Preface

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On behalf of the editorial board of the *International Journal of Power and Energy Conversion* (*IJPEC*), it is with great pleasure that we present Vol. 16, No. 4, 2025. This issue reflects the journal's ongoing commitment to disseminating high-quality research in the fields of power systems, energy conversion, and emerging technologies.

We extend our sincere gratitude to all the authors who contributed their cutting-edge research and innovative ideas to this issue. Your work not only enriches the field of energy conversion but also provides valuable insights for both researchers and practitioners.

We are deeply grateful to our dedicated reviewers, whose expertise and constructive feedback were instrumental in ensuring the rigor and quality of the published articles. Your voluntary service is a cornerstone of the academic publishing process, and we value your contribution immensely.

Special thanks go to our journal manager and the production team for their unwavering support in managing the submission, review, and publication processes seamlessly. Your efforts ensure that *IJPEC* continues to meet the highest standards of academic publishing.

Finally, we extend our heartfelt appreciation to the members of the Editorial Board for their strategic guidance and commitment to advancing the journal's mission. Your vision and leadership are essential to the success of *IJPEC*.

This issue includes a selection of articles that address both theoretical advancements and practical applications in the domain of power and energy systems. Among the notable contributions are:

- *Comprehensive review on hybrid solar photovoltaic-wind-biomass smart sustainable renewable energy system:* This review consolidates knowledge on hybrid renewable systems, offering a comprehensive perspective on their design, operation, and sustainability.
- *A design development for microgrid systems under the multiple-stakeholder-based target-oriented robust-optimisation framework:* This article introduces a novel optimisation framework for microgrid systems, considering the diverse interests of stakeholders.
- *SMC-based power/voltage droop control in stand-alone DC microgrids:* This work explores sliding mode control (SMC) techniques for enhancing the stability and performance of DC microgrids.

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- *Reconfigurable backstepping control of an interleaved boost converter in photovoltaic systems:* This study presents a reconfigurable control strategy aimed at improving the efficiency and reliability of photovoltaic systems.
- *Deep learning-based estimation and correction algorithm for synchronisation time error in smart grid:* This paper leverages deep learning techniques to address critical challenges in smart grid synchronisation, demonstrating practical and scalable solutions.

We hope that the articles presented in this issue will inspire new research directions and foster collaboration across the global energy community. Thank you for your continued support and interest in *IJPEC*.