Department of Electrical and Computer Engineering
North South University

Senior Design Project

SAVIOUR, THE SURVEILLANCE BOT

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Assistant Professor

Department of Electrical and Computer Engineering

Spring, 2019

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' names & Signatures

1. **MD. Shaiful Alam Turza**

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2. **Sharmina Islam Surmi**

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3. **Meraj Jannat**

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APPROVAL

We, MD. Shaiful Alam Turza (ID-1420652042), Sharmina Islam Surmi (ID-1420116042) and Meraj Jannat (ID-1420052042), members of CSE/EEE/ETE: 499 (Senior Design) from the Electrical and Computer Engineering department of North South University; have worked on the project titled **“**SAVIOUR, THE SURVEILLANCE BOT**”** under the supervision of Dr. Md. Shahriar Karim as a 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. Md. Shahriar Karim
Assistant Professor
Department of Electrical Engineering & Computer Science
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Chairman’s Signature

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ACKNOWLEDGEMENT

By mercy of the Almighty we have completed our senior design capstone project entitled **“**SAVIOUR, THE SURVEILLANCE BOT**”**.

Foremost, we would like to express our sincere gratitude to our advisor Dr. Md. Shahriar Karim for his continuous support in our capstone project progress throughout the whole 499A and 499B, for his patience, motivation, enthusiasm, and immense knowledge. His guidance helped us in all the time of research, writing and completing of this project.

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Abstract

This report represents a survivor robot model motivated by the physique of a spider which may be used for search and rescue operations. Various types of walking algorithm took place to make this survivor robot and have been tested on the robot too. Control of this robot is done by the use of RC remote AT 9s. This spider robot is based on six leg system and this is expected to be well-suited for navigation in rough terrains. To move the robot into rough fields we have put some functional algorithm on to it. Moreover, these algorithms provide varieties of speed parameters to the robot which is based on the structure of the robot leg system. Each leg is joined by three servo motors that are controlling the limbs from every joint. In addition, we have developed a prototype for the experimental purpose.