



# VEER SURENDRA SAI UNIVERSITY OF TECHNOLOGY: BURLA

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No: VSSUT/ME/294 /2025

Date: 25/9/2025

## EXTENSION OF TENDER CALL NOTICE

Sealed Bids, in two separate covers (Technical Bid and Price Bid) are invited by the “The Registrar, Veer Surendra Sai University of Technology, Odisha” from original manufacturers / authorized suppliers/ authorized dealers for Supply, Installation, Commissioning and Maintenance of “4 Channel FFT Analyzer with Envelope Analysis and Accessories”, for the Department of Mechanical Engineering (ME), VSSUT Burla, Odisha. The last date of earlier tender call notice (No: VSSUT/ME/273/2025, Dt 25.08.2025) has been extended upto 16<sup>th</sup> October 2025. The sealed quotations shall reach the undersigned by regd. / speed post / Courier services within the office hour by 5.00 P.M. of date 16.10.2025. Tender received beyond this date & time is shall be rejected. “Tender for Mechanical Engg. Department. for supply of 4 Channel FFT Analyzer with Envelope Analysis and Accessories” must be super scribed on the sealed envelope. The details of the equipment/ firmware/Software and their technical specifications are mentioned as below.

### Details of the Equipment/Firmware

Name of equipment: 4-Channel FFT Analyzer with Envelope Analysis and Accessories

S.N	Specifications/ Particulars
1	(A) 4-Channels input/output LAN-XI Lite FFT Analyzer with Envelope Analysis. <ul style="list-style-type: none"><li>• DC to 25.6 kHz input range (sampling rate 65.5 kHz) with BNC connector.</li><li>• Built-in constant current line drive (CCLD) to power sensors</li><li>• LAN interface for PC communication.</li><li>* Dynamic range 130 dB or more.</li><li>• LED indicators on each channel (conditioning, cable break etc)</li><li>• Power: Mains, DC, battery or PoE switch.</li></ul>

- Robust casing

## POWER REQUIREMENTS

DC Input: 10-32 V DC

Power Consumption:

- DC Input: <15 W

Signal Overload: Detection level in 0.25 V range:  $\pm 0.25$  V<sub>peak</sub>.

In 10 V range:  $\pm 10$  V<sub>peak</sub>. (in CCLD mode  $\pm 7$  V<sub>peak</sub>)

## SOFTWARE-

-BK Connect FFT& Envelope analysis software.

-• General sound and vibration data acquisition, analysis and reporting

- Batch processing of multiple sets of time recordings

• FFT spectrum analysis for mobility measurements, vibration diagnostics or narrow-band analysis of acoustic signals

- Broadband overall analysis for characterization of noise or vibration signals

- Stationary and non-stationary analysis

- Analysis with different filter settings and FFT bandwidths

- Simple and efficient reporting of results with user-definable layouts metadata

- Single applet for acquisition, recording, batch post-processing, data management and reporting

- Envelope, Demodulation and Time Correlation Analysis, amplitude modulation of machine vibration.

-Time correlation analysis enables you to find repeated patterns between signals in the time domain.

-Amplitude demodulation is part of the process for envelope analysis and separating it from the FFT analysis

- User interface, task completion and data organization optimized to fit the job at hand – with tools and components that make FFT analysis quick and easy

- Embedded reporting using Microsoft® Office products to integrate report creation directly in the test process

- Easy to learn and use, reducing training and test time.

**(B) Accessories included with this system are**

- i. **Impact hammer**

- Voltage Sensitivity (typical) - 22.7 mV/N.
- Full Scale Force Range Compression – 220 N
- Full Scale Output Voltage - +5 V
- DC Output Bias Voltage -  $10 \pm 1$  V
- Power Supply - 2 to 20 mA
- Voltage Range - +18 to +30 Vdc
- Temperature Range - -73 to +60 Degree C
- Max. Force Compression – 4448 N
- Handle Material – Fibreglass
- Connector - BNC

