**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

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**A**

### PROJECT REPORT

#### of

**Hexapod Based Automated System for Disaster Response**

*Submitted in partial fulfillment of the requirement for the degree of*

## Bachelor of Engineering

*in*

**Electronics & Communications Engineering**

*by*

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### 2018-19

**Certificate**

Certified that the project work entitled “Hexapod Based Automated System for Disaster Management” carried out by Prakruthi BK (1DS15EC087), Prateek Mohta (1DS15EC090), Prateti (1DS15EC090), Pratyush Shukla (1DS15EC092) are bonafide students of Dayananda Sagar College of Engineering, Bangalore, Karnataka, India in partial fulfillment for the award of Bachelor of Engineering in Electronics & Communication Engineering of the Visvesvaraya Technological University, Belagavi, Karnataka during the academic year 2018-19. It is certified that all corrections / suggestions indicated for project work have been incorporated in the report deposited to the ECE department, the college central library & to the university. This project report **(EC83)** has been approved as it satisfies the academic requirement in respect of project work prescribed for the said degree.

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# Declaration

#### Certified that the project work entitled,” Hexapod Based Automated System for Disaster Management” is a bonafide work that was carried out by ourselves in partial fulfillment for the award of degree of Bachelor of Engineering in Electronics & Communication Engg. of the Visvesvaraya Technological University, Belagavi, Karnataka during the academic year 2018-19. We, the students of the project group/batch no.17 hereby declare that the entire project work has been done on our own & we have not copied or duplicated any other’s work. The results embedded in this project report has not been submitted elsewhere for the award of any type of degree.

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Place : Bengaluru -78

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# ABSTRACT

This report proposes a survivor robot model inspired by the physique of a spider which can be used in the cases of search and rescue operations. The control of the robot has been done by a PS2 joystick controller. The navigation of the spider-bot has been implemented based on a six-leg system, which will be very convenient in rough terrains. Each of the legs has been designed using three servo motors controlling the limbs from different joints. It can detect life the number of people present and sense the environment. A prototype has been developed for experimental purpose. This report focuses on aiding and assisting the affected people and the rescuer team to get to trapped people in buildings. We have here a robot which can be easily installed and produced and is efficient.

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