



## **FACULTY MENTOR**

Mi, Chris

## **PROJECT TITLE**

Wireless Charging of Multiple Mobile Devices Over a Large Distance

## **PROJECT DESCRIPTION**

This project will design a wireless charging system that can charge multiple mobile devices at the same time in all directions at a distance of at least 1.5 meters. A transmitter can be installed in the ceiling of the room, or under a conference table. The phone can be charged when placed in both horizontal and vertical directions. The power is at 5 W for each device and the system efficiency shall reach at least 20% when a minimum of five devices are charged at the same time. The work will involve the design of the transmitter, the power amplifier working at 6-13 MHz, and the receiver attached to a phone.

## **INTERNS NEEDED**

1 MS and 1 BS Student

## **PREREQUISITES**

Taken power electronics and magnetics courses.