signals

an Open Access Journal by MDPI

Tracked for Impact Factor

CITESCORE 3.2

Health Monitoring of Cement-Based Structures/Materials: Signal Processing and Artificial Intelligence Techniques

Guest Editors:

Dr. Gloria Cosoli
Department of Industrial Engineering and Mathematical Sciences, Università Politecnica delle Marche, v. Brecce Bianche 12, 60131 Ancona, Italy

Dr. Paolo Chiariotti
Department of Industrial Engineering and Mathematical Sciences (DIISM), Università Politecnica delle Marche, 60131 Ancona, Italy

Dr. Alessandra Mobili
Department of Materials, Environmental Sciences and Urban Planning SIMAU, Università Politecnica delle Marche, 60131 Ancona, Italy

Deadline for manuscript submissions:
closed (31 January 2024)

Message from the Guest Editors

Dear colleagues,

The costs for repairing and maintaining cement-based structures currently represent a significant proportion of the gross national product in developed countries. Monitoring the health status of these structures is of utmost importance in order to plan timely management interventions and avoid the eventual failure of the structure itself. Many different measurement techniques can be adopted to monitor the health status of cement-based structures, including: electrical impedance measurements (to detect the ingress of contaminants, monitor the curing period, detect strain and crack formation, identify corrosion processes, sense temperature changes, etc.), computer vision techniques (e.g., to detect cracks or surface defects), ultrasound methods and/or thermal imaging (e.g., to evaluate the moisture content and the presence of delamination phenomena), and strain gauges (widely used in structural health monitoring (SHM) to monitor loads and related strain). In addition, various sensors can be combined to obtain more accurate results (sensor fusion)...

signals

an Open Access Journal by MDPI

Tracked for Impact Factor

CITESCORE 3.2

Editor-in-Chief

Prof. Dr. Santiago Marco
1. Department of Electronics and Biomedical Engineering, University of Barcelona, Marti I Franqués 1, 08028 Barcelona, Spain
2. Signal and Information Processing in Sensor Systems, Institute for Bioengineering of Catalonia, The Barcelona Institute of Science and Technology, Baldiri Rexac 10-12, 08028 Barcelona, Spain

Message from the Editor-in-Chief

Our primary goal is to encourage scientists and engineers to publish their theoretical results and developed methods in as much detail as possible. There is no limit to the maximum length of papers. Whenever possible, authors are encouraged to provide relevant data and developed code so that the results can be reproduced. Our goal is to provide a platform for scientists and engineers to share new approaches to signal processing in various application domains.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.
High Visibility: indexed within Scopus, ESCI (Web of Science), Inspec, and other databases.
Rapid Publication: manuscripts are peer-reviewed and a first decision is provided to authors approximately 35.1 days after submission; acceptance to publication is undertaken in 6.8 days (median values for papers published in this journal in the second half of 2023).

Contact Us

Signals Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/signals
signals@mdpi.com
𝕏@Signals_MDPI