A PROJECT REPORT ON

Fabrication of Individually Actuated

All-Terrain Vehicle

Submitted in partial fulfillment of the award of Degree of

Bachelor of Technology in Mechanical Engineering

Submitted by

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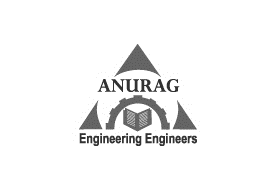
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CERTIFICATE

This is to certify that the work embodies in this dissertation entitled “Fabrication of Individually Actuated All-Terrain Vehicle” being submitted by Inzamamul Haq – 12H61A03E6, Akhil Myadarapu – 12H61A03F7, Anudeep Sunka – 12H61A03G9, Shoba Tummati – 12H61A03H0 and Dheeraj Tippani – 12H61A03H1, for the partial fulfillment of the requirement for the award of ‘Bachelor of Technology in the Department of Mechanical Engineering’ discipline to Anurag Group of Institutions, Ghatkesar (M), Ranga Reddy (Dist.), Telangana State, during the academic year 2012 – 2016 is a record of bonafide work, undertaken by them under our supervision.

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DECLARATION

We, Inzamamul Haq, Akhil Myadarapu, Anudeep Sunka, Shoba Thummati, Dheeraj tippani, are students of ‘Bachelor of Technology in Department of Mechanical Engineering’, session: 2012 – 2016, Anurag Group of Institutions, Ghatkesar (M), Venkatapur (V), Ranga Reddy (Dist.), Telangana State, hereby declare that the work presented in this Project Work entitled ‘Fabrication of Individually Actuated All-Terrain Vehicle’ is the outcome of our own bona fide work and is correct to the best of our knowledge and this work has been undertaken taking care of Engineering Ethics. It contains no material previously published or written by another person nor material which has been accepted for the award of any other degree or diploma of the university or other institute of higher learning, except where due acknowledgement has been made in the text.

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**ABSTRACT**

For search and rescue operations in either military actions or civil needs, remotely operated All-Terrain Vehicles (abbreviated as ATVs) are used. These rovers are designed to travel through rough terrains, debris, trash etc. and so, are expensive. The main motivating force behind this project is to design a 3D printable compact and low cost ATV to perform reconnaissance and surveillance for security purpose, as well as to perform urban search and rescue for civil defence purpose.

The scope of the project focused mainly on the mechanical design of an individually actuated robot (IAR) so that it is made feasible for an average consumer to assemble the robot’s 3D printed parts and at the same time, to make efficient maneuvering in rough terrains. It has a maximum speed of \_\_\_, and is able to overcome \_\_cm step, \_\_cm ditch, 45° slope and climb staircase.

This report gives a full documentation of the process of design developments and fabrication of the robot.

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