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VISION OF EED:
 To be the centre of excellence that nurtures electrical technicians required in multi-domain profession to meet industrial and societal needs.

MISSION OF EED:

- Imparting technical education using productive learning resources to enhance multi-domain skills.
- Adapting well-coordinated state-of-art tools and technology to develop technical, ethical and eco-friendly skills.
- Providing sophisticated practical tools to solve broad-based problems to develop motor skills.

Teachers' Day.....5th September 2022...

Second year students of the Department organized a short programme to express their gratitude towards “Teachers”. Miss Sanskruti Gunjal, students’ representative, elaborated the tradition of celebrating Teachers’ day all over India. In India, the Teachers’ Day is celebrated on 5th September and this tradition started from 1962. This is the day when Dr. Sarvepalli Radhakrishnan was born. He was a philosopher, scholar, teacher, and politician and his dedicated work towards education made his birthday an important day in the history of India. After paying homage to Hon. Dr. Sarvepalli Radhakrishnan, Indian Philosopher & Second President of India, the students greeted their teachers by offering roses. Students showed their affection to their favourite teachers in the form speeches and acknowledged the contribution of their teachers in their development. Many students shared their real life experiences about support given by teachers in past for development of good things in them. All the teachers in the department also had dialogue with the students, shared their experiences and underlined the importance of discipline and sincerity in life for happy living. Every teacher expressed their well wishes and blessings to the students. Finally students’ representative expressed vote of thanks to teachers for their gracious presence and also for guiding & encouraging the students.



In the afternoon, Er. Rahul Nalawade, President & CEO, Panama Renewable Energy Group Pune, an alumnus of Electrical Engineering Department, G. P. Karad, visited the Department to meet his teacher Prof. R. S. Pise. On request, Er. Rahul shared his experiences in his professional career and elaborated the contribution of teachers in his life. He also narrated the importance of physical fitness, which was one main cause of getting him opportunity to enter into professional field of Wind farm. He shared many things about his physical fitness and how it helped him to climb wind towers for

maintenance, promoting himself for higher & higher positions in corporate sector, finally climbing at the top of organization. Er. Rahul is very passionate about his work in renewable energy sector. He has decided to guide and mentor the students for entrepreneurship development and startups. He explained three essentials viz. Knowledge, Skills and most importantly the Attitude, which everyone need to be cautious about for personality development and ultimately for the success....



Engineers' Day.....15th September 2022...

All over India the birth anniversary of Sir M. Visvesvaraya, wizard of engineering, is celebrated as “Engineers’ Day”. On this occasion, Electrical Engineering Students’ Association (EESA) organized Medical check-up camp for girls, Blood donation camp and motivational speech cum interaction with Er. Swapnil Jadhav, Dy. Executive Engineer, MSEDCL, Karad.



It was keen observation by Prof. Mrs. Sunita Ingole that many girls in the department couldn't even stand for 15 minutes for discussion and performance of practicals, they feel tired and seek opportunity to sit without paying attention to their study. During her discussion with those girls, the fact realized & came out on surface that most of the girls do not bother about their

food intake and not much cautious about their health. Many are anemic. It is well known fact that if someone have anemia, her body does not get enough oxygen-rich blood. The lack of oxygen can make she feel tired or weak. One may also have shortness of breath, dizziness, headaches, or an irregular heartbeat. To know the health status and to make the girls aware of their weakness, health check-up camp exclusively for girls was organized by EESA. Dr. Sandip Yadav and his supporting staff provided all the necessary help and cooperation for this medical checkup. Dr. Rajendra Patil, Principal, inaugurated the camp in presence of EED students and HoDs & Faculty in the institute. All the girls from second and third year (Electrical) undergone this medical checkup and benefited from it. During this camp, counselling session was also conducted for girls. A day later, medical reports made available and those girls suffering from anemia were given medicine. The health status then reported to their parent. The parents were also advised to take proper care of health of their daughter. In this medical checkup camp, Dr. Yadav and team extended their service to checkup blood-pressure and diabetes for faculty and staff of the institute. Institute head Dr. Rajendra Patil, Principal and Prof. Devdatta Shingare, I/c Head, Electrical Engineering Department along with many faculty and staff of the institute took benefit of it.



Dr. Sandip Yadav and team of “Yashawant Blood Bank Karad” also coordinated the blood donation camp in liaison with EESA. Many boys, faculty and staff donated blood for social cause, total count being 35 blood bags of 200 ml each. Refreshment facility including coffee-biscuits and boiled eggs provided to every blood donor. Also this blood donation was rewarded with social certificate and pen. This certificate one can use in future as & when the blood is needed to oneself or family member or friend. Almost for four hours, the department students, faculty and staff were involved in this social activity.

