BOSE INSTITUTE
Centenary Building,
P-1/12, CIT Scheme – VII M, Kankurgachi,
Kolkata – 700 054 (INDIA)

Minutes of the Pre-bid Conference held on 26.12.2019 at 3.30 p.m. in the Seminar room of the Department of Physics at Main Campus of the Institute regarding Tender Notice No. BI-K/E-TEND/16/2019-20 with tender id: 2019_BIK_527745_1 for procurement of Spectral Response Measurement System & Glove Box

Members present:

- **Prof. Sanjay Ghosh**
- **Prof. Rajarshi Ray**
- **Dr. Jayanta Mukhopadhyay**
- **Prof. Biswajit Karmakar**
- **Dr. Prabir Pal**
- **Dr. Achintya Singha**

Bidders present:

- **Laser –spectra Services**
- **Atos Instruments Marketing Services**
- **Prokut Solutions Pvt Ltd.**

Resolution of the Pre-bid Conference

Existing specification	Amended in the relevant portion to be read as
Scope of measurement: Spectral Response of Infrared Photodetector . System to be capable to perform DC Measurements 250-1700 nm and AC measurements from 250-2400 nm or above **1.2 Monochromator focal length** ≥300 mm **1.5 Gratings** 3 gratings: 2400l/mm blazed @ UV 1200 l/mm blazed @ Visible 600 l/mm blazed @ IR **1.7 Stray light rejection at 10x FWHM** $5x10^{-5}$ **1.8 Wavelength coverage** 250-2400 nm or above **1.12 Wavelength accuracy** ≤ ±0.05% (≤ ±0.2 nm) or better with 1200g/mm grating at 500 nm	**Scope of measurement:** Spectral Response of Infrared Photodetector. System to be capable to perform DC Measurements 300-1700 nm and AC measurements from 300-2200 nm or above **1.2 Monochromator focal length** ≥250 mm **1.5 Gratings** 2 or more gratings: 600 l/mm blazed or better **1.7 Stray light rejection at 10x FWHM** $5x10^{-4}$ or better **1.8 Wavelength coverage** 300-2200 nm or above **1.12 Wavelength accuracy** ± 0.4nm or better

2.4 Lead sulphide (1-3 µm) with suitable Peltier cooling mechanism to minimize noise. Controller and accessories for TEC to be provided. Suitable High Voltage power supply for detector to be provided Material: Lead Sulphide Spectral response range : 1000-3000 nm Active Area ≥ 3X3 mm Detector Temperature ≤ -10° C HV power supply to have ≤ 100 ppm p-p noise and temperature stability	**2.4 Lead sulphide or InGaAs (1-2.2 um) with suitable Peltier cooling mechanism to minimize noise. Controller and accessories for TEC to be provided. Suitable High Voltage power supply for detector to be provided** Material: Lead Sulphide or InGaAs Spectral response range : 1000-2200 nm Active Area ≥ 3X3 mm Detector Temperature ≤ -10° C HV power supply to have ≤ 100 ppm p-p noise and temperature stability Please provide efficiency curve of the detector.
3.1 Dual xenon/ quartz halogen light Source suitable to operate between 250-3000 nm. Lamp type: Dual xenon/ quartz halogen light source with facility for high and low frequency optical chopping with suitable light collection optics. Automated lamp selection using mirror assembly on setting wavelengths Xe ≥ 75W QTH ≥ 100W	**3.1 Xenon or dual xenon/ quartz halogen light Source suitable to operate between 300-2200nm.** Lamp type: Xenon or dual xenon/ quartz halogen light Source with facility for high and low frequency optical chopping with suitable light collection optics. Automated lamp selection using mirror assembly on setting wavelengths Xe ≥ 75W QTH ≥ 100W
4.3 AC Current Pre-amplifier Gain Ranges: Atleast 10^8-10^3 V/A Gain Accuracy ≥+1% Gain Stability: ≥200ppm/°C	**4.3 AC Current Pre-amplifier** Gain Ranges: Atleast 10^8-10^4 V/A Gain Accuracy ≥+1% Gain Stability: ≥200ppm/°C
5.1 Programmable Constant Current Power Supply (two numbers, one for each light source)	**5.1 Programmable Constant Current Power Supply (one/two numbers, one for each light source)**
7.1 Relay optic Reflective relay optics are needed to be usable for the entire wavelength to avoid any form of aberration and obtain high beam uniformity and beam power.	**7.1 Optic** Suitable optics is needed to be usable for the entire wavelength to avoid any form of aberration and obtain high beam uniformity and beam power.

Registrar (Officiating)