Project based learning environment

Objective: To understand the engineering concept which help the students to explore problems and challenges of industry and society.

Activity: We provide dedicated time slots and appropriate place to the students to work on their projects. The faculty members guide the students appropriately. Tools used are open source software's like Scilab, Ardiuno, e-learning, videos lectures etc.
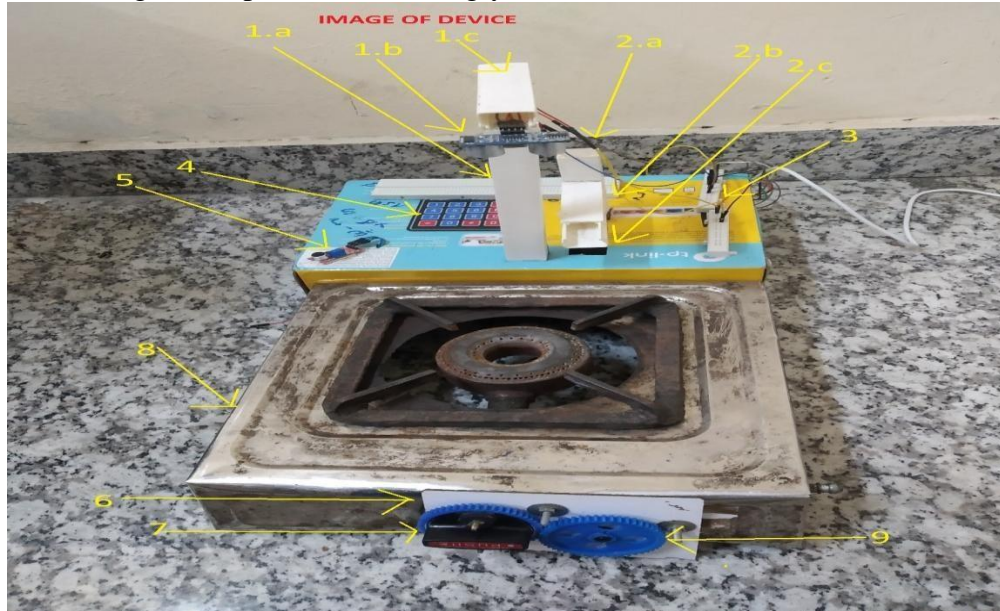
Outcome: Several projects are developed by our students under the guidance of expert faculty.

1. A Smart Cooking Device

Our product:

A Smart Cooking Device is a device which makes normal gas stoves master. It has provision of height sensing and sound sensing which perform accordingly to cook food.

Working of CCD:

- It can make tea, coffee automatically.
- It can boil milk or any other similar liquids.
- It can make rice, pulses, etc. in pressure cooker.
- It can control flame of gas stove accordingly.
- It can turn off the gas knob automatically.

Management Roles:

Our team members:

- **Satish chaubey [1603331124]**
  He is a final year student of ECE. He has done embedded system training from Sapro electronics, Ghaziabad. He had play an important role in the development of 'embedded based A Smart cooking Device' that is developed in our college.

- **Sakshi khugshal [1603331119]**
  She is a final year student of ECE. She had done 3 months embedded system project by Srijan, RKGIT. She had play an important role in the development of 'embedded based A Smart cooking Device' that is developed in our college.

- **Mentor:-**

  Dr. Neha Goel [ECE faculty]
  She has 14 years of teaching experience. She has completed Ph.D. in VLSI designing from SRM Chennai. She is working as an Associate Prof. in the Department of ECE, RKGIT Ghaziabad.

क्रमांक : 011130965
SL No :

INTELLECTUAL PROPERTY INDIA
PATENTS | DESIGNS | TRADE MARKS
GEOGRAPHICAL INDICATIONS

भारत सरकार
GOVERNMENT OF INDIA
पेटेंट कार्यालय
THE PATENT OFFICE
पेटेंट प्रमाणपत्र
PATENT CERTIFICATE
(Rule 74 Of The Patents Rules)

पेटेंट सं. / Patent No.	:	357925
आवेदन सं. / Application No.	:	202011006976
फाइल करने की तारीख / Date of Filing	:	18/02/2020
पेटेंटी / Patentee	:	1.SATISH KUMAR 2.SAKSHI KHUGSHAL

प्रमाणित किया जाता है कि पेटेंटी को उपरोक्त आवेदन में यथाप्रकटित A SMART COOKING DEVICE नामक आविष्कार के लिए, पेटेंट अधिनियम, १९७० के उपबंधों के अनुसार आज तारीख 18th day of February 2020 से बीस वर्ष की अवधि के लिए पेटेंट अनुदत्त किया गया है।

It is hereby certified that a patent has been granted to the patentee for an invention entitled A SMART COOKING DEVICE as disclosed in the above mentioned application for the term of 20 years from the 18th day of February 2020 in accordance with the provisions of the Patents Act, 1970.