In the afternoon, Er. Swapnil Jadhav, Dy. Executive Engineer, M S E D C L Karad, conducted an excellent interactive session with full of joy and happiness. He demonstrated mind power using plays and games, which impacted the young minds. He made the entire session very interesting so that everyone in the hall was actively involved in the demonstrations. He motivated the students from rural area by his own example. He emphasized the importance of every small step towards attitude building, which finally makes the sense and success. All the students, faculty and staff enjoyed this two hour session, which ended with ignited minds.....



Making Lighting String.....1st October 2022...

Lighting lights up the way.....

On the global scenario, Chinese products have dominated almost in every field. Each village in China is a production centre, manufacturing small products on very large scale, thereby reducing expenses and maintaining too small manufacturing cost. Therefore, they can

it across the globe at very reasonable cost to sale such an extent that respective country itself cannot offer it. Even in India, most of the decorative electrically operated lighting systems available are china made and people are attracted due to less product cost. Of course, the quality is compromised but people realize it later. In order to give an essence of quality product, trouble-shooting & repair and finally joy of “making”, this skill development workshop was planned and organized for all students of Electrical Engineering Department.

Since most of the people from India celebrate their festivals with decorative lighting, the department planned the workshop on theme “Our festival, our lighting string”.

The workshop was inaugurated by Dr. Rajendra K. Patil, Principal, G. P. Karad in presence of Dr. Simeekeru, Dr. D. S. Chavan, both Head of Mechanical Engineering Department, G. P. Karad. All the dignitaries appreciated the initiatives taken by the Electrical Engineering Department for their efforts to support “Make in India”. Prof. Devdatta Shingare conducted a session for technical details about the components to be used, their electrical connections, role and finally making and testing of 100 bulb (40 feet) lighting string. Second year and

third year students participated in this workshop and prepared 140 lighting strings, which was sold at Rs. 300/- per piece against the market price of Rs. 450/- and above. The raw material was purchased in bulk from the wholesale market for cost reduction. Students were provided with all facilities such as soldering gun with support, multimeter etc. to help them develop the psychomotor skills and skills pertaining to affective domain. The workshop ended with smiley faces of students expressing happiness and joy of making their own decorative lighting string to decorate and light up their homes in coming Diwali...festival of lights.....



आपले सण, आपली दिव्यांची माळ
 मराठडच्या शासकीय तंत्रनिकेतनमध्ये विद्युत माळा बनवण्याची कार्यशाळा उत्साहाने
 आयोजित करण्यात आली.
 कार्याध्यक्ष : प्रमुख वृत्तस्थ
 आपले सण, आपली दिव्यांची माळ असा विचार करून विद्यार्थ्यांनी विद्युत माळा बनविल्याचा आनंद घेतले. या कार्यशाळेला सुरुवात करताना प्रमुख वृत्तस्थ डॉ. राजेंद्र क. पाटील यांनी आपल्या संबोधनात विद्यार्थ्यांना प्रोत्साहित केले. या कार्यशाळेचे उद्देश्य म्हणजे विद्यार्थ्यांना विद्युत माळा बनवण्याची कार्यशाळा आयोजित करण्यात आली होती.
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 या कार्यशाळेचे उद्देश्य म्हणजे विद्यार्थ्यांना विद्युत माळा बनवण्याची कार्यशाळा आयोजित करण्यात आली होती.

Electrical Safety.....Expert Lecture.....24th November 2022

Accidents hurt – Safety doesn't....

If one wish to avoid the accident, then safety is must. To make everyone aware about safety in general and electrical safety in particular, informative session on “Electrical Safety” was organized for students. Er. Waidande, Dy. Executive Engineer, Training Centre, M S E D C L, Vishrambag, Sangli and his team presented importance of safety while working with electricity. Photographs of on-site electrical accidents, causes, effects and the sad story of accident created long lasting impact on the minds of students. It underlined the fact that “Electricity has the POWER to kill”. Students realized scary effects of electrical accidents causing muscle contractions to electrocuted injuries to fatal deaths.



School Connect.....Mission Admission 2023.....21st Dec 2022

Best brains are found in rural india.....

