

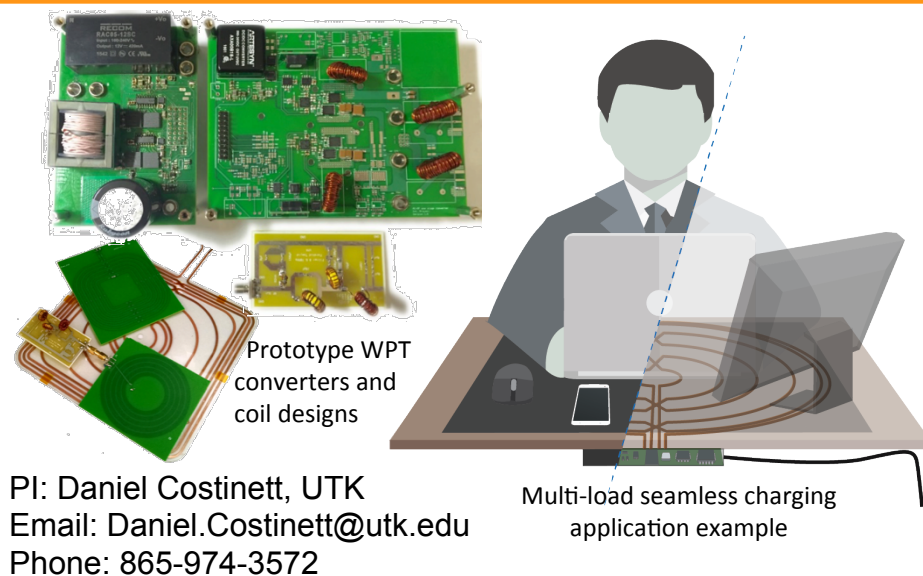
Project Title: GaN-based High Efficiency Multi-Load Wireless Power Supply

Objectives: Demonstrate compact GaN-based 100 W wireless multi-receiver charger with high efficiency

Major Milestones: Efficiency > 90% and power density > 25 W/in³

Significant Equipment Acquisition: N/A

Deliverables: Complete multi-load WPT demonstration system



WBG Technology Impact

The superior characteristics of WBG devices allow an increase in efficiency of over 25% in single-receiver wireless power transfer.

Without recent advances in GaN power transistors, the topologies and functional integration used to achieve high efficiency and high power density resonant wireless power transfer would not be feasible.

Products from this project will be reviewed for commercialization in 2019.

Additional impacts

Technologies developed will progress from TRL 4 to TRL 7 during the performance period, making them viable for commercialization.

By opening a new market segment for consumer electronics, the advances in WPT system design in this work will contribute to WBG market volume, enabling cascaded benefits in the cost of WBG devices and increased consumer awareness of the benefits of WBG technologies.