VIDYUTVIYOG NEWSLETTER

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Sanjivani Rural Education Society's Sanjivani College Of Engineering, Kopargaon

(An Autonomous Institute Affiliated to Savitribai Phule Pune University) At Sahajanannagar, Post Shingnapur 423603, Tal. Kopargaon, Dist. Ahmednagar (MS)



DEPARTMENT OF ELECTRICAL ENGINEERING

Vision of Department

To produce quality electrical engineers with the knowledge of latest trends, research technologies to meet the developing needs of industry & society

Mission of Department

M1: To impart quality education through teaching learning process.

- M2: To establish well-equipped laboratories to develop R&D culture in contemporary and sustainable technologies in Electrical Engineering.
- M3: To produce Electrical Engineering graduates with quest for excellence, enthusiasm for continuous learning, ethical behavior, integrity and nurture leadership.



Dear Spectators,

As the Head of the Department of Electrical Engineering, I am proud to share the numerous achievements and strides our department has made in both academic and extracurricular domains. At our institution, we firmly believe in fostering a holistic educational environment that not only prioritizes academic excellence but also encourages our students to excel in various fields outside the classroom. Our students consistently demonstrate outstanding academic performance, securing top ranks in university examinations and earning accolades for their innovative projects and research contributions. This success is a testament to the rigorous curriculum and the dedicated efforts of our esteemed faculty members who continually strive to provide the best educational experiences. Beyond academics, our students are shining examples of versatility and talent. They actively participate in national and international competitions, showcasing their skills in robotics, circuit design, and renewable energy projects. Their innovative solutions and dedication have earned them numerous awards and recognitions, making us immensely proud. We also place a strong emphasis on developing soft skills and leadership qualities among our students.

Through various workshops, seminars, and training programs, we ensure that our students are well-prepared to tackle the challenges of the professional world. Our alumni network is a testament to this, with many of our graduates holding prestigious positions in top companies and research institutions worldwide. In addition to their technical prowess, our students are also actively involved in social initiatives, demonstrating a strong sense of community and responsibility.



Ms. D. A. Narayane Co-ordinator

Dear Readers,

As the Editor of our departmental newsletter, I am delighted to share that we are committed to providing comprehensive coverage of all activities, both academic and non-academic, throughout the year. Our aim is to highlight the diverse achievements and events that define our vibrant community. From academic milestones and innovative projects to extracurricular successes and social initiatives, our newsletter captures the essence of our department's dynamic spirit. We take pride in showcasing the hard work, creativity, and dedication of our students and faculty, ensuring that every accomplishment is celebrated and recognized.

INDUSTRIAL VISIT



In our electrical department had the privilege of participating in an enriching industrial visit to a nearby substation, guided by the esteemed Prof. Dhanshree Narayane, Prof. Rahul R. Bibave, and Dr. Prashant V. Thokal. This visit was a valuable opportunity for our students to see firsthand the critical infrastructure that powers our communities.

The tour offered an inside look at the substation's operations, including energy distribution, transformer functionality, and essential safety protocols. The expert insights from Prof. Narayane, Prof. Bibave, and Dr. Thokal provided a deeper understanding of these complex systems and their real-world applications.

We extend our heartfelt thanks to Prof. D.Narayane, Prof. R. Bibave, and Dr. P. Thokal for their dedication in making this educational experience possible and to the substation staff for their warm hospitality and informative demonstrations.

Industrial visits to substations are vital for electrical engineering students as they offer practical exposure to essential components of the electrical power distribution network. These visits bridge the gap between theory and practice, helping students understand complex systems like transformers and circuit breakers. They also emphasize the importance of safety protocols in high-voltage environments and with familiarize students industry standards.Seeing real-world applications of theoretical concepts enhances learning and problem-solving skills, while exposure to the latest technologies keeps students updated on industry trends. Additionally, interactions with professionals during these visits provide insights valuable career and networking opportunities. Overall, these visits prepare students for successful careers in the electrical engineering field by combining practical experience with theoretical knowledge.



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PROJECT COMPETITION



The significance of this project competition lies in its role as a platform for students to display their technical expertise and innovative thinking. Such events are essential for fostering a culture of handson learning and practical application of theoretical They provide knowledge. students with an opportunity to tackle real-world problems, develop teamwork and project management skills, and receive feedback from faculty and industry experts. The key takeaway for students is the importance of innovation, collaboration, and continuous learning in engineering. By participating in the competition, enhance their technical competence, students communication skills, and gain valuable experience them for future prepares professional that challenges.40



We recently organized a project competition at Sanjivani College of Engineering, welcoming participation from all engineering branches. The event was graced by Dr. D.B. Pardeshi, Head of the Electrical Department, and Dr. A.G. Thakur, the Director, who both motivated students to showcase their innovative projects. The competition featured a diverse range of projects, including smart home automation systems, renewable energy solutions, advanced robotics, IoT applications, and sustainable engineering designs. Students presented their projects, demonstrating their technical skills and creative problem-solving abilities.

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HANDSON WORKSHOP



Under the guidance of our HOD, Dr. D.B. Pardeshi, we recently held a hands-on practice program focusing on electronics and electrical equipment at Sanjivani College of Engineering. This enriching session was conducted by Prof. Sanjay Chaudhari from the Nasik Electronics Study Center. The program provided students with practical experience in handling and understanding various electronic and electrical devices. Prof. Chaudhari's expertise and interactive teaching methods enabled students to engage directly with the equipment, bridging the gap between theoretical concepts and realworld applications.

