Department of Electronics and Telecommunication Engineering

DIGITAL ERA

...a News Letter

Shanti Education Society's

A.G. PATIL POLYTECHNIC INSTITUTE,SOLAPUR

In this issue

- **Academic performance, co-curricular and extra curricular activities**
- **Students achievement in IEDSSA Sports meet**
- **Organized MSBTE state level Paper Presentation Competition**
- **Organized E-Phlox state level Competition**
- **Organized Engineers Day**
- **Expert Lectures, Industrial Visits**
- **College Intake Information**

WELCOME

It gives me immense pleasure to introduce newsletter of the Electronics and Telecommunication Engineering program for the academic year 2019-20. Our program has been **"NBA"** accredited and got **"Excellent"** grade from a monitoring committee of MSBTE. The program has 60 intake of students. Total 7 faculties are working in our program out of which 70% faculties have completed their post-graduation.

As per our vision, our team strives to persistently improve the educational environment in our program. We are always engaging our students in the activities for overall development of various aspects like Technical knowledge, Skills, Attitude, Ethics and Team spirit required for a professional. So, we have conducted SAP Training Program, Entrepreneurship Awareness Camp for third year students and Personality development for all students.

Thank You,
Mr. Bagban S. R.
H. O. D.

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.
- To work for society with professional ethics, team spirit, effective communication and life-long learning skills.

Rankers

FIRST YEAR

Ms. JAGTAP DIKSHA
First (F.Y. 91.5%)

Mr. CHAKRE ADITYA
Second (F.Y. 91.4%)

Mr. BHIVARE HARSH
Third (F.Y. 91.2%)

SECOND YEAR

Ms. AIVALE SWATA
First (S.Y. 86.16%)

Ms. CHIVADSHETTI NISHA
Second (S.Y. 85.46%)

Mr. PALLI PARAS
Third (S.Y. 84.87%)

THIRD YEAR

Mr. SUTAR SAGAR
First (T.Y. 92.21%)

Mr. MASHALKAR PRUTHVIRAJ
Second (T.Y. 91.26%)

Ms. SARWADKAR MEGHA
Third (T.Y. 88.53%)

Co-Curricular and Extra Curricular Activities

Sr. No.	Name & Event		
1	GHATE PUSHPA SIDHARAM 3rd Rank in Essay Writing Competition on Marathi Bhasha Day.		
2	JAGTAP DIKSHA SHARAD 3rd Rank in Handwriting Competition on Marathi Bhasha Day.		
3	DIWANJI AYUSH ABHAY	1st Prize **MSBTE State level Paper Presentation** Competition	
		1st Prize **National level Paper Presentation** Competition @ Annum 2K20	
		1st Prize **MSBTE State level Paper Presentation** Competition @ Global Carnival, Boamani	
		1st Prize **Circuiteix** @ Dista 2K20 Competition Sinhagad College, Solapur	
		1st Prize **State level Project** Competition	
		1st Prize **Quiz** Competition, SPM Poly., Solapur	
		1st Prize **State level Paper Presentation** Competition @ SSWP, Solapur	
		1st Prize **Circuit Building** Competition @ OrchiTech-20, Orchid College, Solapur	
		2nd Prize **Project** Competition@ Dista 2K20 Competition, Sinhagad College, Solapur	
4	SAGAR BHIMASHANKAR SUTAR	1st Prize in circuit building Competition @ N.K.Orhid college, Solapur	
		1nd Prize **Circuitrix** Competition@ Dista 2K20 Competition, Sinhagad College, Solapur	
5	BANKA VYANKATESH NARAYAN	1st Prize **MSBTE State level Paper Presentation** Competition @ Global Carnival, Boamani	
		2nd Prize **Project** Competition@ Dista 2K20 Competition, Sinhagad College, Solapur	