अनुदान की तारीख / Date of Grant : 05/02/2021

पेटेंट नियंत्रक
Controller of Patent

टिप्पणी - इस पेटेंट के नवीकरण के लिए फीस, यदि इसे बनाए रखा जाना है, 18th day of February 2022 को और उसके पश्चात प्रत्येक वर्ष में उसी दिन देय होगी।
Note. - The fees for renewal of this patent, if it is to be maintained will fall / has fallen due on 18th day of February 2022 and on the same day in every year thereafter.

2. Smart Drip Irrigation System:
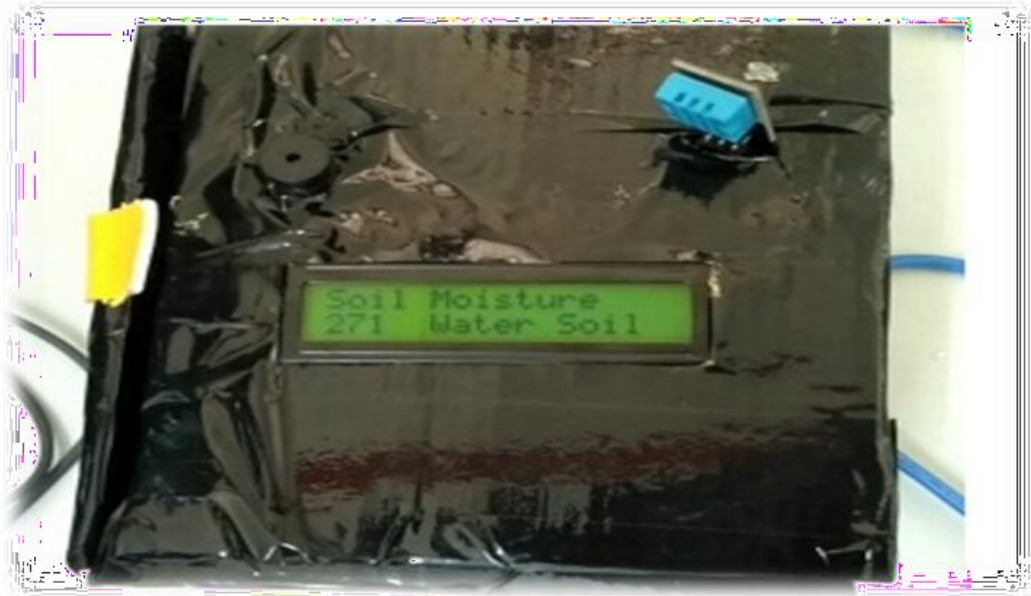
Under the guidance of Mr. Abhinav Bansal(Asst Prof. ECE) student of EC 4th year Mr.Rohan Sharma, has developed Smart Drip Irrigation System using IoT. This device stores the water which is coming out of threw RO systems and uses it for irrigation purpose. Mr. Rohan has received a grant of Rs.12,000/- for this innovative project by the Honourable Chief Minister of U.P., Yogi AdityanathJi.

3.Automatic Room Lighting System: It is used to control the lights of the room

automatically, i.e. whenever anyone is present in the room the light turns on otherwise lights are off. The IR sensors are used to detect the entrance and exit of persons in the room. The information produced by the sensors is processed and stored by the microcontroller and accordingly the relay switch is set on or off. This relay is used to control the lights of the room.

4.The Robot Camera: It is a robot, made using FIRE Bird V Kit, in which a wireless AV

camera is implemented. IT is controlled via Xbee and the streaming of video is through AV receiver and TV tuner. It can be used for surveillance.

5.Smart Blind Stick: The students tried to help physically challenged person by

developing a smart blind stick, made using Arduino UNO, ultrasonic sensor, and water sensor.

