

Departmental Achievements

- Our 10 students from final year are placed in Various Multinational Companies
- Our 05 students from various batch are placed in MSEDCL
- 06 faculties completed different online FDP programs during Lock-down period
- 06 Week Inplant Training Arranged for Second Year Students
- Our two entrepreneur earn 35 Lakh turnover from LED Bulb Manufacturing

Vision

To be recognized as one of the best electrical engineering departments in Maharashtra for providing effective and socially responsible engineers to serve the future needs.

Mission

1. To impart value based technical Education in Electrical Engineering.
2. To improve Technical knowledge of students.
3. To make the students equipped with various skill sets in Electrical Engineering.
4. To inspire students for lifelong learning.

DEPARTMENTAL RESULT FOR A.Y. 2020-21

SR. NO.	NAME OF STUDENT	MARKS %	CLASS
1	Mr. Shirsat Aniket Rajendra	84.88%	1st Year
2	Ms. Surawase Swapnali Bramhadev	84.50%	1st Year
3	Ms. Barsawade Vedashree Tukaram	83.00%	1st Year
1	Ms. Karale Sakshi Kantilal	96.06%	2nd Year
2	Ms. Rokade Ritesh Sanjeev	94.50%	2nd Year
3	Ms. Kharde Shravani Yogesh	93.85%	2nd Year
1	Mr. Sagar Vishal Bhagwan	98.00%	3rd Year
2	Ms. Chavan Gitanjali Mahadeo	97.00%	3rd Year
3	Mr. Chaugule Rohan Bapurao	93.25%	3rd Year

EDITORIAL

It gives us great opportunity to present the seventh issue of our departmental newsletter "Ignite", which gives us the chance to focus on achievements in our department and new and emerging trends in Electrical engineering.

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.D.Kadam

IGNITE



SVERI's College of Engineering (Polytechnic),
Pandharpur.

Volume 7 Issue 3



Department of Electrical Engineering

Happy Republic Day!

About Department

Electrical Engineering Department has been started in 2011 with intake of 60. Our department has 08 well-equipped laboratories. We have established the association "EESA" with the Department of Electrical Engineering in which we conduct various activities like Quiz competition, Paper Presentation etc.

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Energy storage and better batteries

While wind and solar power are excellent sources of sustainable energy, they are not always there. Therefore, consumers can only "make hay when the sun shines." They have to do their best to save energy from the wind, the sun, or any other renewable sources for later use. To meet this demand, electrical engineers all around the world are working towards better batteries and energy storage. Distributed Energy Resource (DER), grid parity, AI and sustainable energy, block chain, and cyber security.

Generally, 2020 is an exciting year for the electrical engineering landscape. Companies like Tesla, Eos, Sonnet, and Vivint Solar are some to keep an eye on for the latest innovations.

By- Mr.Rokade Ritesh

(TY EE)

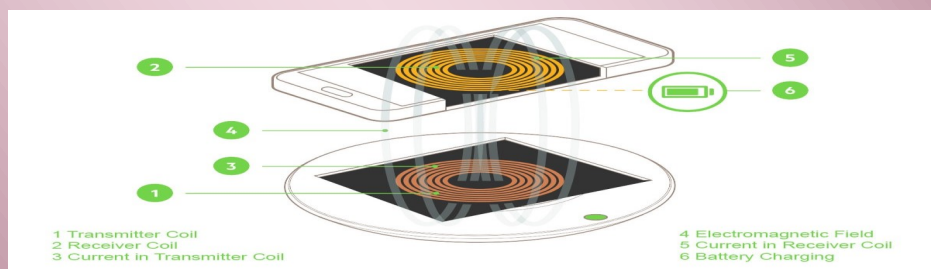
Message of HOD

It gives me a great pleasure to congratulate students, teachers and staff of Electrical Engineering Department for the seventh publication of newsletter. Newsletter is believed to be focus of the inside activities i.e. academics, students and faculty achievements as well as outside visits of the department. In the era of engineering and technology this newsletter will motivate the teachers and students of sharing their creativity and new ideas for overall development.

