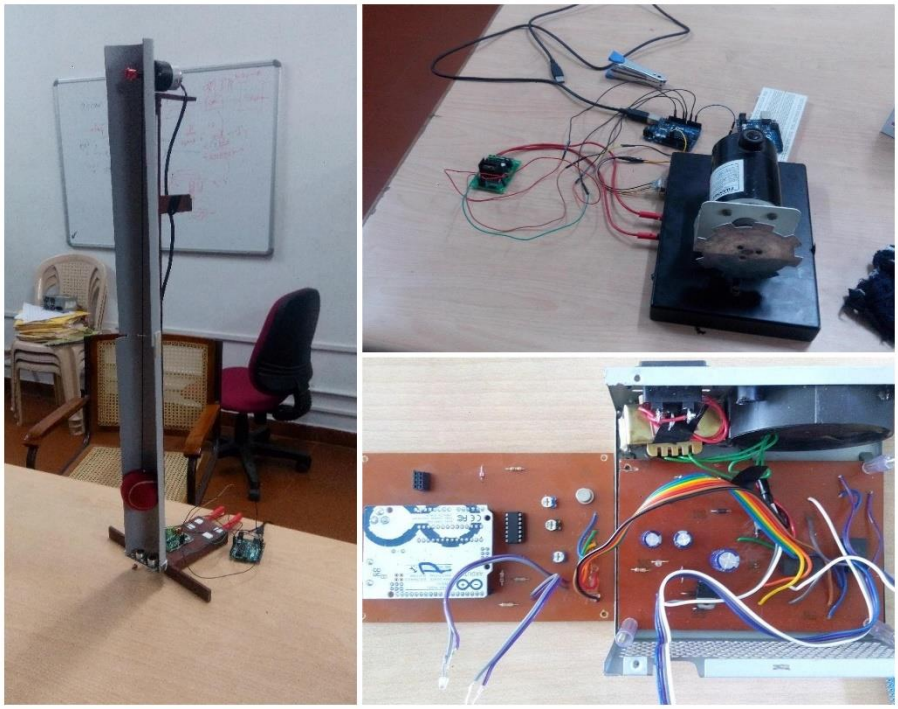
Since 2016 Projects and Design projects (IRACC)

A Novel Approach for Building Low Cost WIRELESS DISTRIBUTED CONTROL SYSTEM

In this work we have implemented an efficient low cost wireless DCS with nRF24L01 wireless module and microcontroller on four process stations (Level, Temperature, Pressure, Flow), integrating and controlling them in distributed manner. Apart from these four station control unit (slave), there is a master control unit which will continuously monitor and control these four stations wirelessly. All the stations can be controlled by PI, PD or PID.



SMART WHEEL CHAIR

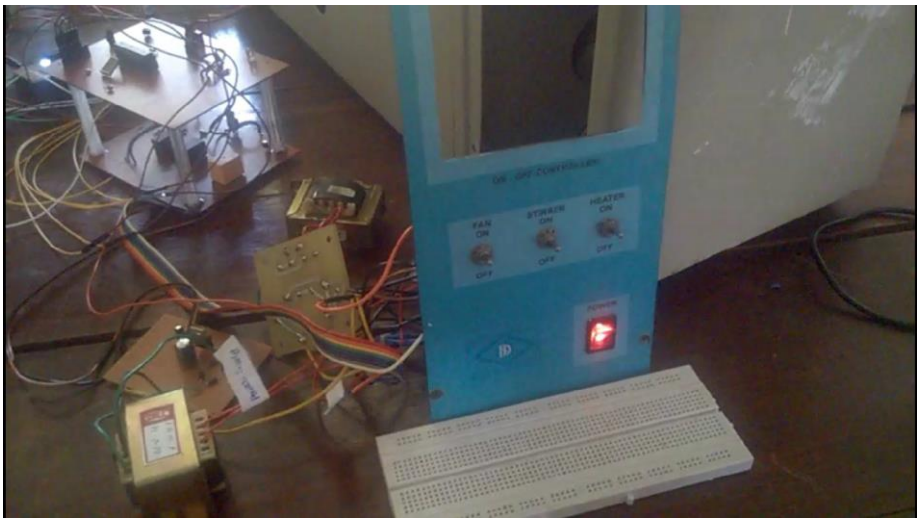
The goal of this smart wheelchair project is to enhance an ordinary powered wheelchair using sensors to perceive the wheelchair's surroundings, a speech interface to interpret commands

SELF-NAVIGATING ROBOT

The self-navigating robot is designed and trained to work in the collage environment. The platform used is the Android and Arduino. The robot is programmed to run from staffroom to classroom and back effectively delivering object.

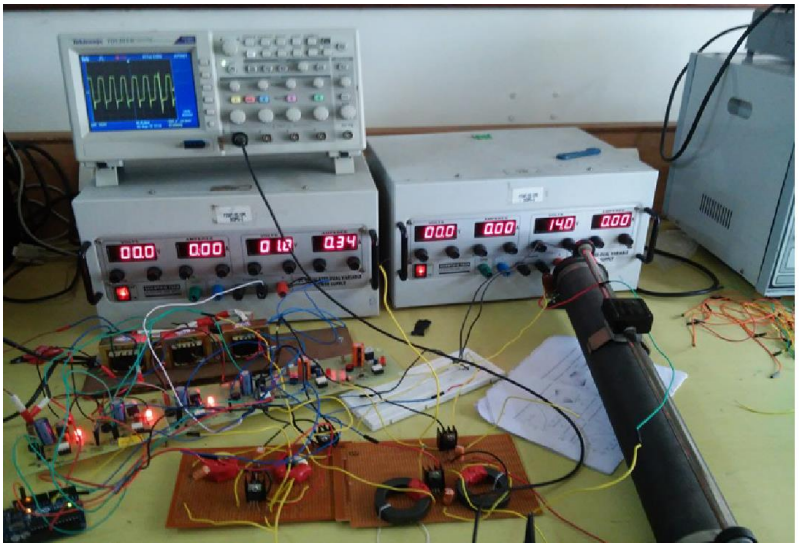
ANDROID BASED TEMPERATURE CONTROL PROCESS STATION

In this project, we have implemented the temperature control system based on Android platform for industrial use. Our studied temperature control system includes Android platform, data server, and external control unit. Based on established standards, Bluetooth module communicates the necessary information from temperature controller and Android platform, respectively, to each control unit to complete the temperature control system.



A poly phase semi z source INVERTER for renewable energy application

The project is about a poly phase semi z source inverter with maximum power point tracking (MPPT) is proposed for photovoltaic (PV) systems. This proposed system utilizes a Boost converter as DC-DC converter to implement the MPPT algorithm for tracking the maximum power from a PV array.



SMART LAPTOP BATTERY PROTECTOR

This project involves specifically designed hardware which will monitor the battery level and will notify the user about level and also able to wirelessly cut of the power from the adaptor. This project was intended to extend the battery life by sticking charging-discharging cycles to the optimum.

3D IMAGING WITH QUAD ROTOR

The project is to develop a quad copter capable of delivering food in a restaurant. As preliminary stage we developed a quad copter which can fly and can get the 3D images by using bi-focal vision (two cameras).