This program was immensely beneficial for students, as it emphasized the importance of practical knowledge in the field of Hands-on practice allows engineering. students to develop a deeper understanding subject matter, enhances their of the problem-solving skills, and prepares them for industry challenges. The key message for students is the value of experiential learning and the importance of being adept at using and troubleshooting electrical and electronic equipment. By participating in this program, students gained valuable insights and skills that are crucial for their academic and professional growth. This initiative reflects our department's commitment to providing high-quality, practical education to our students.



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Project: Electric 3-Wheeler



Under the expert guidance of Prof. Ram N. Hajare and our HOD, Dr. D.B. Pardeshi, a team of students at Sanjivani College of Engineering successfully designed and built an electric 3-wheeler. This innovative project showcases the students' technical prowess and commitment to sustainable transportation solutions. The electric 3-wheeler is equipped with a robust battery pack, an efficient electric motor, and a lightweight chassis, ensuring optimal performance and energy efficiency. Key features of the vehicle include a range of 69 kilometers on a single charge, a top speed of 50 km/h, and regenerative braking for extended battery life.

Electric vehicles (EVs), including electric 3-wheelers, are gaining significant importance in today's world for several compelling reasons. Environmentally, EVs produce zero tailpipe emissions, helping to reduce air pollution and greenhouse gas emissions, which is crucial in combating climate change and improving urban air quality. They contribute to sustainability by using renewable energy sources, thus reducing dependence on fossil fuels and conserving natural resources.

Economically, EVs offer lower operating costs due to having fewer moving parts than traditional internal combustion engine vehicles, which leads to reduced maintenance Additionally, electricity is costs. often cheaper than gasoline, resulting in cost savings for users. Electric motors are more energy-efficient, converting a higher percentage of energy from the battery to drive the vehicle's wheels compared to internal combustion engines.

From an urban mobility perspective, EVs contribute to quieter urban environments and can help alleviate traffic congestion with more efficient transportation solutions, particularly in densely populated areas.



Award Winning Innovation



A group of enterprising students from Sanjivani College of Engineering, under the guidance of our HOD, Dr. D.B. Pardeshi, designed and developed an innovative tractor named "Sohar." This project, a marvel of engineering and creativity, showcases the students' dedication to creating practical solutions for the agricultural sector. Sohar is equipped with advanced features such as an efficient powertrain, user-friendly controls, and a robust design, making it both powerful and easy to operate. It is designed to enhance productivity while being cost-effective and environmentally friendly. The students' hard work and ingenuity were recognized at an intercollege competition, where Sohar received the prestigious award for Best Innovation.

This accolade highlights the tractor's groundbreaking design and the students' ability to address real-world challenges with innovative solutions. The award is a testament to the collaborative effort and technical excellence of our students, as well as the high standards of mentorship provided by our faculty.

The significance of innovation in agricultural machinery cannot be overstated. Modern tractors and farming equipment play a crucial role in enhancing agricultural productivity and efficiency. Innovations such as those demonstrated by Sohar are essential for several reasons. First, advanced tractors like Sohar incorporate efficient powertrains and ergonomic designs, enabling farmers to accomplish more in less time and with less effort.



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GAURAV SOHALA 2K22



The Department of Electrical Engineering proudly hosted Gaurav sohla 2022, a prestigious event that recognized and rewarded the outstanding achievements of our students. Held. the ceremony was a resounding success, bringing together students, faculty, and staff to celebrate the accomplishments of our talented students. Prizes and certificates were distributed to students who excelled in academics, sports, other and extracurricular activities. acknowledging their hard work, dedication, and passion for excellence. The event was a testament to the department's commitment to a culture of excellence fostering and innovation. The department extends its warmest congratulations to all the winners and participants who made Gaurav 2022 a memorable success. We are proud of your achievements and look forward to seeing your continued growth and success.



Gaurav 2022 was a momentous occasion for the Department of Electrical Engineering, as we celebrated the achievements of our students in a grand ceremony. The event was a fitting tribute to the hard work and dedication of our students. have who consistently pushed the boundaries of excellence.

The prizes and certificates distributed during the event were a testament to the students' outstanding performance in various fields, including academics, sports, and cultural activities. We are proud to have such talented and versatile students in our department.

The success of Gaurav 2022 was a team effort, and we would like to thank all the faculty, staff, and students who contributed to making the event a resounding success. We look forward to many more such celebrations in the future.

GIRLS TOURNAMENT



The college recently hosted a vibrant and competitive girls' sports tournament, the exceptional showcasing talent and sportsmanship of our female students. Among the participants, the Electrical Engineering girls' team stood out for their remarkable performance across various sports. Their determination, skill, and teamwork shone through in every match, leading them to clinch victories in multiple events. This impressive achievement not only highlighted their athletic prowess but also earned them the prestigious trophy for the tournament. Their triumph serves as a testament to their hard work and dedication, making the Electrical Engineering department immensely proud of their outstanding success.

Sports play a crucial role in the development of students, offering numerous benefits that extend beyond physical fitness. They foster teamwork. leadership, and resilience. equipping participants with valuable life skills that enhance their personal and professional growth. Engaging in sports helps in building a sense of camaraderie and school spirit, as students come together to support and celebrate each other's achievements. The college's commitment to promoting sports activities is evident in the enthusiasm and talent displayed during the tournament, underscoring the importance of providing opportunities for students to excel in both academics and athletics. By investing in sports, the college not only nurtures well-rounded individuals but also cultivates a thriving and dynamic campus environment.







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