2022 IEEE Sustainable Power and Energy Conference (iSPEC)

Perth, Western Australia,
December 4 –7, 2022

‘Sustainable, Clean and Reliable Power Systems’

Call For Papers

https://attend.ieee.org/ispec-2022/

The 4th IEEE Sustainable Power and Energy Conference (iSPEC) will be held in Perth, Western Australia during the period December 4 - 7, 2022. iSPEC was established by the Chinese Society for Electrical Engineering in 2019 to emulate the IEEE PES general meeting in North America. The conference provides a forum for both researchers and experts in power engineering to discuss and share ideas, present results, reflect on past experiences and discuss future projects on sustainable power systems in contemporary climate change.

Authors’ Deadlines

Paper submission open:	15 April 2022
Full paper submission:	15 June 2022
Notification of acceptance:	15 September 2022
Final paper submission:	15 October 2022

Scope

The scope of the conference is contemporary and original research, innovative solutions for electric power industry in the area of sustainable power systems and challenges of climate change. The scope of conference includes, but is not limited to following topics:

- Modern power systems
- Renewable energy and energy storage systems
- Electric power sustainable Technologies
- Transportation electrification
- Power equipment planning & asset management
- Power system solutions towards a net-zero future
- Power engineering education
- Power electronics in power systems
- Smart grid concepts and applications
- Energy efficiency and low carbon emission
- Cyber security and IoT for power systems
- Substation automation systems
- Faults identification and quantification
- Online condition monitoring and self-healing technologies

