

SUMEER 2019

Department of Electronics and Telecommunication Engineering

TRANSFORMATION ...a News Letter



Shanti Education Society's

A.G. PATIL POLYTECHNIC INSTITUTE, SOLAPUR

In this issue

- **Academic performance, co and extra curricular activities**
- **Expert Lectures, Industrial Visits**
- **Workshop Conducted ,MoU, Faculty achievements and Other Achievements of Faculty**
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- **“Fingerprint Based Vehicle Starter with GPS and GSM”**
- **College Intake Information**



WELCOME

It gives me immense pleasure to introduce you to this next edition of newsletter of department for the academic year 2018-19. Our department has got excellent grade from external monitoring committee of MSBTE.

As per our vision our team strive to persistently improve educational environment in our department. We are always engaged in the activities for overall development of our students with various aspects like technical education, self-motivation, ethics and personality.

Vision:

To provide excellent quality education in the field of Electronics and telecommunication engineering to create professionals for meeting the demands of industry, business and society.

Mission:

- M1:- To equip students with strong foundation of knowledge, skills, attitude and team spirit required for a professional.
- M2:- To prepare students for a bright career, entrepreneurship in the field of Electronics Engineering.
- M3:- To inculcate responsibility towards Environment and society.

Program Educational Objectives (PEOs):

- To provide students with basics in electronic engineering.
- To develop an ability to apply electronic systems to function effectively.

TOPPERS

FIRST YEAR



FIRST

Mr. Palli Paras Santosh
(86.57%)



SECOND

Ms. Chivadshetti Nisha Mallikarjun
(78.89%)



THIRD

Mr. Nadgeri Onkar Mahendra
(78.14%)

SECOND YEAR



Mr. Sutar Sagar
First (S.Y. 89.58 %)



Mr. Mashalkar Pruthviraj
Second (S.Y. 86.14 %)



Ms. Sarwadkar Megha
Third (S.Y. 85.40 %)

THIRD YEAR



Ms. Kambale Priya
First (T.Y. 83.94%)



Ms. Chavan Sonali
Second (T.Y. 83.88%)



Ms. Nagarkar Rakshata
Third (T.Y. 81.94%)

Engineer's Day



Project Competition



Industrial visit

Sr. No.	Activity	Action Taken	Place	Relevance to PO's	No. Of Beneficiaries
1	Renewable energy and its Tools	Solar Electronics, Solapur	Solapur (Industrial visit)	1, 2, 3, 4, 7, 8	30
2	Interaction with industrial process system (EAC)	Srujan Foods pvt.ltd (Parale products)	Solapur (Industrial visit)	1, 2, 3, 4, 7, 8, PSO2	34



Industrial visit at solar electronics for SY EJ students



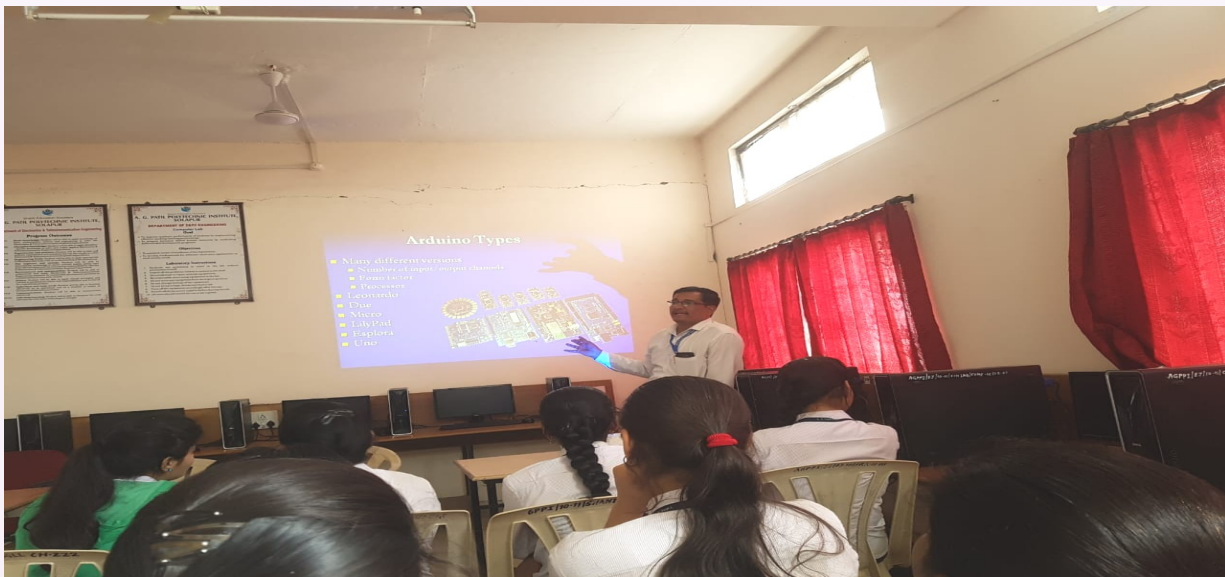
Industrial visit at Srujan Foods for TY EJ students

