



Advancements in Ultrasonic NDT: From Pulse-Echo to Integrating AI for Smart Control

Special Issue editors: Lynda Chehami (guest editor) and Nico F. Declercq (associate editor)

We are pleased to invite you to submit articles for the Journal of Acta Acustica. All articles published in this journal will be provided with digital object identifier (DOI) issued by Crossref.

This special issue targets methods and diverse fields of application of non-destructive testing using ultrasound. The outcome of using guided waves, pulse-echo, imaging, SHM and instrumented structures, and autonomous sensor networks is interesting for highlighting the latest advances and developments in these approaches. All types of materials (metal, composite, fluid) taken alone or assembled, and their fields of application may be concerned, as well as new materials fulfilling specific safety requirements (in aeronautics, railway, petrochemicals, biomedical, etc.) and structures resulting from additive manufacturing. Creating a special issue is motivated by the rapid developments in sensor technologies and data analytics, leading to ever-advancing systems for assessing and monitoring structures. Conventional and advanced sensor technologies are welcome, too. For example, work is of interest concerning developing new sensors and methods for new materials or structures, developing new characterization and imaging methods in anisotropic materials, and proposing new analysis methods such as inverse methods, neural networks, and artificial intelligence. Meaningful overview papers in this research area may equally be proposed.

We sincerely invite you to contribute to this Special Issue by submitting your articles to the Special Issue via the submission system of Acta Acustica at: <https://www.editorialmanager.com/aacus/> before April 14 2024, and choose the category "Special Issue: Advancements in Ultrasonic NDT: From Pulse-Echo to Integrating AI for Smart Control".

- Article submission deadline: April 14, 2024
- First round of review: 30 June 2024
- First papers published: 30 October 2024

Guidelines for submitting an extended conference paper to Acta Acustica: The submission needs to be significantly extended from the original conference paper, with additional material included and an extended literature review, in order to reach typically 8-12 pages long (final typeset length). The extended conference paper needs to be a strong research article with a broader scope and interest than the conference presentation. Authors should indicate that their contribution is an improvement, or extension of their previously published conference paper. The conference paper should be cited in the reference list and throughout the research article. The normal peer review process of the journal will apply.