



Shock and Vibration

Special Issue on

Experimental Shock and Vibration Analysis

CALL FOR PAPERS

The purpose of this special issue is a focus on the challenging innovation in various aspects related to shock and vibration measurement and their applications. This special issue gathers scientists coming from industry, public research organizations, and university laboratories, involved in the recent developments of experimental analysis of the structures by using dynamics approaches. This topic must be intended in a rather broad direction, concerning:

- ▶ Progress on experimental shock and vibratory analysis techniques
- ▶ Information that can be drawn from those analyses

The analysis of shock and vibration experiences is the basis necessary in order to calculate the modal parameters of a system, a structure or a mechanism, and the expected response to the given excitation (harmonic, random, shock, etc...). In this way it can be determined whether a particular system, structure, or mechanism will fulfill its intended function; in addition, the results of the dynamic loadings acting on a structure, such as the dynamic stresses, fatigue life, and noise levels, can be predicted. Hence, its usefulness can be maintained and maximized. The shock and vibration analyses are particularly today present in the various branches of industry, from aeronautics to car manufacturing, from machining and maintenance to civil engineering, to mention a few areas, which have made this special issue a true need.

Therefore, in the light of the above considerations, we invite investigators to contribute original research papers, as well as review papers for this special issue, whose aim is to become an international forum for researchers and practitioners to summarize the most recent advances, progresses, and ideas in the field of experimental shock and vibration analysis and its application.

Potential topics include, but are not limited to:

- ▶ Active control of vibrations
- ▶ Crashworthiness
- ▶ Data fusion and artificial intelligence
- ▶ Experimental and operational modal analysis
- ▶ Experimental/numerical combined approach
- ▶ Impact engineering, shock analysis, and control
- ▶ Maintenance, surveillance, and diagnosis
- ▶ Signal processing and vibration based condition monitoring of machines and structures
- ▶ Smart materials and structures for active and passive vibration control
- ▶ Sound and vibrations testing
- ▶ Structural dynamics

Authors can submit their manuscripts via the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/sv/eva/>.

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Manuscript Due

Friday, 20 February 2015

First Round of Reviews

Friday, 15 May 2015

Publication Date

Friday, 10 July 2015