Completed of projects sponsored by Indian Institute Of Engineers

Project Name :
Arm7 based home automation system using IoT

Fund Received : 20 Thousand

Status : Completed

Coordinators :
Mr. Savant N.S. Mr. Kumbhar M. A.

Project Name :
Voice over internet protocol using arduino.

Fund Received : 30 Thousand

Status : Completed

Coordinator :
Mr. Savant N.S.
Mr. Valate P. S.

Upcoming Events

In this semester we are planning for our annual student event CENTIA

In CENTIA students are going to organize various events like Robo-racing, Puzzle, Quiz contest and LAN Gaming. Winner will awarded with trophies and certificates. Last year 200 students were participated in this events. Through this we got success in front of motivating our student to participated in competitive events, not only for our institute but also national as well as international competitions.

Industrial visit for 2nd and 3rd year students

We are planning industrial visits for our students to Akashwani Satara , Hem Electronics pvt. Ltd. Miraj and Aptron Tech Satara.

Expert Lecture

We plan expert lecture over the syllabus which conducted by industry experts for students.

Student Development

Department conducted short term professional courses in that we take 10 to 15 days workshop for student. Last vacation we conducted workshop for Embedded System . Upcoming vacation we plan for arduino project development and PCB Design.

"Becoming a Electronics Engineer means
Finding new era in world of technology and Communication
with out this world is nothing"

Editorial

It gives us great pleasure to present the Forth issue of our departmental newsletter "**ELETRA"**, which gives us the opportunity to focus the achievements in our department and new trends in Electronics and Telecommunication filed.

I am thankful to all the students and faculties who have contributed during the preparation of this newsletter. We have tried our best and given positive efforts, expecting creative responses from everyone to continue the flow of knowledge.

Mr. M. A. Kumbhar

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Celebrating 71st Independence Day

SVERIs College of Engineering (Polytechnic), Pandharpur.

Department of Electronics and Telecommunication Engineering

ELETRA TIMES

Electronics Trends and Applications

About Department

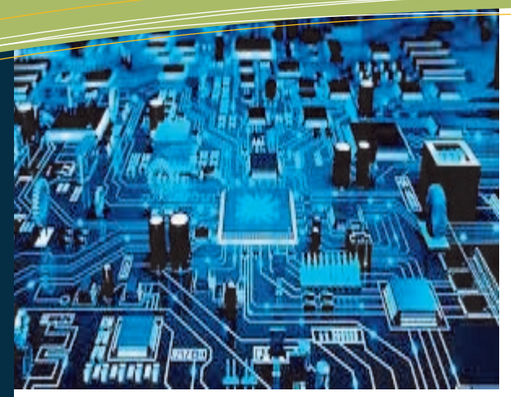
Electronics And **T**ele-**C**ommunication **E**ngineering Departments had been start in 2008, with intake of 60 . Our departments have 6 well-equipped laboratories. We have established the association " CENTIA " in which we conduct various activities like Quiz competition, Power point presentation, Robotics, Poster presentation, LAN gaming etc.

These departments have organized national level event "TALENT HUNT" under this we conduct Circuit Sudoko.

various expert lectures and workshops like Embedded System, PLC and PCB Designing for the overall development of students. This type of activities are used to get better result in academic and overall development of students.

Our students and faculties are also developing "Digital presser control"

Mr. M. A. Kumbhar
HOD



In this issue

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Flexible electronics

Flexible electronics, also known as *flex circuits*, is a technology for assembling electronic circuits by mounting electronic devices on flexible plastic substrates, such as polyimide, PEEK or transparent conductive polyester[1] film. Additionally, flex circuits can be screen printed silver circuits on polyester. Flexible electronic assemblies may be manufactured using identical components used for rigid printed circuit boards, allowing the board to conform to a desired shape, or to flex during its use. An alternative approach to flexible electronics suggests various etching techniques to thin down the traditional silicon substrate to few tens of micrometers to gain reasonable flexibility, referred to as flexible silicon (~ 5 mm bending radius).

