



**COMPLETED OF PROJECTS SPONSORED BY INDIAN INSTITUTE OF ENGINEERS**

**Project Name :**  
Arm7 based home automation system using IoT

**Fund Received :** Rs-20 K

**Status :** Completed

**Coordinators :**  
Mr. Kumbhar M. A.

**Project Name :**  
Voice over internet protocol using arduino.

**Fund Received :** Rs-30 K

**Status :** Completed

**Coordinator :**  
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 these 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 and industrial visited for our students to Akashwani Kolhapur , Hem Electronics pvt. Ltd. Miraj and Apron 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 2 to 3 days Arduino project development and PCB Design and undergone 6 week industrial in-plant training program.

"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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## ABOUT DEPARTMENT

**E**lectronics And **T**ele-  
**C**ommunication **E**ngi-  
**n**eeing Departments had  
been start in 2008, with  
in of 60 . Our depart-  
ments 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 to providing plat-  
form for hidden tallent .  
The department have  
organized national level  
event "TALENT HUNT"

To gain hands on experi-  
ence about new trends in  
industry through various  
expert lectures and work-  
shops like Embedded Sys-  
tem, PLC and PCB Design-  
ing for the overall devel-  
opment of students. This  
type of activities are used  
to get better result in aca-  
demic and overall devel-  
opment of students.  
Our students and faculties  
are also developing

Mr. Kamagond S. G.  
H.O.D

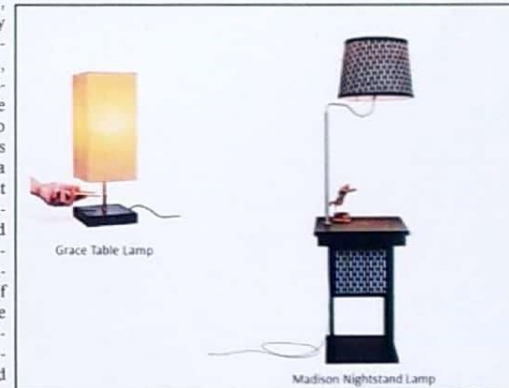
## SMART LEDS

Multi-Function LED Lamps with Built-In Wireless Chargers has examined LED lighting from the standpoint of safety, light

quality, energy efficiency, and sustainable design, so now let's take a look at the features and underlying technology of some commercial LED-based lamps.

Brigh tech manufactures LED lighting systems for homes and small offices. Several of its products feature added conveniences such as USB ports and wireless pads that charge cell phones, tablets and other battery-powered devices. (As in diagram 1), as the others share the same basic technology.

Features and Specifications-Two  
Brightech lamps.



Grace Table Lamp

Madison Nightstand Lamp

That provide wireless charging pads and USB ports are the Grace Table Lamp and the Madison Nightstand Lamp. Both include LED

bulbs that screw into an E26 base (the same socket as a standard incandescent light bulb) and provide 800 lumens of light about the same as a 60W incandecent

By Ms. Patil P.T.(TY EJ)

## 5G to open up new horizons

5G is the next generation mobile data network technology that promises speeds that are way more than those provided by today's cellular and cable operators. Though the applications of mobile 5G are still far away from being publicly available, the 5G products and services showcased at CES 2019 provide a glimpse into what's in store. Verizon unveiled its **5G Ultra Wideband** that will alter the virtual gaming landscape with the ability to deliver heightened virtual reality experiences. American chipmaker Intel revealed its latest 10-nanometre-based network system-on-chip (SoC) which is codenamed 'Snow Ridge' that has specifically been developed for 5G wireless access and edge computing. Chipmaker Qualcomm devoted a large portion of their display in showcasing what 5G could potentially do for both smartphones and VR headsets. Qualcomm showed off new phones which are scheduled to arrive later this year that are enabled with its Snapdragon 855 microprocessor and X50 cellular modem that will be easy to connect to the upcoming super-fast 5G wireless networks. Finally, Samsung became the first tech giant to showcase their 5G smartphone prototype at the CES 2019. AT&T announced that it is working on the applications of 5G by partnering with hospitals to enable more access to healthcare, decrease costs and improve efficiency.

