

राभौतिकी संस्थान

TE OF ASTROPHYSICS
/ KORAMANGALA

बेंगलूर / BANGALORE - 560 034.

No: PUR/IMP/JPL/AO/49/08-09.

September 12, 2008

: 91-80-25530672-76 : 91-80-25534043

M/s.

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Dear Sirs,

The Director, Indian Institute of Astrophysics, Bangalore invites Sealed Tenders (both Commercial Bid & Technical Bid) for the Import of Adaptive Optics Kit detailed in the Tender Form hereto annexed. The terms and conditions are also enclosed may be noted and if you are in a position to quote for the supply in accordance with the requirement, please submit your quotation in the attached Tender Form. The Tender documents are available on IIA web site <a href="https://www.iiap.res.in/tenders.htm">www.iiap.res.in/tenders.htm</a>

The Tender bids should be in foreign currency only. Your completed Tender bids (both Commercial Bid & Technical Bid) must reach this office in sealed separate envelopes duly superscribed with the name of the supply and due date on or before 15.00 Hrs. latest by 13.10.2008. The Technical bids will be opened in presence of the bidders or authorized representative at 16.00Hrs. on 13.10.2008. Incomplete Technical Bids are liable for rejection. Commercial/Price bids will be considered only for the qualified Technical Bidders.

Thanking you,

Yours faithfully,

Administrative Officer For Director

Encl.: as above.



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<u>1ENT NO: PUR/IMP/JPL/AO/49/08-09.</u> <u>T: 12.09.2008</u>

TENDER	FORM			
FROM:				
TO				
THE DIRECTOR, Indian Institute of Astrophysics., Bangalore-560 034.				
Sir,				
I/We hereby offer to supply the Items/Equipment and agree to hold this office open till  Items/Equipment hereby offered upon the issue acceptance thereof on or before the expiry of the accept any one or more of the items of such Item offer in this tender has not been accepted in whole portion or portions of one or more of the items a communicating the acceptance.	I/W of the Purce e last men ns/Equipmens shall be be	Ve shachase (tioned ent. I/Vound to	Il be bo Order co date. Y We not vo supply	ound to supply the ommunicating to the You are at liberty to withstanding that the such items and such
Sl.No. Description of the item(s)		Unit	Rate	Dely. Period
01. Adaptive Optics Kit (Consisting of SH Sensor, Deformable	1 No.			
mirror control drive electronics, with				
software for demonstrating closed loop				
operation and appropriate CCD camera				
if any) As per the specification in				

Annexure – A.

(Both Commercial and Technical bids must be submitted separately in a Separate sealed envelopes)

(Tender bids should be in Foreign currency only)



Place at which the Delivery is required : Indian Institute of Astrophysics

Bangalore – 560 034.

Date by which the supplies are required : 4/8 weeks from the date of order.

2. I/We have understood the items of the tender annexed to the invitation to the Tender and have thoroughly examined the specifications/drawing and /or pattern quoted or referred to herein and/are fully aware of the nature of the items/Equipment required and my/our offer is to supply the items/Equipment strictly in accordance with the requirements subject to the terms and conditions contained in the Purchase Order communicating the acceptance of this tender either in whole or in part.

Date: Signature and Seal of Supplier

#### Annexure A

Procurement of an Adaptive optics Kit for performing Adaptive Optics Experiments in the laboratory

# Technical specifications of the components with codes and standards if any.

The kit should contain the following items with their specifications.

- ➤ Continuous Deformable Mirror (DM) capable of achieving high spatial resolution shapes having low inter-actuator coupling
- ➤ Highly stable and zero Hysteresis
- > Suitable DM driver electronics with built-in High Voltage Power Supply
- ➤ Shack Hartmann Sensor with Square pixel geometry
  - o 10mm x 10mm array size (approx.)
  - o Lens pitch 200 to 350 micron
  - o High quality Fused Silica material with anti-reflection coating
  - o Focal length 10 to 40 mm
- ➤ Wave front sensing CCD Camera
  - o Square pixel geometry
  - O Wavelength range 400 700 nm
  - o 8bit/12 bit
  - $\circ$  > 15 Hz frame rate
  - o Variable exposure
  - C Mount and mounting adapter
  - o Suitable application software with appropriate drivers
- ➤ Necessary collimation and relay optics with standard posts for easy mounting on the bead board.
- > Suitable Laser sources.
- > Real time wave front and intensity measurements.
- > Zernike representations of the aberrations

The vendor should supply an Adaptive Optics Kit with the specifications mentioned above. The Kit should include:

- Deformable Mirror
- Control electronics with software
- Wavefront sensor
- Collimated optics
- Relay optics
- Wavefront sensing Camera
- Software for wave front reduction
- Display of real time wavefront correction

### Eligibility criteria of vendor

Those who have already supplied Adaptive optics Kit to similar Research and Development Laboratories/ Universities who are working on Adaptive Optics Program

# Inspection, test and acceptance criteria

The Kit should contain the relevant documents containing proof of the component performance and manuals.

