

DEVELOPMENT ACTIVITIES

2020-21

Dr. R. Selvaganapathy
20-21

BIOMETRIC BASED DIGITAL VOTING SYSTEM

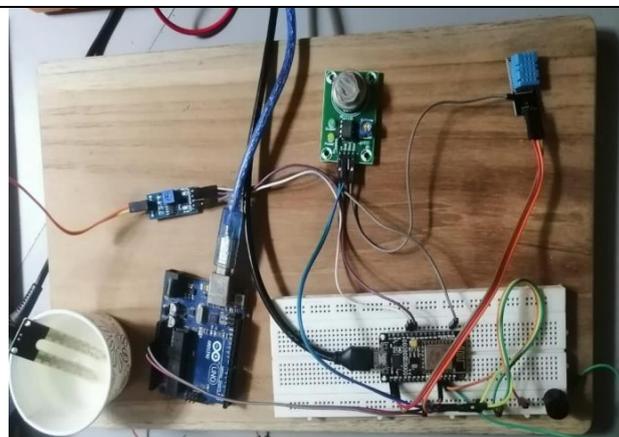
A biometric voting machine using an Arduino and a fingerprint scanner is described in this project. The name of the candidate for whom the voter has voted will be shown on LCD for confirmation. It is easy to use and features basic hardware with basic hardware and software.



Dr. A. Ragavendiran

Coal Mining Safety and Annunciation System using GSM

A real time monitoring system using wireless sensor network, which includes multiple sensors is developed. This system monitors surrounding environmental parameters such as temperature, humidity and multiple toxic gases. The system also provides an early warning, which will be helpful to all miners present inside the mine.



Dr. N. Dhanasekar

ENERGY MANAGEMENT OF SOLAR TREE BASED AUTOMATIC STREET LIGHT

Solar Power Tree is the best innovative way, which requires very less place to produce energy efficiently. Solar tree consists of numerous solar panels connected to one another in series and parallel connections. It can be installed on the sides of heavy traffic roadways and on roof top buildings.



<p>Dr. M. Latha</p>	<p><u>DRIVER DROWSINESS DETECTION SYSTEM USING ARDUINO</u></p> <p>Manually tracing the drowsy driver is not an easy task, so we need a system that must come with every car. It consists of IR transmitter and an IR receiver. The transmitter transmits IR rays into the eye, if the eye is shut, then the output is high.</p>	
---------------------	--	--

2019-20

<p>Dr. A. Ravi 2019-20</p>	<p><u>Hybrid Electric vehicle</u></p> <p>A group of final year students of electrical and electronics engineering (EEE) department have designed a new, hybrid Electric car. The weight of the car is 50-kg and it has a pulling capacity of 250-kg in which three people could comfortably travel in the vehicle, powered by solar batteries that are charged by a solar panel fixed on top of the car. The car's specialty is its drives. Brushless DC motor is used to drive the vehicle. It is fixed on the hub of the rear wheels because it reduces power loss. It is an eco-friendly vehicle and once the battery is fully charged, the car could run at good speed, up to even 80-km per hour.</p>	
--------------------------------	---	---

<p>Dr. SA.Chithradevi 2019-20</p>	<p><u>Solar powered agricultural electric sprayer</u></p> <p>Solar based pesticides sprayer pump is one of the improved version of electric sprayer pump. It is vastly used in the agriculture & also used for many purpose. The proposed solar powered sprayer is more advantageous over the existing electric sprayer. Besides reducing the time taken</p>	
---------------------------------------	---	--

for charging the battery, the spraying work is continuously done with the help of solar panel and battery. A farmer can do the spraying operation continuously without taking time for charging battery

Dr.A.Ragavendiran
2019-20

Design of electromagnetic engine with low running cost

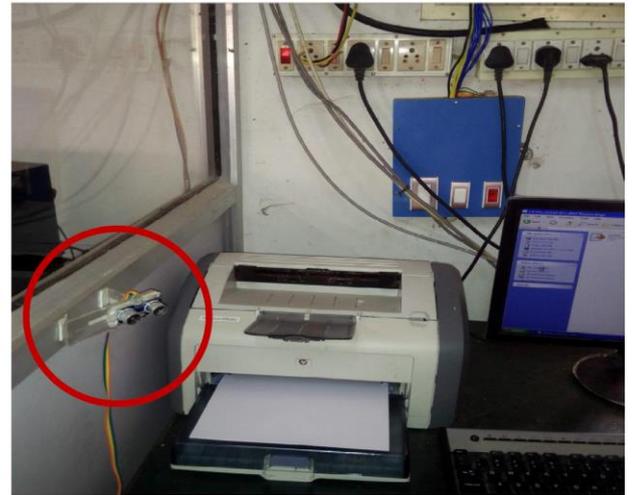
The Electromagnetic Reciprocating Engine is a Green and Clean Energy source which uses Magnetic Energy to turn a crankshaft. That crankshaft is used to turn a wheel. The Electromagnetic Reciprocating Engine operates by taking electricity from a battery having 12v, convert it to Magnetic Energy using electromagnets, and convert that kinetic energy to Mechanical Energy using the crankshaft. The electricity, stored in a battery, is the primary energy source. The energy is send to electromagnets which turn that electricity into Magnetic Energy, magnetic force. The magnetic force is used to turn a crankshaft. The crankshaft will increase the energy using Mechanical Advantage and send that Mechanical Energy to the wheel of the bike. By this rotation the bike will move. Due to this moving, front wheel is also rotate. 50W solar panel is used in the roof of the bike by which we can produce 12v. which will help to charge the battery.



Dr. M. Latha
2018-19

REAL TIME APPLICATION USING
ARDUINO FOR AUTOMATION OF
DOMESTIC LOADS

We have developed a system that we can control and monitor the home appliances using any devices having an internet connection. Home automation refers to handling and controlling home appliances by using ESP-8266 technology instead of Arduino and other microcontrollers. It provided with two ways of sending the control signal by IoT (web) and Bluetooth. So, it is reliable one. The system defined here has used internet for handling home automation. We have used both Wi-Fi and Bluetooth connection which enable the user to interact with the controller via web. A series of solid state relays which is established in the circuit so that they can be easily controlled over internet. A set of sensors will constantly monitor the home appliances and provide automation and control by full time monitoring. Efficient home automation system that we used here does not have any range limitations and are more advanced. In our design we implemented ON/OFF functionality along with the productivity, security and the entire home appliances are controlled by using android application.



Dr. N. Dhanasekar
17-18

Implementation of head orientation controller for wheelchair using MEMS sensor

In this project an automated system helps in controlling the motor rotation of wheelchair based on head movement for amputated arms and paralyzed patients. In order to facilitate these people for their independent movement, MEMS sensor placed on the person's head. Based on the head movements the MEMS sensor will drive the motor fitted to the wheelchair. This wheelchair can move in any of the directions. This system also incorporate obstacle sensor for obstacle detection, temperature and heart beat sensor for measuring bio-signals.

