

**NDIAN INSTITUTE OF TECHNOLOGY KANPUR**  
**Department of Chemical Engineering**

**Enquiry No. IITK/ChE/NV/2016-2017/4 Date 22/12/16**

**Sub: Quotations invited for Autolab connected Fiber Optic Spectrophotometer Characterization Unit**

Techno-commercial quotations are required for the supply of **Autolab connected Fiber Optic Spectrophotometer Characterization Unit** for the in-situ spectro-electro-chemical Studies, as per the specifications indicated below. Vendors should have at least two successful supplies of such instruments in IITs in the last five years. Please provide contact addresses.

The sealed quotations (separately for technical and price bidding) should be addressed to Prof. Nishith Verma, ChE and sent to the following address latest by January 13, 2017 (extended date).

**Autolab connected Fiber Optic Spectrophotometer:**

- A UV-Visible Spectrophotometer with fiber optic probe for measurement of change in Absorbance or transmittance.
- Wavelength Range: 200 nm to 1100 nm, Detector: 3648 Pixel CCD Linnear array CCD detector with 50  $\mu$ m slit.
- Tungsten Halogen and Duterium Lamp with shutter to facilitate measurement of dark curren
- 10 mm path length Cuvette holder for absorbance and emission measurements with 10 mm path length cuvette. Equipped with fiber optic probe for transmission/absorbance measurements in a cuvette.
- Dip type fiber optic probe for transmission measurement in a solutions placed in a beaket.
- Spectrophotometer to PC connection should be through USB Port.
- It should be use the Autolab NOVA software of our existing Autolab for system control &data analysis.

**Electrodes:**

- Pt wire Counter electrode for Spectro-electrochemical Measurements in a cuvette1 mm dia, 50 mm length with suitable lead : Qty 1 No.
- Pt Gauze working electrode for spectroelectrochemical measurements; Gauz dimensions: 8mm x 8 mm, 40 mesh, with 50 mm long 1 mm dia connecting Pt wire on two sides: Qty 1 no.
- Optically Transparent screen-printed electrode made of PDOT pack of 75
- Optically Transparent ITO screen-printed electrode pack of 20
- Cable for connection of Screen Printed Electrodes to Our existing Autolab Potentiostat Galvanostat: Qty 1 no
- Conductivity meter along with 0.5 cm-1 with Pt1000 cell constant.

**Prof. Nishith Verma**

Department of Chemical Engineering

Indian Institute of Technology Kanpur Kanpur - 208016 (India)

(91) (512) 2596767/7704 (Phone); (91) (512) 2590104 (Fax)

9839 195854 (personal mobile), nishith@iitk.ac.in,vermanishith@gmail.com (email)