

Efficiency improvement of vibration-base piezoelectric energy harvesting device

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Summary

Vibration energy harvesting, which converts ambient vibration energy into electrical energy, has been an attractive energy scavenging technique to power wireless sensors or low power devices. Even though vibration energy harvesting has drawbacks which are relatively low harvested power and narrow bandwidth, vibration energy scavenging is one of the promising alternative power techniques in that MEMS techniques can be applied to microminiaturize the system. Therefore, many researches have been done to overcome these problems(Lee et al.2010). This paper presents improvement efficiency on piezoelectric vibration energy harvesting device to surmount issues of vibration energy harvesting. Numerical simulation and experimental test are done to validate the performance of the improved energy harvester.

Acknowledgement

This work is financially supported by Korea Minister of Ministry of Land, Transport and Maritime Affairs(MLTM) as "U-City Master and Doctor Course Grant Program."

References

Bo Mi LEE, In-Ho Kim, and Hyung-Jo Jung, "Efficiency of vibration-based energy harvesting device with geometric shapes", 36th proceedings of the Annual KSCE Conference, Oct.2010.

