



Sophia-Meet the first-ever robot citizen

In October 2017, the robot became a **Saudi Arabian** citizen, the first robot to receive citizenship of any country. Sophia is Hanson Robotics' latest and most advanced robot to date and a cultural icon. She has become a media darling, appearing on major media outlets around the world, igniting the interest of people regardless of age, gender, and culture, even gracing the cover of one of the top fashion magazines. Her press coverage has a potential reach of over ten billion readers in 2017. Sophia is an evolving genius machine. Her incredible human likeness, expressiveness, and remarkable story as an awakening robot over time makes her a fascinating front-page technology story.

By Ms. Yadav S.S.

Upcoming Events

In this semester we are planning for our annual student event **TALENT HUNT 2K19**

In TALENT HUNT students are going to organize various events like Robotics, Paper presentations, Quiz contest and Circuit Sudoku. Winner will awarded with trophies and certificates. Last year 200 students were participated in this events. Through this we get 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 Akashwari Satara and Aprion Tech Satara, SM technologies Pune and BSNL Pune.

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 Robotics and Arduino programming. Upcoming vacation we plan for arduino and Raspberry Pi project development and PCB Design. Also planning for employment for students.

"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 6 volume and first issue of our departmental newsletter "ELECTRA", which gives us the opportunity to focus the achievements in our department and new trends in Electronics and Telecommunication field.

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 through this newsletter.

Mr. P. S. Valte
Student Coordinator
Ms. Fulare Pratiksha
(TYEJ)

Mr. P. S. Valte
HOD

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Celebrating 70th
Republic Day

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Department of Electronics and
Telecommunication Engineering

ELECTRA TIMES

Electronics Trends and Applications

About Department

Electronics And Tele-Communication Engineering Departments had been start in 2008, with intake of 60. Our departments have 6 well-equipped laboratories and 12 well qualified teaching staff. We have established the association "Talent hunt" in which we conduct various activities like Quiz competition, Power point presentation, Robotics, Poster presentation, LAN gaming etc. This departments have organized various short lectures and workshops like Embedded System, Arduino, Robotics, 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.



Wireless Power Transmission Technology with Applications

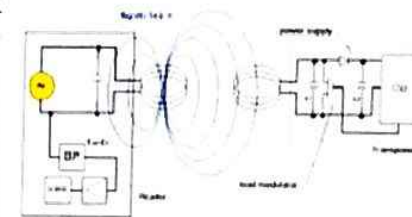


Nowadays electricity is considered as one of the basic needs of human beings. The conventional power transmission system uses transmission lines to carry the power from one place to another, but it is costlier in terms of cable costs and also there exists a certain transmission loss. One maintainable technology leading this charge is a wireless power transmission (WPT). It is also known as inductive power transfer (IPT).

Wireless power transmission technology is not a new technology. In 1980, it was demonstrated by Nikola Tesla. There are three main systems used for wireless electricity transmission: solar cells, microwaves and resonance. In an electrical device, microwaves are used to transmit electromagnetic radiation from a source to a receiver. The name wireless power transmission states the transfer of electrical power from a source to an electrical device without the help of wires.

Basically, it involves two coils: a transmitter and a receiver coil. The transmitter coil is powered by an AC current to produce a magnetic field, which in turn induces a voltage in the receiver coil.

Inductive Coupling Power Transmission: Inductive coupling method is the most important methods transferring energy wirelessly through inductive coupling. Basically, it is used for near-field power transmission. The power transmission takes place between the two conductive materials through mutual inductance. The general example of inductive coupling power transmission is a transformer.



By Mr. Kumbhar M.A.

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What will be the scope of ECE after 2020 in India?

Year 2018

We have 4G, 5G services. Data rates are going up to 10-100 Gbps. Current generation general purpose microprocessors have quad cores, octa cores. Artificial intelligence and virtual reality has recently developed. Internet of things, gesture controlled home automation, and many more things have evolved uptill now.

