No. F. DTU/SP/211/05-03/19-20   Dated:

NOTICE INVITING TENDER
PROPRIETARY ARTICLE CERTIFICATE

E- Tenders along with illustrated literature/leaflets for the supply/execution of item(s)/stores/work detailed below are invited from the Manufacturers or their Authorized Distributors/Dealer   only in two-bids system**(the bidder should be registered under Goods and Services Tax act under Government of India and carry a valid Tax Identification Number issued by it to ensure that the delivery of goods is made from Delhi against a sale invoice issued from Delhi only)**   through 'e' procurement solution only as per the guidelines and terms & conditions given in tender document - details of the NIT along with terms & conditions, specifications etc. can be seen/downloaded at/from the website.

The interested tenderers should upload duly signed tender form and their bids along with scanned copies of all the relevant certificates, documents etc. in support of their technical & price bids – all duly signed - on the: https://govtprocurement.delhi.gov.in. latest by DD/MM/YY **up to HH.MM An index prepared after pagination of all documents may also be uploaded** The technical bids will be opened online on **DD/MM/YY at HH.MM P.M** {those bidders only whose original instrument of EMD amount is dropped in Tender Box placed in the office of Officer In-charge (S&P)} in the presence of the bidders who wish to be present and will also be displayed on the website. For participation in the tender through e-procurement solution, the tenderers are required to have digital certificate and get registered with application Service Provider NIC.

Tender document is also available for viewing on the website of Delhi Technological University, Delhi at www.dtu.ac.in

Yours faithfully,

EMD: Rs. 70900/-

Officer In-charge (S&P)

S.No.	Description	Users/Qty.
01	Supply of Optiwave Phtonics Simulation and Design Software for Microwave CAD/Optical Lab in Department of ECE, DTU as per Specifications. (**Three Modules**) Warranty 36 months.	05 User License of each module

Specifications for Photonic Design & Simulation Software

Optical Communication System and Amplifier Design

⇒ Ease to use (GUI interface and commands)
⇒ Capable to provide signal summary after simulation at every output terminal of the system
⇒ Extensive built-in libraries for Optical transmitters, optical switches/cross connects channels, receivers of optical system models.
⇒ Should provide global insight into system performance
⇒ Design and performance evaluation of the optical communication systems e.g Passive Optical Networks BPON, GPON, EPON. All Optical Networks DWDM, OTDM, OCDMA, FSO, Radio over Fiber.
⇒ SONET/SDH ring design
⇒ S – Parameter Extractor
⇒ Constellation and polar diagrams
⇒ Amplified System BER and link budget calculations.
⇒ Extensive graphics including 2D & 3D visualizations
⇒ Assesses parameter sensitivities aiding design tolerance specifications
⇒ Visually presents design options and scenarios to prospective customers
⇒ Delivers straightforward access to extensive sets of system characterization data
⇒ Provides automatic parameter sweep and optimization
⇒ Integrates with the family of Optiwave products
⇒ Component Library which editable parameter
⇒ Mixed signal representation
⇒ Quality and performance algorithms
⇒ Performance analysis in terms of BER, Eye Diagram, Q-Factor, power spectrum , spectrum analyzer, signal analyzer and chirp etc.
⇒ Linear and non-linear fiber simulation and assessment of countermeasures (e.g all order PMD, SPM, XPM, stimulated Raman Scattering effect)
⇒ Capable of interfacing optical domain simulations with matlab.
⇒ Capable of performing operations of all types of amplifiers e.g SOA, SOA with wavelength dependent gain, EDFA, Hybrid amplifier systems, EYCDFA.
⇒ User defined optical fiber/systems with flexibility of change in parameters (e.g length, attenuation, wavelength, dispersion, amplifiers, linear and non-linear phenomenon etc.) SMF bi-directional fiber component (Stimulated Brilouin scattering & Update to the Raman propagation equations solver) Raman APA component (Raman propagation equations solver)
⇒ Advanced visualization tools
⇒ Interface with active and passive photonic device design tools.
⇒ Data monitors which allows data processing after simulation without recalculating
⇒ Hierarchical simulation with subsystems
⇒ VB Script language
⇒ CIDF Calculation data-flow
⇒ Customizable report
⇒ Cost analysis/Bill of Materials
⇒ Multiple layouts
⇒ Capable of design of passive optic network (PON) based FTTx, free-space optics (FSO) and radio over fiber systems (ROF).

