Minutes of the Pre-Bid Conference held on 03.04.2017 at Conference Hall, Administrative Block, Room No.F1-02 (First Floor), CUTN in connection with our Tender Enquiry No.49/2016-17 for Supply & Installation of Laboratory Equipment for Department of Life Sciences.

The following members of the Committee from Life Sciences Department were present:

- Dr. E.M.Shankar, Head & Associate Professor Chairperson.
- (2) Dr. Jayalakshmi Krishnan, Assistant Professor Member.
- (3) Dr. Meganathan Kannan, Assistant Professor Member.
- (4) Dr. Indranil Chattopadhyyay, Assistant Professor Member.
- (5) Dr. Dinakar Challabathula, Assistant Professor Member & Convener.

Among the aforesaid members, Dr.Meganathan Kannan couldn't attend the meeting, since he was on leave.

Open Advertisement for the aforesaid tender was floated on 21.03.2017.

The representatives of following prospective bidders attended the Pre Bid Conference:-

- Shri.R.Dharanidharan, Bio-Rad Laboratories India Pvt. Ltd, Chennai.
- Shri.M.Arun Arokiaraj, Gene Technologies, Chennai.

An email communication received from the following prospective bidder with regard to pre-bid queries has been addressed by the Committee:

1. M/s. ADInstruments South Asia (India) Pvt. Ltd., New Delhi.

Opening Remarks:

- Dr. E.M.Shankar, Head, Department of Life Sciences at the beginning welcomed the (i) participating members and after introduction, he briefed all participants about the
- It was explained that purpose of Pre-Bid Conference is to explain the various important (ii) provisions of the bidding documents to the prospective bidders and to clarify the queries that the bidders may have in the subject, bidding documents.

The technical queries and clarification sought by the prospective bidders and reply to the query is enclosed in Annexure I.

The techno-commercial queries and clarification sought by the prospective bidders are given

SI. No	Query/ Clarification Sought	Amendment
1.	Whether Tender Application Fee is applicable for this Tender.	No. As per GFR 2017, there is no Application Fee for Tender from 08.03.2017 onwards.

The bidders were informed to ensure that all mandatory documents / certificates undertakings are enclosed with the bids, as specified in the tender document.

The bidders were informed that the minutes of the <u>pre-bid conference and amendment of the bidding forms</u> shall be published on the website of Central University of Tamil Nadu. The bidders were also informed that they should also regularly visit the CUTN website for any amendments issued.

In case of any further information/clarification, they were asked to contact over phone, to the Purchase Section at 04366-277359 (or) send email on purchase@cutn.ac.in; Individual visits are not entertained.

The meeting ended with a vote of thanks to the representatives of the prospective bidders.

Dr. Dinakar Challabathula

Assistant Professor,

Department of Life Sciences

Dr. Jayalakshmi Krishnan Assistant Professor,

Department of Life Sciences

Dr. Indranil Chattopadhyyay

Assistant Professor, Department of Life Sciences

Head, Department of Life Sciences

Annexure – I Technical queries and Clarification S.No.3 Four Channel Advanced System for physiological Measurements

Equipment Description along with No.	Query/Clarification Sought	Amendment
Four Channel Advance System for Physiological Measurement SI.NO. 03	Specification is changed after considering the representation completely. So the revised specification to be used for further tendering process.	

Dr EM Shankar Dr Jayalakshmi

Dr Indranil

Dr Dinakar

Note:

The revised technical specification is enclosed herewith.

Revised Technical Specification Four Channel Advanced System for physiological Measurements

- The System should include hardware software and other related accessories for Pulse transducer, respiration, Blood pressure, Grip force, ECG, HRV, EMG, EEG, NCV, Respiration rate, GSR etc.
- System should include spirometer to measure minute ventilation and tidal volume along with the calculation of PIF, PEF, FVC and FEV1
- Individually selectable input sensitivities, analog output for stimulation or pulse generation, high speed USB, built-in isolated stimulator, built-in dual bioamplifier, and a powerful internal processor along with low- and high-pass filters. Chart, Scope software.
- ECG (Lead I, II, III, aVL, aVF, aVRetc for real time cardiac axis & vector analysis).
- Must have an upgradable facility up-to 12 channels
- > ADC Configuration: Resolution: 24 bit, each channel has its own ADC.
- Maximum sampling rates: 400 KHz (aggregate)
- ➤ Filter Low Pass: 1, 2, 5, 10, 20, 50, 100, 200, 500, 1000, 2000 Hz and anti-alias, high-pass filters.
- Band Pass Notch, Mains & Digital.
- Bio-Amplifier: 2 Channels, Range: ±20mV to 100μV.
- Automatic Software analysis modules for Blood pressure, ECG, HRV, peak analysis etc. with live streaming with Excel and Matlab.
- Isolated Stimulator Output.
- Pulse duration: 50-200 μs (software-selectable) & Output current: 0-20 mA
- > Pulse rate: Software-selectable, to a maximum of 20 Hz and 200 μs for safety.
- The software should have systematic instructions, protocol, and experimental design for performing various experiments in physiology teaching applications. Also, should have sample data for animal experiments for demonstrating to the students.
- > Power input to be 220-240VAC, 50Hz
- ISO certification for quality standards and CE certificate for safety.

Dr EM Shankar 05/12 Dr Jayalakshmi

r Indranil Dr Dinakar