# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

SANTHIBASTAWAD ROAD, MACHHE, BELGAUM – 590 014
KARNATAKA

Project Report
On

# "Design of stretcher which automatically adjust to horizontal position while moving along elevation"

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**Submitted in partial fulfillment of requirements for the award of degree of**

## BACHELOR OF ENGINEERING
## IN
## MECHANICAL ENGINEERING

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# ABSTRACT

Since from earlier days stretchers have been used in antiquity, on battlefields and in emergency situations, where wheeled vehicles are hindered by rough terrain. In their simplest form, they generally consisted of a canvas sling with long edges sewn to themselves to form pockets through with wooden poles could be slid.

In those times the available stretcher systems are not capable to fulfill the required comfort ness to patient and also handling those types of stretchers are difficult. In multi stored hospitals, always there is a need for moving patients from one floor to another. In case of sophisticated hospitals there will be a lift to carry. But in case of power failure and medium sized hospitals the stretcher has to carry the patients. Since the stretcher top will take the angle of elevation. It will be uncomfortable for patients and people moving the stretcher.

In this approach we went on in a search of stretcher which can adjust the top to maintain the horizontal position all the time and wheels of stretcher should be made efficient to ease the handling. In this project we are demonstrating clearly that design of stretcher which can adjust its top while moving along the elevation. For this, the bed of stretcher with lever attachment is connected to D.C. Motor. This D.C. Motor is connected to the MOSFET. Potentiometer will senses the angle of elevation and send signal to IC, which in turn is connected to MOSFET. According to this signal the D.C. Motor adjust the bed to horizontal position.