⇒ Four-Wave Mixing, Stimulated Brillouin Scattering, Self-Phase Modulation, Cross-Phase Modulation, and Stimulated Raman Scattering

⇒ Design user defines multimode components such as lenses, multimode fibers, TRANSMITTER and RECEIVER Design (32/128 square QAM and 8-256 star or circular QAM (multilevel PSK) with non, gray and differential coding. Customized amplitude maps for PAM-based higher order modulation systems. APD (more detailed short/thermal noise models and Spectral source component (Lorentzian, Gaussian, measured spectral data)

⇒ Optimization

⇒ MATLAB & SCILAB interface -co-simulate time-driven signals using their own gain control schemes with MATLAB & SCILAB

⇒ Microwave Components (180 and 90 degree hybrid couplers, DC Blockers)

⇒ OFDM/ Modulator / Demodulator (It should supports different types of modulation scheme such as BPSK , QPSK , QAM ,etc) .

⇒ Optical Fibers Library/Multimode/Measured-Index Multimode Fiber /Bidirectional Fiber

⇒ Parallel processing using graphical processing units (GPU)

⇒ C++ co-simulation component (open signal architecture interface to input, output and manipulate signal type and complex waveform data arrays)

⇒ Sub-system component library (TBD)

⇒ FDTD co-simulation through S-parameters input (TBD)

⇒ Co-simulation with BPM, gratings, fiber and Opto-electronic components.

⇒ Post-processing improvements (2D graphs)

⇒ Incorporate new components based on subsystems

⇒ User-defined libraries, or utilize co-simulation with a third party tool such as MATLAB or SPICE & C++

⇒ Allows to employ tools for integration and fiber optics at the component level such as amplifiers, waveguides, WDM, gratings based components.

⇒ All steady state fiber models now include the modeling of Double-cladding pumping, Rayleigh scattering, Raman and Brillouin inelastic scattering, dispersion and self-phase modulation.

⇒ In addition, the component parameters tabs have been overhauled to provide better consistency and logic between all doped fiber models.

⇒ Also a new steady state model has been added for the characterization of Holmium-doped fibers

⇒ All dynamic fiber models now include the modeling of Double-cladding pumping, Rayleigh scattering, Raman inelastic scattering, and dispersion effects. In addition, the component parameters tabs have been overhauled to provide better consistency and logic between all doped fiber models.

⇒ Also a new dynamic models have been added for the characterization of Thulium-doped and Holmium-doped fibers.

⇒ New Uniform FBG Sensor and WDM FBG Sensor Interrogator components have been created to allow for the characterization of fiber-based grating sensor systems (to model both temperature and stress/strain events).

⇒ Several of our electrical pulse generator components have been updated to allow for more flexibility in defining pulse sequences, including:

⇒ The ability to define whether to define the pulse sequence based on an external bit sequence generator (default) or to use internal parameters

⇒ When using internal parameters, users now have the option to define the specific points in time where to introduce pulses and the repetition rate (in time) of these pulse groupings.

⇒ Where applicable, users will also have the option to define the pulse width and truncation length.

⇒ The Impulse Generator component now includes support for M-ary input signals and the ability to match the output amplitude directly to the input amplitude

⇒ The User defined bit sequence generator component now includes support for Non-zero bit locations. When selected, users will be able to define the exact locations where the bits will be placed (all other locations for the sequence will be filled with zero bits)

⇒ The transfer functions for the Low Pass Raised Cosine Filter & Band Pass Raised Cosine Filter components have been updated.

⇒ The pulse definitions for the Raised Cosine Pulse Generator & Mary Raised Cosine Pulse Generator components have been updated.

⇒ The Power Combiner components now include options to force the power conservation condition and include phase dependence at the input.

⇒ The Universal DSP component now includes the option to perform the adaptive equalization (AE) routine before or after the frequency offset (FOE) routine. For the BPSK modulation format (when fiber PMD is present) it can be beneficial to perform FOE first.

⇒ The FEC Encoder and FEC Decoder components now include options for Trim to sequence length and Zero pad to sequence length, respectively.In some applications (such as for higher order modulation systems) it is desirable for the bit sequence length exiting the encoder to be the same as that entering.

⇒ The Constellation Visualizer has been updated to provide a more detailed explanation on how the EVM and SER metrics are calculated.

⇒ The Transimpedance Amplifier has been updated to fix a bug that was found in the Load Transfer Function option of the parameter Transfer function model

⇒ Electrical Nonlinear Device: To model or synthesis nonlinear electrical devices such as an op-amp.

⇒ A new Line of Sight (LOS) Free Space Optics (FSO) Channel component

⇒ Python Scripting enables users to script a project using Python language similar to VB scripting

⇒ Large Electrical Input Signal to Empirical Laser Measured

⇒ Compliance Test Patterns such as CJTPAT, CRPAT, and CSPAT

⇒ FBG Sensor: physical parameters of the grating to perform temperature, stress and strain sensing.

⇒ Phi-OTDR to sense vibration in the optical fiber

⇒ Phi-OTDR Interrogator: allow the user to analyze experimental measurements.