To promote Technical Education and reach to the door steps of aspirants in rural areas, Electrical Engineering Department faculty actively involved in “School Connect Programme”. With initiatives and guidelines from Directorate of Technical Education, Maharashtra State, Mumbai and funding from Maharashtra State Board of Technical Education, Mumbai, this programme is implemented with motto

“Mission Admission 2023” in each district of Maharashtra state. For Satara district, Government Polytechnic, Karad is the coordinating institute to plan the activities to promote the technical education in rural areas and help the aspirants to seek admission to Diploma programmes of their choice. Under this mission, various teams of faculty are created to visit the schools in allotted area and provide all information to school students who wish to seek admission to Diploma



programmes in various branches of engineering. Awareness is created among the students about technical education, its benefits, scope and opportunities and bright future. To start with, meeting of all Head-masters in Karad taluka was conducted at this institute for making them aware about technical education. Dr. S. T. Bidgar, Head, Applied Mechanics Department & Programme Coordinator welcomed the invitees and addressed the admission process of Diploma programmes. More than 100 head-masters and officials of education department attended the meeting. Everything about technical education, its benefits, scope and opportunities etc. is discussed with the head-

masters so that they help promote the technical education in their schools and encourage the students to go for technical education. Prof. Rajanish Pise explored the National Education Policy 2020 (NEP-2020). He elaborated the content of policy document and addressed many issues regarding reformations and upliftment in proposed education policy. Prof. Mrs. Sunita Ingole expressed vote of thanks. Electrical Engineering Department faculty, supporting staff and students were involved in organizing this event as social responsibility.

Industrial Visits.....Hydro-power station, Khodashi (1st Oct 2022) & 400kV Substation , Talandge (18th November 2022)

Better appreciation always encourages happy learning... To appreciate the technology, one must physically see the applications of technology. Once student appreciate the technology, his or her learning is naturally encouraged. Keeping in mind this fact, industrial visits are planned every semester, so that students can go and physically see the installations built with use of technologies.

Second year (3rd Sem.) students visited Micro-hydro power plant on Krishna river at Khodashi. Prof. Bhise accompanied the students. The station incharge explained various components, their role, features and the operation of the plant. Students could see the physical dimensions of the components, equipment and appreciated electrical engineering along with mechanical-civil work and infrastructure. This visit was planned keeping in mind the exploration of theoretical concept included in course on Electrical Power generation. The students observed the arrangement of Penstock, spillway, Turbine-Generator installation, Protection schemes, Generator substation etc.

Final year (5th sem.) students visited 400kV transmission substation at Talandge, Kolhapur. The station incharge explained the layout of the substation. Details of the control center, panel indicators, various relays, battery room etc. shared with the students so that they can understand the functioning of substation in a better way. Then field visit to switchyard gave long lasting impact in understanding various components such as power transformer, lightning arrester, Insulators, Bays, Busbar systems, CTs, PTs, Isolators and Circuit breakers, Protection schemes and maintenance activities. Prof. D. Y. Shingare, Prof. Mrs. S. S. Ingole, Prof. N. T. Bhise, Prof. S. U. Kale and supporting staff accompanied the students.



Sports.....Inter Engineering Diploma Students' Sport Association (IEDSSA) – 2022-23

A) Volleyball:

A volleyball team of second year girls participated in Zonal tournament held at Latthe Polytechnic, Sangli on 26th November 2022 and became runner-up. Congratulations to them for participation with winning sportsmanship. Special credit goes to captain Ms. Ashwini Jadhav who created the team with enthusiasm and maintain the winning spirit till the end. Team-mates are as follows:

- 1) Ms. Ashwini Jadhav (Captain)
- 2) Ms. Pooja Thorat
- 3) Ms. Riya Jadhav
- 4) Ms. Tanuja Kakade
- 5) Ms. Gauri Phalle
- 6) Ms. Siddhi Sutar
- 7) Ms. Vinaya Yewale
- 8) Ms. Sakshi Yadav
- 9) Ms. Rutuja Yadav
- 10) Ms. Pranaya Khude



B) Carrom:

A carrom team of two members participated in Zonal tournament held at Latthe Polytechnic, Sangli on 26th November 2022 and became runner-up. Congratulations to them for participation with winning sportsmanship. Team-mates are as follows:

- 1) Ms. Rutika Kumbhar
- 2) Ms. Shravani Patil

C) Kho-Kho:

Ms. Kajal Kalkar, player in Kho-kho team, participated in Zonal tournament held at Latthe Polytechnic, Sangli on 26th November 2022. Team won two matches but lost the quarter-final. Better luck next time....Congratulations for participation with winning sportsmanship.

E-Learning..... Ms. Manasi Girigosavi (F. Y. EE)



E-learning is a type of learning conducted digitally via electronic media, typically involving the internet.

