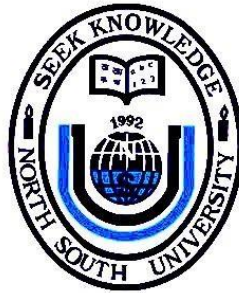


Department of Electrical and Computer Engineering
North South University



Senior Design Project

IoT Enabled Smart Farm

Musfiqur Rahman

ID# 1931546642

Syed Shadman Ahmed

ID# 1811352642

Faculty Advisor:

Dr. Shahnewaz Siddique

Assistant Professor

Department of Electrical and Computer Engineering (ECE)

Summer, 2023

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' names & Signatures

1. Musfiqur Rahman

2. Syed Shadman Ahmed

APPROVAL

We, **Musfiqur Rahman** and **Syed Shadman Ahmed**, members of CSE 499B (Senior Design Project) from the Electrical and Computer Engineering department of **North South University**; have worked on the project titled “**IoT Enabled Smart Farm**” under the supervision of **Dr. Shahnewaz Siddique** as a partial fulfilment of the requirement for the degree of Bachelors of Science in Engineering and has been accepted as satisfactory.

Supervisor’s Signature

.....

Dr. Shahnewaz Siddique

Assistant Professor

Department of Electrical and Computer Engineering (ECE)

North South University

Dhaka, Bangladesh.

Department Chair’s Signature

.....

Dr. Rajish Palit

Professor & Chair

Department of Electrical and Computer Engineering (ECE)

North South University

Dhaka, Bangladesh.

ACKNOWLEDGEMENT

By mercy of the Almighty we have completed our senior design project entitled “**IoT Enabled Smart Farm**”.

Foremost, we would like to express our sincere gratitude to our advisor **Dr. Shahnewaz Siddique** for his continuous support in our project progress throughout the whole course, for his patience, motivation, enthusiasm, and immense knowledge. His guidance helped us in all the time of research, writing and completing of this project.

Our sincere thanks also go to North South University, Dhaka, Bangladesh for providing an opportunity in our curriculum which enabled us to have experience of making senior design project as part of our academics.

Last but not the least, we would like to thank our family as their inspiration and guidance kept us focused and motivated.

Abstract

Now a days, livestock farming has become a concerning issues in our country because of population growth and demand. We need more urgency in this sector to produce more in numbers that too by maintaining a safe environment for the livestock animals. The intention of our work is to establish a platform on livestock monitoring and management. The IoT framework provides IoT solution in a wide range of domains and applications in livestock farming. The technology stack is based on the Internet of Things with relevant sensors available to determine the monitoring system to be placed on the animal. To bring better output from this sector, we intend to build an IOT device that will take care the livestock animal health and their welfare, the situation in which they live and their reproduction. It will provide a safe and healthy environment through continuous surveillance.