Special Issue on Cyber-physical Applications

Preface

Typical cyber-physical systems (CPS) are referred to as engineered systems that integrate strong linkage between the computational and physical realms. Such a system acquires data from multiple sensors and requires the use of various materials. A large complex system needs a well-organized set of sensors to enable effective monitoring, better alignment, and real-time coordination.

This special issue of *Sensors and Materials* (S&M) emphasizes the theme of cyber-physical applications. Half the contributed papers were selected from ICSEC 2017, The 21st International Computer Science and Engineering Conference (November 15–18, 2017, Bangkok, Thailand). The invited papers were upgraded and improved to ensure originality and quality. The rest were submitted by researchers working in related CPS fields. Purposely, the Editorial Department of S&M and I tried to highlight the current practice and the state of research in sensors and materials related to CPSs in Thailand. Although these papers by no means completely demonstrate the overall actual current research status of the country, they amply reflect the beginning phase of cooperation among research agencies, private companies, and universities in Thailand. Three contributions from South Korea, China, and Myanmar provide a look into the research activities and research status in these geographical areas.

This special issue has 11 papers categorized into basic measurement, wireless sensor network, and applications. The first four papers are related to the basic measurement of sensors and materials. In particular, the order of these papers is arranged in the fundamental electrical engineering fashion, which traditionally begins with impedance and moves on to three papers on more complicated sensing materials. The next group of three papers describes networking layers. The final group of four papers gives examples of application aspects.

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