It can be accessed via most electronic devices including a computer, laptop, tablet or smartphone, making it a versatile and easy way for students to learn wherever they are. E-learning resources come in a variety of forms – from software programmes and digital courses to interactive online platform and apps.

With so many schools across the globe closed during Covid -19 pandemic, teachers and students took advantage of e-learning methods to continue their studies from home. Even before this recent crisis, many schools were already strong champions of edtech in the classroom, and creating a seamless and flexible learning experience through the use of digital platforms. There are many ways in which teachers have been implementing e-learning to continue the teaching of their curriculum.

One major way is the use of virtual ‘classrooms’ or lessons, using video communication platforms like Zoom. The teacher is able to plan and teach lessons as normal, with all students attending the lessons from their own home. The great thing about Zoom is that it can be accessed on a phone as well as a computer, adding greater flexibility to students. Teachers have also been able to create and distribute learning materials via platforms like Google Classroom and Edmodo. And when it comes to finding lessons plans and learning materials, there is a whole wealth of shareable resources online.

The concept of e-learning is not new to the education sector. However, the outbreak of COVID-19 has fuelled schools’ need to leverage the technology platforms to drive learning initiatives. There is heightened demand for schools to provide learning solutions to students using online platforms as the advantages far outweigh the demerits. In simple terms, e-learning is the act of learning or educating via digital resources such as software programmes, mobile and the internet.

The use of digital platforms for learning is vividly changing our education system. Traditional classroom training days are slowly coming to an end due to high-speed internet and technology advancement. The pandemic has grown the importance of e-learning globally.



E-Vehicle..... Pranav Pisal (F. Y. EE)

An electric vehicle (EV) is a vehicle that uses one or more electric motors for propulsion. It can be powered by a collector system, with electricity from extra-vehicular sources, or it can be powered autonomously by a battery (sometimes charged by solar panels, or by converting fuel to electricity using fuel cells or a generator). EVs include, but are not limited to, road and rail vehicles, surface and underwater vessels, electric aircraft and electric spacecraft. For road vehicles, together with other emerging automotive technologies such as autonomous driving, connected vehicles, and shared mobility, EVs form a future mobility vision called Connected, Autonomous, Shared, and Electric (CASE) Mobility.

EVs first came into existence in the late 19th century, when electricity was among the preferred methods for motor vehicle propulsion, providing a level of comfort and ease of operation that could not be achieved by the gasoline cars of the time. Internal combustion



engines were the dominant propulsion method for cars and trucks for about 100 years, but electric power remained commonplace in other vehicle types, such as trains and smaller vehicles of all types.

An electric vehicle is a car that runs on electricity. They're really good for the environment because they don't use gas or oil, and they're cheaper to maintain because you don't have to change the oil as often.

There were more Electric Vehicles on the road than gasoline at the beginning of the 20th Century. However, when Ford's moving production line made passenger cars more attainable, this presence was challenged.

There are some disadvantages too – for example, an electric vehicle can only go about 100 miles before it needs to charge up again.

1] Need of Electric Vehicle:-

1. To reduce the import of petrol and diesel
2. To promote the use of renewable energy
3. Low maintenance and money saving
4. To reduce global warming
5. Simple and easy-to-drive experience

2] Benefits of Electric Vehicle:-

1. Cleaner environment
2. No congestion charge
3. Lower running costs
4. Renewable electricity tariffs
5. Better driving experience
6. Reduced noise pollution

3] Types of Electric Vehicle:-

A) Battery Electric Vehicles (BEV)

BEV vehicles run entirely on electricity and get all their power when plugged in charged. Therefore, petrol or diesel is not required to run such cars.

Advantages of Battery Electric Vehicles (BEV)-

- a) It generates a lot of noise.
- b) It does not burn fossil fuels. Rechargeable batteries are used instead.
- c) There is no exhaust, spark plug, clutch, or gear.

B) Plug-in Hybrid Electric Vehicles:

PHEV does not entirely rely on an electric motor, providing a mix of battery and petrol or diesel power. It is better for long journeys as you can use conventional fuel instead of charging the battery.

Advantages of Plug-in hybrid Electric Vehicles:

- a) No petrol or gas is required, and it does not cause any pollution.
- b) With this, we can experience simple and easy driving.
- c) This results in low maintenance and money savings.
- d) It is very beneficial to reduce global warming

Disadvantages of Electric Vehicle:-

- a) Limited battery range.
- b) Battery lifespan concerns.
- c) Long charging times.
- d) Charging infrastructure worries.
- e) Low top speeds.

