



EDUCATIONAL TESTRIG

Intelligent Active Vibration Control Educational Testrig

DESCRIPTION

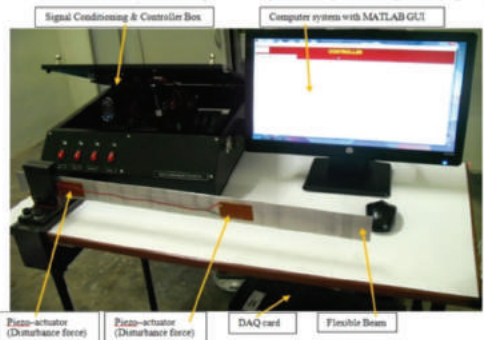
This product is a complete prototype of an educational vibration control rig using mechatronic design approach employing novel. It is a simple conventional feedback control. In addition, act as Artificial Intelligence (AI) algorithms for active vibration control of flexible structures. It covered a wide range of mechanical, electrical courses and laboratories including instrumentation, control, mechatronics, vibration and so on.

Needs

- A portable experimental rig with signal conditioning and controller box integrated with Matlab.
- Graphical User Interface (GUI).
- Able to stimulate and conduct experiments to study the behavior of the flexible structures and the performance of PID controller in active vibration suppression of the flexible structure system.
- The active vibration control method works by artificially generating sources that absorb the energy caused by the unwanted vibrations in order to suppress or reduce their effect on the overall system.
- Suitable for Higher Learning Institution Educational Rig.

Application

- Beneficial platform for educational purpose or for test and verification of algorithm.
- An Active Vibration Control (AVC) signal has been developed by generating an anti-force signal based on the conventional and intelligent methods.



Benefits

- Product can be switched to either in simulation mode only or experimental mode or both.
- Effective vibration reduction of flexible structures with various boundary conditions and complete with robust controller algorithms.
- Easily implemented in real-time and interactive graphical user interface.

Targeted Market

- Aircraft system.
- Automation system.
- Automotive industries.



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