EXPERTLECTURE

Sr. No.	Activity	Resource Person with Designation	Relevance to PO's	No. Of Beneficiaries
1.	Introduction to MAT-LAB	Ms. Pranoti R. Doke	2,5,6,10	34
2.	Introduction to Arduino	Mr. Darekar R.V	2, 6, 7 , 8, 9, 10	30
3.	Programming with Arduino	Ms. Babladi S.S.	1, 2, 3, 4	30



Felicitation of Expert Ms. Pranoti R. Doke by Mr. Ligade S.S. & Mr. Margur L.S.



Mr. Darekar R.V. delivering lecture on "Introduction to Arduino"

WORKSHOP



Workshop on solar energy for SY EJ students conducted by Mrs. Ayesha Shaikh Orb energy pvt.ltd.

“Garbage Monitoring System”

Garbage may consists of the unwanted material left over from City, Public area, Society, College, home etc. This project is related to the “Smart City” and based on “Internet of Things” (IOT). So for smart lifestyle, cleanliness is needed, and cleanliness is begins with Garbage Bin.

This project will help to minimize the garbage disposal problem. The Internet of Things (IOT) is a recent communication paradigm that envisions near future, in which the objects of everyday life will be equipped with microcontrollers, transceivers for digital communication, and suitable protocol stacks that will make them able to communicate with one another and with the users, becoming an integral part of the Internet.

This project IOT Garbage Monitoring system is a very innovative system which will help to keep the cities clean.

This system monitors the garbage bins and informs about the level of garbage collected in the garbage bins on a web page. For this the system uses an infrared sensor placed over the bin to detect the garbage level and compared with the garbage bin depth.

The system makes use of microcontroller, LCD screen, Wi-Fi module for sending data and LED indication. The LCD screen is used to display the status of the level of garbage bin whereas a web page is built to show the status to the user monitoring it. The web page gives a graphical view of the garbage bins and highlights the garbage collected in color in order to show the level of garbage collected. The LCD screen shows the status of the garbage level.

The system puts on the LCD when the level of garbage collected crosses the set limit. Thus this system helps to keep the city clean by informing about the garbage levels of the bins by providing graphical image of the bin on a web page.

Working Principle:

Smart bins are designed using ultrasonic sensor for detecting level of wastage. They are attached to RFID for identification purpose. Moisture sensors are also used to differentiate between wet and dry garbage.

An IOT-based smart garbage system (SGS) is proposed to reduce the amount of food waste. In an SGS, battery-based smart garbage bins (SGBs) exchange information with each other using wireless mesh networks, and a router and server collect and analyze the information for service provisioning.

Raspberry Pi is used as an embedded Linux board which is designed based on the ARM 11 microcontroller architecture. Embedded Linux board makes the communication with all distributed sensor nodes placed in the tested area through Zigbee protocol and itself act as a coordinated node in the wireless sensor network. The goal of coordinator node is to collect the parameters like level of the bin and odor wirelessly.

Group Members : 1. Ms. CHAVAN SONALI 2. Ms. KAMBALE PRIYA
3. Ms. NAGARKAR RAKSHATA
4. Ms. CHIVADSHETTI VAISHNAVI

Under The Guidance Of
Mr. Vadaora S.R.

“Foot step Energy Generation System”

Here we propose an advanced footstep power generator system that uses piezo sensors to generate power from human footsteps. The system allows for a platform for placing footsteps. The piezo sensors are mounted below the platform to generate voltage from footsteps. The sensors are placed in such an arrangement so as to generate maximum output voltage. This is then provided to our monitoring circuitry. The circuit is Arduino based monitoring circuit that allows user to monitor the voltage and charges a connected battery by it. It also displays the charge generated and displays on an LCD display. Also it consists of a USB mobile phone charging point where user may connect cables to charge mobile phone from the battery charge.

