

FACULTY MENTOR Mi, Chris

PROJECT TITLE A Wireless Charging System for Electric Vehicles

PROJECT DESCRIPTION

The DOE GATE center for electric drive transportation at SDSU focuses on developing cutting-edge wireless chargers and battery management systems for electric vehicles (EVs). Wireless charging provides a convenient, safe, and reliable charging option for EV customers. This project aims to design and build a wireless charging system for EVs. A student will be supervised to study the basic theory of a wireless charging system, three-dimensional finite element analysis tool ANSYS MAXWELL on coil design, and circuit parameter determination both by calculation and LTSPICE simulation. Furthermore, the student will get hands-on experience on building a wireless charging system and conduct kW-level experiment.

INTERNS NEEDED 1 MS Student OR 1 Undergrad Student

PREREQUISITES

Candidates are expected to have basic knowledge of circuit theory, power electronics converters, and electromagnetic field theory, and have experience with C.

