



Structural Health Monitoring and Nondestructive Evaluation with Ultrasonic Guided Waves

Guest Editor:

Prof. Dr. Clifford Lissenden

Department of Engineering
Science and Mechanics,
Pennsylvania State University,
University Park, PA 16802, USA

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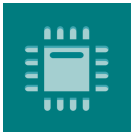
Message from the Guest Editor

Dear Colleagues,

This Special Issue will focus on original research involving the use of sensors for structural health monitoring and nondestructive evaluation with ultrasonic guided waves. Many types of waveguides exist including plates, pipes, laminates, surfaces, rail, and human bone. Structural health monitoring may employ on- or off-board modalities with stay-in-place sensory systems aimed at assessing structural integrity. Likewise, nondestructive evaluation may entail quality assurance testing of new parts or periodic inspection of parts already in service with the aim of identifying defects or damage. This Special Issue will encompass aspects of sensors on topics including, but not limited to, actuation and reception methods, signal processing, imaging, defect detection and classification, as well as the modeling and simulation of sensitivity to defects and material degradation. Keywords include but are not limited to:

- Ultrasonic guided waves
- Structural health monitoring
- Nondestructive evaluation
- Structural integrity
- Harsh environments
- Phased array transducers
- Noncontact transducers
- Signal processing
- Machine learning
- Corrosion
- Fatigue cracks
- Densities
- Delaminations





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Sensors Editorial Office
MDPI, Grosspeteranlage 5
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