Sports

Sr. No.	Name & Event		
1	PAWAR KRUSHNA SHAM Winner in (85kg) Weight Lifting in IEDSSA Sports.		
2	BOBE PRAJWAL PRAKASH Runner Up in Table Tennis in IEDSSA Sports.		
3	MASHALKAR PRUTHVIRAJ BUDAPPA Runner Up in Table Tennis in IEDSSA Sports.		
4	DIWANJI AYUSH ABHAY Runner Up in Table Tennis in IEDSSA Sports.		
5	KULKARNI VAISHNAVI PRASAD & CHAKRE SANJOTHA SHILISIDDHA Runner Up in Girls Table Tennis in **DYF**		
6	HARWALKAR ANKITA SUBHASH & Team Runner Up in Girls Cricket in **DYF**	SHINDE NEHA SHIVAJI BAGALE ARATI AMSIDDH DHULAGOND PRUTHVI SHIVAGOND CHAKRE SANJOTHA SHILISIDDHA SARWADKAR MEGHA BASAVRAJ THALANGE KAWYA MAL-LIKARJUN CHIVADSHETTI NISHA MALLIKARJUN NIMBALKAR ROHINI SUNIL BANSODE SHWETALI SHARANAPPA UMBRAJKAR ANISHA ABHAY SONAWANE PRIYANKA PARMESHWAR	
7	Runner Up in Boys Table Tennis in **DYF**	BOBE PRAJWAL PRAKASH MASHALKAR PRUTHVI-RAJ BUDAPPA DIWANJI AYUSH ABHAY	

Organized MSBTE state level Paper Presentation Competition

Image.1 Inauguration of MSBTE State Level Paper Presentation Competition by Chief Guest Hon. Mr. Shujauddin Dandoti

Image.2 Audience during the presentation of participants

Image.3 Participant during the presentation & won 1st Prize

Image.4 Participant during the presentation & won 2nd Prize

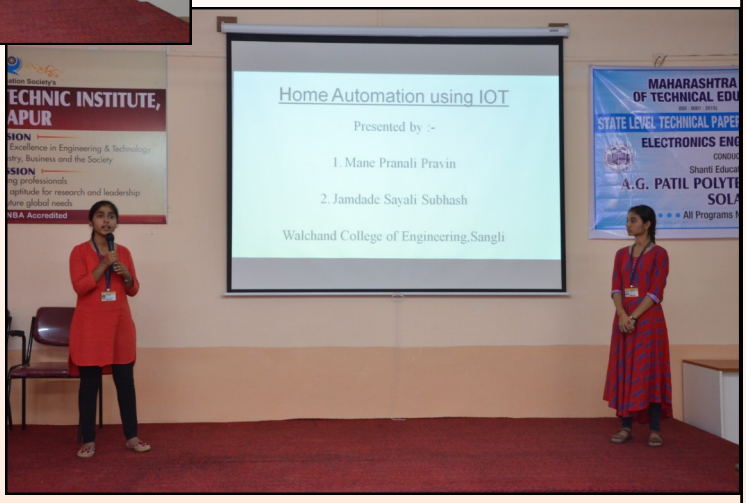


Image.5 Participant during the presentation & won 3rd Prize

Image.6 Winners of the event, Chief guest Dr. Potdar V.V., Principal Dr. Chougule M.A., Juries Dr. Mrs. Sakhare S. R., Mr. Dhage Pradeep, Scrutiny members &

Organized E-Phlox state level Competition

IImage.1 EJ Dept. during of E-Phlox state level Competition

Image.2 Annum 2K20 Juries, participants presenting and Co-ordinator

Organized E-Phlox state level Competition

Image.3 Quiztronix Winners, participants and Co-ordinator

Image.4 RoboRace Winners, participants and Co-ordinator

Organized Engineer's Day

Image.1 Guidance of Mr. Ligade Sir for students during Celebration of Engineers day at Program

Image.2 Guidance of Mr. Margur Sir for students during Celebration of Engineers day at Program

