



Energize Nepal Project

- Detail drawing of the **model Francis test rig** components.
- Completed LabVIEW fundamental training for instrumentation at TTL.
- Developed **simplified program** with reference to previous program to measure pressure, torque, flow and temperature on LabVIEW.
- Conversion of **LabVIEW codes** into executable application files.
- Working on torque, flow, head & rpm for **calibration** of measuring instruments.

UGC Research Grant

- TTL received collaborative research grant 2073/74 from **University Grant Commission (UGC)**, Nepal to conduct research on "Capacity Development for Experimental Investigation of Sediment Erosion in Hydraulic Turbines at TTL".
- Total amount of the grant is **NRs. 2 million** for the period of three years.

Himalayan Hydro Expo 2018

- Participation of faculties and researchers from DoME & TTL along with students on **Himalayan Hydro Expo 2018** organized by Independent Power Producers' Association, Nepal (IPPAN) on 5-7 January at Bhrikutimandap Exhibition Centre, Kathmandu.
- 5 selected projects from KU-ME Hydropower group (**4 from III year & 1 from II year**) were showcased on the event.
- 2 projects from III year clinched the **second** and **third** position at Hydro products and services competition in the expo and bagged the cash prize of NRs. 22,222.22 & 11,111.11 respectively whereas remaining 3 projects won the **fourth, fifth & sixth position** and were awarded the certificates and souvenir in the event.

Conference/ Visit

- Dr. Hari Pd. Neopane, Member Secretary, TTL participated on one day round table discussion on "Leveraging Norwegian Experience for Hydropower Development in Indian Subcontinent" at New Delhi, India and gave the presentation on "**Hydropower in Nepal, Collaboration with Norway and R & D activities in hydropower**" on 17th January.
- Dr. Biraj Singh Thapa, Assistant Professor, DoME participated and gave the **keynote presentation** on "Development of Francis Turbine at Kathmandu University to initiate a new business in Hydropower market under Himalayan Basins" on **Nepal Power Investment Summit** organized by Energy Development Council (EDC) from 27-29 January at Soaltee Crowne Plaza, Kathmandu.



Memorandum of Understanding (MoU) Signing Program

- Signing of MoU between KU-School of Engineering and **Chilime Engineering and Services Company Ltd. (ChesCo)** on 18th January which was attended by representatives from DoME, TTL & TTC.
- KU-SOE was represented by the Dean, Prof. Bhupendra Bimal Chhetri and ChesCo by Dr. Prashant Mandal, CEO of the company which was facilitated by Dr. Biraj Singh Thapa, Assis. Prof., DoME with MoU aiming towards collaboration for services related to **electro-mechanical and hydro-mechanical** issues of hydro power sector.

Activities of PhD candidate

- Completion of **first drafts of theses** to be submitted to NTNU and KU.
- Internal defense at KU planned during CRHT-VIII on 20th March, 2018.
- Defense at NTNU planned on 27th June, 2018.

Activities of ENEP PhD candidate

- 3D Modelling of turbine components and its fluid model for simulation.
- Numerical analysis of Francis turbine on **different guide vane profiles**.
- Effects of guide vane profiles on **sediment erosion** of runner blades.

Activities of ENEP MS student

- Literature review on design of high speed Francis turbine.
- Blade analysis in CFX on progress.
- Francis turbine blade modification based on CFX results (mainly **blade loading curves and efficiency**).

Lab Visits

- Visit by Mr. Prabesh Raj Devkota, Mechanical Engineer, **Nepal Electricity Authority (NEA)** on 9th January and was briefed about the facilities at TTL.
- Visit by Dr. Prashant Mandal, CEO, **Chilime Engineering & Services Company Ltd. (ChesCo)** on 18th January after the completion of MoU signing program between KU-SOE & ChesCo.
- Visit by the group of students from Department of Electronics & Communication, **Khwopa Engineering College, Libali, Bhaktapur** on 21st January.



Students Visit

- Students from 3rd year- Hydropower group with the project “Experimental analysis of heat treatment performed under welding repair and maintenance of Pelton runner” visited [Nepal Hydro & Electric Limited \(NHE\)](#), Butwal from 10-15 January for their project works.
- Final year undergraduate students made a visit to [Kulekhani I \(Dhorsing\) & II \(Nibuwatar, Makwanpur\)](#) Hydropower station as a part of their elective course study on 24-25 January along with faculties and researchers from TTL.