Opto Electronic Circuit Design

⇒ Integrated Device Symbol Editor allows you to create custom symbols for devices or hierarchical blocks using standard drawing tools.

⇒ Hierarchical Design with unlimited levels is fully supported. Any symbol on a schematic can contain another schematic of arbitrary size. Blocks can be nested to any desired depth. Any number of hierarchical blocks can be open for editing at any time.

⇒ Schematics includes a powerful Report Generator tool for net list and text report generation.

⇒ Includes several powerful technologies for scripting and customization that allows full access to all design data and virtually every program function.

⇒ The schematic editor can save diagrams in WMF (Windows Metafile) and DXF (AutoCAD) graphics formats. This capability allows you to pass graphics to other programs for plotting, enhancement, or incorporation into other documentation.

⇒ Generate SPICE compatible net lists.

⇒ On Windows 7/8.1/10 support.

⇒ Simulator incorporates equations governing optical components directly into an electrical simulation framework, thus forming a single-engine opto-electronic simulation software.

⇒ Includes thermal macro models that model the thermal behavior of the devices. Users can incorporate them into the opto-electronic simulation to provide reliable simulation results.

⇒ Supports a wide variety of electrical circuit elements such as diodes, transistors, BJTs and MOSFETS along with optical components such as laser diodes, optical fibers and photodiodes.

⇒ Able to handle integrated optics, multiple optical channels (WDM), and multimode signals.

⇒ Advanced numerical techniques for superior convergence. Advanced solver automatically selects the best convergence algorithm for reliable transient simulation convergence.

⇒ Active and passive device model compatibility with industry SPICE standard. Users can easily import external models and net lists written in SPICE format

⇒ Enables accurate simulations by supporting BSIM3 models.

⇒ Provides accurate implementation of different frequency dependent models including S-parameters, pole/residue expressions and transmission line models.

⇒ Includes the award winning software OptiSystem for complex post-processing, signal integrity and waveform analysis.

⇒ In order to predict the system performance, OptiSystem calculates parameters such as BER and Q-Factor using numerical analysis or semi-analytical techniques for systems limited by inter symbol interference and noise.

⇒ The OptiSystem signal processing library includes many components for post-processing of results. Users can also create new types of analysis or incorporate new components using MATLAB.

⇒ Advanced visualization tools produce OSA Spectra, signal chirp, eye diagrams, polarization state, constellation diagrams and much more. Also included are WDM analysis tools listing signal power, gain, noise figure, and OSNR per channel.

⇒ Laser parameter extractor allows users to generate models by extracting and fitting parameters from static and dynamic measurements of lasers.

⇒ Filter parameter extractor allows users to translate S-parameters into compact and efficient pole/residue representations.

- ⇒ Multimode fiber parameter extractor includes an optical fiber mode solver that allows users to generate libraries of fibers from a user defined refractive index profile.
- ⇒ Modulator parameter extractor enables parameter fitting of measurements from MQW Electro-absorption Modulators using a polynomial form (one or two dimensional functions)
- ⇒ BSIM4: Developed to explicitly address many issues in modeling CMOS technology and RF high-speed CMOS circuit simulation
- ⇒ JFET and MESFET: New field effect transistor elements.
- ⇒ MOSFET, BSIM3 and BSIM3SOI: Now includes temperature dependence and new noise models.
- ⇒ New Optical Elements & Models
- ⇒ Waveguide Elements: A new multi-mode waveguide element with configurable waveguide parameters.
- ⇒ Multilayer Filters: An active filter comprised of a set of layers (interfaces with waveguides between them). It includes temperature and voltage dependent indices for all layers.
- ⇒ Multilayer Filter Layout
- ⇒ Ring: A four or two port ring comprised of cross-couplers and multi-layer filters.
- ⇒ Ring Layout
- ⇒ Cross-couplers: The EDF component now supports double-clad fibers.
- ⇒ Laser: Added optical feedback model for single mode lasers.
- ⇒ Laser Layout
- ⇒ Mach-Zehnder: New models incorporate enhanced signal chirp calculation.
- ⇒ Delay: Added voltage dependence for delay.
- ⇒ New Applications and Validation Projects
- ⇒ Laser optical feedback
- ⇒ Use of rings/waveguides/x-couplers
- ⇒ New devices and models.
- ⇒ Linear Network Element Model: Network 2-port, Electrical Filter.
- ⇒ OPTAMPM Model: OptiBPM – 2 Port, OptiBPM – 4 Port, Optical SParam – 2 Port, Optical SParam – 3 Port (Cpl), Optical SParam – 3 Port (Spl), Optical SParam – 4 Port.
- ⇒ Si (Carrier depletion) and LiNbO3 (Pockels effect) travelling wave (TW) modulator devices.
- ⇒ TW Modulator – Si
- ⇒ TW Modulator – LiNbO3
- ⇒ Python Post Processing
- ⇒ Apodization function for Multilayer Filter models
- ⇒ Intel® Math Kernel Library (MKL) sparse matrix solver
- ⇒ OptiSPICE Waveform Viewer Results Filtering

Finite Difference Time Domain Simulation

⇒ Software should accommodates waveguides integrated on a substrate, including channel waveguides, rib or ridge waveguides, buried waveguides, or waveguides from a diffused process.