Expert Lectures

Sr. No.	Activity	Action Taken	Resource Person with Designation	Relevance to PO's	No. Of Beneficiaries
1.	Recent trends in Solar System	Solar Energy	Mr. Nitin Alagi	1, 2, 3, 4, 6, 7	16
2.	Recent trends in Mobile Communication	Recent Trends in Mobile Technology	Mr.Sankalp Maske	1, 2, 3, 4, 6, 7	24
3.	Electrical Vehicle Technology	Recent Trends in vehicle Technology	Mr.Vinayak Bannur	1, 2, 3, 4, 6, 7	39

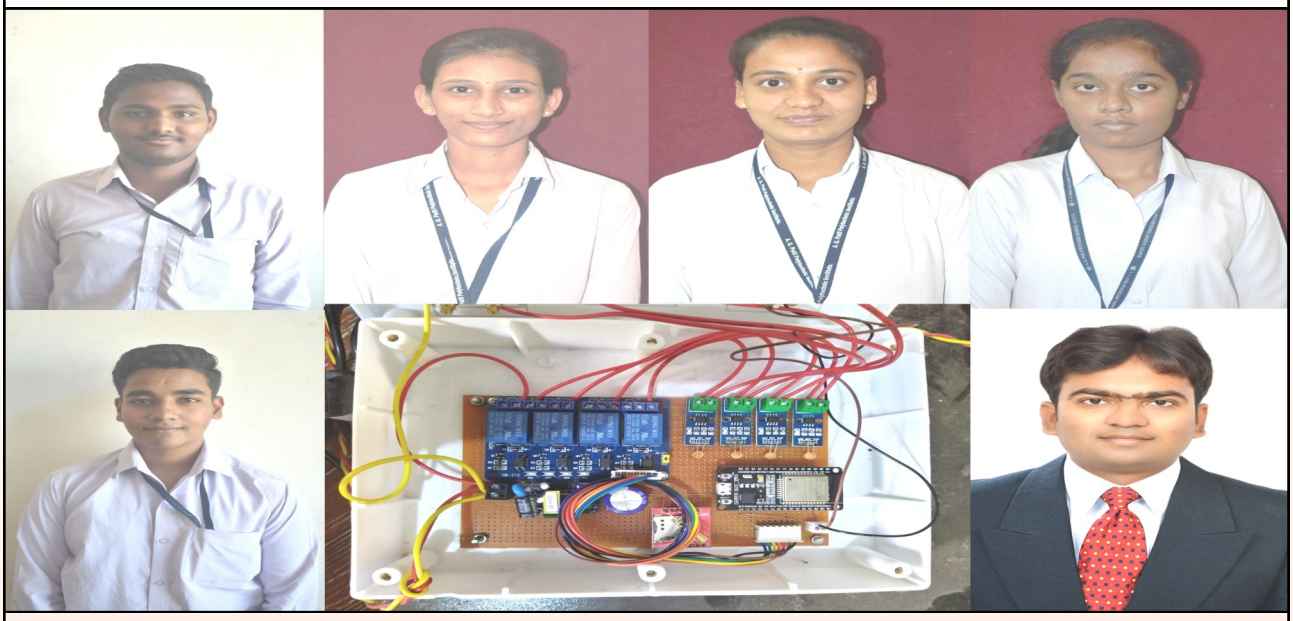
Image: Expert Lectures in A.Y. 19-20

Industrial Visits

Sr. No.	Activity	Action Taken	Place	Relevance to PO's	No. Of Beneficiaries
1	Interaction with industrial process system	Sathe Engineering Co., Bale, Solapur	Solapur (Industrial visit)	1, 2, 3, 4, 6, 7,	36
2	Interaction with industrial process system	Srujan Foods pvt.ltd (Parale products)	Solapur (Industrial visit)	1, 2, 3, 4, 6, 7	21
3	Interaction with industrial automation process system	Pancharatna Foundation, Shirapur, Solapur	Solapur (Industrial visit)	1, 2, 3, 4, 6, 7	21
4	Interaction with industrial network system	Hewlett Packard Enterprise, Bangalore	**Bangalore** (Industrial visit)	1, 2, 3, 4, 6, 7	15

