

# Structural Dynamics and Acoustic Systems Laboratory



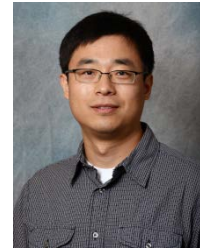
Prof. Peter Avitabile

- Modal analysis
- Analytical and experimental structural dynamics
- Analytical and experimental modal analysis
- Correlation and updating of structural dynamic models
- System modeling including impedance modeling,
- Linear/non-linear response analysis techniques



Prof. Murat Inalpolat

- Structural health monitoring
- Operational damage detection and identification
- Diagnostics and prognostics
- Machine learning and Bayesian inference
- Signal and Image processing
- Nonlinear dynamics and acoustics
- Rotating machinery dynamics and noise



Prof. Zhu Mao

- Structural health monitoring and non-destructive evaluation
- Uncertainty quantification
- Time series modeling and signal processing
- Surrogate modeling of systems
- Machine learning and Bayesian inference regarding SHM decision-makings
- Cyber-physical systems, haptics and human machine interaction



Prof. Christopher Niezrecki

- Structural health monitoring and non-destructive evaluation
- Modeling and control of vibrations and noise
- Smart structures and materials
- Sustainable energy
- Underwater acoustics
- Stereo-photogrammetric methods

*The Structural Dynamics and Acoustic Systems Laboratory (SDASL) focuses on research related to analytical and experimental problems in the areas of structural and acoustic systems. The main thrust of the SDASL is to develop, employ and improve techniques to solve these problems using analytical approaches that are verified through experimental techniques.*

