NOTICE INVITING QUOTATIONS

Date: 21.01.2013

Sub: NIQ for “Fabrication of instrument for measuring thermal transmission through fabrics”

Sealed quotations in separate envelopes of technical and commercial bids, kept in one sealed outer envelope, are invited for “Fabrication of instrument for measuring thermal transmission through fabrics”. Your sealed quotation should reach latest by 5 PM on February 8, 2013 to Prof. Apurba Das, Professor, Department of Textile Technology, Indian Institute of Technology - Delhi, Hauz Khas, New Delhi - 110016.

Your quotation should be superscripted “Quotation for instrument for measuring thermal transmission through fabrics”.

Technical Specifications are as follows:

The equipment shall meet the following requirements:

1) The equipment should broadly include,
   
   a. Different sensors for measuring thermal transmission through the fabrics in case of fire.
   
   b. Design and fabrication of mechanical setup, i.e. fabric holding arrangements, flame generator, sensor board, variable insulating space, etc.
   
   c. Development of electronic circuit and total setup for the real time measurement of thermal transmission, etc.
   
   d. Data acquisition system including DAQ card, online plotting and software.

2) The instrument will be able to evaluate the level of heat exposure and energy transmitted to predict whether a second degree burn injury will occur.
3) The instrument will also be able to record the time required for a second degree burn injury.

4) The instrument is based on thermal sensing method.

5) As the flame generator generates the flash fire, the thermal sensors placed on the sensor board will sense and record the heat flow behaviour through fabric in real time.

6) Provisions of very precise measurement of heat flow.

7) The voltage output is fed into PC through an ADC.

8) Specially designed user friendly software to plot the curves.

9) Customized software for complete automatic testing and analysis of results.