# Special Issue on Magnetic Sensors and Applications

## Preface

Magnetic sensors are widely used in sensing devices and constitute a significant proportion of the sensor technologies used in many different fields. There are many types of magnetic sensors having a bulk (e.g., search coil and flux gate) or a thin film (e.g., AMR, TMR, MI, and Hall device) structure. This special issue aims to provide a comprehensive overview of magnetic sensor device technology and its extensive applications in a variety of fields. Search coils detect magnetic fluxes and are used for high-frequency magnetic signal detection. Two papers in this special issue concern nondestructive testing applications from low frequencies to high frequencies. Thin-film magnetic sensors that detect the magnetic flux intensity are used in both digital and analog measurement devices. The development of thin-film magnetic sensors depends on the advances in materials, device structures, and readout circuits for creating convenient, high-performance devices. One paper in this special issue concerns the fundamental magnetic response mechanism of thin-film Ni wires. These papers in the special issue may be attractive to not only magnetic sensor specialists, but also various sensor users. I would like to thank all the authors, reviewers, and editorial staff. I hope that this special issue will generate interest in magnetic sensors and their applications and make the field ever more attractive.

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