Special Issue on "Multi-disciplinary issues in Structural Health Monitoring"

Preface

The three Guest Editors of this special issue shared the opportunity of a four-year process of harmonization and homogenization between senior scientists, post-docs and PhD students with civil and electrical engineering backgrounds in the area of wireless sensor networks, sensor signal processing, non-destructive evaluation and smart proactive management.

Structural Health Monitoring has many open issues that need to be addressed through a multidisciplinary research approach. An attempt to address some of these issues is presented through the contributions to this special issue, namely:

- a) Wireless data transmission using power-efficient techniques;
- b) Multi-objective optimization strategies for sensor placement;
- c) Evolution strategies for the output-error state-space identification problem of vibrating structures;

The contribution by the different authors were formed through the discussions held at the periodical workshops organized during the SmartEN Marie Curie ITN program (http://www.smarten-itn.eu/, Grant No. 238726) funded by the European Commission under FP7. The referees monitoring the review process gave their full attention in guarantying the quality and the suitable editorial aspect of the manuscripts. The initial ideas of the authors with different scientific backgrounds, coming from different European institutions and private companies within SmartEN, matured into valuable scientific outputs for the research community which provide to this collection of papers a broader meaning than just a simple publication of results.

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