**2023 IWSHM Special Session Request Form**

Special Session Title**: “Guided Waves in Structures for SHM”**

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**Keywords: sensors, sensing, SHM, damage detection, signal processing**

**Scope of Session**

There is an excellent potential for model-based approaches in which guided waves are utilised for damage detection, localisation and size estimation. The session covers the main disciplines based on guided wave propagation in both isotropic and anisotropic materials. Authors are encouraged to submit papers that include the elastic waves propagation phenomenon, which spans a wide range from linear and nonlinear, 1D, 2D and 3D, time or frequency, and experimental and numerical approaches in complementary investigations of structures. The proposed novel techniques should allow for efficiently performing both local and global SHM technologies. The above investigations are intended to develop various strategies related to diagnostics (damage size estimation and damage type recognition) and prognostics. The promising combination of investigated techniques should lead to an innovative approach to ensure safe operation.