⇒ Software should facilitates design of Splitters, Combiners, Couplers, Modulators, Multiplexers, and AWGs.

⇒ Software should facilitates script commands that direct any of the Simulator output to an appropriately named ASCII file

⇒ Software should be capable to the 2D mode solver to find lossy and leaky modes, as well as surface Plasmon modes.

⇒ Software should be capable to enhance with full three-dimensional (3D) view of the design. One can rotate, move, and view designed structures in a versatile 3D environment with zoom in/out capabilities from any angle or position.

⇒ Software should be capable to plot modal index vs. wavelength. It can also calculate and plot group delay and dispersion spectra.

⇒ Software should be capable of Sellmeier definition of dispersion and to adjust the refractive index according to the current wavelength. Adjust the refractive index according to the current wavelength. It should be also calculate model dispersion.

⇒ Software should include robust 2D/3D mode solver.

⇒ Software should GDSII and DXP output mask formats.

⇒ Software should be capable of interfacing with code –V, Auto-cad, Zemax, dw2000, EXFO, Miroma.

⇒ Software should be interface with popular design tools like Code V and Zeemax

⇒ Software should be enable to design, analyze and test modern passive and nonlinear photonic components for wave propagation, scattering, reflection, diffraction, polarization and the nonlinear phenomenon.

⇒ The core program of software is based on the finite-difference time-domain (FDTD) algorithm with second-order numerical accuracy and the most advanced boundary condition - Uniaxial perfectly matched layer (UPML) boundary condition. The algorithm should solve both electric and magnetic fields in temporal and spatial domain using the full-vector differential form of Maxwell's coupled curl equations.

⇒ Software should be capable of doing simulations of Photonic band gap materials and devices, Optical micro-ring filters and resonator, Grating-based waveguide structures

⇒ Diffractive micro-optics elements, Complex integrated optics structures, nonlinear materials, dispersive materials, surface plasma and anisotropic materials.

⇒ The software should deliver the power of 64-bit computing to desktops supporting Windows 64 bit operating systems. Software should be capable of design and run a new generation of 64-bit simulations that address up to four billion times as much memory as 32-bit applications.

⇒ Software should be capable of simulating new arbitrary tilting plane wave excitation algorithm that separates total field and scattering field which is Ideal for Radar Cross Section (RCS) analysis and grating simulations.

⇒ Software should have Heating Absorption Module for the calculations of the heating field distribution and heating absorption rate estimation.

⇒ Software should have the most extensive material choices, including Lossless and lossy material, Isotropic and anisotropic materials, Multiple resonance dispersive materials, Lorentz-Drude materials - Noble metals and surface plasma materials,2nd-Order and 3rd-Order nonlinear materials, Kerr effect materials, Raman effect materials ,Perfect conductor materials

⇒ Software should have the the most extensive selection of excitation sources, including Waveguide mode excitation, Gaussian beam excitation, Plane wave excitation, Point source and Dipole Source, Single wavelength excitation, TF/SF excitation, Spectral excitation, Power and amplitude, Linear or circular polarization, Multiple beam excitations.

⇒ Software should include an advanced boundary condition simulation feature which optimizes memory usage and provides more accurate results. It should use the Uniaxial Perfectly Matched Layer (UPML) method to calculate the absorbing boundary condition in comparison with conventional PML.

⇒ Software should be capable of doing simulations automation through Visual Basic scripting. It should be capable of doing Quickly and easily convert any layout design or its parts into the script, create custom libraries of scripts that represent particular components, which can be added to any new layout design, create the most complex design without manual graphical user interface operations.

⇒ Software should be fully integrated with 2D band solver based on the FDTD method with Bloch's periodic boundary condition, and can generate the band diagram based on the reduced simulation domain of single or multiple cells from a square or hexagonal lattice.

⇒ Software should have waveguide thickness tapering options so that channel waveguides can be tapered linearly, and fibers can be tapered linearly and proportionately.

⇒ Software should have strongest post-data analysis tools available including Discrete Fourier Transform Field Distribution in Domain, Poynting Vector in Domain, Polarized Power calculation, and Overlap Integral calculation.

