



Smart Non-destructive Testing and Inspection of Engineering Materials

Guest Editors:

**Dr. Sasan Sattarpanah
Karganroudi**

Technological Institute of
Industrial Maintenance, Cégep de
Sept-Îles, Sept-Îles, QC, Canada

sasan.karganroudi@itmi.ca

Dr. Hussein Ibrahim

Institut Technologique de
Maintenance Industrielle (ITMI),
Cégep de Sept-Îles, Sept-Îles, QC
G4R 5B7, Canada

hussein.ibrahim@itmi.ca

Deadline for manuscript
submissions:

20 November 2022

Message from the Guest Editors

Dear Colleagues,

Non-destructive testing (NDT) methods are presented to evaluate material properties and components as well as the structural integrity of engineering materials. NDT encompasses inspection techniques that are utilized to detect, characterize, and measure the presence of mechanical damages and identify their mechanisms. NDT aims to increase the reliability of engineering components affordably without damaging the inspected parts. New inspection methods apply artificial intelligence using various sensors' data to evaluate defects and provide a rapid damage assessment.

This Special Issue will compile recent developments in the field of smart NDT and inspection methods. The articles presented in this Special Issue will cover various topics, ranging from, but not limited to, the optimization of NDT and inspection methods, characterization of engineering materials using smart NDT methods, the functionalization of smart inspection methods, 3D geometrical inspection of materials, smart metallurgical inspection methods, among others. Topics are open to engineering materials and characterization for the development of applications.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Maryam Tabrizian

James McGill Professor,
Professor of Biomedical
Engineering, Professor of
Bioengineering, Professor of
Experimental Surgery,
Department of Biomedical
Engineering, Faculty of
Medicine/Faculty of Dentistry,
Duff Medical Science Building,
3775 University Street, Montreal,
QC H3A 2B4, Canada

Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty comprehensive topics: biomaterials, energy materials, advanced composites, structure analysis and characterization, porous materials, manufacturing processes and systems, advanced nanomaterials, smart materials, thin films and interfaces, catalytic materials and carbon materials, materials chemistry, materials physics, optics and photonics, corrosion and materials degradation, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics, metals and alloys, general. The distinguished and dedicated editorial board and our strict peer-review process ensure the highest degree of scientific rigor and review of all published articles. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

Author Benefits

Open Access:— free for readers, with [article processing charges \(APC\)](#) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Ei Compindex, CaPlus / SciFinder, Inspec, Astrophysics Data System, and many other databases.

Journal Rank: JCR - Q1 (*Metallurgy & Metallurgical Engineering*) / CiteScore - Q2 (*Condensed Matter Physics*)

Contact Us

Materials
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
Fax: +41 61 302 89 18
www.mdpi.com

mdpi.com/journal/materials
materials@mdpi.com
[@Materials_Mdipi](https://twitter.com/Materials_Mdipi)