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**PROJECT REPORT
ON
A STUDY OF INDUSTRIAL ROBOTICS**



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SYNOPSIS

In this study, we are interested in the use of robotics in industry. Our aim is to identify deeply what is meant by robotics and its application in industry. This study includes an introduction to both the technology and the application of industrial robotics. The coverage include configurations and specifications, industrial applications, control theory and technology, computer consideration, end effectors and workhandling, sensor and sensory feedback, safety, economic and social consideration.

As an introduction, a definition of what exactly is a robot is necessary since wrong interpretation have been made by a number of people.

The next step is to categorize robot power whether it is hydraulic, electrical or pneumatic or maybe it will use either both or even all three. The reason for this is to determine which type of robots give more or less power compare to weight ratio. In conjunction to that, a discussion of type of work is also given. Therefore this will also include robot movement (degree of freedom) and the robot working envelope.

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1 INTRODUCTION

Robots are increasingly becoming a key feature of modern industrial manufacturing system.

The study of robotics is unique in that it combines several already established engineering technology with a number of emerging and complementary disciplines. The study of industrial robotics must also consider the physical, human and organization aspects of the industrial environment within which they are employed.

The industrial robotics is a tool that is used in the manufacturing environment to increase productivity. It can be used to do routine and tedious jobs, or it can perform jobs that might be hazardous to the human workers.

The robotics can be thought as machines that will move "end-of-arm" tools, sensors and grippers to preprogrammed locations. When a robot arrives at this location, it will perform some sort of task. This task could be welding, sealing, machine loading and unloading or a host of assembly jobs, generally this work can be accomplished without the presence of human.