Minutes of the Pre-Bid Meeting held on 21.07.2017 at Conference Hall, Administrative block, CUTN in connection with pre-bid queries raised by prospective bidder against our Tender Enquiry No 08/2017-18 for supply and installation of laboratory Equipment for department of Chemistry under SERB-EEQ Project.

The following members of the Committee were present:

1. Prof. S. Nagarajan, Head, Department of Chemistry - Chairperson

2. Dr. T. Mohan Das, Associate Professor, Department of Chemistry - Member

3. Dr. S. G. Ramkumar, Assistant Professor, Department of Chemistry - Member

4. Dr. Vittal Babu Gudimetla, Department of Chemistry - Member

5. Dr. M. Shiva Prasad, PI & Assistant Professor, Department of Chemistry - Member & Convener

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

- 1. Mr. S. Bharathwaj, Internal Marketing Incharge, M/s Agaram Industries, Chennai.
- 2. Mr. M. Uma Sankar, Key Account Manager, M/s BUCHI INDIA Pvt. Ltd.
- 3. Mr. Suresh Balaji, Area Sales Manager, M/s PerkinElmer (India) Pvt. Ltd.

4. Mr. D. SivaKumar, Branch Manager, Incarp Instruments Pvt. Ltd.

An email communication received from V. Srinivasan, Regional Sales Manager, M/s Anton Paar India Pvt. Ltd. and Paramasivam, Territory Manager, LabIndia Analytical Instruments Pvt. Ltd. has been addressed by the committee.

The attendance sheet is enclosed herewith.

Opening Remarks:

(i) Prof. S. Nagarajan, HOD chemistry at the beginning welcomed the participating members and after introduction, he briefed all participants about the tender.

(ii) It was explained that purpose of Pre-Bid conference is to explain the various important provisions of the bidding documents to the prospective bidders and to clarify the queries that the bidders may have in the subject, bidding documents.

Sl. No.	Query/Clarification Sought	Amendment
1	FTIR:	
	i) Wavelength range must be 8000 or above	Our work needs the range of 300 to 6500cm ⁻¹
	ii) Beam splitter to be ZnSe for safety and stable towards moisture.	Amended suitably
	iii) Signal to noise ratio should be 45000:1 or better	Amended suitably
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	iv) Spectral resolution to be 1 cm ⁻¹ or better	Amended suitably
	v) Detector to be DLATGS/DTGS	Amended suitably
	vi) Interferometer 5 year warranty or better	Amended suitably
	vii) source 5 year warranty or better	Amended suitably
	viii) No purging gas to be used	Amended suitably
2	Rotary Evaporator with chiller and vacuum pump	
	i) Flask size range is to be 50ml to 5 lit	Our work range is from 50m to 2L at the maximum
	ii) Maximum volume of heating bath 5.5 Lit	Amended suitably
	iii) Integrated vacuum controller to be mentioned as automatic or manual including controls of bath and chiller	Amended suitably
	iv) Please remove rotac valve control system instead mention valve control ro RPM control	Amended suitably
	v) recirculating chiller with temperature range of -10 to ambient.	Amended suitably
	vi) Compressor capacity 450W or more	Amended suitably
	vii) All the accessories should be from the same manufacturer.	Amended suitably
3	Automated digital Polarimeter:	
	i) Measuring Deg Z(ISS) sugar-scale: is meant for only checking quality of sugars/ especially used by industries only.	Amended suitably.
	ii) Temperature control: water thermostat or electronic temperature control	Amended suitably
	iii) Accuracy to be 3 decimal	Amended suitably
	iv) 200 mm path length offers better sensitivity and the range to be given as100 to 200mm or better	Amended suitably
	v) Better optical density to be included to measure dark samples	Amended suitably

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vi) Computer and printer is not required for the instrument as it has LCD display and USB port for Pen drive

We need computer and printer for working offline and taking prints respectively.

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 pre-bid conference and amendment of the bidding forms shall be published on the website of central university of ramil 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@cutr.ac.in; Individual visits are not entertained.

The queries related to the technical aspects raised by the suppliers were considered and appropriately incorporated. The revised technical specification is enclosed, which shall be replaced as the amended tender specification.