Image: Industrial Visits in A.Y. 19-20

IMPLEMENTATION OF IOT BASED SMART STREET LIGHTS FOR "SMART CITY"



We can see a person standing in front of electricity board, whose duty is to turn on and off street light regularly. Many a times it happens that street light are not turned off during daytime. This project is highly concerned with the remote monitoring, fault detection, etc. The project is related to the Street lights located in Metropolitan cities. The street lights play a vital role to enlarge the glory of a city. Now a day's every innovative technologies ultimate goal is to automate human's lifestyle. Considering a scenario any light of the city is not working or damaged or flickering etc. The people who live nearest to it complain about that to the counselor. Counselor conveys the message to the Municipal Corporation, Then the allotted electrician checks and repairs the light. Apart following this lengthy procedure, our project will automatically indicate that the light is in good condition or not, The electrician will get a text message about that particular light. Side by side it will indicate that light "RED" on the web page where the authority is logged on to that; Hence, they are also able to keep an eye on the work of the electrician that how many days does he take to repair it. This is the ultimate advantage of the project to maintain the transparency between them. The primary motive behind implementing this project is to save the energy.

Working Principle:

To run the project first all the node MCU should be connected to the wifi using its inbuilt wifi module having programmed wifi address and with its password. It power up 4 channel Relay and current sensors. In this project the current sensor continuously check whether current is flowing through Lights or not. When LED turns off due to any reasons sensors detect it and shut the relay off and passes a signal to node MCU. During this the GSM kit sends the text message to electrician or any person whose number is allocated in GSM kit and informs about the condition of streetlight. Simultaneously the data is transmitted to the server using node MCU as it was connected to the network in the beginning. Further on the web page the indicators of street light turns "RED". After repairing them the current will flow again normally from the current sensor. Again its sends the data to the cloud server then the indicator on the web page will become green as it was and the light will not damage.

Group Members

Mr. Ayush Diwanji
Mr. Vyankatesh Banka
Ms. Annapurna Waghmare
Ms. Mayuri Kore
Ms. Aishwarya Mudholkar

Under The Guidance Of

Mr. Udanshiv A. S.

"SOLAR BASED LOW POWER SMART COOLER"

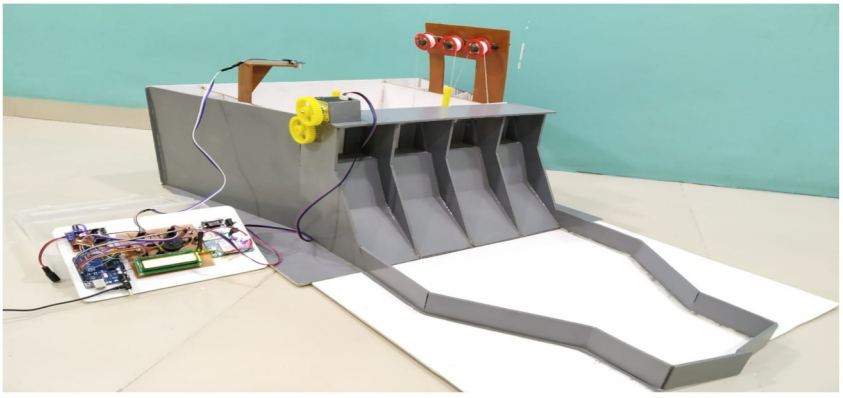
Nowadays, there's revolution in the field of technology and the world is developing at a faster pace. Due to changes in lifestyle and surroundings, the needs of the people are changing day by day thus new inventions and innovations come into the picture. Nowadays, people have Smart-phone's with them all the time. So it makes sense to use this smart cooler. We present here a smart cooler system using a simple freeware Android app, which you can use to control smart cooler with click or Command are sent via Bluetooth to Arduino UNO. So there is no need to switch ON or OFF the device while watching a movie or doing some work. But we can't roam with a switchboard here and there and also coolers available in the market are costly. So the idea of Solar based low power smart cooler, less energy consuming using solar energy came into our mind and we made a system which provides charging facility. Several problems were noticed by us and we decided to make a "SOLAR BASED LOW POWER SMART COOLER".

