



**CENTRE OF PROPULSION TECHNOLOGY (CoPT)
INDIAN INSTITUTE OF TECHNOLOGY MADRAS
CHENNAI – 600036, INDIA**

Ref. No. Copt/MEE/1718/391/DRDO/ARVN/001

Date: 5 Sep. 2017

Due date: 19 Sep. 2017

Item name: IR Camera (1 camera and 1 lens)

1. Quotations are invited in a **two bid system** for the items shown overleaf (in Annexure I). The offers / bids should be submitted as Technical bid and Financial bid. The Technical bid should consist of all technical details / specifications only. The Financial bid should indicate item-wise price for each item and it should contain all Commercial Terms and Conditions including Taxes, transportation, packing & forwarding, installation, guarantee, payment terms, pricing terms etc. The Technical bid and Financial bid should be put in separate covers and sealed. Both the sealed covers should be put in a bigger cover. The Tender for supply of “ _____ ” should be written on the left side of the Outer bigger cover and sealed.
2. The quotations should be valid for sixty days from the due date and the period of delivery required should also be clearly indicated.
3. The total cost of the equipment in terms of CIP Chennai should be clearly mentioned.
4. Terms of warranty and guarantee should be explicitly mentioned.
5. Packing and delivery charges, customs and clearance duty should be clearly stated.
6. Goods shall not be supplied without an official supply order.
7. Local firms : Quotations should be for free delivery to this institute. If quotations for ex-godown delivery charges should be indicated separately.
8. Firms outside Chennai: Quotations should be for F.O.R. Chennai. If F.O.R. consignor station, freight charges by passenger train / lorry transport must be indicated. If ex-godown, packing, forwarding and freight charges must be indicated.
9. The rate of sales / general taxes and the percentage of such other taxes legally leviable and intended to be claimed should be distinctly shown along with the price quoted. Where this is not done, no claim for sales / general taxes will be admitted at any stage and on any ground whatsoever. The taxes leviable should take into consideration that we are entitled to have Concessional Sales Tax (CST) applicable to non-government educational institutions run with no profit motive for which a concession sales tax certificate will be issued at the time of final settlement of the bill.
10. Payment : Specify the mode of payment and if advanced payment has to be made. Every attempt will be made to make payment within 30 days from the date of receipt of bill / acceptance of goods, whichever is later.
11. IIT Madras is exempt from payment of excise duty and is eligible for concessional rate of customs duty. Necessary certificate will be issued on demand.
12. IIT Madras has the right to accept the whole or any part of the tender or portion of the quantity offered or reject it in full without assigning any reason.
13. The sealed quotation may be sent to

**The Purchase Manager,
CoPT OFFICE, NCCRD Building
Behind Aerospace Engineering Dept., IIT Madras
Chennai – 600036, Ph. (O) +91-44-22579863**



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Annexure I

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Date: **5 Sep. 2017**

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Supply Quantity: 1 camera and 1 lens

Specifications of IR camera

- | | |
|--|--|
| 1. IR Camera resolution | 640X480 pixels |
| 2. Detector type | Uncooled Microbolometer |
| 3. Spectral range | 7.5-14 μm |
| 4. Temperature measurement range | 0° – 2000° C |
| 5. Frame rate @ full resolution | 50 Hz |
| 6. Thermal sensitivity | 0.03 C |
| 7. Measurement accuracy | +/- 2C (0° – 100° C) & +/- 2% (100° – 2000° C) |
| 8. Focusing method | Motorized or manual |
| 9. Max allowable shock, during operation | 25G |
| 10. Changing the camera lens should be user friendly. | |
| 11. The camera should be able to save the data in tif, png, jpg, gif, avi formats. | |
| 12. Software should automatically detect the lens (if changed). | |
| 13. Calibration and service station should be within India. | |



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14. Camera should have provision for Trigger In/Out, Sync In/Out and TTL connections.
15. Camera should also provide raw data of the image in terms of either excel or matrix form.
16. External power supply of 230v AC, 50 Hz line.
17. Warranty period: Minimum 12 months after installation

Specifications of Camera Lens

1. Lens field of view: 100 X 150 mm
2. Minimum focusing distance: 0.5m
3. F-number: 1.0

Contact person details for technical clarifications:

Dr. Arvind Pattamatta

Contact No: 9940547042

Email: arvindp@iitm.ac.in