

## Specification Requirement for low cost FTIR Spectrometer for teaching laboratory

<b>The Instrument:</b>	FTIR spectrometer
<b>Optics:</b>	Sealed and desiccated, all mirrors gold coated.
<b>Spectral range:</b>	8000 $\text{cm}^{-1}$ to 350 $\text{cm}^{-1}$
<b>Spectral Resolution:</b>	0.5 $\text{cm}^{-1}$ or better
<b>Wavelength Accuracy:</b>	Better than 0.01 $\text{cm}^{-1}$ @ 2000 $\text{cm}^{-1}$
<b>Photometric accuracy:</b>	Better than 0.1%
<b>Interferometer:</b>	Permanently aligned, high stability
<b>Detector:</b>	High sensitivity DLATGS
<b>A/D convertor:</b>	True 24 bit dynamic range
<b>Measurement accessories:</b>	Transmission using KBr pellets and liquid cells
<b>Interface:</b>	Appropriately interfaced to a PC using Windows Operating system, 240 AC/50 Hz operation with Indian electrical connectivity
<b>Software:</b>	Software for instrument control, data acquisition, data processing (such as FFT, baseline correction, spectral subtraction, etc.). Details of software must be clearly mentioned.
<b>Accessories:</b>	Must include basic accessories, such as KBr pellet holder and liquid cells.
<b>Installation &amp; training:</b>	Installation and training should be provided at the customer site. Installation requirement should be intimated in advance.
<b>List of users:</b>	A list of users with full contact details (in India) of the proposed system should be provided.
<b>Warranty:</b>	A minimum of 2 (two) years warranty is required. A Comprehensive Annual Maintenance Contract (CAMC) for additional 3 (three) years must be included. (Quote separately).
<b>Customer service:</b>	Historical data should be provided from current users.
<b>UPS:</b>	Suitable UPS should be provided . A separate quote to be provided.
<b>Company profile in India:</b>	Document on the market share of the company in India should be provided. Proof of authorization from the parent company to sell and service the equipment in India must be supplied by the vendor.