

**DIRECTOR'S DESK**



**Achyut Sawantbhonsale**  
Executive Chairman, SYBES

I am extremely happy to know that department of electrical engineering is coming up with its maiden issue of the Newsletter *Jyotirgamaya*. I congratulate the entire editorial team for this great initiative. This will portray the various curricular as well as extra-curricular activities of the department. I hope it will also contain the information related to the latest industrial developments and technological advancements in future. The students and faculty members will be highly benefited with this promising step. I am sure that readers will find it fresh, interesting and full of intrinsic knowledge. I wish a great success for Jyotirgamaya. ★★★

**Editorial Committee**

**Editor in Chief**

Mr. G. A. Bhosale (I/c Principal)

**Co-Ordinators**

Mrs. Sarita Sawant-Sandye (Lecturer)  
Ms. Shraddha Rawool (Lecturer)

**Departmental Faculty Members**

Mr. Mandar M. Ghawali (Lecturer)  
Mr. Balasaheb M. Patil (Lecturer)  
Ms. Shruti Hewalekar (Lecturer)



**VISION**

To impart fundamental concepts of Electrical Engineering to our students.

**MISSION**

To prepare our students to meet changing needs of Electrical Engineering.

To expose our students with the outside world for technical advancement.

To serve the society through technical contribution in Electrical Engineering.

**Electrical Department observes Electrical Safety Week**



The Electrical Safety Week was celebrated with great enthusiasm during 11<sup>th</sup>-17<sup>th</sup> January 2018 across the district. As a part of this, Electrical students participated in Public Awareness Rally which was arranged to create the public awareness.

Electrical safety week was inaugurated at Electrical Inspection Divisional Office, Kudal, Sindhudurg by hoisting green flag, at the hands of Hon. Mr. Uday Choudhary, Collector (Sindhudurg).

The main objective of electrical safety week was to make the people aware of electrical accidents & how to recover from these accidents by handling proper methods.

**MSBTE Result Winter 2017 Akshay Kudav tops in Third Year & Ashwini Shirodakar Sets up New Record**



Akshay Kudav, Ashwini Shirodakar, Shubhangi Kavthankar

Results of MSBTE Winter Exam 2017 declared on 3<sup>rd</sup> January 2018. As expected, the Electrical Department received a grand success. Ten students from TYEE secured first class with distinction, twenty one students from TYEE secured first class.

Akshay Kudav from TYEE stood first with 89.53%, Pranali Kondaskar got 85.53 and Siddarth Remane stood third with 83.53%. Ashwini Shirodakar from SYEE scored 87.77%. In Applied Mathematics by scoring out of marks (100/100), she has set up the record. Ananya Khadilkar secured second position with 81.65. First year electrical student Shubhangi Kavthankar stood first with 81.00%. All the successful students were felicitated at the hands of Mr. Achyut Sawantbhonsale.

**HOD'S DESK**



**D. D. Patil**  
HOD, Electrical Dept.

I am delighted to know that our department of Electrical Engineering, Yashwantrao Bhonsale Polytechnic, Sawantwadi is publishing its first Newsletter. This Newsletter carrying departmental news, achievements of staff as well as students will earn credit for the institution.

On this occasion, I wish all the best who are responsible for bringing out this Newsletter. It would be definitely an inspiration & motivation for other students & staff members to perform better and add on their contribution in forthcoming months.

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## INDUSTRIAL VISIT

## Maui Enterprises



The industrial visit of Second and Third Year Electrical Students was arranged to Maui Enterprises, Kudal under the subject of PPT & ACM. Maui Enterprises is the industry where the winding of stator is done of Crompton Motors. The visit was organized to get clear idea about stator winding. Mr. D. V. Davane, Mr. H. A. Pawar, Mr. B. M. Patil and Miss S. N. Hewalekar were along with the students.

## INDUSTRIAL VISIT

Kolgaon Substation  
(33/11KV)

The Industrial Visit of Third Year students of Electrical Department was arranged to Kolgaon Distribution Substation located near Sawantwadi.

