiye

Third Best Papers Awards	Country
<p><b>ID:94 Power Management for Hydrokinetic-powered Island: A Hybrid Storage System</b>          Mohammed Abdulelah Albasher (Laboratoire De Recherche En Electrotechnique Et Automatique, University of Dr Yahia Fares, Medea)*; Youcef Soufi (Laboratoire Du Génie Electrique University Echahid Larbi Tebessi ); Abderrezak Cheri? (Iut De Mantes-en-yvelines, Laboratoire End-icap - Umr1179 Université Paris Saclay); Ouahid Bouchhida (Laboratoire De Recherche En Electrotechnique Et Automatique, University of Dr Yahia Fares, Medea); Mujammal Ahmed Hasan (Laboratoire De Recherche En Electrotechnique Et Automatique, University of Dr Yahia Fares, Medea); Muntaser Mohammed Al-sharfi (Laboratoire De Energies Reneouvlable Et Des Materiaux University of Dr Yahia Fares)"</p>	Algeria
<p><b>ID:97 A Comparative Analysis of Machine Learning Based Power Flow Study with Custom Made Open Source Python Codes</b>          Bilal Ahmad (Royal Holloway)*; Onyema Nduka (Royal Holloway)</p>	UK
<p><b>"ID:109 Energy Simulation Models of A Photovoltaic-powered Energy Community</b>          Mariacristina Roscia ("university of Bergamo, italy")*; Giuliana Daniela Foti (University of Bergamo); Cristian Lazaroiu (Politehnica Bucharest)"</p>	Italy
<p><b>ID:128 Performance Analysis of Smart Grid Energy Systems Under Varying Loads Using Digital Twin and Real-time Data Analytics</b>          Ramakrishna Nuvvula S S (Nitte Nmamit)*</p>	India
<p><b>ID:136 Adaptive Energy Management Systems for Smart Grids: A Hybrid Approach Using Machine Learning and IoT Integration</b>          Polamarasetty Kumar (Gmr institute of Technology)*</p>	India
<p><b>ID:145 Machine Learning for Predictive Maintenance in Power Generation and Distribution</b>          Riyaz Ahammed (Nitte University)*</p>	India
<p><b>ID:170 Assessing The Contribution of Wind Generation to Grid Balancing Services</b>          Abdelhakim Belkaid (Bejaia University)*; Ali Berboucha (Bejaia University); Said Aissou (Bejaia University); ilhami Colak (Istinye University); Kamel Djermouni (Bejaia University); Elyazid Amirouche (Bejaia University); Kaci Ghedamsi (Bejaia University); Houssam Deboucha (Bejaia University)</p>	Algeria
<p><b>ID:238 Use of Convolutional Neural Networks for Short-term Grid Modal Parameters Forecast</b>          Carlo Olivieri (University of L'aquila)*; Francesco De Paulis (University of L'aquila); Lino Di Leonardo (University of L'aquila)"</p>	Italy