Department of Electrical and Computer Engineering

North South University

Senior Design Project

Smart Traffic Control System

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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

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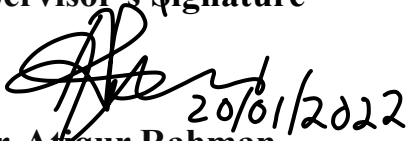
APPROVAL

The capstone project entitled "**Smart Traffic Control System**" by **Syed Asim Anwar (ID#1711850642), Fatima Tuz Zohura (ID#1711335642),** and **Hasnat Alam (ID #1712610642)** is approved in partial fulfillment of the requirement of the Degree of Bachelor of Science in Computer Science and Engineering in September and has been accepted as satisfactory.

Supervisor's Signature



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ACKNOWLEDGMENT

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ABSTRACT

This paper presents the implementation of smart traffic control systems using computer vision. In present days with the expansion of innovations, specialists are always looking for innovatives systems for traffic control. Nowadays traffic jams have become one of the major issues in Bangladesh. In our country, the vehicle density on the road is slowly becoming greater and much more uncomfortable. Road congestion has a major effect on the normal journey of people and restricts the economic development of society. And the main reasons for this type of road congestion are due to poor traffic management. In this paper, we propose a smart traffic control system by measuring the traffic density of the road by real time detection and image processing. So, we created a vehicle detection model to count the number of vehicles approaching a signal and we used a proper algorithm to measure the signal time based on the number of vehicles on the road.