The visit was organized to bring overall ideas in the students' mind about the Switchgear like Vacuum Circuit Breaker, Isolator, Earthing Switch, Control Panels under the subject of Switchgear and Protection.

The visit was very useful to students as it gave more clear ideas and practical knowledge about Switchgears which will make students more confident when they handle it. Mr. D. V. Davane and Mr. B. M. Patil were in charge of visit.

## STUDENTS' CORNER

## Smart Grid



Yogita Dhuri  
TY Electrical

"The grid" refers to the electric grid, a network of transmission line, substation, transformer and more that deliver electricity from the power plant to your home or business. Our current electric grid was built in the 1890s and improve upon as technology advanced through each decade. Today's, it consists of more than 9200 electric generating units with more than 1 million megawatts generating capacity connected to more than 300000 miles of transmission lines.

Today an electricity disruption such as a blackout can have domino effect – a series a failure that can affect banking, communication, traffic and security. This is a particular threat in the winter, when homeowners can be left without heat. A smarter grid will act resiliency to our electric power system and make it better prepared to address emergencies such as severe storms, earthquake, larger solar flares and terrorist attacks.

When power outage occurs smart grid technologies will detect and isolate the outages, containing them before they become large scale blackouts. Smart grid is a way to address an aging energy efficiency to bring increase awareness to consumers about the connection between electricity use and environment. And it is a way to bring increase national security to our energy system drawing on greater amount of home grown electricity that is more resistance natural disaster and attacks.

The smart grid will consist of millions of pieces and parts-control, computers, power lines and new technologies and equipment.

Sports Fiesta 2017 rejuvenates  
Electrical Students

Annual Sports Fiesta 2017-18 held during 26<sup>th</sup> - 29<sup>th</sup> Dec. 2017. As usual a great deal of planning, practicing and hard work were observed. Chief Guest for the Sports Fiesta was **Mr. Amit Gote (PSI Sawantwadi)**. Sports Fiesta began enthusiastically with motivational speech by our Chief Guest followed by oath. Students were more energetic in their respective colors. Students of Electrical Department participated actively in Volleyball,

Football, Cricket, Kho-Kho, Athletics, Carrom and Chess.

Miss Ashwini Shirodkar of Second Year Electrical bagged the "Best Sports Girl" award for the academic Year 2017-2018. Electrical girls were declared winners in Kho-Kho. The ground was filled with cheer, excitement and joy as each sport activity was filled with thrill.

## STUDENTS' CORNER

## GIL (Gas Insulated Transmission Line)



Siddharth Remane



Rajkishor Chavan

In the present scenario energy plays a very vital role. Where the generation is made at the most effective end it is a challenge before India to transmit this effectively. Generation is something that is done by neglecting or by simply projecting the losses hence transmission is a major issue wherein the losses are involved. To overcome these losses GIL (Gas Insulated transmission Line) can be implemented. GIL was first introduced by the scholars of Massachusetts in the late 80's.

GIL basically consists of 2 aluminum conductors out of which the inner conductor is used for the supplying current while the outer conductor houses the insulated gas SF6 and N2 and the current conductor. The inner conductor is held at the center by using post insulators and a particle

trap is available at the bottom of GIL that ensures dust or particles to settle down. GIL can be laid above and below the ground. Generally it is used for underground installations. GIL is generally preferred for AC transmission as the DC system needs all the power system equipment based on the GIL concept but this is in process.

GIL lacks when it comes in finding out fault location, excessive damage in case of laying GIL and skilled laborers are required but GIL is a perfect solution for transmission of electricity efficiently since it has outstanding features like high superior electromagnetic compatibility, high transmission capacity, good heat dissipation, high reliability, less space requirement, suitable for gas powered station etc. In spite of having such efficient advantages it has still not rooted its value in the Indian transmission system this might be due to lagging knowledge in this subject or any other research technical reason that is not specified.

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