6.Robotic Hand: Robotic hand is an imitation of human hand, with the help of servo

motors and flexes sensors. It is an attempt to create a miniature version of a complex robot arm.

7.Arduino Cardiograph Thermometer: Senior citizens, Alzheimer's affected

persons and persons with heart problems always need attention. If they do heavy work, skipping their food, etc. will affect the health condition of these persons much more. To overcome this situationthis device has been developed to monitor the motions and status of the person's heart beat rate, temperature, up-to-date. If there seems a sudden fall due to heart attacks or loosing balance or abnormal fall or rise in heart beat rate it informs the near ones of the person to get immediate attention.

Application Details

APPLICATION NUMBER	202011055654
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	21/12/2020
APPLICANT NAME	1 . Amandeep 2 . Praveen Kumar 3 . Puneet Chandra Srivastava 4 . Kiran Srivastava
TITLE OF INVENTION	CIRCULAR CUT MULTI BAND MICROSTRIP ANTENNA WITH DEFECTED GROUND FOR WIRELESS APPLICATION
FIELD OF INVENTION	ELECTRICAL
E-MAIL (As Per Record)	pkmalikmeerut@gmail.com
ADDITIONAL-EMAIL (As Per Record)	
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	--
PUBLICATION DATE (U/S 11A)	29/01/2021

INTELLECTUAL
PROPERTY **INDIA**
PATENTS | DESIGNS | TRADE MARKS
GEOGRAPHICAL INDICATIONS

GOVERNMENT OF INDIA

Controller General of Patents,Designs and Trademarks
Department of Industrial Policy and Promotion
Ministry of Commerce and Industry

Application Details

APPLICATION NUMBER	202111006899
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	18/02/2021
APPLICANT NAME	1 . Dr. Himani Mittal 2 . Arpita Gupta 3 . Anshu Gupta
TITLE OF INVENTION	ASPECT CATEGORY SENTIMENT ANALYSIS BASED ON MACHINE LEARNING
FIELD OF INVENTION	COMPUTER SCIENCE
E-MAIL (As Per Record)	ipr@singhwal.com
ADDITIONAL-EMAIL (As Per Record)	ipr@singhwal.com
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	--
PUBLICATION DATE (U/S 11A)	26/02/2021

INTELLECTUAL
PROPERTY **INDIA**
PATENTS | DESIGNS | TRADE MARKS
GEOGRAPHICAL INDICATIONS

सत्यमेव जयते
GOVERNMENT OF INDIA

Controller General of Patents,Designs and Trademarks
Department of Industrial Policy and Promotion
Ministry of Commerce and Industry

Application Details

APPLICATION NUMBER	202111006900
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	18/02/2021
APPLICANT NAME	1 . Dr. Himani Mittal 2 . Himanshu Tripathi 3 . Shivansh Shrish Tripathi
TITLE OF INVENTION	SMART CUISINE SELECTION VIA SENTIMENT ANALYSIS USING MACHINE LEARNING TECHNIQUES
FIELD OF INVENTION	COMPUTER SCIENCE
E-MAIL (As Per Record)	ipr@singhwal.com
ADDITIONAL-EMAIL (As Per Record)	gaus.siddhast@gmail.com
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	--
PUBLICATION DATE (U/S 11A)	26/02/2021

THE MENTAL FLOSS 1.0COMPETITION

The MENTAL FLOSS 1.0 competition based on live projects was organized under the Embedded Systems and Robotics Lab of the ECE Department on Thursday, October 3under the guidance of Mr. Abhinav Bansal. In this competition participants had tocreateliveprojectsusingmicro-controller.A2-day workshop was organized by students of ESR LAB on 21 and 22 September before the competition, in which the participants were taught about micro-controller, sensors and the projects created in the competition were based on this workshop. The classes were conducted by few of our ECE dept. final year students Kinjal Sinha, Shirsh Gupta, Aditya Chawla, UtkarshGangwar, Vivek Tiwari. In this competition, students of all branches of first and second year participated, 44 students participated in the competition of which 29students were from CSE, IT branch and 15 students from ECE branch. The event was conducted to spread awareness about the technologies surrounding us that is Embedded System.

Winner
1stPosition
SURYAPRATAP KUSHWAHA EC-2ND
BAMITKUMAREC-2ND A
ANKITKUMAREC-2NDA