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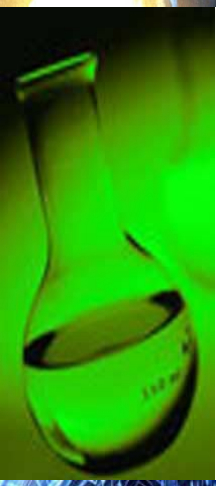

Wireless Power Transmission - A Next Generation Power Transmission System

Seeking parties interested in licensing and commercializing of technology.

Applications:

- Wireless charging technology for electronic devices such as laptops and mobile phones.
- Power transmission in hazardous area where transmission through wires is not possible.

Technology Description:

The system consists of two copper coils, a transmitting coil attached to the power source and a receiving coil, both separated at a distance from each other. The transmitting coil (The primary coil), instead of irradiating the environment with electromagnetic waves, fills the space around it with a non-radiative magnetic field oscillating at MHz frequencies. A continuously varying current passing through the primary coil produces the magnetic field in it and this varying magnetic field interacts with the secondary coil and produces an induced current in the secondary coil, this is also called magnetic resonance between two coils operating at a same resonance frequency. An oscillator is used for generation of a particular voltage signal at which we can get the resonant frequency where the mutual induction will be maximum. The amplifiers are used for the amplification of the voltage signal so that a high power should be fed to the primary coil acting as transmitting antenna. Since the devices like cellular phones and laptops use direct current for the charging purpose, the rectification is done at the load end using a bridge rectifier.

Advantages of the Technology:

- The invention is an efficient and cheap transmission system.
- Reduces the society's dependence on batteries which are currently heavy and expensive by the way enabling direct wireless power connection.

Development Status:

Patent Number:	403592
Application Number:	4397/CHE/2015
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Inventors:

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Technology Transfer from the institute: For more details