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. P. S. Valate
Student Coordinator
Ms. Pratiksha Fulare
(TYEJ)

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ISSUE
01
August 2018
Celebrating 72nd Independence Day

SVERIs College of Engineering (Polytechnic), Pandharpur.

Department of Electronics and Telecommunication Engineering

ELETRA TIMES

Electronics Trends and Applications

In this issue

About Department

Electronics And Telecommunication Engineering Departments had its 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.

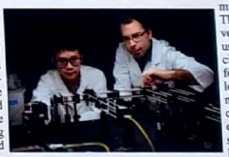
These departments have organized national level event "TALENT HUNT" under this we conduct Quiz, Sudoku, various expert lectures and workshops like Embedded System, PLC and PCB Designing for the overall development of students. This type of activities are used to get better result in academic and overall development of students.

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

Mr. M. A. Kumbhar
HOD

Using light for next-

Tiny, nano-sized crystals of salt encoded with data using light from a laser could be the next data storage technology of choice, following research by Australian scientists. The researchers from the University of South Australia and University of Adelaide, in collaboration with the University of New South Wales, have demonstrated a novel and energy-efficient approach to storing data using light. With the use of data in society increasing dramatically due to the likes of social media, cloud computing and increased smart phone adoption, existing data storage technologies such as hard drive disks and solid-state storage are fast approaching their limits We have entered an age where new technologies are required to meet the demands of 100s of terabyte (1000 gigabytes) or even pet byte (one million gigabytes) storage. One of the most promising techniques of achieving this is optical data storage.



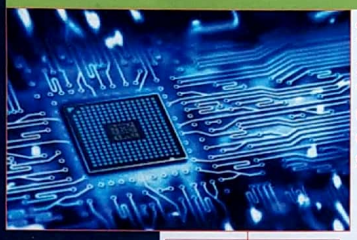
Dr Riesen and University of Adelaide PhD student Xuanzhao Pan developed technology based on nanocrystals with light-emitting properties that can be efficiently switched on and off in patterns that represent digital information. The researchers used lasers to alter the electronic states, and therefore the fluorescence properties, of the crystals .Their research shows that these fluorescent nanocrystals could represent a promising alternative to traditional magnetic (hard drive disk) and solid-state (solid state drive) data storage or . blu-ray discs. They demonstrated rewritable data storage in crystals that are 100s of times smaller than that visible with the human eye. What makes this technique for storing information using light interesting is that several bits can be stored simultaneously. And, unlike most other optical data storage techniques, the data is rewritable, This 'multilevel data storage' -- storing several bits on a single crystal -- opens the way for much higher storage densities. The technology also allows for very low-power lasers to be used, increasing its energy efficiency and being more practical for consumer applications. The low energy requirement also makes this system ideal for optical data storage on integrated electronic circuits."These results showcase the benefits of establishing complementary research capabilities and infrastructure at collaborating universities -- this has been a deliberate strategy in the photonics domain that is bearing fruit across a number of projects," says Professor Tanya Monro, University of South Australia. The technology also has the potential to push forward the boundaries of how much digital data can be stored through the development of 3D data storage."We think it's possible to extend this data storage platform to 3D technologies in which the nanocrystals would be embedded into a glass or polymer, making use of the glass-processing capabilities we have at IPAS," says Professor Heike Ebendorff-Heidepriem,

By Mr. Sawant N. S.

Traffic accidents could be decreased with 5G technology

A 5G solution developed by VTT Technical Research Centre of Finland has been designed to bring real-time 3D views to inter-vehicle communication. "The speed of the 5G network enables transmitting large 3D views between vehicles. As a result, the communication distances of car observations can be increased and data can be obtained from areas which the car's own sensors do not cover and are not in its view," says the leader of the 5G-Safe project, aiming for reducing road traffic accidents, Tiia Ojanperä at VTT

The new vehicular network solutions and the local road weather and road safety services enable supporting drivers, road operators and the control systems of automated vehicles. They will require no action from motorists while driving – data will be gathered and warnings will be sent to users automatically, VTT says.



