Suggestion for a new design of the piezoresistive accelerometer

Abdelaziz Lakehal Related information

¹Department of Mechanical Engineering, Mohamed Chérif Messaadia University, P.O. Box 1553, Souk-Ahras, 41000, Algeria
, <u>Zine Ghemari Related information</u>
²Department of Electrical Engineering, University of M'sila, M'sila, Algeria

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Abstract

The piezoresistive accelerometer is an electronic device used to measure the vibration level of rotating machines; we can say that an accelerometer more precise and more sensitive is a more reliable sensor. In our paper, based on the improvement of some parameters of piezoresistive accelerometer for develop their accuracy and their sensitivity. This improvement comes from extracting a suitable mathematical model of the accelerometer; this model allows proposing a new design of piezoresistive accelerometer.

Keywords: <u>Piezoresistive accelerometer</u>, <u>measurement</u>, <u>damping rate</u>, <u>performance</u>

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