



## **MONTHLY BULLETIN** AUGUST, 2014

### **AEPC Project**

- Bid for “Manufacturing of the cross flow/Pelton turbine test rigs” due on 4<sup>th</sup> August was opened on 8<sup>th</sup> August
- Application by 3 qualified companies
- Krishna Grill and Engineering Pvt. Ltd. selected among all the applicants in both the activities
- Agreement between Krishna Grill and KU-TTL signed on 19<sup>th</sup> August for the manufacturing of the turbines and the rig
- Total time of 3 months is allocated for the work

### **RENP-1095 Project**

- Completion of the project
- RPT rig of 1.6 kW installed at TTL
- An initial testing phase has completed
- Submission of financial documents and final technical report to RENP Program

### **Concluded Intern projects 2014**

- Internship period 1<sup>st</sup> July – 31<sup>st</sup> August
- A small hydropower model prepared as a demonstration unit
- PIV experiment carried out for a guide vane profile
- Received assistance during RPT setup and testing
- Experiments related to material science conducted
- Prepared standard testing methodology for small hydro turbine testing



## RENTECH Symposium

- On 12<sup>th</sup> September
- 4 presentations from TTL to be presented

## BE projects for ME 4<sup>th</sup> year (2014-2015)

- Flow visualization and experimental analysis of Guide vane through PIV
- Development of a scale down wind turbine for wind tunnel testing
- Experimental and Numerical study of performance for model Reversible Pump Turbine
- Development of Tool for Aerodynamic and structural design of Wind Turbines
- Hydraulic and Mechanical Design of Bifurcation for Hydropower Projects
- Study of Vibrational Characteristics of 1.6 kW Reversible Pump Turbine
- Computational Study of Ultra low head turbine for Nepal
- Development of Hill Chart diagram for 92 kW Francis turbine using Computational method
- Study of Hydro mechanical components of a hydro-power plant
- Study of Aerodynamic performance for wind turbine blade profiles

## Publications

- Chitrakar Sailesh, Cervantes Michel, Thapa Biraj Singh, 'Fully coupled FSI analysis of Francis turbines exposed to sediment erosion', International Journal of Fluid Machinery and Systems (IJFMS), Volume 7, Issue 3, July-September, 2014
- Panthee, H.P. Neopane, B. Thapa, "CFD Analysis of Pelton Runner". International Journal of Scientific and Research Publications, Vol. 4, Issue 8, August 2014