⇒ Software should have A Lorentz-Drude model for metallic integrated photonic circuits. It should be capable of performing more accurate, truly full-wave simulations for metallic structures.

⇒ Software should have a band solver based on plane wave expansion (PWE) method to analyze properties of photonic crystal materials and devices in all three dimensions.

⇒ Detector Analysis

⇒ Import of 3D shapes into the Designer

⇒ Dynamic optical field visualization during simulations

⇒ Shape cross-section outline over the optical field view.

⇒ Simplified Waveguide Profile and Material management

⇒ OptiMode XS Designer and Profile Designer Tutor pages

⇒ Input Field mode calculations in the Designer

⇒ Legacy projects using VB Script to define Gaussian beam size (Half Width)

⇒ Import 3D Shapes

⇒ Simulation 3D settings – non uniform mesh is used

⇒ Input Field Properties - Power/Amplitude on 3D Gaussian Transverse tab

⇒ OptiMode Designer contains diffused waveguide profile or material.

⇒ New Detector Analysis

⇒ Import of 3D shapes into the Designer

⇒ Dynamic optical field visualization during simulations

⇒ Shape cross-section outline over the optical field view.

⇒ Simplified Waveguide Profile and Material management

⇒ OptiMode XS Designer and Profile Designer Tutor pages

⇒ Input Field mode calculations in the Designer

⇒ Legacy projects using VB Script to define Gaussian beam size (Half Width)

⇒ Gaussian pulse parameter and Gaussian beam size definitions

⇒ ADI Mode Solver to Input Field Properties.
⇒ Sporadic crashes when observing Refractive Index distribution in Designer
⇒ Run until user stops execution
⇒ The default values of time offset and half width are not updated after editing the wavelength.
⇒ Special characters in object names
⇒ Perfect Conductor available for Wafer settings.
⇒ The waveguide object contour outline visible for 2D simulation results of projects.
⇒ Double-click open PWE Band Solver (.pnd) files
⇒ User-defined parameters possible to delete.
⇒ Total Field / Scattered Field available in 64-bit
⇒ Export FDTD designs to Linux files (.fdu)
⇒ Supporting codecs are VP8, VP9, ZLIB, and Theora.

<p align="center">(TO BE SUBMITTED ALONG WITH TECHNICAL BID)</p>

TENDER NOTIFICATION NO: --

<p align="right">Phone No:- 27871018</p>

<p align="center">U N D E R T A K I N G</p>

The Registrar,
Delhi Technological University,
Bawana Road,
Delhi-110042

       We the undersigned (herein after called as Contractor/Vendors/Suppliers) hereby offer to execute supply of items as per specification against which we have quoted over rates and for which this tender may be accepted at the rates stated there in and subject to the terms & conditions set forth for such items as may be ordered by the Registrar, Delhi Technological University or officer acting on his behalf.

Date this _____ Day of_____

Signature of Contractor _____

  Address_____

_____

_____

Guidelines/Procedure to be followed in introduction of 'e'-procurement solution:

1.Payment of cost of Tender documents: The collection of cost of Tender documents is dispensed away with, as there is no physical supply of tender documents and also to have absolute anonymity of bidder participating in e-procurement solution. The bidders can view/download the tender documents from the: https://govtprocurement.delhi.gov.in. .

2.Submission of bids: The bidders who are desirous of participating in 'e'- procurement shall submit their price bids in the standard formats prescribed in the Tender documents, displayed at : https://govtprocurement.delhi.gov.in. The bidder should upload the scanned copies of all the relevant certificates, documents etc. in the: https://govtprocurement.delhi.gov.in. in support of their price bids. The bidder shall sign on all the statements, documents, certificates, uploaded by him, owning responsibility for their correctness/authenticity and copies thereof may also be submitted in the office of the Officer In-charge (S&P), DTU along with original EMD before the specified date & time. In the event of the specified date for physical submission of EMD along with copies of bid documents is declared a holiday, the same will be received up to the appointed time on the very next working day. However, documents of the bidders downloaded online or requisitioned subsequently only will form the basis for deciding the tender.

3.Payment of Bid Security (Earnest Money Deposit): The EMD shall be in the form of the **DD/BG/Fixed Deposit Receipt only** of a scheduled bank issued in favour of Registrar, Delhi Technological University, Delhi and the zerox copy thereof is to be scanned and uploaded along with the bid, and the original shall be sent to DTU so as to reach before the date & time of closing of the bids; failing which bid will be rejected. The Bid Security (EMD) of unsuccessful bidders will be discharged immediately after finalization of the order/contract without any interest. However, firms registered with NSIC etc., are exempted from submitting EMD provided such registration includes the item(s) they are offering are manufactured by them and not for selling products manufactured by other companies.

