The Office of Technology Management

UNIVERSITY OF TEXAS ARLINGTON

Tech ID: UTA 06-26

Piezoelectric Energy Harvester

INVENTORS: Shashank Priya & Robert D. Myers

TECHNOLOGY NEED

Battery powered mobile devices are being widely used in various applications. However, such devices must always be charged before use. A method which can replenish the battery as they are being used will enhance the time period between the charging operations. Mechanical energy, in the form of vibrations have potential to be a good source of energy for mobile devices. However, there is no existing technology that can be used to capture mechanical energy in the mobile devices.

INVENTION DESCRIPTION/SOLUTION

Researchers at UT Arlington have developed a mechanism to enhance the life of the battery in mobile devices. Their research has demonstrated a prototype energy harvester that can be inserted inside the mobile devices which can generate electric energy from the user handling. It can also store and charge the phone battery. The invention allows capturing the energy from any random motion using a piezoelectric converter. The assembly of the invention is light and small size to fit inside the mobile device.

APPLICATIONS

- Cell Phone Companies
- Portable Electronics
- Medical Devices

KEY BENEFITS

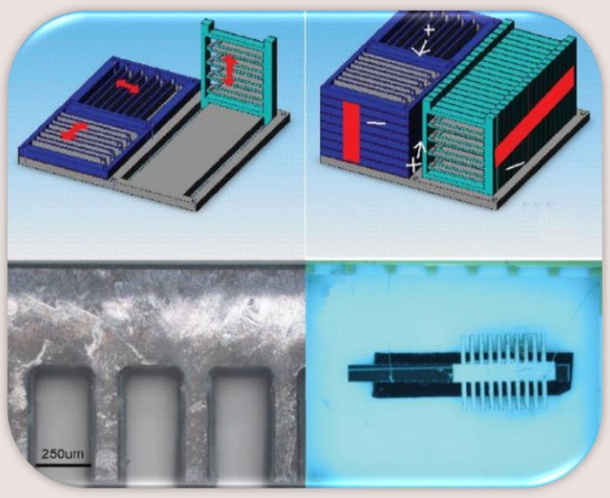
- Light weight
- Small size
- Mechanical energy captured with high efficiency

STAGE OF DEVELOPMENT

Prototyped

INTELLECTUAL PROPERTY STATUS

Patent granted.
US7649305 B2



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