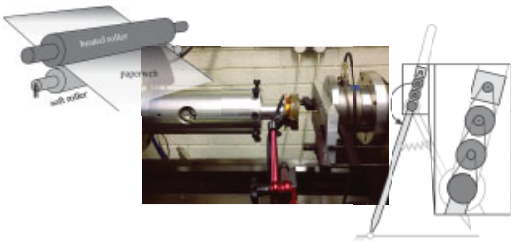
Special Issue
"ICoVIS 2013: Vibro-Impact Systems and Systems with Non-Smooth Interactions",

Guest Editors: Alexander Fidlin, Karlsruhe and Vladimir I. Babitsky, Loughborough, UK

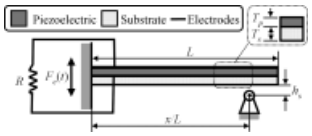


COVER PICTURE

For more information to these pictures see pages 905, 923, and 970 of this issue.

EDITORIAL

EDITOR'S CHOICE



This research work considers a more efficient vibro-impacting piezoelectric energy harvester (VIPEH) structure, which is intended both to prevent the device from excessive displacements as well as to increase its operational bandwidth in actual excitation conditions. Multi-physics finite element model of the VIPEH was developed in Comsol with the objective to analyze influence of stopper location on the mechanical and electrical characteristics of the piezoelectric transducer, followed by the experimental study of two device configurations. Numerical and experimental results revealed that stopper location influences the magnitude of generated voltage since, at certain stopper location points, higher vibration modes are excited during the impact.

ORIGINAL PAPERS

BOOK REVIEWS

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