4.Price Bid Opening: The Price Bids of only technically qualified bidders (whose bids satisfy the prescribed technical specifications/parameters and have also submitted all requisitioned documents & EMD) will be opened online at the specified date & time and will subsequently be evaluated to determine the lowest bidder. The result will be displayed on the: https://govtprocurement.delhi.gov.in. which can be seen by all the bidders who participated in the tenders. There shall not be any negotiation normally. However, in exceptional cases, negotiations can be held with the lowest evaluated responsive bidder only. Counter offers tantamount to negotiations and shall be treated at par with negotiations.

5.Processing of Tenders: The concerned officer/officers will evaluate and process the tenders as done in the conventional tenders and will communicate the decision to the bidder online.

6.Payment of Performance Security: The successful tenderer shall furnish a Bank Guarantee/FDR of the value of 05% of the basic cost of the item for a period of 14 months beyond the warranty period from a nationalized bank to ensure the satisfactory performance of item supplied. The performance guarantee is to be submitted at the time of installation / demonstration of equipments. In case the performance of the item is not found satisfactory, the amount of Performance Security will be forfeited & credited in university account.

7. Participation of Bidders at the time of opening of bids: Bidders have two options to participate in tendering process at the time of opening of Bids:

(i). Bidders can come at the place of opening of bids (electronically) as done in the conventional tender process.

(ii). Bidders can visualize the process online.

8.Participation Financial Rules for e-procurement: The e-procurement system would be applicable for purchase of goods, outsourcing of services and execution of work as prescribed in GFRs.

OFFICER IN-CHARGE (S&P)
DELHI TECHNOLOGICAL UNIVERSITY,
SHAHBAD DAULATPUR, BAWANA ROAD,DELHI – 110 042

<u>TERMS AND CONDITIONS</u>

<u>Procedure for submission of bids</u>: The bidders who are desirous of participating in 'e'-procurement shall submit their technical and price bids in the standard formats prescribed in the Tender documents, displayed at: https://govtprocurement.delhi.gov.in. The bidder should upload the scanned copies of all the relevant certificates, documents etc. after page-numbering all documents and tender document and prepare an index thereof in the: https://govtprocurement.delhi.gov.in. in support of their price bids. The bidder shall sign on all the statements, documents, certificates, uploaded by him, owning responsibility for their correctness/authenticity and copies thereof may also be submitted in the office of the Officer In-charge (S&P), DTU along with original EMD. However, documents of the bidders downloaded online or requisitioned subsequently only will form the basis for deciding the tender.

1. Manufacturers (OEMs)(N/A) or their Authorized Distributors/Suppliers /Agents/Channel Partners only should submit their bids.
2. <u>ALTERATION IN THE SPECIFICATION</u>.
   (i) The specifications mentioned/issued with this form of tender must not be altered by the Suppliers.
3. <u>INCOMPLETE TENDERS</u>
4. The Bidder is expected to examine all instructions, forms, terms and specifications in the bidding documents. Failure to furnish all information/documents, as asked for in the NIT, or submission of a bid not substantially responsive to the NIT in every respect, will be at the Bidder's risk and may result in rejection of its bid.
5. <u>CANCELLATION OF TENDER/ CONTRACT/ IN PART OR IN FULL IN CASE OF DEFAULT IN CONTRACT/SUPPLY:</u>
   If the Supplier, in the opinion of the Institute, fails or neglects to comply with any of the terms & conditions forming, part of the order issued, the head of institute shall without prejudice to any other right or remedies under the contract, has the right to cancel the contract /order by giving 15 days notice in writing to the Suppliers/firms without being liable to pay compensation for such cancellation.
6. Tender shall be uploaded as per guidelines indicated for e-procurement solution.
7. Demonstration of equipments has to be arranged by the suppliers, if desired by the institute. The technical committee may visit production facility if so desired for sample verification.
8. **The quotation should be valid for a period of six months from the date of opening of the tender**.
9. Rates are to be quoted in INR (Rupee terms) only and any revision thereof is not allowed after the tenders have been opened.
10. The delivery period should be clearly mentioned against each item, incase, the items are not readily available, ex-stock offer will be preferred.
11. Rates should be quoted F.O.R Institution. Taxes and Duties namely Sales tax/VAT/Custom Duty (against Custom Duty Exemption Certificate)/Excise Duty should be mentioned clearly.
12. Consignment will not be insured at the Institute/University Cost.
13. **Bidder, if is not the Original Equipment Manufacturer (OEM), must submit OEM's or their Distributor's Authorization to quote/sell the product(s).** Preference will be given to quotation pertaining to indigenous products. However, where suitable substitutes are not available and item need to be imported the following clarification/information should be given.
    o Whether the item will be imported by the intended tenderers against its own import license or university will have to provide Custom Duty Exemption Certificate (CDEC).
    o Name and address of the foreign supplier, make & model of the offered product and authorization to sell from OEM or their Distributor/Authorized Chanel Partner.