The first piloting target was VTT's robot car Martti, which was used to test the ability to detect obstacles and ruts in the road. A demo implemented in Sodankylä was based on the data transmission of the LiDAR sensor on a 12.5Hz frequency to the MEC server of VTT's 5G test network. There, the data was received by Unikie's algorithm, of which the warnings enabled optimising Martti's route according to its abilities.

The new solutions piloted under the 5G-Safe project are currently being finalized on the basis of the experiences and results gained so far. Scheduled for completion at the end of 2018, the project is also used to seek for new business opportunities for the companies involved.

By Miss. Gaikwad A.P.

JOB OPPORTUNITIES FOR ELECTRONICS ENGINEER IN GOVERNMENT SECTOR

- Electronic communications engineering is the utilization of science and math applied to practical problems in the field of communications. It is the oldest branch of engineering and also emerging as a fastest growing branch alongwith IT industry. There are a lot of job opportunities in Pvt sector as well as public sector.
- For public sector you can get a job by
- GATE: It will allow you to work in PSUs like NTPC, BEL,etc. and also will allow you to take admission in IISc, IITs NITs and other state sponsored engineering colleges. Where you will get stipened of Rs. 12000 pm. along with your education and also you can get expertise in a particular area. After your M.Tech. You can Opt PhD and earn a stipened of About Rs. 38000 pm.BSNL: You can work in stae sponsored telecom sector with a revenue of 280 billion INR

- India releases vacancy for fresh scientists and engineers. So you can go there and do a lot of research in the space science, rocket science, communication technology.
- 4. DRDO: Defence Research and Development Organization also releases vacancy for research fellows and you can apply their and excel in the technology of Indian Defence.
- 5. CSIR: For Junior Research Fellows in CSIR labs across the country you have to give exam of NET and after which you will be working on different research projects.
- Also In your State Electricity Board there are vacancies.
- ECE students can apply for Indian Railway sector jobs as it provides many benefits. You will have to pass their exams like Special Class Railway Apprentice (SCRA) exam or Railway Recruitment board (RRB) exams and other railway entrance exams. Look for them in the daily newspapers or online.

By Mr. Kumbhar M. A.

DEPARTMENTAL ACHIEVEMENTS IN AC-

STUDENTS

SR. NO	SUBJECT TOPPER	Sub	MARKS
1	KORAPE VAISHNAVI SANJAY	ACS	94/100
2	KORAPE VAISHNAVI SANJAY	MCO	92/100
3	KUMBHAR SEEMA RAMDAS	MCO	91/100
4	KUMBHAR SEEMA RAMDAS	ESY	93/100
5	JAGTAP SURANJALI BANDU	ESY	92/100
6	NIRMALE RUTUJA NARAYAN	ESY	91/100
7	MANEPATIL AARTI SHAHAJI	ESY	91/100
8	GEND PAYAL NAVNATH	ACO	92/100
9	GEND PAYAL NAVNATH	LIC	91/100
10	SALUNKHE ROHINI AMBADAS	AME	70/70
11	SONAR SHASHANK RAMAKANT	AME	70/70
12	PATIL MADHURI DHANANJAY	AME	70/70
13	MHAMANE GITANJALI KRUSHNAT	AME	70/70
14	BABAR MEGHA DINKAR	AME	69/70
15	SALUNKHE ROHINI AMBADAS	EEC	67/70
16	PATIL MADHURI DHANANJAY	EEC	67/70
17	SALUNKHE ROHINI AMBADAS	CPR	70/70

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	Ms. SALUNKHE ROHINI AMBADAS	95.63	1st Year
2	MR. SONAR SHASHANK RAMAKANT	91.25	1st Year
3	Ms. PATIL PARVATI TAMANNA	89.63	1st Year
1	Ms. GEND PAYAL NAVNATH	86.38	2nd Year
2	Ms. FULARE PRATIKSHA VIJAY	86.25	2nd Year
3	MS.BHOSALE MEGHA RAMACHANDRA	82.00	2nd Year
1	Ms. KUMBHAR SEEMA RAMDAS	90.65	3rd Year
2	Ms. KORAPE VAISHNAVI SANJAY	90.24	3rd Year
3	Ms. RANDIVE ASHWINI BRAMHADEV	89.88	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