



NATIONAL INSTITUTE OF TECHNOLOGY, DURGAPUR  
Department – Computer Science and Engineering  
MAHATMA GANDHI AVENUE, DURGAPUR – 713 209, WEST BENGAL, INDIA

**BID REFERENC: NITD/CSE/DRK/RIG/2016-17/01**

**Date: 27.10.2016**

To

The Vendors.

Dear Sir/ Madam,

**SUB: Invitation for quotations for supply and installation of Instruments and Softwares under Research Initiation Grant – 2, NIT Durgapur for project “Automated Heterogeneous Face Recognition for Law-enforcement (Approval No. NITD/Regis/OR/FC/33/2016/dated 22<sup>nd</sup> Feb, 2016)“ 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 submitted in two parts “**Technical Bid**” and “**Price Bid**”.
2. **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**.
3. **The bid submitted by the bidder must comprise the following:**
  - a. Detailed technical specifications, conforming to the given specifications (vide Annexure – I), and literature /drawings /manuals of the goods/services to be supplied
  - b. Authorization certificate to be provided from the original manufacturer.
  - c. Credentials and list of organizations where the bidder supplied similar items
  - d. Warranty period (3 year comprehensive on-site)
  - e. Valid sales-tax / VAT clearance certificate
  - f. Price bid as per Annexure-I
4. Bids from manufacturers/authorized agents of internationally reputed brands of high technical quality with adequate aftersales support facilities are desired.
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**

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. Notwithstanding 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 Science and Engineering Department, 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:
- Scientific and technical instruments, apparatus, equipment (including computers)
  - Accessories, spare parts and consumables thereof
  - 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, **28<sup>th</sup> November 2016**.
16. The purchaser will open the bids at **15.00 hours** on **28<sup>th</sup> November 2016** in the Office room of CSE 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 applied.
21. Place of Delivery: **Department of Computer Science and Engineering, NIT Durgapur.**
22. Installation / commissioning / demonstration requirement: Installation, commissioning, complete demonstration and successful running at **Department of Computer Science and Engineering, NIT Durgapur.**

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

**The bid must be addressed to:**

**Dr. Dakshina Ranjan Kisku**  
**Assistant Professor**  
**Department of Computer Science and Engineering,**  
**NIT Durgapur,**  
**M. G. Avenue, A-Zone,**  
**Durgapur -713209, Burdwan, W.B.**  
**Telephones: + 91-9732111234**



LIST OF ITEMS

Sl. No.	Equipment / Device / Software Name	Specifications	Total No.
1.	GPU Workstation	<ul style="list-style-type: none"> <li>• <b>Processor:</b> Intel Xeon E5-1630v4 3.7 10M 2400 4Core CPU</li> <li>• <b>Chipset:</b> Intel C612 Chipset</li> <li>• <b>RAM:</b> 16GB DDR4 RAM 2400 Mhz ( 8X 16 GB )</li> <li>• <b>Hard Disk:</b> 1TB SATA Hard Disk 7200 RPM</li> <li>• <b>Optical Drive:</b> DVD Writer</li> <li>• <b>Graphics Card:</b> NVIDIA Quadro K620 2 GB Graphics Card or better</li> <li>• <b>Operating System:</b> Windows 7 Professional 64 Bit Operating System with license and media, System should be certified for running RHEL and SLED.</li> <li>• <b>Audio:</b> High Definition Integrated Audio with Internal speaker.</li> <li>• <b>Power Supply:</b> Minimum 500W 85% Efficient Power supply OR Minimum 700W 90% Efficient Power supply EPEAT Gold certification for the system model. Power supply should support standalone self test.</li> <li>• <b>Bays:</b> 2 x External 5.25'', 2 x Internal 3.5'', Slim Optical Drive bay</li> <li>• <b>Expansion Slots:</b> 2 PCIe Gen3 x16; 1 PCIe Gen3 x8 (open-ended); 1 PCIe Gen2 x4 (open-ended); 1 PCIe Gen2 x1 (open-ended); 1 PCI Open-ended connector allows a greater bandwidth card to be installed physically into a lower bandwidth connector/slot.</li> <li>• <b>Ports:</b> Front: 4 USB 3.0; 1 microphone; 1 headset Back: 4 USB 3.0; 2 USB 2.0; 2 PS/2; 1 RJ-45; 1 audio line in; 1 audio line out Internal: 1 USB 2.0; 1 USB 3.0 Internal USB 2.0 available by the 2x5 header. Internal USB 3.0 available by the 2x10 header.</li> <li>• <b>Keyboard and Mouse:</b> Minimum 104 keys USB Keyboard and USB Optical Scroll mouse - Same make as that of the workstation</li> <li>• <b>Chassis:</b> Tool less chassis with easy access. Provision for Kensington lock and Panel lock required. Integrated handles on the chassis. System should be rack-mountable</li> <li>• <b>Security:</b> BIOS controlled electro-mechanical internal chassis lock for the system.</li> <li>• <b>Monitor:</b> 24inch, Aspect Ratio 16:10, Native Resolution: 1920X1200 @ 60 Hz, Contrast Ratio: 1000: 1 Static, 5000000: 1 dynamic, View angle: 178 degree (Horizontal), 178 degree (Vertical), 3 USB 2.0 Port.</li> <li>• <b>Warranty:</b> 3 years onsite comprehensive Warranty.</li> </ul>	1
2.	Digital SLR Camera	<ul style="list-style-type: none"> <li>• Single lens reflex digital camera with Sutter speed 1/4000 to 30 s in steps of 1/3 or 1/2 EV, bulb, time &amp; Flash sync speed X=1/200 s synchronizes with shutter at 1/200 s or slower.</li> <li>• Focal length equivalent to approx. 1.5x that of lenses with FX format angle of view.</li> <li>• 24.2 million Pixel with 23.5 x 15.6 mm CMOS sensor.</li> <li>• With Standard Lens / Flash / Timer , Manual / Auto Focus</li> </ul>	1

		<ul style="list-style-type: none"> <li>• Compatible Telephoto Lens 70-300mm with Adaptor</li> <li>• 12 GB SD Card / JPEG Image Format. Video</li> <li>• Can be selected from 39 or 11 focus points</li> <li>• Warranty: 3 years onsite comprehensive Warranty.</li> </ul>	
3.	Thermal Imaging Camera	<ul style="list-style-type: none"> <li>• IR resolution - 320 × 240 pixels</li> <li>• Thermal sensitivity/NETD - &lt; 0.05°C @ +30°C (+86°F) / 50 mK</li> <li>• Field of view (FOV) - 6° × 4.5°</li> <li>• Field of view (FOV) for standard lens - 25° × 19°</li> <li>• Minimum focus distance – 0.4 m</li> <li>• Spatial resolution (IFOV) - 0.33 mrad</li> <li>• Spatial resolution (IFOV) for standard lens – 1.36 mrad</li> <li>• Image frequency – 60 Hz</li> <li>• Focus – Manual</li> <li>• Digital zoom – 2X &amp; 4X</li> <li>• Panning - Panning over zoomed-in images</li> <li>• Detector type - Focal plane array (FPA), uncooled microbolometer</li> <li>• Spectral range – 7.5–13 μm</li> <li>• Display – Touch screen, 3.5 in. LCD, 320 × 240 pixels</li> <li>• Image adjustment - Auto or manual</li> <li>• Image modes - IR image, visual image, MSX, picture in picture, thumbnail gallery</li> <li>• Multi Spectral Dynamic Imaging (MSX) - IR image with enhanced detail presentation</li> <li>• Auto –Orientation – Yes</li> <li>• Picture in Picture - Scalable IR area on visual image</li> <li>• Object temperature range - -20°C to +120°C (-4°F to +248°F) &amp; 0°C to +650°C (+32°F to +1202°F)</li> <li>• Accuracy - ±2°C (±3.6°F) or ±2% of reading</li> <li>• Spotmeter - 5</li> <li>• Area - 3 boxes with max./min./average</li> <li>• Automatic hot/cold detection - Auto hot or cold spotmeter markers within area</li> <li>• Difference temperature - Delta temperature between measurement functions or reference temperature</li> <li>• Reference temperature - Manually set or captured from any measurement function</li> <li>• Emissivity correction - Variable from 0.01 to 1.0 or selected from materials list</li> <li>• External optics/windows correction – Automatic, based on inputs of optics/window transmission and temperature</li> <li>• Measurement corrections - Reflected temperature, optics transmission and atmospheric transmission</li> <li>• Color palettes - Arctic, Gray, Iron, Lava, Rainbow and Rainbow HC</li> <li>• Image storage- Standard JPEG, including measurement data, on memory card</li> <li>• Image storage mode - Simultaneous storage of images in IR, visual and MSX</li> <li>• Voice Annotation - 60 seconds (via Bluetooth)</li> <li>• Text Annotation - Text from predefined list or soft keyboard on touch screen</li> <li>• METERLiNK - Wireless connection (Bluetooth) to FLIR meters with METERLiNK</li> <li>• Report generation – FLIR Tools</li> <li>• Non-radiometric IR video recording - MPEG-4 to memory card</li> <li>• Radiometric IR video streaming - Full dynamic to PC using USB</li> </ul>	1

		<ul style="list-style-type: none"> <li>• Non-radiometric IR video streaming - Uncompressed colorized video using USB</li> <li>• Built-in digital camera- 3.1 Mpixels (2048 × 1536 pixels), and one LED light</li> <li>• Laser - Activated by dedicated button</li> <li>• Wi-Fi - Peer-to-peer (ad hoc) or infrastructure (network)</li> <li>• Interfaces - USB-A: Connect external USB device, USB Mini-B: Data transfer to and from PC / uncompressed colorized video</li> <li>• Video out – Composite</li> <li>• Tripod - Yes</li> <li>• Battery type - Rechargeable Li ion battery</li> <li>• Battery operating time - Approx. 4 hours at +25°C</li> <li>• Charging system - Battery is charged inside the camera or in specific charger</li> <li>• Charging time - 4 h to 90% capacity, charging status indicated by LED's</li> <li>• Power management - Automatic shutdown and sleep mode (user selectable)</li> <li>• AC operation - AC adapter, 90–260 VAC input, 12 V output to camera</li> <li>• Start-up time from sleep mode - Instant on</li> <li>• Operating temperature range - –15°C to +50°C (+5°F to +122°F)</li> <li>• Storage temperature range - –40°C to +70°C (–40°F to +158°F)</li> <li>• Humidity (operating and storage) - EC 60068-2-30/24 h 95% relative humidity +25°C to +40°C (+77°F to +104°F) / 2 cycles</li> <li>• Encapsulation - IP 54 (IEC 60529)</li> <li>• Shock - 25 g (IEC 60068-2-27)</li> <li>• Vibration - 2 g (IEC 60068-2-6)</li> <li>• Drop - 2 m (6.6 ft.)</li> <li>• Safety - EN/UL/CSA/PSE 60950-1</li> <li>• Camera weight, incl. battery - 0.869 kg (1.91 lb.)/ Less Than 1 Kg</li> <li>• Warranty (Camera) – 2 Years</li> <li>• Warranty (Detector) – 10 Years</li> </ul>	
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