Mr. S. M. Ghodake

WIRELESS POWER CHARGING TECHNOLOGIES

Wireless charging has been around for quite some time now. If you own a flagship smartphone released within the past three years, chances are that it supports wireless charging. This feature is also present on some mid-range devices and is in the news again thanks to the **iPhone SE (2020)** as well as the **One Plus 8 Pro**. That's not all, wireless charging is also used to charge some wearable devices and a few true wireless earphones as well. In fact, you can even charge smaller devices wirelessly from your phone's battery. So let me explain what wireless charging is, how it works, and everything else you need to know. Before I explain how wireless charging works, I would like to add that there were two charging standards when this concept took off. Qi (pronounced "chi") was a standard by the WPC (Wireless Power Consortium), and PMA was promoted by the Power Matters Alliance. Both are based on inductive charging, but Qi has been widely adopted by electronics manufacturers and is now the de facto standard so you don't have to worry about compatibility. How does wireless charging work? It uses electromagnetic induction to wirelessly transmit power between a wireless charger and a device that can be wirelessly charged. To simplify, there is one coil in the wireless charger and another in the receiver.



The overall system comprises of a charger pad and the battery. Each part has planar coils that are used to transfer energy from the charging pad to the battery. The electrical energy is modulated so the charging pad and battery can communicate with each other. This allows the charging pad to verify that a valid battery is in place before it transmits full power to the battery.

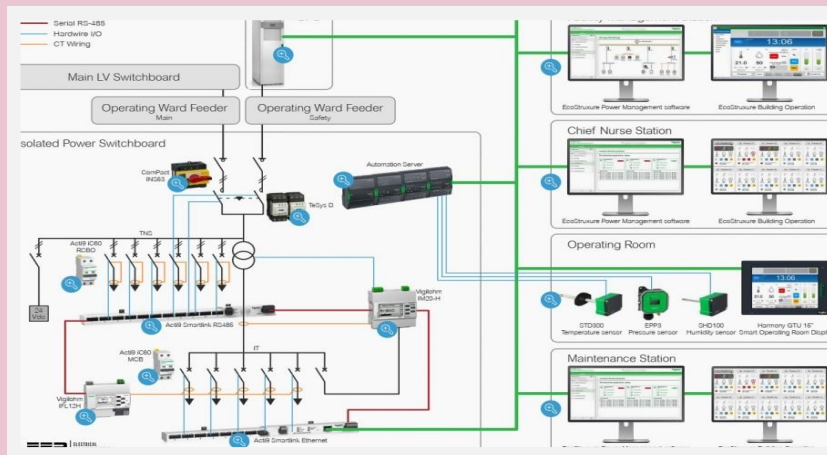
Using the Qi (inductive power standard), Epic can embed wireless charging electronics in your custom battery pack to work with off-the-shelf wireless charging pads that already exists. We also have in-house engineering resources to help you develop a custom charging pad specific for your end product.

So here is what happens when you place a smartphone that is capable of wireless charging on a wireless charging pad. The wireless charger sends out a signal from its coil, which is picked up by the receiver coil in the smartphone. Once this happens, you'll usually see an LED on the wireless charger light up or change Colour to indicate charging.

By- Mrs. Sneha.V.Pawar
(Lecturer, Electrical Engineering Department)

Isolation power solutions for ultimate power availability, efficiency and safety in hospitals

By- Mr. Swapnil S.Nikam
(Lecturer, Electrical Engineering Department)



Introduction: Codes and standards in virtually every nation require isolated, ungrounded electrical distribution systems for healthcare facilities and other specified structures. Isolated power solutions allow the early detection of hazardous current levels within critical systems in healthcare facilities allowing systems to remain online and patients, staff, and infrastructure protected.

Isolate power solutions offer wide-ranging benefits, including the following:

1.Reduce electrical shock risk:

- ◆ IT Network with Isolated transformer and monitoring system
- ◆ TNS Network With RCBO SI 30mA protection device
- ◆ 25V maximum indirect contact performance

2. Reinforce energy availability:

- ◆ IT Network including no overload tripping
- ◆ Total discrimination
- ◆ UPS sourcing + other sourcing including 30ms changeover

3. Support operational efficiency:

- ◆ Specific alarming messages according to stakeholder
- ◆ Insulation and Electrical Fault Location
- ◆ Condition-based maintenance and traceability – reports