

# Foreword and Editorial

## Asia-Pacific Journal of Advanced Research in Electrical and Electronics Engineering

We are very happy to publish this issue of an Asia-Pacific Journal of Advanced Research in Electrical and Electronics Engineering by Global Vision School Publication.

This issue contains 2 articles. Achieving such a high quality of papers would have been impossible without the huge work that was undertaken by the Editorial Board members and External Reviewers. We take this opportunity to thank them for their great support and cooperation.

The paper entitled “A Study on the Distribution Ratio of Optimum Hot Water Heating Load Depending on the Solar-Powered Hot Water Supply System”, this study suggests the proper way to distribute the ratio of hot water heating load by analyzing characteristics of hot water supply usage in target facilities and considering installation charge in accordance with heat collection, facility efficiency and scale of the Solar hot water system, economic feasibility and time to value. If the distribution ratio of hot water heating load of the currently installed solar hot water system gets increased from minimum 10 percent to maximum 21 percent, we can expect that the time to value will be shortened from around 1 year to 3 years. Upon investigation on the extra generated water amount of the solar hot water system during summer season according to characteristics of hot water supply, if the amount of hot water supply in summer is lower than 80 percent of the amount in winter, it indicates that the extra water amount of the solar-powered hot water supply system is generated, as result of increased distribution ratio of solar domestic hot water. Whereas, if the amount of hot water supply in summer is similar as the amount in winter, the extra water amount of the solar-powered hot water supply system is not generated. Therefore, the amount of hot water supply in summer need to be minimized when the scale of the solar hot water supply system gets estimated. The result of analysis indicates that the solar-powered hot water supply system covers average 30L per day for one person from minimum 17L to maximum 47L in case of improving the scale of solar collectors, considering the demand share ratio of Optimum Hot Water Heating Load. Accordingly, changing the ratio of hot water amount, generated by currently installed solar-powered hot water supply systems, to 49 percent is more economically feasible and saving energy.

In the paper “Identifying Seismic Geoid Changes of the 2011 Tohoku-Oki Earthquake in the Medium-to-Short Wavelength Part”, on March 11, 2011 the Megathrust earthquake occurred at the subduction zone between the Pacific and North American tectonic plates. There was some coseismic mass redistribution as a result of the largest earthquakes and the hidden geophysical signals from the earthquake were investigated via a multiscale wavelet analysis. In the medium-to-short-wavelength part, the coseismic geoid decrease was detected at the northwestern part of the Japan Island in March 2011. With regard to the postseismic geoid recovery, changes at the eastern part of northern Honshu and the southern part of the Sanriku segment were predominant in August 2011. This study concluded that the geological relationship among these locations played a very important role in the Megathrust earthquake occurrence.

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**Editors of the August Issue on  
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