

Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology



Power Generation from Spiral Torsion Spring During Opening and Closing of Doors

Seeking parties interested in licensing and commercializing of technology.

Applications:

- Generation of power by a non-conventional method from Spiral torsion spring.
- The power generated using Spiral torsion spring method can be used for charging the battery which can be used as a power source in various applications.

Technology Description:

The invention relates to a power generating device using a spiral torsion spring comprising a gear train with plurality of gears, wherein a gear with sufficient torque is meshed with a spur gear fixed on the shaft of the generator. The spiral spring stores mechanical energy based on ratchet and pawl mechanism when it is twisted using a rope-pulley arrangement. The amount of energy released is proportional to the amount to which it is twisted. Generally, the energy stored by twisting the spring in one direction is converted into rotary motion of the coupled shaft in the opposite direction. This shaft is connected to an electric generator. The power obtained from the generator is used to charge a battery which can be used as a power source in various applications.

Advantages of the Technology:

- Generation of power using various unused power sources such like Door openings, automobile steering, reciprocating worktable and many more applications.
- Simple and economical method of power generation

Development Status:

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Technology Transfer from the institute:

For more details

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