

PROJECT OVERVIEW REPORT

1. UTC Identifying Number
69A3551847102
2. Center Identifying Number
CAIT-UTC-REG30
3. Project Title
Durable and Electrified Pavement for Dynamic Wireless Charging of Electric Vehicles
4. Principal Investigator & Contact Information
Hao Wang, Ph.D.
Associate Professor
Rutgers University
500 Bartholomew Road
Piscataway, NJ 08854
5. Rutgers/CAIT Project Manager
Patrick Szary, Ph.D.
6. Customer Principal
Edward Liu, Principal Engineer
New Jersey Department of Transportation
Trenton, NJ 08625
7. Project Description
The electrified pavement in the charging lane provides in-motion power supply for electric vehicles. However, the service life of pavement may be negatively impacted due to the complicated structure design for achieving the function of dynamic wireless charging. This primary goal of this research is to develop new design of electrified pavement that have durable performance while providing efficient charging functionality.
8. Implementation of Research Outcomes (or why not implemented)
The intended outcome of the project is to provide an innovative solution on wireless charging techniques integrated in existing roadway pavements. The research results will contribute to the development of electrified roadway that provide energy source for electric vehicles.
9. Impacts/Benefits of Implementation (actual, not anticipated)
To Be Determined

10. Dates and Budget

Start date: 12/1/2019
End date: 11/30/2020
UTC (CAIT) Dollars: \$80,000
Cost Sharing: \$0
Total Dollars: \$80,000

11. Keywords

Electrified road, wireless charging, electric vehicle, smart roadway

12. Web Links (Reports and Project Website)

<https://cait.rutgers.edu/research/durable-and-electrified-pavement-for-dynamic-wireless-charging-of-electric-vehicles/>