

Electrical Engineering

Welcome to the Department of Electrical Engineering

Electrical Engineering has had a huge impact on the technologies that define modern-day life and society. We are proud of the depth of analytical treatment, and the specialized optional subjects we offer within our program here at KEC. We have more than 20 professional faculties— including visiting professors from IOE. We see educating the next generation of engineers as our key role, and our graduates are highly-valued by industry and commerce around the world. We are committed to our students, helping them learn, grow, develop and ultimately achieve their goals, whether it is by becoming a professor, an entrepreneur, or by joining industry.



Mission Statement

The mission of the department of electrical engineering is to promote technical excellence in Electrical Engineering by offering programs to produce engineers with dynamic, well-rounded personalities, adaptable to ever-increasing demands of emerging technologies involving analytical and practical skills. We are committed to research and development. We provide the knowledge and principles on which electrical engineering is founded in order to produce engineering graduates who are technically competent, creative, and articulate.

What is Electrical Engineering?

Electrical Engineering is concerned with the design, research, development, planning, manufacturing and management of electrical systems and devices which are required to facilitate the needs of modern, developed societies. Electrical engineers design, develop and supervise the manufacturing of electrical systems and devices. Particularly, they focus on the generation, transmission and distribution of electrical power, their control and protection system. Electrical engineers are also concerned with the utilization of electrical power in various areas such as industrial application, communication systems, information technology systems and building electrification, among others.

Why Choose Electrical Engineering at KEC?

KEC's Department of Electrical Engineering has been established to cater to the rising demand for Engineers to work in the area of power systems, renewable energy technology and industrial applications. Besides an excellent faculty and staff, the department has well-equipped laboratories to train the student in these areas. It also has a

training and consultancy unit, a Robotics Club and academic project rooms to strengthen all extra activities. Those interested in working in the above-mentioned areas must choose Electrical Engineering at KEC.

Is Electrical Engineering for you?

If you are interested in any of the following area, then you may enjoy a career in Electrical Engineering:

- Working with Power generation, transmission and distribution.
- Deal with machines and Control Systems
- Making things work electrically
- Working with Alternative and Renewable energy

Career outcomes

Studying Electrical Engineering will lead you to potential careers in the power industry, manufacturing industry, renewable energy sector and communication sector, among others. One may also build up his/her career in selfestablished employment in the above areas.

Working Environment



The overall work environment at KEC affects the quality of education as well as the quality of employee performance here. The involvement of the highly professional teaching experts and the availability of ample resources contribute to the excellent working environment in this department. Additionally, experts from different fields are periodically invited to share their knowledge with students through talk programs, seminars and other programs. The department and the college are both committed to creating a good working environment.

Resources

The department is fully equipped with all the resources and materials it needs to impart quality education. We are proud to mention that we have well-equipped laboratory set ups, unparalleled by any similar setup found in other institutions. The library holds sufficient books relating to course material and many others that will foster professional enhancement.

Participation

Frequent field visits to power stations, manufacturing, and other industries are regularly conducted by the department, and the students compulsorily participate in these visits, present field reports as part of their assignments. Students are made to participate in semester projects, and at the end of each semester, they demonstrate and present their projects. Students have, over the years, also participated in a number of other activities, like the development wind turbine and the establishment of Energy Study Center, among others.

Appreciable Project

A team Electrical Engineering students from KEC developed a 1 KW wind turbine which has drawn the attention of different energy experts, organizations and the media. This, we think, is a small but firm step towards the development of the renewable energy technology in the country.

List of Electives

- Electric Energy System Management
- Rural Electrification
- Neural Networks
- Micro-Hydro Power
- Advanced Power System
- Biomedical Instrumentation
- Reliability Engineering
- Applied Photovoltaic Engineering
- Wind Energy Conversion System Laboratory Works on
- Electric Circuit Lab
- Electric Machines Lab
- Instrumentations and Control system lab
- Switchgear and Protection lab
- Power Electronics Lab
- Electric Drives Lab
- Power Plant Equipments Lab

HOD Note

Education in the twenty first century should have a sharp focus on developing mindfulness in students that makes them competent to act upon the changing fabric of society. As technology has been the driving factor of change in present societies, our education will be durable and practical if and only if it can move in tandem with the advancements of science and technology

In this pursuit of making globally competent engineers, we expose our students to in depth theoretical background along with related practical programs. We have sound labs on Power plant equipment, Switchgear and Protection, Electrical Circuits and Control systems and so on. Our unique learning environment develops students' intellectual and personal capacities, creating a vibrant community of young enthusiastic people who are ready to trend new paths into global perspective. We help our students distinguish themselves with intellectual rigor, innovation resourcefulness with the spirit of initiative. Our graduates are articulate, confident, motivated achievers, who are committed towards contributing to the betterment of the country.

Last but not the least, we do not leave any stones unturned to inspire our students to independently formulate their opinion on every matter that concerns. We help students to lift oneself up from a state of real consciousness to potential consciousness, in other words we help to liberate fresh minds.

I once again welcome you to be a member of our Electrical family.

Er. Binod Bhandari

HOD

Department of Electrical Engineering

e-Mail:

SEMESTER TOPPER'S QUOTE



To become an engineer has been my aim since my childhood. Many questions get raised in our mind which college to join and which faculty to choose. I have been through this sort of circumstances.

The day since I had choose Kathmandu Engineering college that has met my expectations of choosing engineering. Though there were hard days and difficulties in the starting phase, the environment of KEC has always motivate me to move forwards. The friendly nature of teachers has always helped

me to build up my knowledge. The environment of my class and friends has motivate me to become a better person. Positive changes begins with KEC as you can mentally and spiritually strengthen your mind with the help of yoga.

KEC has helped me for becoming a capable electrical engineer. I feel proud for being the part of one of the best engineering college in Nepal.

Rajan Sharma

073/BEL/16



I am proud to be associated with such prestigious college. All the faculty members are very cooperative and they groom our future with their immense knowledge and incredible support. My experience at KATHMANDU ENGINEERING COLLEGE has given me a chance to sharpen my skills in the field of my choice. I am enjoying my time @KEC

Bidur Poudel

072/BEL/8