Flexible printed circuits (FPC) are made with a photolithographic technology. An alternative way of making flexible foil circuits or (FFCs) is laminating very thin (0.07 mm) copper strips in between two layers of PET. These PET layers, typically 0.05 mm thick, are coated with an adhesive which is thermosetting, and will be activated during the lamination process.

FPCs and FFCs have several advantages in many applications: required to flex during its normal use, such as folding cell phones (dynamic application).

Tightly assembled electronic packages, where electrical connections are required in 3 axes, such as cameras (static application).

Electrical connections where the assembly is required to flex during its normal use, such as folding cell phones (dynamic application).

Electrical connections between subassemblies to replace wire harnesses, which are heavier and bulkier, such as in cars, rockets and satellites.

Electrical connections where board thickness or space constraints are driving factors.

Advantage of FPCs

·Potential to replace multiple rigid boards or connectors

·Single-sided circuits are ideal for dynamic or high-flex applications

Stacked FPCs in various configurations

By Mr. Sawant N. S.

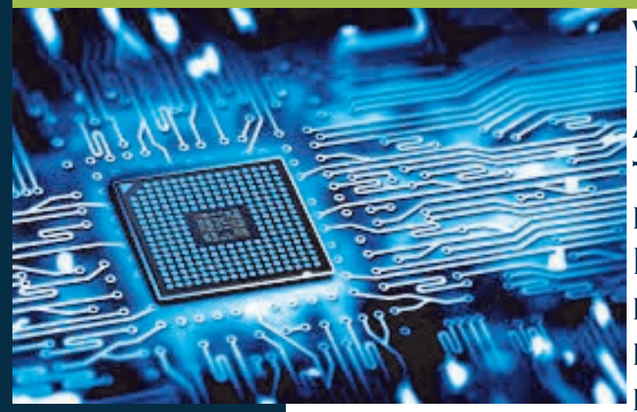
A self Parking chair

The self-parking office chair uses automatic steering, a 360 degree roller and a system of four cameras positioned around a room to navigate a fleet of the chairs into their appropriate positions around a conference table via Wi-Fi.
"With this innovation in office technology, Japanese businessmen are now freed from the troublesome task of arranging chairs, using this new technology already adopted in the X-Trail Hybrid and other Nissan vehicles," the company said in a press release.
A simple clap is used to trigger the auto-park mode, but it will only work if the chair is unoccupied, according to SlashGear.
Apart from keeping your office and conference room tidy in 21st Century style, the chairs don't serve much purpose except to promote Nissan's "Intelligent Park Assist" technology which is available in Nissan vehicles. Engadget reported that the modified Okamura office chairs won't be for sale any time soon.

Specifically, Nissan has taken its self-parking tech, otherwise known as "Intelligent Parking Assist," and put it into office chairs.

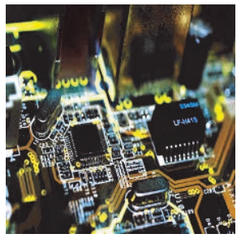
With a single clap, the lights won't switch off, but all the office chairs in the room will automatically turn and tuck themselves back under their desks. Nissan explains this should keep offices and meeting rooms tidy, allowing employees to fix up the room with a clap of hands at the end of the day or meeting.
These Intelligent Parking Chairs actually works with the help of four motion-control cameras mounted on walls around the room, connecting to the chairs using Wi-Fi. The chairs themselves are able to turn a full 360-degrees, with the cameras helping track and transmit where the chair needs to go.
Unfortunately, while it's fun to watch the chairs scurry around, this isn't something you'll start seeing pop up into offices around the world. Instead, Nissan is using the Intelligent Parking Chair to show off its self-parking tech, while we continue tucking our own chairs in like plebeians.

By Miss. Shirake S.S.



What Electronics and telecommunication Engineer really need to know.

