



सत्यमेव जयते

भारत सरकार/ GOVERNMENT OF INDIA

अंतरिक्ष विभाग/ DEPARTMENT OF SPACE

भारतीय अंतरिक्ष विज्ञान एवं प्रौद्योगिकी संस्थान/INDIAN INSTITUTE OF SPACE SCIENCE & TECHNOLOGY

क्रय एवं भंडार विभाग / PURCHASE & STORES DEPARTMENT

वलियमला पीओ., तिरुवनंतपुरम 695 547/ VALIAMALA P.O, THIRUVANANTHAPURAM 695 547,

केरल, भारत/ KERALA, INDIA

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निविदा आमंत्रण / INVITATION TO TENDER

Date : 10.11.2021

Tender Due on : **09.12.2021 at 14.00 Hrs**

Technical Bid Opening on: **09.12.2021 at 14.30 Hrs**

Dear Sirs,

Sealed two-part tenders are invited from the **INDIAN MANUFACTURERS ONLY** for the supply of the following equipment:

Sl. No.	Tender No.	Item Description	Qty/ Nos.
1.	2021008518	Upgradation of High Speed Camera used in different IIST test rings to a latest version (VE01310) as the present camera (V1210) is not functioning.	01 No.

Technical Specification

Sl.No.	Title	Requirement
1.	Color	Monochrome
2.	Spectral Wavelength of Camera	Visible spectrum and near-infrared (400-900nm) (image sensor spectral response graph should be attached).
3.	Bit depth (bits)	Minimum 12 bits.
4.	Frame rate (fps)	Minimum 12000 fps at minimum 1 megapixel and up to 300000 fps at 12000 pixels. Minimum frame rate 100 fps at 1 Megapixel and reduced resolution should also be achievable. In 1 MP, the smallest resolution should be greater than 750 pixels.
5.	Exposure time (s)	Minimum 1 μ s
6.	Onboard memory	Minimum 36 GB
7.	Physical CMOS sensor size	Min 390 mm ²
8.	Pixel size	Min 17 μ m x 17 μ m
9.	Full well capacity	Greater than 10000 e-
10.	Readout noise	Less than 10e- @ 20°C
11.	Fill factor	Minimum 78%
12.	Dynamic range	Greater than 58 dB
13.	Quantum efficiency	Greater than 60% @ 590 nm

14.	ISO 12232	Around 25000
15.	Trigger inputs	Switched closure/ 5 V TTL signal/ Software trigger
16.	Trigger delay	Less than or equal to 100 ns resolution for both input and output trigger.
17.	Operating parameters	Temperature : 0- 40°C Humidity : greater than 80%
18.	Lens mount	F mount /C mount
19.	Ethernet Data Communication	Minimum 1 GB
20.	Transit case	Required
21.	Software	Capable of controlling the camera parameters such as resolution, trigger delay, exposure time, live viewing the region of interest, data transfer from camera to computer, basic image operation and motion analysis.
22.	Installation & Demonstration	At IIST, Trivandrum

Commercial terms and Conditions Tender No. 202100851801 dated 10.11.2021

1. SPECIAL INSTRUCTIONS TO TENDERERS

- 1.1 The bidder is required to submit quotation for the entire scope in **TWO PART** viz, Technical and commercial bid and price bid separately. The first cover shall contain the technical and commercial details along with the format of price quotation without the price superscribing in the cover ***“Technical and Commercial-Tender No. 2021008518, Due on 09.12.2021”***. The second cover shall contain the prices superscribing in the cover ***“price bid-Tender No. 2021008518, Due on 09.12.2021”***. All the covers to be sealed and insert in another cover superscribing the ***“Tender No. 2021008518, Due on 09.12.2021”*** and submit immediately but not later than the due date and time mentioned against each tender. **If the tender is received after the due date and time, the same shall be summarily rejected.**
- 1.2 **Payment:** Our normal payment term shall be 97% payment immediately after receipt and acceptance of item by RTGS and balance 3% against submission of PBG or will be kept in lieu of PBG.
- 1.3 The installation, and demonstration of equipment is to be done at our campus, Valiamala, Thiruvananthapuram-695 547. All pre-requisites such as foundation drawing, grouting and any consumables needed for carrying out the installation, if applicable, shall be separately mentioned in the technical bid.
- 1.4 Delivery terms shall be F.O.R, IIST, Valiamala.
- 1.5 All taxes, if applicable shall be quoted separately.
- 1.6 Accreditation documents such as current income tax/sales tax clearance certificate, clientele list with previous experience in the similar lines of supply must be provided with documentary evidence), Performance Certificate, authorization for import, after sales support in India etc. shall be explained in detail with proof.
- 1.7 **Security Deposit:-** Interest free Security Deposit @ 3% of the basic value of Purchase Order shall be payable by successful vendor for satisfactory execution of the Purchase Order.
- 1.8 **Performance Bank Guarantee:** 3% of basic order value shall be submitted by the Vendor for Warranty obligation.
- 1.9 These items are required for our research purpose, we are eligible for integrated Tax (rate) vide Govt. of India, ministry of Finance (Department of revenue) Notification No. 47/2017 dtd 14.11.2017 (Inter-State Supplies), 45/2017 dtd 14.11.2017 (Intra-State Supplies) hence, we should pay 5% GST/IGST only against production of a certificate to the supplier from the Head of the Institution certifying that said goods are required for research purpose only. Hence please quote accordingly.

1.10 Liquidated Damages: The period of completion indicated shall be the essence of the contract. In the event of delayed date of delivery & Installation, the liquidated damages @ 0.5% per week or part thereof subject to a maximum of 10% of the contract value shall be recovered. The delivery date / Completion date to be mentioned in PO is for delivery, customs clearance, inland transportation, installation and commissioning. That means the commissioning should be completed before the delivery date / Completion date.

1.11 **Force Majeure:** During the continuance of the contract, should a part or whole of the items covered by this contract be delayed in delivery due to reasons of force majeure condition which shall include lockouts, strikes, riots, civil commotions, fire, flood, windstorm, explosion, labour disturbance, act of any Govt. or any agency, judicial action, sabotage act of civil disobedience, act of public enemy, technical failure, accidents, acts of God and war, stoppage of deliveries by Govt. etc, each party undertakes to advise the other as soon as it becomes a way of the circumstance of such force majeure, so that action under the provisions of this contract can be mutually reviewed and agreed upon between contractor and IIST. If the force majeure condition extended over a period of six months, both the parties of the contract shall mutually discussed and arrived at an agreement for the continuation/ termination of the contract forthwith.

1.12 **Arbitration:** Dispute if any shall be settled mutually, failing which, it will be referred to a one-man arbitrator appointed by Director, IIST in accordance with the Arbitration and Conciliation Act, 1996 and any alteration/modifications thereof, whose decision shall be final and binding on both the parties

1.13 IIST reserves the right to either accept/reject any tender/s without assigning any reason/s whatsoever.

2. Terms & Conditions of Tender Form No. DOS PM:20 & Form No. DOS PM:23 as per attachment.

Sd/-
(M.B Subash Chandran)
Dy. Registrar –Gr I
For and on behalf of Director, IIST