By  
Ms. Deshmukh R.R.



## Self-driving and all-electric vehicles

As technology firms continue to transform the **auto industry**, tech shows and conferences have emerged as the destination of choice for automobile companies. This year's CES gave us a lot of advanced automotive tech, some of which could be seen in the not-so-distant future. Some of the innovations unveiled at the CES this year were autonomous cars, electric vehicles, large-screen infotainment systems, walking cars, talking cars, and even flying taxis! Aptiv – a global automotive solutions company displayed their autonomous driving technology in partnership with Lyft. Attendees experienced self-driving taxi rides throughout Las Vegas in automated BMW 540is. Nissan unveiled the all-electric vehicle, the Leaf e+, which offers more range and more power than earlier models. Byton, an electric car startup, displayed its **Bitone SUV** that has swapped a traditional dashboard for a large LCD screen.

By  
Miss. Yadav 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 technology Engineers that we enjoy such modern communication devices as cellular tele-



phones, radios and television. Electronics 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 prog-

rams 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 r-

come with one other 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.Valte P.S.

## DEPARTMENTAL ACHIEVEMENTS IN ACADEMIC YEAR 2018-19

### STUDENTS

• Mr. KALE SURAJ DASHRATH secured 1st rank by securing 88.71 marks in final year

| Sr. No. | NAME OF STUDENT          | SUBJECT | MARKS |
|---------|--------------------------|---------|-------|
| 1       | TAKBHATE VIJAY DIPAK     | AME     | 100   |
| 2       | RANDIVE AMRUTA BRAMHADEO | AME     | 99    |
| 3       | PARCHANDE SAURABH SUDHIR | AME     | 98    |
| 4       | MULANI AYESHA NAVAJ      | AME     | 97    |
| 5       | TAKBHATE VIJAY DIPAK     | EBC     | 97    |
| 6       | GORE GAYATRI RAMCHANDRA  | CPR     | 97    |
| 7       | MHAMANE VAISHNAVI RAMESH | LIC     | 99    |
| 8       | PATIL MADHURI DHANANJAY  | LIC     | 98    |
| 9       | SALUNKHE ROHINI AMBADAS  | LIC     | 97    |
| 10      | PATIL MADHURI DHANANJAY  | CEL     | 97    |
| 11      | MUJAWAR SIMRAN LATIF     | MAA     | 99    |
| 12      | MHAMANE VAISHNAVI RAMESH | MAA     | 98    |
| 13      | PATIL MADHURI DHANANJAY  | BPE     | 99    |
| 14      | MUJAWAR SIMRAN LATIF     | BPE     | 97    |
| 15      | MHAMANE VAISHNAVI RAMESH | DCS     | 98    |
| 16      | VARADE AISHWARYA MARUTI  | DCS     | 97    |

### DEPARTMENTAL RESULT FOR A.Y. 2018-2019

| Sr. No. | NAME OF STUDENT          | MARKS % | CLASS    |
|---------|--------------------------|---------|----------|
| 1       | GORE GAYATRI R.          | 95.25%  | 1st Year |
| 2       | TAKBHATE VIJAY DIPAK     | 93.75%  | 1st Year |
| 3       | RANDIVE AMRUTA B.        | 93.63%  | 1st Year |
| 1       | PATIL MADHURI DHANANJAY  | 96.89   | 2nd Year |
| 2       | MUJAWAR SIMRAN LATIF     | 96.44   | 2nd Year |
| 3       | MHAMANE VAISHNAVI RAMESH | 96.33   | 2nd Year |
| 1       | KALE SURAJ DASHRATH      | 88.71   | 3rd Year |
| 2       | GAIKWAD RUTUJA KUMAR     | 87.06   | 3rd Year |
| 3       | GEND PAYAL NAVNATH       | 86.47   | 3rd Year |

### 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 IEL Kolkata.
- Faculty are attended the workshop on mind spark .
- Faculty are attended the workshop on Institute of satellite Telecom.

## 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 Tomography 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
- @Vision IDE
- Emu8086
- Proteus Design Suite
- PSpice
- Agilent Advanced Design System