



*Special Issue Reprint*

## **Innovative Methods and Materials in Structural Health Monitoring of Civil Infrastructures**

[www.mdpi.com/books/reprint/3939](http://www.mdpi.com/books/reprint/3939)

Edited by  
Raffaele Zinno  
Serena Artese

ISBN 978-3-0365-0754-5 (Hardback)  
ISBN 978-3-0365-0755-2 (PDF)



In the past, when elements in structures were composed of perishable materials, such as wood, the maintenance of houses, bridges, etc., was considered of vital importance for their safe use and to preserve their efficiency. With the advent of materials such as reinforced concrete and steel, given their relatively long useful life, periodic and constant maintenance has often been considered a secondary concern. When it was realized that even for structures fabricated with these materials that the useful life has an end and that it was being approached, planning maintenance became an important and non-negligible aspect. Thus, the concept of structural health monitoring (SHM) was introduced, designed, and implemented as a multidisciplinary method. Computational mechanics, static and dynamic analysis of structures, electronics, sensors, and, recently, the Internet of Things (IoT) and artificial intelligence (AI) are required, but it is also important to consider new materials, especially those with intrinsic self-diagnosis characteristics, and to use measurement and survey methods typical of modern geomatics, such as satellite surveys and highly sophisticated laser tools.

MDPI Books offers quality open access book publishing to promote the exchange of ideas and knowledge in a globalized world. MDPI Books encompasses all the benefits of open access – high availability and visibility, as well as wide and rapid dissemination. With MDPI Books, you can complement the digital version of your work with a high quality printed counterpart.



### **Open Access**

Your scholarly work is accessible worldwide without any restrictions. All authors retain the copyright for their work distributed under the terms of the Creative Commons Attribution License.



### **Author Focus**

Authors and editors profit from MDPI's over two decades of experience in open access publishing, our customized personal support throughout the entire publication process, and competitive processing charges as well as unique contributor discounts on book purchases.



### **High Quality & Rapid Publication**

MDPI ensures a thorough review for all published items and provides a fast publication procedure. State-of-the-art research and time-sensitive topics are released with a minimum amount of delay.



### **High Visibility**

Due to our global network and well-known channel partners, we ensure maximum visibility and broad dissemination. Title information of books is sent to international indexing databases and archives, such as the Directory of Open Access Books (DOAB), and the Verzeichnis Lieferbarer Bücher (VLB).



### **Print on Demand and Multiple Formats**

MDPI Books are available for purchase and to read online at any time. Our print-on-demand service offers a sustainable, cost-effective and fast way to publish MDPI Books printed versions.