Design of Rectennas (Rectifier Antennas) for Wireless Energy Harvesting.

Scope of work is to utilize energy available in the electromagnetic spectrum (TV, Cellular base stations, Wireless networks) through a wide band antenna. RF energy captured by the antenna then has to be converted to DC with an efficient rectifier circuit using high speed Schottky diodes.

Tasks:
- Investigate broad band antennas.
- Simulation of antenna in (CST, HFSS).
- Design matching network for the antenna.
- Literature survey on possible rectification techniques.
- Find suitable RF Schottky diodes for the application.
- Simulations in ADS for the rectification circuit.
- Prototype of circuit and antenna.
- Measurements.

Skills: CST, ADS

Example of a wide band antenna in CST.

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