Mid-Frequency Vibration Isolation Using the Power Flow Approach

This self-paced DVD seminar examines vibration isolation techniques, focusing on the power flow approach as a practical tool for the solution. The simplest conventional technique, useful only under simplifying assumptions, locates the lowest natural frequency of the system above the lowest operational frequency.

Furthermore, many vibration problems are often encountered in the mid-frequency range, which is far higher than the operational speed and is closely linked to the noise generation in that frequency range. The concept of vibration isolation based on the power flow approach is presented in a similar manner.

Additional topics presented by KAIST faculty in this seminar include:

- Conventional vibration/force isolation in a single DOF system and problems associated with this technique
- Simplest source-path-receiver model
- Multi-dimensional vibration isolation systems
- Real-life applications to machine mounting system
- Relevant ISO standards; procedures for measurement and data processing

Prerequisites: Completion of ME7261 and ME7263 or permission of Prof. Raj Singh to waive the prerequisites.

Ohio State University’s Automotive NVH certificate includes international collaboration with the Korean Advanced Institute of Science and Technology (KAIST). For detailed information on CAR’s 3 automotive engineering certificates, visit our web site listed below. Overview videos of courses and seminars can be viewed on the web site.