- o Delivery period including information about mode of dispatch and possible duration (after dispatch) for receipt of item at the port.
- o Whether the item required any special preparation for installation. In case yes, full details should be given regarding operation maintenance of the items.
- o In case of costly/sophisticated items whether the tenderers will arrange any special training regarding operation / maintenance of the items.
- o Nature of assurance for the supply of spares after the warranty period.

14. The payment will be made within 30 days after the successful demonstration/installation of the equipment and fulfilling of other obligations (like training etc., if any) as per the purchase/work order, against a Bill/Invoice; containing therein details of goods delivered/services performed. Rejected items/goods should also be removed within 30 days after which no responsibility will be accepted by University.

15. In the event of the item(s) being imported product(s), Custom Duty Exemption Certificate (CDEC) will be issued by the University on the written request of the supplier; who, in turn, will furnish copies of relevant Customs Related Documents namely Airways Bill, Packing List, TR-6 challan etc. along with Bill/Invoice.

16. Conditional quotations and/or incomplete quotations in any respect will be rejected.

17. In case you cannot quote for one or more of the items asked for in the tender the word "NOT QUOTED" (in the rate column) should be indicated.

18. The specification of the item quoted by the firm should confirm to the University specifications. Confirmation, in this respect should be specifically mentioned in the tender. Where the tenderer feels that the specification of the item not fully given or differ, from the specification of the item mentioned by the university, the exact specification of such item should be attached with the tender indicating the item quoted.

19. The Firm is required to link the University specifications with catalogues & leaflets/literature and also **mention Make and the Model for each item**. Detailed features, for compliance of specification should be provided on specification sheet & appropriate reference i.e. page no. & para of literature, leaflet wherefrom the relevant information has been checked, should be indicated.

20. **EARNEST MONEY**:- EMD should be attached with the technical bid**.** The EMD shall be in the form of the **DD/BG/Fixed Deposit Receipt** of a scheduled bank issued in favour of Registrar, Delhi Technological University, Delhi. Zerox copy thereof is to be scanned and uploaded along with the bid, and the original instruments shall be sent to DTU so as to reach before the date of closing of the bids. Failure to furnish the original instrument before the closing of the bid, will entail rejection of bid and blacklisting. **If the tenderer after acceptance of the tender refused to take up the purchase order, his Earnest Money will be forfeited**. Any tender received without / less Earnest Money deposit shall be summarily rejected.

21. The Purchase Order/Contract will be awarded to the successful Bidder whose bid has been determined to be responsive and has been determined to be the lowest evaluated bid, provided further the Bidder is determined to be qualified to execute the Order/Contract satisfactorily.

22. There shall not be any negotiation normally. However, in exceptional cases, negotiations can be held with the lowest evaluated responsive bidder only. Counter offers tantamount to negotiations and shall be treated at par with negotiations.

23. The Competent Authority reserves the right to reject any or all the tenders and annual the bidding process at any time prior to award of Contract, without assigning any reason, without thereby incurring any liability to the affected Bidder or Bidders, and his decision will be final.

24. The supplies shall have to be made within the period specified in the purchase order failing which the order shall be cancelled and the Earnest Money will be forfeited. However, in exceptional circumstance and, on written request, from the supplier/tenderer, extension of date for supply of the material will be considered. Extension in supply period is at the sole discretion of the competent authority.

25. Service manuals, wherever available/ required, should be provided along-with the Equipments.

26. The University reserves the right at the time of award of PO/Contract to increase or decrease the quantity of goods and services originally specified in the Schedule of Requirements without any change in unit price or other terms and conditions. Further, the quantities in the PO/Contract may be enhanced by 30% within the delivery period.

27. In the case of purchase of many items against one tender, which are not inter-dependent or where compatibility is not a consideration, comparison would be made on the basis of prices quoted by the firms for identifying the lowest quoting for each item.

28. WARRANTY: **All products must have a minimum of three Year (36 months) Warranty**. A Warranty Certificate should invariably be supplied along with the item at the time of delivery. If after delivery, acceptance and installation and within the guarantee and warranty period, the operation or use of the goods proves to be unsatisfactory, the supplier shall rectify the defects, errors or omissions by repair or by partial or complete replacement on free of cost basis.

29. The Competent Authority reserves the right to levy liquidated damages up to 2% of the value of the order for delayed supply. If the supply is delayed beyond the extended period, the University reserves the right even to cancel the order and forfeit the EMD of the firm/ tenderer.