**ii- ACCELEROMETER with Cables, Qty-02**

- Sensitivity -98mV/g
- Frequency range – 0.2 Hz to 12800 Hz
- Measuring Range -  $\pm 71$ g
- TEDS (transducer electronic datasheet) supported.
- Weight less than 9 gms.
- Bias Voltage-  $+13 \pm 1$  Vdc
- Mounted resonance frequency: >38 KHz
- Max. Non-destructive Shock (peak)- 10,000g pk
- Operating Temperature —55 to +125 Degree C
- Case materials -Titanium ASTM Grade 5
- Hermetically sealed.
- Connector -10-32 UNF
- Mounting -10-32 UNF threaded, depth 3.8 mm
- Cable, coax single screen, BNC (M) to BNC (M), 3,0m (10ft), max.+85°C (185°F)

**iii- Sound Level Meter.**

- IEC/ANSI SLM standards Type/Class 1 to latest international standards
- Real-time analysis in 1/1- and 1/3-octave bands
- Large, high-resolution, touch-sensitive colour screen
- Communication via USB, LAN and options for Wi-Fi or 4G communication

- 123+ dB Dynamic Range – no need for range switching
- 0.5 Hz – 20 kHz broadband linear range
- Measurement Partner Suite for comprehensive post-processing
- 24- or 16-bit recording during all or parts of measurement
- Sound levels up to 140 dB
- Frequency weightings A, B, C, Z (linear) and time weightings F, S, I
- Free-field/diffuse-field correction
- Automatic windscreen detection and correction
- Display colour-schemes optimized for day, night, indoor and outdoor use
- Broadband statistics based on LAeq, LAF or LAS
- Cable, AC -0289, circular-1B 10-pin (M) to circular-1B 10-pin (F), 3,0m (10ft).
- Memory, SD-card 2GB, with write protection switch, size 32 x 24 x 2.1 mm
- Connector: Triaxial LEMO
- Direct Input: Max. input voltage:  $\pm 14.14$  V<sub>peak</sub>
- CCLD Input: Max. input voltage:  $\pm 7.07$  V<sub>peak</sub>
- CCLD Current/voltage: 4 mA/25 V
- INTERNAL FLASH-RAM (NON-VOLATILE) 512 MB for user set-ups and measurement data
- Battery Nominal Capacity: 5500 mAh (typical); 5200 mAh (minimum)
- Single-channel: >11 h (screen backlight dimmed); >10 h (full screen backlight)
- EXTERNAL MEMORY CARD SD and SDHC Card- up to 32 GB
- CALIBRATOR FOR MICROPHONE
- Calibration of sound level meters
- Conforms to EN/IEC 60942 (2017) Class 1, and ANSI S1.40- 2006
- Robust, pocket-sized design with highly stable level and frequency
- Calibration accuracy  $\pm 0.2$  Db
- Switches off automatically when removed from the microphone
- Battery-operated sound source for quick and direct calibration of sound level meters.

The Bidders may download the **Tender Documents** directly from the website available at <http://www.vssut.ac.in> and the Tender cost fee of Rs. 7080/- (Rs 6000/- + GST @ 18%) (Non-refundable) by way of separate Demand Draft drawn in favour of "**The Registrar, Veer Surendra Sai University of Technology, Burla**" payable at SBI, Burla should be enclosed along with the Bid. The Tender cost fee and the Earnest Money Deposit (EMD) (EMD not less than 1% of the quoted amount) should be submitted separately in separate demand drafts. In case of any bid clarification, responsibility lies with the bidders to collect the same from the website and the purchaser shall have no responsibility for any delay/ omission on part of the bidder.

**TIME SCHEDULE:**

- a) Tentative date of commencement of downloading bidding document - 20/08/2025 at 10.00 AM
- b) Last date and time for Receipt of bids - 16/10/2025 up to 5.00 PM
- c) Time and date of opening of Tender & Technical bid 17/10/2025 at 11.00 AM
- d) PLACE OF OPENING OF TENDER AND ADDRESS FOR COMMUNICATION AND RECEIPT OF BID DOCUMENTS

**THE REGISTRAR**

**VEER SURENDRA SAI UNIVERSITY OF TECHNOLOGY, ODISHA**

**At- Burla, Po-Burla Engineering College, Dist-Sambalpur-768018,**

**Tel. No-0663-2430211 Fax No-0663-2430204**

  
REGISTRAR  
VSSUT, Burla