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Valentina E. Balas · Ramesh C. Bansal · Siva Kumar Mangipudi · Subhojit Dawn
Editors

Proceedings of the International Conference on Artificial Intelligence Techniques for Electrical Engineering Systems (AITEES 2022) · Volume 3

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Atlantis Highlights in Intelligent Systems 3

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Preface

The International Conference on Artificial Intelligence Techniques for Electrical Engineering Systems (AITEES 2022) was organized virtually on 6th and 7th May 2022 by the Department of Electrical and Electronics Engineering, Seshadri Rao Gudlavalleru Engineering College, Andhra Pradesh, India. The AITEES 2022 conference was organized in the virtual mode because of the many restrictions and regulations imposed by the countries all over the world due to COVID-19 pandemic.

The conference provided a unique platform to the students, researchers, scientists, academicians and industrial experts across the globe to present and discuss the latest applications of artificial intelligence techniques to Electrical Engineering Systems. The proceedings of AITEES 2022 are intended to unleash the new frontiers of intelligent systems and their application to electrical engineering domain. Artificial intelligent techniques and machine learning are gaining popularity and attracting all engineering domains to apply these concepts for solving problems encountered during modelling and application of real-time engineering problems. In this world of automation and decision-making approach, design of new intelligent systems is very much important to ensure the reliability and secure operation in the systems. The tremendous advances in computing power and intelligent techniques have opened many ways for applying these concepts to Electrical Engineering Systems. The penetrations of large-scale renewable systems, increased power unitization and rapid industrialization made the electric system operation more uncertain, which is emphasizing the need for predictive and automated control systems. The data has become more and more important in effective design of these systems. So, there is a need for developing new algorithms and processes to make the operation more effective. The concepts of intelligent control and automation of electrical systems are addressed by authors in the literature. However, there is still scope in developing new intelligent system which has good competency and computational efficiency.

The objective of these proceedings is catering the needs of researchers to find and understand the advancements in artificial intelligent techniques and their application to Electrical Engineering Systems. We also hope the volume will also be of interest to those working in the fields of evolutionary computing techniques, fuzzy logic, neural networks, machine learning and data analytics. The contents of these proceedings are very useful to researchers and industry.

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