

BLOCKCHAIN BASED E VOTING SYSTEM

Senior Design Project

By

Name		Id
Mehedi Hasan	-	1610882042
Ishtiaque Shahriar	-	1511814642
Umma Habiba Sultana	-	1620421042

Instructor

Md. Shahriar Karim

Assistant Professor, North South University.



LETTER OF TRANSMITTAL

August, 2021

To

Dr. Mohammad Rezaul Bari
Associate Professor and Chairman,
Department of Electrical and Computer Engineering,
North South University, Bashundhara R/A, Dhaka

Subject: Submission of Capstone project Report on “My area – An E Voting Platform for online voting using Blockchain Technology”.

Dear sir,

With due respect, we would like to submit our Capstone Project Report on “My Area- An E Voting Platform for online voting using Blockchain Technology” as a part of our BSc program. This report deals with a E Voting Platform where users can vote from anywhere after registration process. We used Blockchain Technology for strong security. We tried our level best to make the report meaningful and informative. The capestone project was very much valuable to us as it helped us to gain experience from practical field. It was a great learning experience for us. We tried to the maximum competence to meet all the dimensions required from this report. We will be highly obliged if you are kind enough to receive this report and provide your valuable judgment. It would be our immense pleasure if you find this report useful and informative to have an apparent perspective on the issue.

Sincerely yours,

Mehedi Hasan, Ishtiaque Shahriar, and Umma Habiba Sultana

Department of ECE, North South University,
Bashundhara R/A

APPROVAL

The capstone project entitled “**My Area – An E – Voting Platform for online voting** “. “ By Mehedi Hasan(ID# 1610882042), Ishtiaque Shahriar(ID# 1511814642) and Umma Habiba Sultana(ID# 1620421042), is approved in partial fulfillment of the requirement of Degree of Bachelor of Science in Computer Science and Engineering on September 2020, has been accepted as satisfactory.

Supervisor:

Md. Shahriar Karim
 Md. Shahriar Karim
 Assistant Professor
 Department of Electrical & Computer Engineering
 North South University

.....

Md. Shahriar Karim
 Assistant Professor,
 Department of Electrical and Computer Engineering
 North South University
 Basundhara R/A

Department Chair:

.....

Dr. Mohammad Rezaul Bari
 Associate Professor and Chairman
 Department of Electrical and Computer Engineering
 North South University
 Bashundhara R/A, Dhaka.

AUTHOR' DECLARATION

This is our truthful declaration that the "Capstone Project Report" we have prepared is not a copy of any "Capstone Project Report" previously made by any other team. We also express our honest confirmation in support of the fact that the said "Capstone Project Report" has neither been used before to fulfill any other course related purpose nor it will be submitted to any other team or authority in future.

.....

Mehedi Hasan
Department of Electrical and Computer Engineering
North South University

.....

Md. Ishtiaque Shahriar
Department of Electrical and Computer Engineering
North South University

.....

Umma Habiba Sultana
Department of Electrical and Computer Engineering
North South University

ACKNOWLEDGEMENT

First of all, we wish to express our gratitude to the Almighty for giving us the strength to perform our responsibilities and complete the report.

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. Furthermore, **North South University** gave us plenty of privileges regarding technical facilities. So, we also like to admire the cooperation of our authority.

We also acknowledge our profound sense of gratitude to all the teachers who have been instrumental for providing us the technical knowledge and moral support to complete the project with full understanding. We would like to convey our gratitude to our faculty **Md. Shahriar Karim** for his stimulating inspiration, kind guidance, valuable suggestions, sagacious advice and kind cooperation throughout the period of work undertaken, which has been instrumented in the success of our project. At this level of understanding it is often difficult to understand the wide spectrum of knowledge without proper guidance and advice. His suggestions and guidance have made the report a good manner.

We like to express our heartiest gratitude to our family and friends for their moral support to carve out this project.

Abstract

Voting is a very important issue which can be beneficial in terms of choosing the right leader in an election. So people want a trust worthy voting system. The goal of our project is to replace the traditional pen and paper election with a new election system which has the ability to limit fraud and improve voting system by increasing security and decreasing the cost of hosting a nationwide election. We discussed the characteristics of our proposed **Blockchain-Based Electronic Voting** protocol in this paper. We implement this **Blockchain** system to turn election protocol into an automated control system without relying any single point of authority. This paper gives a comprehensive overview of our proposed system. We used **Hyperledger Fabric framework** in this project. As this framework is very flexible in term of **cryptography** , it was very suitable for our area. For the main functionality implementation we used **Java**. This system will ease the voting process and make people willing to participate in this new technology.