

Pervasive RF Energy Harvesting System Using Magnetic Coupled Resonances (NYP ID: 0404)

Technology

A new method of winding the received-side antenna coil to increase its Q-factor (resonance) for a range extension of Wireless Power Transfer (WPT) between the transmitter and receiver

Type of IP and status

Know-how.

Overview

Our focus is on increasing the Q-factor so that maximum possible energy can be transmitted from transmitter to receiver effectively. Generally, batteries are required to be replaced every year and the replacement requires significant effort. The objective of this IP is to eliminate total dependency on battery.



Potential Applications

We have demonstrated the application of WPT in charging up the battery of Wireless Sensor Network (low power) and drone (fast charging) for the following applications:

- Environment monitoring
- Livestock health monitoring
- Security and surveillance

The application is very wide– any battery electronics device can use this method

Advantages

• A mean for electronic devices to obtain power wirelessly without any physical connectivity to the WSN

Technology & Licensing Enquiries

Ms Diana Sutanto Tel: +65 6550 0344 Email: <u>diana_sutanto@nyp.edu.sg</u> Mr Joel Tan Tel: +65 6550 0146 Email: joel tan@nyp.edu.sg

Mr Johnathan Lim Tel: +65 6550 1972 Email: johnathan lim@nyp.edu.sg