Working Principle:

Footstep arrangement: it consists of piezoelectric transducers which are nothing but pressure sensors which convert the external applied physical energy into equivalent electric AC signal in millivolts. This arrangement is formed by connecting each individual piezosensor in parallel.

LCD display: Liquid crystal display here we have used 16:2 LCD. It is used to Display the increase in voltage is displayed proportional to the applied external pressure.

Rechargeable battery: here we have used 12v 2A lead acid battery. This lead acid battery gets gradually charged from the incoming output from footstep and the current status is displayed on LCD.

Rectifier and regulator: the incoming input to the rectifier and regulator circuit is from footstep arrangement and solar panel which is extremely weak signal so; these volts are amplified by the capacitors transistors diodes... to get a desired output .

Arduino uno: it is a programmable board used for communication purpose. It comes with AT mega 328 microcontroller

Group Members:

1. Mr. Revansiddayya PurwantSwami
2. Mr. .Kishor Pagad
3. Mr. .Prayag Sapar
4. Mr. Prathamesh Kurapati

Under The Guidance Of
Ms.Narake A.B.

“Fingerprint Based Vehicle Starter with GPS and GSM”

Now a day's automobile burglary cases are increasing day by day, it has gotten to be difficult to give a vehicle an outstanding security with the main focus being kept on the burglary gadget. Vehicle locking framework pledges the best ensure way to secure the vehicle from various types of theft cases. It is a vehicle security gadget that offers a better and fancy insurance to one's vehicle. However this framework cannot be established to give complete security and directness to the vehicle in the event of burglary. [1] So a more secure framework makes the utilization of an inserted framework which is being focused around GSM and GPS innovation. This demarcated and created framework is introduced in the vehicle which aims at providing real time tracking and active notification to user and helps prevent the probable theft.

Passwords are the weakest component of many important security systems, so there is an interrelated push from various directions towards passwords with less friable security measures. While pushing it has some effects, particularly in situation that require more security, it has failed to replace passwords. The vast mainstream of computer user's still use passwords on a routine basis. Since the haven of password relies mostly on user behavior, studies that empirically scrutinize patterns of passwords creation and use the remaining important in the assessment of various security policies. The main emphasis while developing this car anti-theft system was to assimilate the above features equally. The most significant feature is the vehicle security from theft and it has been guaranteed by providing certain layers of antitheft protection.

Working Principle:

In this project arduino UNO is used as controller. To start vehicle fingerprint authentication is required. If finger print is matched and verified vehicle will start, else vehicle will not start. The vehicle can be monitored by the user, to find its current location and if the vehicle is stolen the GPS will help to locate its current location. GSM helps to identify the false user is trying to access the vehicle and send its address with the help of pre-stored message.

Group Members :

1. Mr. SAVALGI SAMARTH JAGDISH
2. Mr. PATEWADIYAR LAXMIKANT SHIVKARNI
3. Mr. SUTAR RAHUL IRANNA
4. Mr. BANDA RUTIK VIJAY

Under the Guidance of-

Mr. Bagban S.R.



Shanti Education Society's
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Approved by : All India Council for Technical Education (AICTE),
New Delhi

Recognized by : Government of Maharashtra

Approved by : Directorate of Technical Education (DTE), Mumbai

COURSES OFFERED IN DIPLOMA ENGINEERING

Shanti Education Society's					
A.G. PATIL POLYTECHNIC INSTITUTE, SOLAPUR					
All Programs Are NBA Accredited					
(Approved by AICTE New Delhi, DTE Mumbai and Affiliated to MSBTE Mumbai)					
Sr.No.	Program	Intake Capacity	Accreditation Status	General Choice Code	TFWS Choice Code
1	Mechanical Engineering	120	NBA Accredited	644361210	644361211
2	E&TC Engineering	60	NBA Accredited	644337210	644337211
3	Civil Engineering	60	NBA Accredited	644319110	644319111
4	Computer Engineering	60	NBA Accredited	944324510	944324511
	TOTAL	300	For Admission Contact : Prof. Ingale - 7276080001 Prof. Sandesh - 9028583069		

