# Special Issue on Micro Energy Harvesting and Storing Technology

## Preface

Energy shortage and the influence of global warming attributed to the emission of greenhouse gases have become global issues. Renewable and clean energies are essential for reducing heavy reliance on mineral-based energy and remedying the threat of global warming to our environment. Moreover, wireless self-powered devices for operation in harsh environments have attracted more and more attention owing to global energy crises. Energy harvesting from ambient energy for the purpose of powering low-powered electronics has emerged during the last decade as an enabling technology for self-powered devices. With the rapid development of low-power-consuming electronics and the need to provide wireless solutions for powering numerous sensors, some micro energy harvesters of vibration, wind, solar, thermal, and fluid energies have been reported for realizing self-powered sensors and systems. However, the major challenge is the low output power and low energy conversion efficiency for micro energy harvesters. This special issue will focus on the state of the art of micro energy harvesting technologies, including the structural design, advanced materials, and some novel applications.

This special issue contains eight papers, including two papers on vibration energy harvesters, two papers on converter circuit design, one paper on piezoelectric material, one paper on RF energy, one paper on micro fabrication processes, and one paper on energy storage. The authors come from China, Iran, Saudi Arabia, and the USA. Each paper was subjected to a careful review process by at least two independent reviewers to ensure the quality of the published papers.

I thank Professor Kohji Mitsubayashi, an Associate Editor of this journal, for giving me this opportunity of organizing this special issue. I would like to take this opportunity to sincerely thank Ms. Misako Sakano of the Editorial Department of MYU K.K. for her great support and patience during the review and publication process of this special issue. I would also like to thank the reviewers who made this special issue possible.

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