Year 2020

Our needs and demands will increase. Earlier we were happy with data rates of 10 Gbps, but now we will need be needing more. 6G will arrive in the market. Requirement of faster processing will lead to evolution of 16-32 core processors. Artificial intelligence virtual reality will reach to new heights. Robotics will give us Butler bots, new companions to help us in daily work. There is no end to technology. It will keep on flourishing. There will always be a great score in this field

JOB OPPORTUNITIES FOR ELECTRONICS ENGINEER

Engineering is a popular and specialized industry. As an electronics engineer you could be working with high-level technology in a range of sectors. Electronics engineers design, develop and test components, devices, systems or equipment that use electricity as part of their source of power. These components include capacitors, diodes, resistors and transistors. Work can be found in a variety of areas as electronics are used in many things including:

- acoustics;
- defence;
- medical instruments;
- mobile phones;
- nanotechnology;
- radio and satellite
- communication

By Mr. Waghmare H. B.



What makes a good electronics and communications engineer?

- First, you should understand what is Electronics. This may sound silly. But try to explain to someone who does not know anything about electronics, without using the terms "Diode", "Transistor", "Circuit", "IC", "Microprocessor", etc.
- Second, Electronics is a branch of Electrical. So try to be strong in Electrical Fundamentals
- Third, Understand the Basic Transistor Circuit.
- Fourth, understand the Digital Circuit thoroughly from AND, OR, NOT gates to Microprocessors.
- Fifth, Understand C language thoroughly. It is a simple set of rules defined by Dennis Richie.

You can master C language with in a shortest time.

- Sixth, Master C programming skill. This is the most essential skill for the ECE students today. Without this skill you will find it difficult to enter into electronics core companies.

• Seventh, Buy a Microcontroller kit and apply the C programming skill to do good electronic projects by yourself without copying a single line of code from net/book/friends.

- These 7 steps will make you to eligible get a job in Electronics industry. Try to understand that in Core Industries Basics is the KING. So always

By Mr. Kumbhar M. A.

"Becoming a electronics engineer means you must actively take the reins in the world of communication"

Departmental Achievements in Academic Year 2018-19

Students

Sr. No.	Name of Student	Subject	Marks
1	MHAMANE VAISHNAVI R.	EMI	65/70
2	MUJAWAR SIMRAN LATIF	AEL	66/70
3	MUJAWAR SIMRAN LATIF	DTE	63/70
4	SALUNKHE RAHINI AMBADAS	AEL	66/70
5	PATIL MADHURI DHANANJAY	AEL	64/70
6	ATHAWALE SAURABH SWAMI	CSP	98/100
7	KALE SURAJ DASHRATH	CSP	97/100
8	SHINDE NAMRATA NAMDEV	CSP	94/100
9	PATIL RENUKA NAMADEV	CSP	94/100
10	GEND PAYAL NAVNATH	CHN	45/50
11	KALE SURAJ DASHRATH	DCO	93/100
12	SATHE SAYALI BHUJANG	AVE	93/100
13	SUTAR AVANTIKA MAULI	AVE	93/100

Faculty

- Our staffs had gone through the various trainings at Kannad Electromation, Sangali and SRTMU nanded for short term training.
- five staff of our department are pursuing ME & four staff have completed ME in various field.
- All staff are involved in R & D activities and in the verge of completion of several projects sponsored by agencies like IETI Kolkata.
- Participated in AVISH-KAR 2018-19

Departmental Result for A.Y. 2018-19

Sr. No.	Name of Student	Marks %	Class
1	Ms. GORE GAYATRI RAMCHNDRA	95.14	1 st year
2	Ms. MARLE SAMRUDDHI SOMNATH Ms. RANDIVE AMRUTA BRAMHADEO	94.00	1 st year
3	Mr. MANE ASHUTOSH DARLING	93.50	1 st year
1	Ms. MUJAWAR SIMRAN LATIF	92.94	2 nd year
2	Ms. MHAMANE VAISHNAVI Ms. PATIL MADHURI DHANANJAY	91.06	2 nd year
3	MS. DHOLE ASAVARI SATISH	90.24	2 nd year
1	Mr. KALE SURAJ DASHRATH	92.22	3 rd Year
2	Ms. GEND PAYAL NAVNATH	91.22	3 rd Year
3	Ms. BHOSALE MEGHA RAMCHANDRA	90.22	3 rd Year

EYE ON IT

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

- Battlefield Surveillance Radar
- EO/CM-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
- µVision IDE
- Emu8086
- Proteus Design Suite
- PSpice
- Agilent Advanced Design System

