DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING

NORTH SOUTH UNIVERSITY

Senior Design Project Report

CSE 499

A Real Time Pothole and Speed Breaker Detection Using Deep Learning

Submitted By

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Agreement Form

We take great pleasure in submitting our senior design project report on "A Real Time Pothole and Speed Breaker Detection Using Deep Learning". This report is prepared as a requirement of the Capstone Design Project CSE/EEE/ETE 499 A & B which is a two semester long senior design course. This course involves multidisciplinary teams of students who build and test custom designed systems, components or engineering processes. We would like to request you to accept this report as a partial fulfillment of Bachelor of Science degree under Electrical and Computer Engineering Department of North South University.

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Abstract

The road accident rate in Bangladesh is increasing day by day due to various reasons. One of these reasons are poor road conditions. Unwanted potholes, missing pitches, improper speed breakers, unfinished manhole covers and slabs transform many roads into obstacles courses thus greatly increasing the probability of serious accidents. However, the arrival of new assistive driving technologies hold much promise in making the roads the safer and avoid serious accidents and damages. The main goal of our project is to create real-time assistive technologies to detect potholes and speed breakers for on-road drivers in general but especially for bikers and cyclists. Our system will provide drivers with advance notification about upcoming potholes and speed breakers and thus assist in avoiding unwanted accidents. Our system will provide drivers sufficient time to react to and avoid these impending road hazards.