

Editorial

Wireless Sensor Networks for Structural Health Monitoring

Yujin Lim,¹ Gianluigi Ferrari,² Hideyuki Takahashi,³ and Màrius Montón⁴

¹*Department of Information Media, University of Suwon, Hwaseong 445-743, Republic of Korea*

²*Department of Information Engineering, University of Parma, 43121 Parma, Italy*

³*Research Institute of Electrical Communication, Tohoku University, Sendai 980-8577, Japan*

⁴*Innovation Unit, WorldSensing, 08013 Barcelona, Spain*

Correspondence should be addressed to Yujin Lim; yujin@suwon.ac.kr

Received 4 June 2015; Accepted 8 June 2015

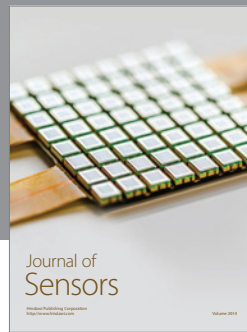
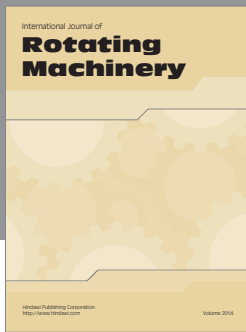
Copyright © 2015 Yujin Lim et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Structural health monitoring is an innovative method of monitoring structural safety, integrity, and performance without otherwise affecting the structure itself. Structural health monitoring utilizes Wireless Sensor Networks (WSNs) to detect the presence, location, severity, and consequence of damage. In many monitoring allocations, the conventional usages of WSNs are cases with low data rate, small data size, low duty cycle, and low power consumption. However, structural health monitoring requires high data rate, large data size, and a relatively high duty cycle. The scope of this special issue is in line with recent WSN for structural health monitoring.

For the current issue, we are pleased to introduce a collection of papers covering a range of topics as follows: (i) design of a road scale system in wireless vehicle weight measurement system, (ii) design of a routing function in WSNs to obtain a stable routing path and prolong lifetime, (iii) design of a method to collect information about the behavior and position of event in the monitoring environment, (iv) design of an emergency adaptive communication protocol to treat the data packet in a discriminatory manner, (v) design of a monitoring system for the safety of building structure by using the semantic and the data fusion technologies, and (vi) design of a sensing data acquisition scheme for airborne clustering WSNs.

As always, we appreciate the high quality submissions from authors and the support of the community of reviewers.

*Yujin Lim
Gianluigi Ferrari
Hideyuki Takahashi
Màrius Montón*



Hindawi

Submit your manuscripts at
<http://www.hindawi.com>

