



**Department of Electrical and Computer Engineering  
North South University**

## **Senior Design Project**

# **FitTrack: Fitness and Health Tracking System for the People of Dhaka City**

**Asif Ahmed** ID# 1712426042

**Md. Fazayel Murshid** ID# 1722152042

**Tasmim Hassan** ID# 1822157642

**Faculty Advisor:**

**Dr. Shahnewaz Siddique**

**Assistant Professor**

**ECE Department**

**Summer, 2023**

# LETTER OF TRANSMITTAL

November, 2023

To

Dr. Rajesh Palit  
Chairman,  
Department of Electrical and Computer Engineering  
North South University, Dhaka

**Subject: Submission of Capstone Project Report on “FitTrack: Fitness and Health Tracking System for the People of Dhaka City”**

Dear Sir,

With due respect, we would like to submit our **Capstone Project Report on “FitTrack: Fitness and Health Tracking System for the People of Dhaka City”** as a part of our BSc program. The report deals with a cross-platform fitness and health monitoring system that works in both Android and IOS for the people of Dhaka city. This project was very valuable to us as it helped us gain experience in the practical field and apply it in real life. We tried to the maximum competence to meet all the dimensions required from this report.

We will be highly obliged if you kindly 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,

.....  
Asif Ahmed  
ECE Department  
North South University, Bangladesh

.....  
Md. Fazayel Murshid  
ECE Department  
North South University, Bangladesh

.....  
Tasmim Hassan  
ECE Department  
North South University, Bangladesh

# APPROVAL

Asif Ahmed (ID # 1712426042), Md. Fazayel Murshid (ID # 1722152042) and Tasmim Hassan (ID # 1822157642) from Electrical and Computer Engineering Department of North South University have worked on the Senior Design Project titled “FitTrack: Fitness and Health Tracking System for the People of Dhaka City” under the supervision of Dr. Shahnewaz Siddique partial fulfillment of the requirement for the degree of Bachelors of Science in Engineering and has been accepted as satisfactory.

## **Supervisor’s Signature**

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**Dr. Shahnewaz Siddique**

**Assistant Professor**

Department of Electrical and Computer Engineering

North South University

Dhaka, Bangladesh.

## **Chairman’s Signature**

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**Dr. Rajesh Palit**

**Professor**

Department of Electrical and Computer Engineering

North South University

Dhaka, Bangladesh.

# DECLARATION

This is to declare 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. All project related information will remain confidential and shall not be disclosed without the formal consent of the project supervisor. Relevant previous works presented in this report have been properly acknowledged and cited. The plagiarism policy, as stated by the supervisor, has been maintained.

Students' names and Signatures

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**1. Asif Ahmed**

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**2. Md. Fazayel Murshid**

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**3. Tasmim Hassan**

## ACKNOWLEDGEMENTS

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Furthermore, the authors would like to thank the Department of Electrical and Computer Engineering, North South University, Bangladesh for facilitating the research. The authors would also like to thank their loved ones for their countless sacrifices and continual support.

## ABSTRACT

# **FitTrack: Fitness and Health Tracking System for the People of Dhaka City**

The Fittrack app is a mobile application developed to address the health and fitness needs of the people living in Dhaka City. With this initiative's help, users can track their physical activity, keep tabs on key health indicators, and access customized workout programs. The Fittrack app offers a user-friendly design and a variety of features catered to Dhaka city people's separate lives and needs by utilizing the power of mobile technology. The Fittrack app's design, development, and evaluation, along with some of its main features and technical details, are covered in this paper. The app's sophisticated algorithms for goal-setting, data analysis, and activity tracking enable users to make educated decisions about their fitness and health. Through a user-centric approach and integration with popular fitness wearables, the Fittrack app aims to promote a healthier lifestyle and contribute to the overall well-being of the people of Dhaka city. The Fittrack app seeks to encourage a healthy lifestyle and improve the general well-being of the people of Dhaka city through a user-centric approach and integration with well-known fitness wearables.