2.45 GHz Wearable Power Harvester on Textiles

Design an RF Power Harvesting System Capable of Powering an LCD Temperature Sensor or a Red LED using Wi-Fi Power

- Commercial Wi-Fi Router
- Rectenna Array
- Rectifying circuit
- 2.45 GHz-Receiving Antenna
- CAD model of the receiver and rectifier
- DC-Voltage (rectified voltage)

Textile Power Harvester Fabrication & Measurement Setup
Foldable and Deployable Textile Phased Arrays

Deployable 4:1 30-160MHz Monopole CubeSat Antenna

Accordion style Textile Origami Dipole Phased Arrays
Wearable/Foldable Antennas with Embedded Electronics

- Future radiators will be integrated with electronic transceivers with direct ADC/DAC chips
- Achieves conformity, durability and low profile
Circuit Embedded Textile Electronics

- Goal is to enable communications, IoT and sensing without using handhelds or discrete accessories.

Is it possible to have:
- circuits and ICs as part of clothing
- with wireless charging
Journal Publications:


