



# NATIONAL INSTITUTE OF TECHNOLOGY, DURGAPUR

Department- Computer Science and Engineering  
MAHATMA GANDHI AVENUE., DURGAPUR -713 209, WEST BENGAL, INDIA

**BID REFERENC: NITD/CA/SC/RIG/GPU-WORKSTATION/2016-17/01**

**Date: 10.01.2017**

To

The Vendors.

Dear Sir/ Madam ,

**SUB : Invitation for quotations for supply and installation of Instruments under Research Initiation Grant #2 , NIT Durgapur " as specified in annexure-II.**

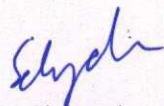
1. You are invited to submit your most competitive quotation for the listed items of instruments/equipment . The bid must be in two parts "Technical Bid "and "Price Bid" .
2.
  3. **Bid Price (Annexure-I)**
    - a. The contract shall be for the full quantity as described above. Corrections, if any, shall be made by crossing out, initialing, dating and re writing.
    - b. All duties, taxes and other levies payable by the contractor under the contract shall be included in the total price F.O.R. NIT Durgapur.
    - c. The rates quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
    - d. The bid price must be quoted in **Indian Rupees**.
  4. The bid submitted by the bidder must comprise the following:
    - i. Detailed technical specifications, conforming to the given specifications (vide Annexure - I), and literature /drawings /manuals of the goods/services to be supplied
    - ii. Authorization certificate to be provided from the original manufacturer.
    - iii. Credentials and list of organizations where the bidder supplied similar items
    - iv. Warranty period (As mentioned in product specifications)
    - v. Valid sales-tax / VAT clearance certificate
    - vi. Price bid as per Annexure-I
  5. **Validity of Quotation**
    - a. Quotation shall remain valid for a period not less than 60 days after the deadline date specified for submission.
  6. **Evaluation of Quotations**
    - a. The Purchaser will evaluate and compare the quotations determined to be substantially responsive i.e.
      - (a) which are properly signed and
      - (b) Conform to the terms and conditions, and specifications.
  7. **Award of contract**
    - a. The Purchaser will award the contract to the bidder whose quotation has been determined to be substantially responsive, technologically acceptable and who has offered the lowest evaluated quotation price.
    - b. Not withstanding the above, the Purchaser reserves the right to accept or reject any quotations and to cancel the bidding process and reject all quotations at any time prior to the award of contract.



- c. The bidder whose bid is accepted will be notified of the award of contract by the Purchaser prior to expiration of the quotation validity period. The terms of the accepted offer shall be incorporated in the purchase order.
8. Delivery shall be made at **Department of Computer Applications , NIT, Durgapur.**
  9. Payment shall be made immediately within 30 days after satisfactory installation, commissioning and acceptance of the good.
  10. Comprehensive onsite warranty shall be applicable to the supplied goods for a period of **36 months** from the date of installation.
  11. The Institute is **exempted from payment of custom and excise duty** on items mentioned below:
    - a) Scientific and technical instruments, apparatus, equipment (including computers)
    - b) Accessories, spare parts and consumables thereof
    - c) Computer software, CD-ROM, recorded magnetic tapes, microfilms, and microchips.
  12. The successful bidder must submit before the release of payment a valid bank guarantee on any nationalized bank of **5%** of the order value towards **Performance Security** during the warranty period. Else, **95%** of the payment will be released retaining **5%** of the order value towards Performance Security during the warranty period.
  13. **Liquidated Damage** will be applicable at the rate of **0.5%** per week. The purchaser has the right to cancel the purchase order when LD accumulates to **10 %**.
  14. Settlement of any dispute will be made under the jurisdiction of Durgapur Court.
  15. You are requested to provide your offer latest by **14.30 hours** on , **30/01/ 2017**
  16. The purchaser will open the bids at **15.00 hours** on **30/01/ 2017** in the Office room of CA Department.
  17. The bid document must be signed and sealed and enclosed with the bid as a token of acceptance of all terms and conditions in the bid document by the bidder.
  18. The items must be delivered within **60 days** from the date of placement of purchase order at the respective department.
  19. Comprehensive onsite warranty for **36 months** from the date of satisfactory installation shall be applicable for offered goods.
  20. All other terms and conditions of GFR 2005 of the Government of India will be application.
  21. Place of Delivery: **Computer Applications, NIT Durgapur.**
  22. Installation / commissioning / demonstration requirement: Installation, commissioning, complete demonstration and successful running at **Dept. of Computer Applications, NIT, Durgapur.**

I look forward to receiving your quotations and thank you for your interest in this project.

The bid must be addressed to:



Dr. S. Changder  
Assistant Professor  
Department- Computer Applications.  
NIT, Durgapur -713209, W.B.  
Telephones: + 91-9434788094



Head  
Department of Computer Applications  
Institute of Technology  
W.B., INDIA



## Annexure – I

**PRICE BID**

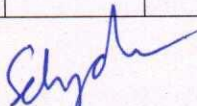
1	2	3	4		5	6	7	8
Sl. No	Name of the good	Quantity & Unit	Price for each unit		Unit Price  (a)+(b)	Sales tax/ VAT & other taxes payable [admissible only on col. 4(a)]	Total Unit Price  (5)+(6)	Total Unit Price (in words)
			Ex-factor/ ex- warehouse/ ex- showroom/ off the shelf  (a)	Incidental Services  (b)				

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### Technical Specifications

Sl nos	Name of the Items	Specifications	Quantit
01	GPU Server	<p>Form Factor 4U Rack/Tower Server</p> <p>Processor Dual Intel® Xeon® Processor E5-2603 v4 (15M Cache, 1.70 GHz)</p> <p>Chipset Intel® C612 chipset</p> <p>Memory 16 GB x 4 DDR4 @2133 MHz memory, Minimum 16x 288-pin DDR4 DIMM slots, upgradeable Up to 2TB ECC 3DS LRDIMM, 1TB ECC RDIMM</p> <p>Storage Minimum 3 x 3 TB Enterprise SATA @ 7200K RPM with SATA3 (6Gbps); RAID 0, 1, 5, 10 support and 1 X 250 GB internal SSD</p> <p>Drive Bays 8x 3.5" Hot-swap SAS/SATA Drive Trays, 3x 5.25" drive bays in storage module - rotates 90° for Rack mount 1x 3.5" fixed drive bay</p> <p>Optical Drive Internal DVD-RW</p> <p>Input Standard USB keyboard with Optical Mouse</p> <p>Expansion slot 4x PCI-E 3.0 x16 (double-width) slots 2x PCI-E 3.0 x8 (1 in x16) slots 1x PCI-E 2.0 x4 (in x8) slot</p> <p>GPU 4 X Nvidia Geforce GTX 1080 with 8 GB GDDR5 Graphics Card Intel® i350 Dual Port Gigabit Ethernet, Virtual Machine Device Queues reduce I/O overhead</p> <p>Network Controllers Supports 10BASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output, 1x Realtek RTL8211E PHY (dedicated IPMI)</p> <p>Ports 5x USB 3.0 ports (2 rear, 2 via header, 1 Type A), 4x USB 2.0 ports (2 rear, 2 via headers), 2x SuperDOM (Disk on Module) ports, 1x TPM 1.2 20-pin Header, Thunderbolt AOC Header</p> <p>System BIOS 128Mb SPI Flash EEPROM with AMI® BIOS, Plug and Play (PnP), APM 1.2, DMI 2.2, ACPI 1.0 / 2.0, USB Keyboard support, SMBIOS 2.3, UEFI</p> <p>Power Supply Minimum 2000W Redundant Power Supplies with PMBus, with at least 80+ Titanium level certified</p> <p>System Cooling 4x 92x38mm 4-pin PWM Middle Cooling Fans 2x 80x38mm 4-pin PWM Rear Exhaust Fans</p> <p>Operating System Cent OS Linux Latest version</p> <p>Warranty 3 Yrs onsite comprehensive.</p> <p>Others Proposed OEM should have at least 2 entries in www.top500.org list</p>	01 no
02	3 KVA Online UPS with 30 Min Backup On Full Load	<p>Nominal Input Voltage : 230V</p> <p>Input Frequency : 40-70 Hz</p> <p>Input Voltage : 100- 285 V</p> <p>Input Protection : Circuit Breaker</p> <p>Output Capacity : 3000 VA / 2400 Watt</p> <p>Output Voltage : 230 V</p> <p>Efficiency on Full Load : &gt; 93%</p> <p>Bypass input voltage range : 160V – 270V</p> <p>Backup time : 30 min or higher with SMF batteries ( Battery make : EXIDE/AMARON/ PANASONIC ) , Battery RACK should be included warranty – 2 years onsite comprehensive.</p>	01 no

  
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### 03. Thermo-vision Camera with Analysing Software Specifications

Required Feature for Thermo-vision camera	Specifications	Qty
Temperature Range	0°C to +550°C or more	01 no
Measurement Accuracy	±2°C (±3.6°F) or ±2% of reading	
Standard IR resolution/ Pixel Density:	155 x 110 pixels or more (Super Resolution not acceptable)	
Visual & Thermal Image Enhancement	To See numbers, labels and other required visual details (not normally Visible in a regular thermal image)	
Type of Detector	Focal Plane Array (FPA)	
Spectral range	Un-cooled micro-bolometer - 7.5-13/14 µm	
Thermal sensitivity	<0.08°C @ +30°C (+86°F) / 70 mK or Less	
Field of view (FOV)	24° x 18°	
Minimum focus distance	0.5 m (1.41 ft.) or Better	
Spatial resolution (IFOV):	2.80 mrad or Less	
Image frequency	50 / 60 Hz (FPS)	
Focus	Manual or single shot adjustment	
Zoom	2 x digital zoom, including panning or better	
Radiometric Video Streaming	Full dynamic to PC using USB & Can be Analysed from Single Shot Image	
Touch Screen Display	3.5 in. Colour LCD, 320 x 240 pixels or more	
Image modes	IR image, visual image, picture in picture (scalable) and merging (fusion) & Visual with Thermal Enhancement Mode	
Wireless Connectivity	Wi-Fi connectivity of the IR Camera to connect to smart phones and tablet PCs, for the wireless transfer of images or remote control of the camera & Blue Tooth Connectivity	
Measurement Tools on Board	Min 2 Spot meter/ 2Area boxes	
Measurement modes	Auto hot/cold spot, Isotherm (above/below/interval)	
Difference temperature	Delta temperature between measurement functions or reference temperature	
Emissivity correction	Variable from 0.01 to 1.0 or selected from materials list	
External optics/windows correction	Automatic, based on inputs of optics/window transmission and temperature	
Colour palettes	5 or more	
Image storage	On memory card / Camera	
File formats	Radiometric JPEG/PNG/TIFF any standard windows format(Analysis on propriety format not acceptable)	
Image storage mode	IR/visual images; simultaneous storage of IR and visual images	
Voice & Text Annotation	50 seconds or more voice Annotation	
Flash	Lamp or LED light (Built in)	
Laser pointer	laser alignment feature displayed on IR Image	
Ports	USB & composite video	
Battery Type	Li-Ion/NiMh rechargeable for 4 hours on typical use	
AC operation	120-260 VAC / 50 Hz	
Environmental specifications	Operating temperature range: Up to +50°C   Storage temperature range: upto +70°C.	
Humidity	As per IEC 60068-2-30/24 h 95% relative humidity or equivalent. EMC Certified Required	
Bump & Drop & Vibration	Bump 25 g, as per IEC or equivalent & Drop test 2 m or more. Vibration: 2 g, per IEC or equivalent	
Camera Power management	Automatic shutdown and sleep mode (user selectable)	
Physical characteristics	Dimensions: Portable hand held & Weight: Less than 1000 Grams including battery	
Analysing Software Features	Temperature based video means radiometric recording directly in computer hard disk	
	Frame by frame temperature analysis in computer	
	Report templates (IR + Visual and IR + IR	
	Manual IR/Visual Image Grouping	
	Import images from your camera to your computer	
	Compatibility to Microsoft Windows 7 (32- and 64-bit) and	



	Windows 8 (32- and 64-bit) or higher as per current date.	
	Search all text in images and text annotations	
	Add headers, footers, and logos to image sheets	
	Create PDF reports for images of your choice.	
	Camera firm ware upgrades and reporting software upgrades	

**Driver Software: -**

The unit to be supplied with all necessary driver software for connecting the camera to computer for Image download directly without removing the memory card.

**Package contents: -**

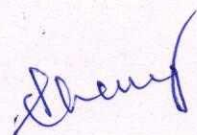
IR Camera, IR lens, Hard Carry case with slots to keep instruments, Battery (1 No.), Calibration certificate, Reporting Software in CD / DVD, Power supply Adaptor with Indian plug, All manuals soft and hard copy, communication Cables any other items required to operate the unit successfully should be included.

**Note: -**

- 2 Year warranty on Main instrument and 5 Years warranty on Infrared Detector and 1 Year warranty on consumables line cables memory card.
- If required buyer can ask for type test certificate for the above camera, type test certificate must be in English only.
- If any technical parameters are missing in the OEM data sheet same will be refereed from OEM website for finalisation and if there is any mismatch in with the printed data sheet with OEM data sheet website information / parameters to be considered as final.
- If any deviation taken by the bidder to be mentioned clearly.



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