

Department : **Mechanical**

Year : **2014-2015**

Group No: **9**

Guided By

**PROF. M. P.  
RAJPARA**

## **SMT. S. R. PATEL ENGINEERING COLLEGE, UNJHA**

### **Project Title**

### **DESIGN, DEVELOPMENT AND FABRICATION OF LAWN MOWER WITH AUTO COLLECTING WASTE**

#### **Abstract:**

The machine to be designed and developed with a view to resolve one of the irksome problems of this institute has been facing every year. Due to this unwanted proliferation of such verdant institute gets abysmal look and that dumps off massive fund every year to get rid off it. The shrubs cutting machines comprises a main body (chassis) with two wheels and handle to provide movement in the field. One power unit is mounted on this to give power for the cutting blades through small transmission mechanism. The cutting blades are mounted on a small shaft. Which actually perform the cutting operation? We intend to develop a machine which would provide better cutting action of bushes with low capital and operational cost.

With reference to literature available there are many types of lawn mowers, bush, cutters and lawn tractors are exist in the market, which may not fulfill the capital and operational cost criteria. The main concentration of our design is the cost and operational ease. During design, development and fabrication the machine will undergo several laboratory. Field tests like; determination of torque and force analysis, load and speed test on design specifications (for shaft, gear and bearings), impact test, balance test and finally cutting output test. After testing we will success to have a satisfactory performance, though it requires further more improvements which can be done in due course of time in stage II of the project.

#### **Prepared By:**

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