

## **ABSTRACT**

This paper aims to design Automated Solar Lawn Mower because in today`s world, automations is a very important part of invention. Presently, manually handled devices are commonly used for cutting the grass over the lawn, because of this, there is pollution and loss of energy. The old grass cutters need to be replaced by automated one where system will work for guidance and obstacle detection using battery as a power source. A solar panel will be attached on the top of the robot this will reduce the problem of more power consumption.

These days we are facing the problems like pollutions, power cut problem etc. In order to overcome these problems, we have thought about the device, which can be performing its functions without causing any of these problems. So we have thought of doing the project on cutting grass, this uses the renewable source of energy for its operation like solar energy. The continuous increase in the cost of fuel and the effect of emission of gases from the burnt fuel into the atmosphere, these necessitate the use of the abundant solar energy from the sun as a source of power to drive a lawn mower.

A solar powered lawn mower was designed and developed, based on the general principle of mowing. The designed solar powered lawnmower comprises of direct current (D.C) motor, a rechargeable battery, solar panel, a stainless-steel blade and control switch. The solar powered lawnmower is operated by the switch on the board which closes the circuit and allows the flow of current to the motor which in turn drive the blade used for mowing. The battery recharges through the solar charging controller. The system will have some automation work for guidance and other obstacle detection.