TURBILE TESTING LAB

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Energize Nepal Project

- Fabrication of high and low pressure tanks to be installed at lab floor started.
- Budget for Year II submitted to Energize Nepal Program Office.
- Technical details for VFD and VFM finalized and quotation and tender process for the same on progress.
- Updating of CAD drawings for model Francis turbine test rig as per NTNU official's recommendation.

Lab Activities

- Dewatering of the lower reservoir and cleaning process in progress.
- Quotation for reservoir internal coating in final stage.
- 3-D printing of Archimedean spiral turbine and parts of Francis turbine for second year undergraduate students (Hydropower Group).
- Conducting student lab for Mechanical & Civil Engineering department as a part of Hydraulic Machines coursework.

Workshop and Visits

 Dr. Hari Pd. Neopane, Member Secretary, TTL participated in Erasmus+ Regional Seminar for Asia at Ho Chi Minh City, Vietnam and then attended Erasmus+ project management meeting at Tallinn University, Estonia from 23rd May- 3rd June 2017 organized by European Commission.

Academic Activities of PhD Candidate

- Fabrication of GV test rig by Chainlink Engineering in progress, due in mid- August together with pressure tanks.
- Simulation of turbines using different GV profiles completed.
- Unsteady simulations to be carried out at NTNU in June 2017.

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Status of ENEP Students

- 1 PhD and 1 MS by Research candidate selected as per the proposal defense to Research Committee, Kathmandu University.
- Respective candidates joined the lab formally from this month.
- Indulged with the Hydraulic Design of Francis Turbine.

Publications

• Ravi Koirala, Hari Prasad Neopane, Oblique Shrestha, Baoshan Zhu, Selection of Guide Vane for Erosion handling in Francis turbine, Renewable Energy, Vol. 112, p. 328-336, 2017.

Lab Visits

- Visit by Dr. Krishna Kanta Panthi, Associate Professor, Department of Geoscience & Petroleum, NTNU on 28th May.
- Visit by the faculties from Department of Electrical and Electronics Engineering, KU on 25th
 May accompanied with the quests.
- Visit by the student project group from Department of Architecture, Thapathali Campus- IOE on 17th May.