Electronic communications engineering is the utilization of science and math applied to practical problems in the field of communications. Electronic communications engineers engage in research, design, development and testing of the electronic equipment used in various communications systems. cellular telephones, radios and television. It is due to electrical engineers that we enjoy such modern communication devices as cellular telephones, radios and television.



Electronics and electrical engineering diploma programs with communication concentrations are typically offered from the diploma to the doctoral level. These programs prepare students for careers as systems engineers, research engineers, controls engineers, communication engineers and electronic engineers, as well as researchers and university professors. The programs are rigorous with an emphasis in math and science. Students study topics such as wireless, digital, data and fiber optic communications. If you'd like to learn more about this career field Students should look for these programs.

Electronics and communication engineering course give enormous job opportunities in electronics and software companies. All electronic devices need software interface to run and come with one other or other device controlling programs architected and developed by electronics and communication engineering. It also gives great opportunities for research and development, as everyday consumer need new devices to support them in daily life……

By Mr. Kumbhar M. A.

Departmental Achievements in Academic Year 2015-16

Students

- Miss. Katkar Pooja kisan secured 1nd rank by securing 90.63 marks in final year
- 7 out of 65 students have got above 90 marks in various subjects in final year.
- Miss. Katkar Pooja kisan and Miss. Anjali Pandurang Katkar have got second prize in MSBTE technical quiz competition organized at marathwada institute of technology polytechnic, Aurangabad.

Mr. Harshdip Mane and Amit Zende have got second prize in quiz competition at SSWP Solapur.

Sr. No.	Name of Student	Subject	Marks
1	KATKAR POOJA KISAN	MCO/VLSI	90/90
2	DEVAKATE POOJA SHAM	MCO	90
3	SHAHANE MANASI MAHESH	MCO	90
4	PATIL SONALI SATISH	MCO	90
5	YADAV BHUMIKA SUNIL	MCO	90
6	UNDRE PRIYANKA MANIKRAO	ESY	94

Faculty

- Our staffs had gone through the various trainings at prasar bharti pune and IIIT Mumbai for short term training and photovoltaic power generation.
- Three staff of our department are pursuing ME in various field.
- All staff are involved in R & D activities and have completed the project sponsored by agencies like IEI Kolkata.
- One faculty of our department have attained the workshop of mind spark .

Departmental Result for A.Y. 2015-16

Sr. No.	Name of Student	Marks %	Class
1	GEND PAYAL NAVNATH	95.57%	1st Year
2	ATAR MINAJ ALTAF	89.86%	1st Year
3	MARAL SAYALI SUDHIR	89.43%	1st Year
1	RANDIVE ASHWINI BRAMHADEV	87.88	2nd Year
2	KUMBHAR SEEMA RAMDAS	87	2nd Year
3	GORE BHAGYASHRI NARSHIV	86.75	2nd Year
1	KATKAR POOJA KISAN	90.63	3rd Year
2	SHAHANE MANASI MAHESH	88.63	3rd Year
3	PATIL SONALI SATISH	86.75	3rd Year

EYE ON IT

Technologies developed by DRDO Electronics Dept. Govt. of India.

- Battlefield Surveillance Radar
- EOCM-Class Laser System
- 3D-CAR
- Revathi
- Weapon Locating Radar
- Sangraha
- Samyukta
- Antenna Systems
- Communication Systems
- Briefcase SATCOM Terminal
- Sectel
- Sujav
- Integrated Weapon System Simulation
- Multi-Detector Temography System
- Laser Designator PRF Code Recognition Device
- Palmtop Green Microchip Laser Module
- Passive Q-Switching
- Threshold Detector

SOFTWARE Used for Electronics.

- MATLAB
- Xilinx ISE
- Altera Quartus
- Code Composer Studio
- HFSS
- OptSim
- Commsim
- µVision IDE
- Emu8086
- Proteus Design Suite
- PSpice
- Agilent Advanced Design System

ELECTRA Dept. Of E&TC