Department of Electrical and Computer Engineering
North South University

Senior Design Project

Design and Investigation of Energy Harvesting System from Noise.

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Faculty Advisor

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Professor

ECE Department

Spring, 2021

DECLARATION

This is to certify that this Project is our original work. No part of this work has been submitted elsewhere partially or fully for the award of any other degree or diploma. Any material reproduced in this project has been properly acknowledged.

Students' name & Signature

1. **Junayed Hossian**

2. **Nazmus Sadad Ovi**

APPROVAL

The capstone project entitled "**DESIGN and INVESTIGATION of ENERGY HARVESTING SYSTEM from NOISE**" by **Junayed Hossain (ID#1612680643)** and **Nazmus Sadad Ovi (ID #1331388043)** is approved in partial fulfillment of the requirement of the Degree of Bachelor of Science in Computer Science and Engineering on May and has been accepted as satisfactory.

Supervisor's Signature

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Department Chair's Signature

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ACKNOWLEDGMENT

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The capstone project program is very helpful to bridge the gap between the theoretical knowledge and real-life experience as part of Bachelor of Science (BSc) program. This report has been designed to have a practical experience through the theoretical understanding.

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ABSTRACT

Human activity and various activities are needed to live in today's world, and all of these activities create different types of sound. A noise is a noisy or irritating sound that causes disruption, such as street traffic noises, construction sounds, airports, and so on. This paper looks at a less well-known renewable energy source. Using a suitable transducer, noise (sound) energy can be transformed into a viable source of electric power. This can be accomplished by using a transducer to transform noise-induced vibrations into electrical energy. Reducing the strain on the main power grid and reducing fossil fuel imports. A speaker and a transformer are used to convert noise generated by car horns and other noise sources into electrical energy in a proposed application. The theory of electromagnetic induction can be used to transform noise vibrations into electrical energy. A transformer was used to boost the received signal from 0.7 to 2 volts.