



Calhoun: The NPS Institutional Archive
DSpace Repository

NPS Scholarship

Publications

2016

Short Range Wireless Power Transfer (WPT) for UAV/UAS Battery Charging--Phase III

Jenn, Dave

Monterey, California: Naval Postgraduate School

<https://hdl.handle.net/10945/57031>

This publication is a work of the U.S. Government as defined in Title 17, United States Code, Section 101. Copyright protection is not available for this work in the United States.

Downloaded from NPS Archive: Calhoun



Calhoun is the Naval Postgraduate School's public access digital repository for research materials and institutional publications created by the NPS community. Calhoun is named for Professor of Mathematics Guy K. Calhoun, NPS's first appointed -- and published -- scholarly author.

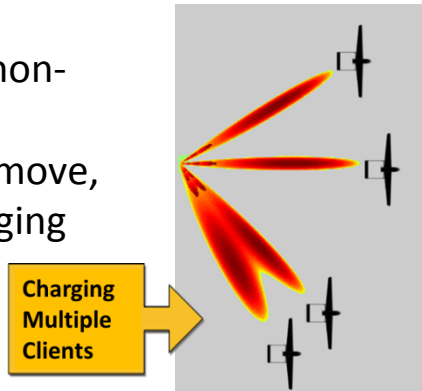
Dudley Knox Library / Naval Postgraduate School
411 Dyer Road / 1 University Circle
Monterey, California USA 93943

<http://www.nps.edu/library>

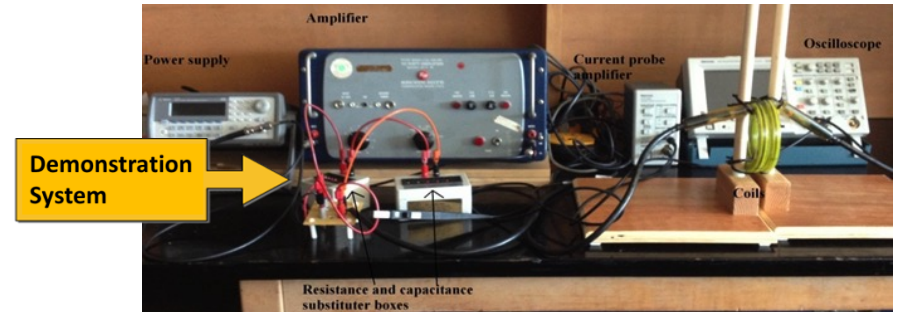
Short Range Wireless Power Transfer (WPT) for UAV/UAS Battery Charging – Phase III

Objective: Demonstration of inductive and radiative wireless power transfer for battery charging.

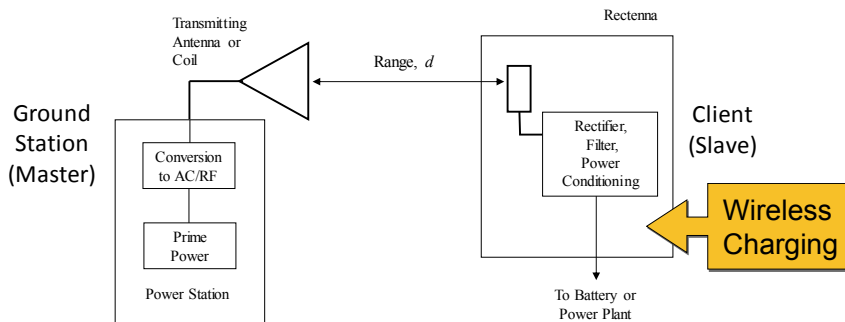
Potential advantages: non-contact, variety of environments, on-the-move, and simultaneous charging of multiple clients.



Proposed work: Optimization of existing battery charging demonstration system using COTS hardware. New near-field smart antenna concepts investigated.



Approach: Efficient systems designed and simulated for radiative and inductive concepts. Hardware developed and tested.



PI: Prof. David Jenn, EC, jenn@nps.edu

Funding requested: \$45,000 (faculty/staff labor, hardware purchases, software licenses, travel)

Schedule: Period of performance
1 January 2016 to 31 December 2016

Student involvement: 2 MSEE thesis students

Collaboration: Informally working with SPAWAR