



**CSE/EEE/ETE-499**

**Senior Design Project Report (Final)**

# **Wireless Power Transmission (WPT)**

**Submitted By:**

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**Faculty Advisor:**

Dr. Shahnewaz Siddique

Assistant Professor, North-South University, Dhaka.

## Agreement Form

It's an honor and privilege to hand over our senior design project report on “**Wireless Power Transmission**”. This report is prepared as a requirement of the CSE/EEE/ETE 499A & CSE/EEE/ETE 499B which is a two semester long senior design course. This course involves multidisciplinary teams of students who built and tested custom designed systems, components or engineering processes. It is our earnest request to you to accept this report as a partial fulfillment of Bachelor of Science degree under Electrical and Computer Engineering Department of North South University.

### Declared By:

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### Approved By:

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### **Supervisor**

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Assistant Professor, Department of Electrical and Computer Engineering

North South University, Dhaka, Bangladesh

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Dr. Mohammad Rezaul Bari

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## **Abstract**

The purpose of this design project is to gather a vast idea of knowledge about transfer power wirelessly and subsequently discuss about its various applications as well as different techniques of transferring power. This report consists of the research, planning and execution of our findings to build a prototype that uses wireless power transmission (WPT) mechanism. Wireless power transfer or electromagnetic power transfer is the transmission of electrical energy without wires as a physical link. In a wireless power transmission system, a transmitter device, driven by electric power from a power source, generates a time-varying electromagnetic field, which transmits power across space to a receiver device, which extracts power from the field and supplies it to an electrical load. The technology of wireless power transmission can eliminate the use of the wires and batteries, thus increasing the mobility, convenience, and safety of an electronic device for all users. Wireless power transfer is useful to power electrical devices where interconnecting wires are inconvenient, hazardous, or are not possible. The main aim of our project is to transfer power without using any wires by inducting magnetic flux. We hope to probe into this revolutionary technology and bring light to new findings in the process. The main focus of this project is to find and establish a satisfactory connection between wireless power transmission technology and the desired efficiency as well as the future prospects of this technology.