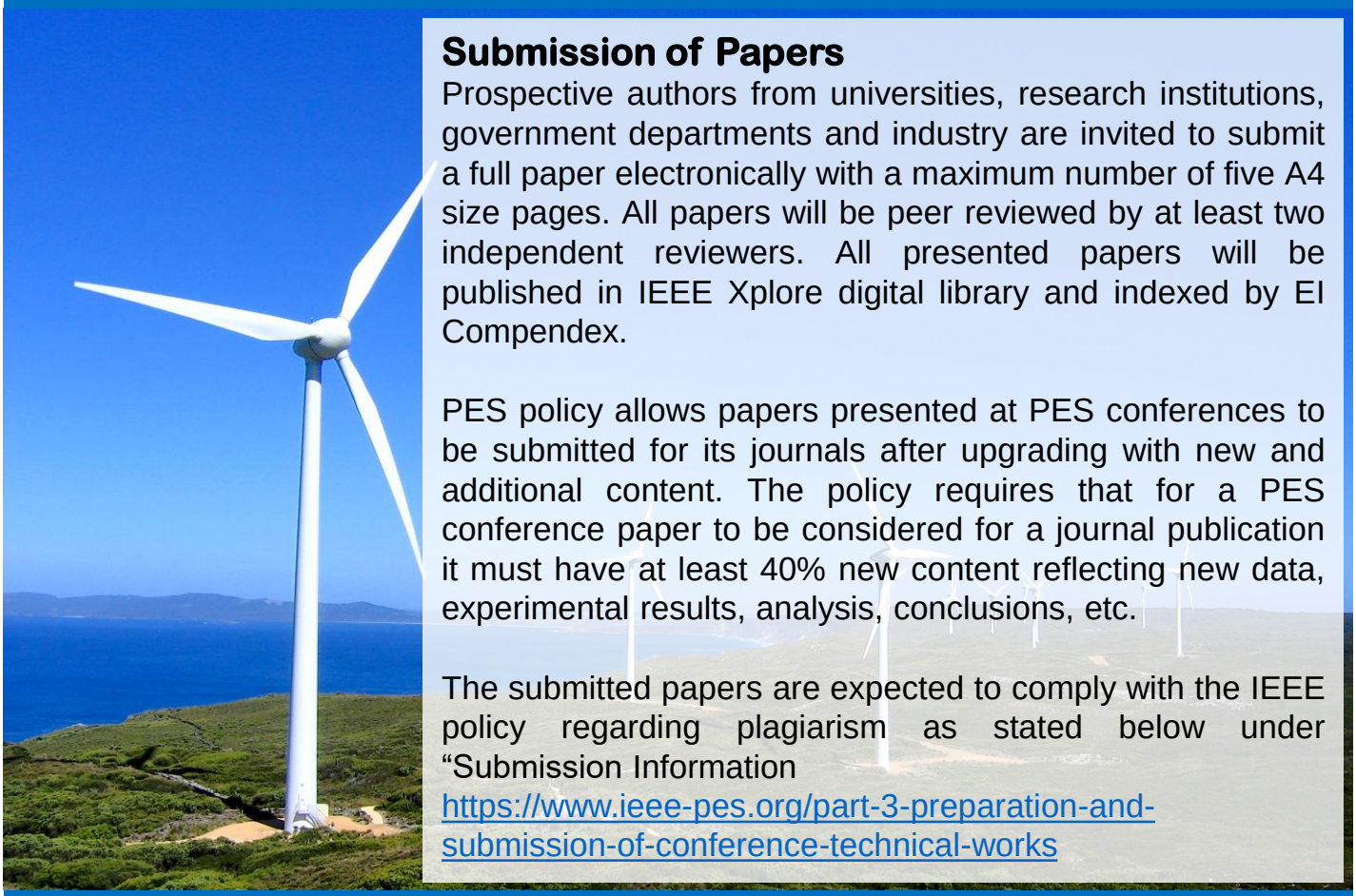
IEEE PES Power & Energy Society®

iSPEC 2022 PERTH

中国电机工程学会 SEE

Mode and Venue

The conference will be a hybrid event of which physical presentations will be held in the picturesque campus of Curtin University, Perth, Australia during the period December 4 -7, 2022. Uncertainty with COVID travel and entry restrictions into Western Australia means it is highly likely that the conference may be organised in virtual mode.



Submission of Papers

Prospective authors from universities, research institutions, government departments and industry are invited to submit a full paper electronically with a maximum number of five A4 size pages. All papers will be peer reviewed by at least two independent reviewers. All presented papers will be published in IEEE Xplore digital library and indexed by EI Compendex.

PES policy allows papers presented at PES conferences to be submitted for its journals after upgrading with new and additional content. The policy requires that for a PES conference paper to be considered for a journal publication it must have at least 40% new content reflecting new data, experimental results, analysis, conclusions, etc.

The submitted papers are expected to comply with the IEEE policy regarding plagiarism as stated below under "Submission Information
https://www.ieee-pes.org/part-3-preparation-and-submission-of-conference-technical-works

Keynote speakers

World class researchers in the area of sustainable power and energy will be invited.

Tutorials / Workshop

It is planned to conduct workshop / tutorials on Sunday 4 December 2022.

Special/Panel Sessions

Prospective organisers of special and panel sessions are invited to submit their proposals by 30 September 2022 to the conference secretariat.

Registration

Full registration includes a copy of the proceedings, lunches, morning and afternoon tea, welcome reception and conference gala dinner (hybrid mode)

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Feasibility Analysis of Implementing Hybrid Powered Electric Vehicle Charging Stations in Sarawak

Publisher: IEEE

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Abstract:

The transportation sector in Sarawak completely depends on fossil fuel which produces a high quantity of greenhouse gases. A suitable design of charging stations for electric vehicles (EVs) equipped with grid-integrated renewable energy resources (RERs) can help in addressing this issue. This paper proposes to enhance the execution requirements of the hybrid-powered electric vehicle charging stations (EVCSs) in Sarawak. A generalized approach for modelling a renewable energy-based hybrid microgrid equipped with EVCS is presented in detail. Four types of microgrid configurations with biomass and solar photovoltaic (PV) systems have been studied to find the optimal size of each component feasible for EVCS. Each design of the hybrid-powered EVCS has been analyzed in terms of economic and environmental viability using the climate data with associated monetary data. The analysis shows that the cost of lowering emission to zero is directly proportional to the total net present cost (RM 259. 0SS) when using PV microgrid-powered EVCS. The outcome of this paper provides insight for policymakers on the technical and financial benefits of EVCS deployment. It also promotes the industry of Plug-in Electric Vehicles (PEVs) in Malaysia.

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