



NARNARAYAN SHASTRI INSTITUTE OF TECHNOLOGY ELECTRICAL DEPARTMENT



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Internal Guide:- Miss AVANI PATEL

Project Title:- MICROCONTROLLER BASED AUTOMATIC GARDEN DEVICE CONTROL AND SMART LIGHTNING

Abstract:-

The project titled for “MICROCONTROLLER BASED AUTOMATIC GARDEN DEVICE CONTROL AND SMART LIGHTNING” is to develop and implement an semi-automated garden maintenance system that can be scaled down to improve the conditions of indoor as well as outdoor gardens as small as household garden boxes for garden enthusiasts or as big as greenhouses for the agriculture industry. A microcontroller will be the power behind this project as it provides an interface between the analogue sensors, database, and monitoring system while also performing calculations and other functions for manipulating the components. Real time data will be collected by employing several analogue sensors, such as light, temperature, humidity, and soil moisture sensors, and integrating them into a microcontroller. This will allow users to monitor and even control their gardens or greenhouses. The application control historical data and statistics available for analysis so that users may adjust the conditions of the garden accordingly, improving the health of the user’s plants.

Major Hardware components used:-

Microcontroller AT89C51, LM7812, solar panel, visitor counter, t type relay, LM 311, IC 746926, Ic 555, Lm 317.

Software used:- KEIL

Project Application:-

- (1) Garden
- (2) Gardens in Villas
- (3) Gardens of historical place

Approx. Project Cost:- 12000

Project Photo:-



Block /circuit Diagram:-

