

**INDIAN INSTITUTE OF TECHNOLOGY, DELHI
DEPARTMENT MECHANICAL ENGINEERING**

DATED: 20/12/2013

SUBJECT: N.I.Q. for the purchase of High Speed Cameras

Quotations are invited for the purchase of a high speed camera as per the following specification. The quotation should reach in the office of Prof. Anjan Ray (Room No.173 , Block III) latest by 10:00 AM on 06-01-2014.

Maximum Resolution at 3000 fps	1 Mega Pixel
Resolution at 10000 fps	≥ 0.2 Mega pixel (≥ 480 Pixel in each direction)
Sensor	CMOS
Pixel Size	≤ 20 μm
Pixel depth	≥ 30 bit colour & 10 bit mono
Sensitivity	≥ 6000 ISO Mono 2000 ISO Color
Trigger	Trigger by software, Manual & automatic by 5v TTL Signal.
Internal Memory	≥ 4 GB expandable up to 16 GB
Maximum Recording time @10000fps at ≥ 0.2 Mega pixel resolution (≥ 480 Pixel in each direction)	At least up to 1.5 Sec
Software Interface	Interface with 32 and 64 bit Windows OS (Vista and Windows 7 included)
Software features	1.To be able to convert to standard video formats like TIF, BMP, JPG, AVI, MPG, MOV, PNG, MP4 formats as well as a sequence of raw pictures in JPG or BMP formats. 2. Compatibility with software such as LABVIEW & MATLAB.
Communication	Ethernet / USB

The following aspects should also be taken care of.

1. Separate sealed technical and sealed financial bids should be given in a single sealed envelope.
2. Validity of the quote should be at least 90 days.
3. A warranty of at least 1 year from date of installation should be given. Rates for an extended warranty / AMC up to 3 years may also be given.
4. A company profile should be included in the technical bid.
5. The profile should include the following at the minimum:
 - A. The parent company's base in India, its customer list and the number of pieces of high speed cameras sold by it in India, clearly mentioning the resolution at ≥ 3000 fps.

- B. The Indian agent's profile highlighting its past experience and the number of pieces of high speed cameras sold by it in India.
- C. The Indian agent's plan on how the same shall be maintained, the capabilities of their maintenance team in India
6. In case the bid is a given through an agent, a valid agentship certificate should be attached.
 7. If the item is a proprietary item, a proprietary certificate from the principal manufacturer should be included.
 8. Indian agent should also include a copy of letter enlisting with the Department of Expenditure, Ministry of Finance as per GOI requirements.
 9. Essential accessories needed for functioning of the camera should be included in the quote and clearly specified. Optional accessories available may also be quoted separately.
 10. Price should be quoted on FOB basis only.
 11. A signed hand filled compliance sheet as attached, stating whether each of the specifications asked for are being met or not, should be included in the technical bid.
 12. If some specifications are not being met, deviations may be clearly stated. In the unlikely event that none of the vendors are able to meet all the specifications, the committee reserves the right to waive or relax any of the requirements at the technical evaluation stage.
 13. Training of Personnel: The supplier shall be required to undertake to provide the technical training to the personnel involved in the use of the equipment at the Institute premises, immediately after completing the installation of the equipment for a minimum period of one week at the supplier's cost.
 14. No advance payment shall be made.
 15. Payment will be made through wire transfer after successful installation.
 16. The Quotation received after due date will not be considered.
 17. The Institute reserves the right to reject any quotation without assigning any reasons.

After opening the technical bids, a demonstration of the product may be sought in IIT. The committee will shortlist the bids based on an evaluation of the technical bid, the demo, the efficiency / efficacy / ease of use / ability to maintain and other aspects of the equipment vis-à-vis the requirements. Financial bid would be opened only for the shortlisted companies.

Prof. Anjan Ray
Mech. Engg. Dept.
IIT Delhi

COMPLIANCE SHEET

Feature	Complies – Yes / No / Not Applicable (If no, deviation may be mentioned)
Maximum Resolution	
Resolution at 3000 fps ($\pm 5\%$)	
Resolution at 10000 fps ($\pm 5\%$)	
Sensor	
Pixel Size	
Pixel depth	
Sensitivity	
Trigger	
Internal Memory	
Software Interface	
Software features	
Communication	
Image Quality / Processing	
Separate Sealed Financial and Technical Bids	
Validity of the quote > 90 days.	
A warranty > 1 year from date of installation	
Extended warranty / AMC rate quoted	
Company profile included in the technical bid.	
Valid agent ship certificate attached.	
A proprietorship certificate from the principle manufacturer included.	
Profile includes the parent companies base in India, its customer list and the number of pieces of high speed camera sold by it in India.	
The profile includes the Indian agent's profile highlighting its past experience and the number of pieces of high speed cameras sold by it in India.	
The profile includes the Indian agent's plan on how the same shall be maintained, the capabilities of their maintenance team in India	
customer list and the number of pieces of high speed cameras sold by company as well as the Indian agent in India, clearly mentioning the resolution at ≥ 3000 fps.	
A copy of letter enlisting with the department of expenditure, Ministry of Finance as per GOI requirements included.	
Essential accessories needed for functioning of the camera are be included in the quote and clearly specified.	
Price quoted on FOB basis only.	
A signed compliance sheet included	
Deviations from specifications are clearly stated in the Compliance	
Technical training to the personnel	