Turbine Testing Lab (TTL)

The Turbine Testing Lab at Kathmandu University is a one-of-a-kind laboratory facility established with a vision of aiding hydropower development in Nepal through research, testing and simulation, validation and other technical support. Located at the foothill of Kathmandu University at Dhulikhel, Nepal, the lab operates within the academic environment of the university.

TTL collaborates with the industries and private sectors to address technical and societal aspects of hydropower development and turbine-related issues. Capable of testing the turbine up to 300 kW, the lab is equipped with the state-of-the-art technology, computers and spacious office space for academic as well as commercial purpose.

Technical Training Centre (TTC) at KU

Kathmandu University Technical Training Centre (KUTTC) has been recently established with a mission to fulfill the skilled workforce in context of advancing technologies in automobile and manufacturing sectors. It is an autonomous technical training institute operated by Kathmandu University and was established with financial and technical support from Korea International Cooperation Agency (KOICA) to provide skill oriented training programs to under privileged youths.

KUTTC is going to run short term technical trainings on Automobile, Motorbike, Carpentry, Welding and Machining. It provides the students best platform to hone their workshop skills and delve into automotive engineering field- many a promising area of mechanical engineering.
Do you want to be a Mechanical Engineer?

As a mechanical engineer, you are an innovator. Almost every design you complete as a professional engineer will be new, original, in some way or other. You are interested in the physical principles involved in product's design, its manufacturing and assembling, its safe operation and final disposal. You are challenged by the laws of motion, forces, thermodynamics and fluid dynamics that apply in machines and energy converters. Mechanical engineering encompasses all of these spheres.

Mechanical Engineering is concerned with the use and economical conversion of energy from natural sources into other useful energy to provide power, light, heating/cooling and transportation; the design and production of machines to lessen the burden and human intervention, the creative planning, development and operation of systems for using energy, machines and resources and the processing of the materials into products useful to mankind.

Scope of Mechanical Engineering

- Mechanical engineers develop devices to harness energy from nature like fossil fuel, solar, wind, water, biomass and geothermal energy. Design of hydro turbines, wind turbines, thermal and solar power units, their research, experiments and installation, their optimization are cardinal skills that mechanical engineering provides.
- Mechanical engineers are the masters for handling industrial systems like mighty computer integrated manufacturing for helping organizations to be more effective and productive.
- Mechanical engineering is an integral part of Robotics, Mechatronics and Machine Vision systems.
- Mechanical engineers can also work in biomechanical engineering helping physicians not only by investigating the workings of the body but also by designing aids and instruments for advanced surgical practices.
- Mechanical engineers utilize their knowledge in design by using Computer Aided Design tools (CAD)
- Mechanical engineering also bears automobile sector as one of its major branches.

Mechanical Engineering at KATHMANDU UNIVERSITY

"We offer you the best"

Kathmandu University (KU) is a pioneer and leader in engineering education in Nepal. The department of Mechanical Engineering located in University premise, Dhulikhel, is one of the oldest programs at the University and the first of its kind in Nepal. Since its inception, the department has relentlessly striven to accomplish the mission of the University, which is to provide quality education for leadership development.

KU offers the best with its highly trained staffs and expatriate faculty. It endeavors to offer you the most and exposes you to the latest technology in mechanical engineering discipline so that you can gain the most. We have actively aligned our courses to include most recent developments in our field and offer excellent academia to the students to make them employable. Two months of industrial training, within and outside the country, is organized for students to develop professionalism. The department has collaborations with foreign and native universities, INGOs, companies and organization - all the development of students to emerge as an accomplished engineer, for the society, for the country and for the world.

Strength of the Program

- Learn in one of the few programs that provide both mechanical engineering and material science within the same department.
- Interact with faculty outside the classroom and get assistance in all aspects of your personal and academic development.
- All design projects in the capstone design course are industrially supported, providing valuable connections with field professionals.
- Managerial thrust by offering several managerial and entrepreneurial courses.
- Join other science, mathematics and engineering students in the School of Science - share courses with your neighbors, study together, get free tutoring, and use the department's own computer lab.
- The department has a cordial relations and Memorandum of Understanding with several NGOs and INGOs.
- The excellence of the quality of its students has been time and again proven by the admission and scholarship offer received by the students in the acclaimed universities worldwide, jobs in reputed Multi National Companies. The department as a good relation with foreign universities and hence faculty and student exchange programs are frequent in the department.

LABORATORY AND RESEARCH FACILITY

- Turbine Testing Lab (TTL)
- Biomass Stove Testing Lab (BSTL)
- Automobile Lab (KUTTC)
- Engine Combustion and Gasification Lab
- Strength of Material Lab
- Thermodynamics
- Heat Transfer Lab
- Theory of Machine Lab
- Metrology Lab
- Machine Vision Lab
- Fluid Dynamics Lab
- CAD/CAM, ANSYS Lab

EXTRA CURRICULAR ACTIVITIES

- Association of Mechanical Engineering Students (AMES)
- 2-month long industrial training for final year student
- Group project work in each semester
- Field visit, industrial tour and frequent workshops/seminars, lecture series by experts and invited speakers.
- Financial Assistance- Topper of any semester is waived of his/her school fee in the following semester. The Department also provides financial assistance to deserving students, in terms of loan, scholarship and fee waiver as per the rule and provision of the University.