INTERNATIONAL JOURNAL OF ELECTRICAL ENGINEERING AND APPLIED SCIENCES (IJEEAS)

Contents

Volume 5 **Number 1** **April 2022**

MESSAGE FROM CHIEF EDITOR

Assalamualaikum and Greetings to all,

Again, welcome to the 9th edition of the International Journal of Electrical Engineering and Applied Sciences (IJEEAS). IJEEAS is an open access journal with the aim of publishing a variety of research articles in Electrical Engineering and Applied Sciences. This edition features four articles from high voltage and power system field and one paper from the mechatronics and intelligent robotics field.

The article from Azri et al., presents an insightful investigation on the transformer loading profile at a local hospital in Melaka specifically for the 11/0.4 kV distribution voltage network. The data from the study is important to ensure the system is operating under its optimum capacity to guarantee dependability and stability of the overall distribution network. Based on the investigation results, several countermeasures are proposed in accordance to the guardlines.

An interesting work from Hairi et al. study the impact of distributed generation on the voltage profile and power losses on the 33/11 kV distribution network. The system is modelled using the PSCAD/EMTDC simulation software and the results show that the distributed generation improves the voltage profile as well as minimizes the power losses.

It is a known fact that the high penetration of renewable energy, stretching of long transmission lines operating at full capacity contribute to voltage instability and in some cases a major system failure. In relation to this, the article from Karchung presents comparison analysis of several optimization algorithms used to improve the voltage profile of the network for the case in Bhutan. It seems like each method has its own advantages and disadvantages where at the end maintaining the generation, transmission and distribution systems running at optimal condition is the utmost priority.

Nowadays there are quite a number of products related to energy saving devices which are promoted able to reduce the consumers' electricity bill. Are there really that effective as advertised? In this relation Ibrahim et al. presents an interesting investigation study to obtain the actual fact about these products. The article study provides a good indication whether it is worth to spend a money on the device.

Lastly mechatronics and intelligent robotics theme features an interesting work by Sheng et al. on the application of genetic algorithm for robotic system in the manufacturing industry. The focus is how to schedule a task for the robots to achieve the shortest completion time possible. At the end it is about achieving higher productivity and better work performance among the robots.

This edition also marks the end of my journey with IJEEAS as I will step down as the editor-in-chief effective from August 2022. I would like to thank the editorial team members for the commitment given all this time and wish the best for IJEEAS in future endeavours. Last but not least, a special thanks to all readers who keep following our publication and supporting IJEEAS.

Prof. Ir. Dr. Marizan bin Sulaiman
Editor-in-Chief IJEEAS