30. PERFOMANCE SECURITY DEPOSIT:- The successful tenderer shall furnish Performance Security Deposit of the value of 05% of the basic cost of the item in the shape of Bank Guarantee/FDR etc. from a nationalized bank pledged to Registrar, DTU, for a period of 14 months beyond the warrantee period to ensure the satisfactory performance of item supplied. The performance guarantee is to be submitted at the time of installation / demonstration of equipments. In case the performance of the item is not found satisfactory and/or the Supplier fails to complete its obligation under the contract/purchase order, the amount of Performance Security will be credited in University account.

31. DEFAULT: - In the event of default and unsatisfactory service of the contractor/Supplier firm, the DTU will be at liberty to repair/get the item serviced from other party at the cost of supplier/ contractor/ tenderer.

32. In case of software items, the suppliers should ensure that:-
    o Legal software is supplied in original sealed pouches / P. K. T.
    o A license agreement is enclosed with it.
    o A registration card is available for software.

33. FAILURE AND TERMINATION: - If the Contractor / Supplier fails to deliver the stores or any installment thereof within the period fixed for such delivery or at any time repudiates the contract before the expiry of such period, DTU may without prejudice to the right of the purchaser recover damages for breach of the contract.

34. The technical & financial bids of only those bidders will be opened who fulfill the eligibility criteria and whose documents are found in order. If any of the date earmarked for opening of technical or financial bids happens to be a holiday, the bids will be opened on the very next working day.

35. Notwithstanding the provisions relating to extension of time, penalty and cancellation of tender/contract for default, the vendor shall not be liable for forfeiture of its performance security/ liquidated damages or termination for default, if and to the extent that, its delay in performance or other failure to perform its obligations under the contract is the result of an event of Force Majeure (i.e. an event or situation beyond the control of the vendor that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the vendor; such as wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes etc.). If the performance in whole or in part or any obligation under the contract is prevented or delayed by any reason of force-majeure for a period exceeding 60 days, either party may at its option terminate the contract by sending a written notice without any financial repercussions on either side.

36. For any query/clarification in r/o technical aspect of the enquiry, **HOD Electronics and Communication Engineering, DTU** may be contacted.

37. Proof of VAT/GST Registration no. and VAT Return copy of fourth quarter for last three financial year date of tender.

38. PAN No (Copy PAN no. Attached)

39. P.Os Copies /rate having executed same items, for 03 financial years at least one copy for each financial year.

40. Authorization certificate from Original equipment Manufacturer (OEM) or their Distributor to quote/sell the product, in case the bidder is not the OEM.

41. Disputes, if any, arising out of this tender shall be subject to exclusive jurisdiction of Courts of Delhi/New Delhi only.

42. The bidder has submit an undertaking in firm letter pad that it has not been blacklisted by any Govt./Instt/autonomous body.

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OFFICER IN-CHARGE (S&P)
DELHI TECHNOLOGICAL UNIVERSITY,
SHAHBAD DAULATPUR, BAWANA ROAD,DELHI – 110 042

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CHECK LIST OF DOCUMENTS TO BE SENT WITH TECHNICAL BID.

S.No.	Particulars of documents	Page no.	No. of pages
1.	Proof of EMD (mention amount with instrument number and date)		
2.	Proof of PAN no. (mention no………………………)		
3.	Proof of VAT/GST Registration No and VAT Return copy of fourth quarter (January to March) for last three financial year date of tender.		
4.	Brochure/Leaflets/Technical Information, including Make & Model, Imported/Indian of the item(s)		
5.	UNDERTAKING as per page no. 4 of Tender Document, duly signed.		
6.	Technical specifications, terms & conditions and delivery period etc. to be submitted on firm's letter head		
7.	Warranty Certificate from manufacturer or authorized dealer of manufacturer		
8.	Purchse Order (PO) copies having executed ssame items (3 POs of 80% each or 5 POs of 60% each of estimated cost of items) in the name of bidder of last three financial year.		
9.	Autorisation Certificate from Original Equipment Manufacturer (OEM) or their Distributor to quote / sell the product, in case the Bidder is not the OEM		
10.	The bidder has submit an undertaking in firm letter pad that it has not been blacklisted by any Govt./Instt/autonomous body.		
11	OEM/authorized distributor should accept a "fall clause" and give an undertaking that, in case it supplies or quotes a lower rate to other Governments, Public Sector or Private Organisation, it would re-imburse the excess.		

Note: All copies of above documents should be duly signed and stamped by the tenderer before uploading.

Signature of tenderer: …………………..
Name: …………...…..…………………..
Name of firm: …………………..
Telephone No…………………………….

I N D E X

S.No.	Particulars of documents	No. of pages

Pagination must be completed properly .