Mechanical Engineering Department

Notice Inviting Quotations

December 14th, 2011

Sealed quotations are invited in Indian Rupees (INR) from established organizations/companies for the development and installation of a '**Software package for Data Acquisition for Experimental set up for flame impingement heat transfer**' in the Heat Transfer Lab of Mechanical Engineering Department at IIT Delhi. Interested parties are required to submit the TECHNICAL and FINANCIAL bids in separate sealed envelopes. Each envelope should be clearly marked as "Technical Bid" and "Financial Bid". Both the sealed envelopes should be sent in a single sealed envelope, with clearly marked as "*Quotation for software for Experimental set up for flame impingement heat transfer*".

The software package should be window based control software for the operation and control of the above mentioned experimental set up. The experimental setup consists of heating a calorimeter plate with the help of six methane air burner. The calorimeter plate is to be kept at constant temperature by circulating water from a constant temperature bath on the other side. A heat flux sensor and a pressure sensor are mounted on the surface which is being heated by flame impingement. The burners are mounted on a movable xyz platform.

The software should have the provision to intake inputs from the following sensors:

1. Heat Flux sensor (Vatell HFM/7H or equivalent)
2. Pressure sensor (up to 100 Pa)
3. Mass flow controller for flow of Methane (Alicat or equivalent)
4. Mass flow Controller for flow of Air (Alicat or equivalent)
5. Thermocouples which are mounted to measure temperature of cooling water (20-60 $^\circ$ C)

6. Position sensor for X, Y and Z movement of Burner assembly

The software should also have provision through Human Machine Interface (Manual) to control the various functions of experimental set up. Future addition/ up-gradation of Gas Flow Controllers for each individual burner (up to nine burners) should be present. The software should have provision to store, analyse and display the data and control signals for each experiment.

The Quotations should be addressed to: Prof. Anjan Ray and submitted in Department of Mechanical Engineering, IIT Delhi, Hauz Khas, New Delhi – 110016 **latest by 5:00 PM on 29th December, 2011.**

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Terms and Conditions

1. The bid should be in two parts: technical bid and financial bid. These two bids should be submitted in separate sealed envelopes.
2. Cost should be on CIF at IITD, New Delhi basis. The rate quoted should be inclusive of installation, commissioning, training required and one year of maintenance. Service support should be provided at no additional cost for a period of at least 12 months.
3. Taxes as applicable should be indicated clearly.
4. IITD is exempted from the payment of excise duty. The exemption certificate will be provided. Therefore the firm is requested to provide the basic price and the rate of excise wherever applicable.
5. Normally no advance payment will be made. Payment will be made after successful installation and testing of software.
6. IITD reserves the right to accept or reject any or all quotations without assigning any reason.
7. For clarification, prior to bid submission, prospective bidders may contact Dr. Anjan Ray.