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Report on

LINE FOLLOWER ROBOT USING MSP 430

A report submitted for the partial fulfillment of the requirements for Mini Project of

BACHELOR OF TECHNOLOGY

IN

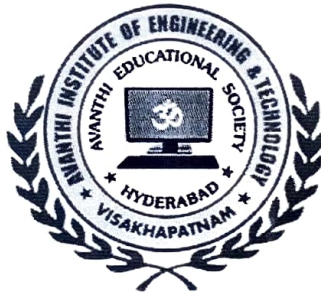ELECTRONICS AND COMMUNICATION ENGINEERING

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

MINI PROJECT

(LINE FOLLOWER ROBOT USING MSP 430)

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LINE FOLLOWER ROBOT USING MSP430

ABSTRACT

Line Following is one of the most important aspects of robotics. A Line Following Robot is an autonomous robot which is able to follow either a blackline that is drawn on the surface consisting of a contrasting colour. It is designed to move automatically and follow the line. The robot uses IR sensors placed at the front end to identify the line, thus assisting the robot to stay on the track. The sensor makes its movement precise and flexible. The robot is driven by the movement of the wheels. The controller based on the Texas Instruments MSP430G2553 interface is used to perform and implement algorithms to control the speed of the motors, steering the robot to travel along the line smoothly. This project aims to implement the algorithm and control the movement of the robot by proper tuning of the control parameters and thus achieve better performance and to give fast, smooth, accurate and safe movement. It can be used industrial automated equipment carriers, small household applications, tour guides in museums and other similar applications, etc.