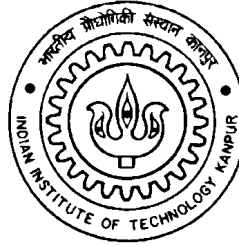**Dr. S. Sarkar**
Professor

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Date: 09.09.2013

Enquiry letter for the purchase of Table Top Turbine Unit

Enquiry No: ME/SS/2013/003

Sub: Quotation for purchase of Turbines

Sir / Madam,

With reference to the subject mentioned above, you are invited to submit individual quotations in a sealed cover for a Pelton turbine and a Francis turbine with hydraulic bench for UG teaching. The necessary instrumentation for measurement of head, flow rate and power developed should be provided so that the students can carry out performance analysis of the turbine unit. The whole setup should be housed in a transparent casing for flow visualizations. The instrumentation should be of international standard to get accurate measurement in the miniaturized form of the turbine unit. Tentative features of the units are given below:

1. Pelton Wheel

- Diameter of Pelton wheel: 120 – 130 mm (just to give an idea about the size)
- Mechanical torque measured using dynamometer
- Preferably the impeller should be housed in a transparent casing

2. Francis Turbine

- Adjustable guide vanes
- Brake force determined using a dynamometer
- Diameter of Francis runner: 50 - 80 mm (just to give an idea about the size)
- Preferably the impeller should be housed in a transparent casing

3. Hydraulic Bench

- Should be mounted on mobile unit and standing on floor for supplying necessary water flow with required head to the turbine unit
- Base constructed from robust, corrosion resistant material and fully covered sump
- Self priming circulating pump be used to provide circulating water

Terms and condition:-

1. **Sealed Quotation with manuals must reach to the undersigned on or before 18.09.2013, 5.00PM**
2. **Prices should be FOR IIT Kanpur**
3. **Please give best educational discount**

Sincerely,

(SUBRATA SARKAR)