Working Principle:

In this project a fine combination of Android mobile technology and embedded system. User can control, smart cooler using Android mobile. An application should be installed on his/her Android mobile handset to control smart cooler. The user can send commands using that application. Wireless controlling technique used in this project is Bluetooth technology. This project consist of a Bluetooth module. This Bluetooth device is connected to the circuit which has a decoder. This decoder sends code for respective command sent by user. Then the smart cooler connected to the circuit will be turned ON or OFF depending on the command given.

Group Members
Ms. Neha Shivaji Shinde
Ms. Pruthvi S. Dhulagond
Ms. Arati A. Bagale
Ms. Ankita S. Harwalkar
Ms. Laxmi S. Bhopale
Under The Guidance Of
Ms. Narake A. B.

"FLOOD ALERT AND DAM CONTROLLING USING WIRELESS TECHNOLOGY"






Observing the consequences of the flood occurring in major rivers of India we came to know that the maximum area was underwater. So lots of life losses have been taken place. Today in our country every dam uses the traditional method of water level measurement which does not indicate the rate of rising water level.

Therefore solution for this problem we are using the timer concept in which, when the water level reaches 80% of the maximum level, then the timer starts and calculates the time up to 90% of the maximum level. If in a very short time interval water level reaches from 80% to 90% of the maximum level, which indicates that water flow is faster then the alert message should be sent to the controller.

The main aim of our project here is to monitor water level control and the safety of people is the most challenging and important factor. It is an efficient idea to control the flow of water by controlling the gate and thereby water level management. It ensures the safety of people nearby and far by giving warning message. This system focuses on monitoring water level remotely and utilizes a global system of mobile connection (GSM) and short message service (SMS) to convey data from sensors to the respective users through their mobile phone. Also, it uses automatic common alarm to alert people in the vicinity of the dam. It is hoped that this project would be beneficial to the social community and would act as a precautionary measure in case of flood disasters.

Working Principle:

This project describes an application to monitor water level control of the dam and the safety of people with the help of an ultrasonic distance sensor. When the water level reaches 80% of its maximum the timer starts and keeps on going till it reaches 90%. Then Arduino will check the ideal time of the increase in water level if not satisfied then the motor will be ON through relay and dam gates will be opened automatically and common alarm to alert people in the vicinity of the dam. The ultrasonic sensor will give the status of the water level as well as water reading will be displayed on LCD. If the level decreases, then the motor will be OFF. If the system fails, then the auto float door will be active all time continuously if the water level increases 90% to avoid flood disasters.

Group Members
Mr. Siddharudh Ramesh Amale
Mr. Sagar Bhimashankar Sutar
Mr. Prajwal Prakash Bobe
Mr. Pruthviraj B. Mashalkar
Under The Guidance Of
Mr. Bagban S. R.

Shanti Education Society's

A. G. PATIL POLYTECHNIC INSTITUTE

ALL PROGRAMS ARE NBA ACCREDITED

18/2/2 A, Vijapur Road, Opp. SRP Camp, Solapur-8.

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

Discipline	Intake Capacity	Duration of Course
Civil Engineering	60	3 YEARS
Computer Engineering	60	3 YEARS
Electronics and Telecom. Engineering	60	3 YEARS
Mechanical Engineering	60	3 YEARS
Electrical Engineering	60	3 YEARS
Total Intake	300