



EnergizeNepal Project

- 2D drawing finalization for tender procedure of “Existing Francis Turbine Test Rig Relocation” (6th August, 2018).
- Model turbine test rig drawings and tender documents issued for notice to CED (6th Aug, 2018).
- Call for tender through Kantipur daily for Turbine accessories installation. (11th August 2018).
- Evaluation of tenders for vacuum pump, compressor and various sensors and selecting Adwell International Pvt. Ltd. as a contractor. (August 15, 2018).
- Opening of Tenders for Turbine accessories components. (27th August, 2018).

FranSed Project

- Start of a new project, FranSed funded by Norwegian Research Council at TTL from period 2018-2021.
- Project partners: Norwegian University of Science and Technology and Indian Institute of Technology (IIT)-Roorkee.
- Research topic: Variable Speed turbines in the context of sediment laden HPPs
- Project kick-off meeting on October, 2018

Lab Activities

- Interview for lab technician (2nd August, 2018.)
- Maintenance of shutter in the lab. (5th August, 2018)
- Submission of proposal for Renewable Nepal Phase II project title “Capacity and competence development for introducing Francis Turbine in Nepalese Micro Hydropower Projects”. (5th August 2018).
- Connection of Three Phase Electricity in lab which was stopped since two years. (9th August, 2018)
- Orientation program for Mechanical I- Year students in the lab. (10th August 2018.)
- Maintenance and Successful Testing of VFD pump in lab. (17th August, 2018).
- Proposal Submission for IRDP project on project title “Community development in rural Nepal by improving health and livelihood through co-generation of electrical energy by utilizing existing watermill systems”. (28th August, 2018).



Lab Visits

- A combined visit of delegates from Kongju National University, Gongju, South Korea and Nepal Academy of Science and Technology (NAST). (August 7 2018).
- Visit and Inspection of lab by Nepal Engineering Council Team. (19th August ,2018)
- Visit by Nepal Micro/Mini Hydropower Development Association (NMHDA) in lab with discussion for introduction of Francis Turbine in Micro Hydro of Nepal. (20th August, 2018)
- Visit by delegates from Kirloskar Brothers Limited, India with discussion on prospect of using Pump as Turbine (PAT) in micro hydro of Nepal.
- Group of Students from Washington University led by Pratishtit Lal Shrestha. (23rd Aug, 2018).

Progress of ENEP Students

- Full Turbine ICFM CFD Hexa Meshing of 92 kW Francis Turbine completed. *(By Ram Lama)*.
- Steady state simulation at BEP of 92 kW Francis Turbine completed. *(By Ram Lama)*.
- Hexa mesh at 1 mm clearance gap of guide vane created for 92 kW Francis Turbine. *(By Saroj Gautam)*
- Transient state simulation at BEP completed for 92kW Francis Turbine. *(By Saroj Gautam)*.
- Pressure pulsation in between rotor stator component observed. *(By Saroj Gautam)*.
- Design of micro Francis Turbine of 20 kW from Bovet method. *(By Dadi Ram Dahal)*.
- Numerical Simulation of 20 kW Francis runner with Guide Vane. *(By Dadi Ram Dahal)*.

Publication

- Sailesh Chitrakar, Ole Gunnar Dahlhaug, Hari Prasad Neopane, "Numerical investigation of the effect of leakage flow through erosion-induced clearance gaps of guide vanes on the performance of Francis turbines", *Engineering Applications of Computational Fluid Mechanics (Taylor & Francis)*, vol. 12(1), 2018.

New Recruitment

- Mr. Bhuwan Prasad Bhattarai joined lab for the post of Lab Technician in Energize Nepal Project. (15th August, 2018.)