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

Dr. T. Mohan Das

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Associate Professor, Department of Chemistry Member Dr. S. G. Ramkumar

Assistant Professor,

Department of Chemistry Member

Dr. M. Shiva Prasad

PI & Assistant Professor, Department of Chemistry

Member and convener

Vittal Babu Gudimetla

Assistant Professor,

Department of Chemistry

Member

Prof. S. Nagarajan Head, Department of Chemistry Chairman

REVISED TECHNICAL SPECIFICATIONS

SI. No.	Equipment Description	Qty
1	FT -IR with all accessories:	
	Technical Specifications:	1
	The instrument must be Sealed and desiccated optical unit.	
	Vibration isolated base plate having the following specification.	
	> Wavelength range : Must be 6,500cm ⁻¹ to 350 cm ⁻¹ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑	
	Wavelength accuracy : 0.1 cm ⁻¹ at 3,000 cm-1	
	> Signal to Noise Ratio : 45,000:1 peak-peak, 1 minute or better	
	Interferometer : Rotary Michelson interferometer for fast scanning, self-compensating for dynamic alignment changes due to a tilt and shear, incorporating high-reflectivity with five years warranty or better	
	Source : Long-life source with hot-spot stabilization. Must be User replaceable and warranty for five years or better	
	Laser: Solid state laser with 3-5 year warranty	
	Beam splitter: ZnSe or Multilayer KBr for the study of metal oxides and metal Halides.	
	Desiccant: Instrument must come with rechargeable desiccant cartridges with a visible desiccant lifetime indicator.	
	Detector: preferably DLaTGS/DTGS detector.	
	Instrument must have Atmospheric compensation to minimizes effect of atmospheric water and CO ₂ on the sample spectra without the need for reference or calibration spectra.	
	No purge gas to be used.	
	Diamond ATR accessory should be quoted for analysis of corrosive and reactive solids, liquids, resins, powders, gels etc. The instrument must have provision to attach the third party PIKE, SPECAC etc. accessories ATR, HATR etc.	
	Imported transmission accessories from Manufacturer itself to be quoted for powders and liquids like KBr die, KBr Powder, KBr Pellette Holder Universal demountable cell mount, rectangular spaces, rectangular cell window. Local make will not be accepted.	
	ATR with ZnSe crystal to be quoted under optional	
	Data Management System	
	Software: A single software platform incorporates all of the functions required for infrared	

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analyses, Such as spectral comparison algorithm and Euclidean searching instrument control, data manipulation and analysis, and flexible report utilities, Spectral searching against commercially available or customer developed libraries

Suitable branded computer with software and laser Printer (HP), Portable Dehumidifier and hydraulic press 1 TON manual to be quoted

Warranty for the Instrument: Min 3 years and above

2 Rotary Evaporator with vacuum controller, diaphragm vacuum pump and chiller.

Technical Specifications:

Rotation speed: 20-280 rpm

Condenser: Vertical

Cooling Surface Area: 1500cm3 or better

Rotation speed setting: Digital Display of set and actual temperature

Motor lift:

Height adjustment speed: 30mm/s

Height adjustment: 155mm

Angle Adjustment: specify if available

Stroke distance: 150 mm or better

Flask Size Range: 2L or Above

Max flask Capacity:

Protection Class:

Approval:

Heating power: 1300 W

Controlled Temp. range heating bath: 20 to 150 or better

Temperature accuracy: ± 2 or better

Overheat cut-off protection:

Bath temp. setting: Digital

Temperature Sensor: Yes

Heating bath temp. control: Electronic/digital

Diameter heating bath: Suitable to use 2 L round bottom flask and above, please specify.

Maximum Volume heating bath: 4.0 to 5.5 L

1L receiving and 1L evaporating flasks

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Integrated Vacuum controller: automatic vacuum controller

Supply voltage: 220 to 240 V 50 Hz

Vacuum Valve: vacuum Controller with woulff bottle for trap

Operating modes:

Display set and actual Pressure

ON/OFF Regulation of Pump

vacuum Pump

diaphragm pump made from chemically resistant materials with High suction capacity of 1.5 m³/h, for fastest evacuation suction capacity for up to 2 rotary evaporators at the same time

The Valve Control system should achieve an ultimate vacuum of at least 12 mbar.

ON/OFF Regulation

Supply Voltage: 230 V 50 Hz

Chiller:

Good quality noise free chiller

Temperature settable for -10 to ambient or better

Temperature control: =/- 0.2

Display (Digital):

Compressor capacity is to be 450 watts or better

Warranty: 3 years and above

All the accessories must be of same brand/manufacturer

3 Automated Digital Polarimeter with all accessories:

Technical Specification:

Measuring: Optical Rotation, Specific Rotation, Concentration & Sugars (at least oligosaccharides)

Optical rotation specifications:

Measuring range: ±89.9°

Resolution: 0.001°

Accuracy: ± 0.001° (or 3 decimal) for the entire measuring range

Repeatability: ± 0.01°

Prism and durability: Must be of good quality prism with high durability.

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Wavelength: 589 nm

Optical cell: SS or glass (2 Nos)

Path Length: 100 to 200mm or better

Better optical density to measure dark samples

Temperature Control: Water thermostat and electronic control as optional.

Temperature sensor:

Instrument Control:

Display: (LCD/TFT)

Data Storage:

Communication Interfaces: 3- USB Ports, 2- RS232 serial ports, Ethernet Port for

Network Communication

Accessories: Branded computer with Pre-installed Windows & Laser printer.

Warranty: 3 years and above

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