**Note:** For any other technical clarifications, Dr.J.P.Lancelot and for any Administrative matters, Mr.A.J.Raghupathy, Administrative Officer may be contacted.



**Annexure -B** 

### **INSTRUCTIONS TO SUPPLIERS**

- 1. Tenders should be sent in sealed and superscribed envelops with mention of Tender No. date and date of opening. Only one Tender should be sent in each envelope.
- 2. Late and Delayed Tender will not considered at all.
- 3. Duties, Taxes where legally leviable and intended to be claimed should be distinctly shown separately in the Tender.
- 4. a) Your quotation should be valid for 90-120 days from the date. of opening of Tender
  - b) Prices are required to be quoted accordingly to the units indicated in the annexed tender form. When quotations are given in terms of units other than those specified in the tender form, relationship between the two sets of units must be furnished.
- 5. a) All available Technical Literature(s), Catalogue(s) and other data in support of the specifications and details of the item(s) should be furnished along with the offer.
  - b) Approximate net and gross weight of the items offered shall be indicated in your offer. If dimensional details are available the same should indicated in your offer.
  - c) Air freight/sea freight charges up to Bangalore Airport may be sent along with the offer.



if any should be clearly indicated by the Supplier in their quotation. The Supplier should also indicate the Make/type No. of the stores offered and provide catalogue(s), Technical literature(s) and sample(s), wherever necessary along with the quotations. Test certificates wherever necessary should be forwarded along with the supplies. Whenever options are called for in our specifications, the Supplier should address all such options. Wherever specifically mentioned by us the Supplier could suggest changes to specifications with appropriate response for the same.

- 1. Corrections, if any, must be attested. All amounts shall be indicated both in words as well as in figures. Where there is difference between amounts quoted in words and figures, amount quoted in words shall prevail.
- 2. The Supplier should supply along with the tender, the Banking information for payment or any other purpose
- 3. A complete set of instruction and operation manual should be supplied.
- 4. Final performance should be guaranteed.



### CONDITIONS OF CONTRACT

- a). The terms 'Purchaser' shall mean the Director, Indian Institute of Astrophysics, Bangalore-560 034.
- b). The term 'Supplier' shall mean, the person, firm or company with whom or with which the order for the supply of Items/Equipment is placed.
- c). The terms 'Purchase Order' shall mean the communication signed on behalf of the Purchaser by an officer duly authorized intimating the acceptance on behalf the Purchaser on the terms and conditions mentioned or referred to in the said communications accepting the tender or offer of the supplier for supply of Items/Equipment.

# 2. **PRICES:**

The price may please be indicated on unit basis only.

# **Duty Exemption:**

Please note that we may issue "Customs duty Exemption Certificate", if acceptable under the Govt. of India notification No. 51/96 valid till 2011.

# 3. **GUARANTEE AND REPLACEMENT:**

The Supplier shall guarantee that the Items/Equipment supplied shall comply fully with the specifications laid down, for material workmanship and performance. The Guarantee should be for a period of one year minimum from the date of supply.



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**NG AND INSURANCE**:

properly packed for transport by air, to withstand transit hazards and ensure safe arrival at the destination. The packing and marking of packing shall be done by and at the expenses of the contractor. The Purchaser will not pay separately for transit insurance, all risks in transit being exclusively of the Supplier and the Purchaser shall pay only for such Items/Equipment as are actually received in good condition, in accordance with contract.

# 5. <u>TEST CERTIFICATE:</u>

Wherever required Test Certificate should be sent before dispatch of the Items.

#### 6. <u>ACCEPTANCE OF ITEMS/EQUIPMENT:</u>

a) It is expressly agreed that the acceptance of Items/Equipment, for is subject to final approval by the Purchaser, whose decision shall be final.

### 7. <u>DELIVERY PERIOD:</u>

Delivery is the essence of the contract. The supplier should adhered to delivery schedule as indicated in the Purchase order.

#### 8. **EXTENTION OF DELIVERY TIME**:

As soon as it is apparent that Supplier dates cannot be adhered to, an application shall be sent by the Supplier to the Purchaser. If failure, on the part of the Supplier to deliver the Items/Equipment in proper time shall have arisen from any cause which the Purchaser may admit as reasonable ground for an extension of the time (and his decision shall be final he may allow such additional time as he considers it to be justified by the circumstances of the case). In case of Letter of Credit the banking charges for the LOC amendment will be on suppliers account.



Preference will be given to the supplier whose payment terms is on Site Draft.

# 10. **SECURITY FOR PAYMENT:**

Successful Supplier will have to furnish in the form of a Bank Guarantee or any other form as called for by the Purchaser towards any payments before supply of Items/Equipment. In case of payment through Letter of Credit the banking charges out side India and Inside India will be on suppliers account.