



Institute of Vibration, Shock & Noise

1. Description

The Institute of Vibration, Shock and Noise (IVSN) was founded in 1978. In 1995, it was expanded to the State Key Laboratory of Vibration, Shock and Noise. Researches conducted at the IVSN include vibration analysis and control, shock analysis and protection, acoustical noise, machinery health monitoring and fault diagnosis, M/NEMS dynamics, and smart materials, structures and systems. The IVSN's national and international reputation has won it acknowledgement and regular distinctions in these research fields. There are currently 16 professors, 8 associate professors and 5 assistant professors working in the institute. There are near 70 students for Ph.D. and 80 students for M. S. in the IVSN now.



2. Key Research Fields

- Vibration Analysis and Control
- Shock Analysis and Protection
- Acoustical Noise
- Inverse Problems in Vibration and Acoustics
- Machinery Health Monitoring and Fault Diagnosis
- Dynamics of Micro/Nano Electromechanical Systems
- Smart Materials, Structures and Systems

3. Instrumentation & Facilities

- Semi-anechoic chamber
- Anechoic chamber
- Underwater acoustic tube (high frequency)
- Underwater acoustic tube (middle frequency)
- Acoustic wind tunnel for compressors of gas turbines
- LDS electromagnetic shaker
- Vertical drop shocker
- Double wave shocker
- MTS test bench
- Electromagnetic shaker with an environmental chamber
- Hydraulic servo shaker
- LMS measurement analysis system
- BBM measurement analysis system
- PSV-500-3D scanning vibrometer

4. Website

<http://vsn.sjtu.edu.cn/en/>

5. Director

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