Department of Electrical and Computer Engineering
North South University

CSE 499

Senior Design Project

Emergency Services Drone

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Spring, 2020

Declaration

This is to declare that this project is an original work and no part of the project work or report has been submitted elsewhere previously for the fulfilment of any other degree or program. Any material reproduced in this project has been properly acknowledged.

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Approval

The Senior Design Project entitled '**Emergency Services Drone**' by **Mahmudul Hasan (ID # 1610949042), Md Istiak Hasan (ID # 1531366042) and Nasim Ahmed (ID # 1420788042)** has been accepted as satisfactory and approved for partial fulfilment of the requirement of the Bachelor of Science in Computer Science and Engineering degree program in Spring, 2020.

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Acknowledgments

First and foremost, praises to the Almighty Allah. Without those showers of blessings, we would not be able to complete our Senior Design Project work properly.

We want to express deep and sincere gratitude to our research supervisor, Syed Athar Bin Amir, Lecturer, Department of Electrical and Computer Engineering, North South University, for giving us the opportunity to conduct our project under his supervision. We are extremely grateful for his invaluable advice and incredible support. It was a privilege and honour to be able to finish our project work under his guidance.

Finally, we are immensely indebted to our parents for all their love, caring, prayers and sacrifices. Without them, nothing would be possible.

Abstract

Bangladesh, a low-lying deltaic country, had its long history with natural disasters like floods, cyclones, droughts, tidal surges, tornadoes, earthquakes, river erosion, high arsenic contents of groundwater, and soil salinity. But manmade disasters like infrastructure collapse or break out of fire have worsened the scenario in the recent past. In an underdeveloped country like Bangladesh with its limited resources, drones can play a vital role in these manmade disasters for emergency response or rescue operation. Drones or unmanned aerial vehicles are aircraft which can be controlled remotely without having a pilot aboard. Since drone's first appearance for serving military purposes, UAVs have successively become a vital part of the world we know today. This paper represents the Emergency Services Drone project. It is intended to explore the project's capability in emergency service operations while containing features to collect data and extinguish the fire with the sole purpose of saving human lives.

Keywords: Drone, unmanned aerial vehicle, emergency response, rescue operation, firefight