

**INVITATION FOR TENDERS FOR SUPPLY OF  
Item No. 1: 6 AXIS ROBOT**

Established vendors with proven track record and experience in the supply of concerned items are invited to submit their most competitive bids on or before **21-09-2016 at 11.00 AM**. The bids are to be sent in a sealed envelope superscribing the **Reference No. & Name of the item clearly on the envelope** addressed to

**TENDER BOX,  
C/O DIRECTOR,  
NATIONAL INSTITUTE OF TECHNOLOGY  
WARANGAL-506 021 (T.S.)**

**PRE-BID CONFERENCE WILL BE HELD ON 07-09-2016 AT 11.30 AM.**

The bids will be opened in the presence of the bidders or their authorized representatives who choose to attend as per the terms and conditions mentioned below. No bid will be accepted after the due date and time. Even if accepted will be returned unopened.

Interested eligible bidders may download the set of bidding documents i.e., specifications, Terms & Conditions (Both GCC and SCC) and format for Financial Bid etc., from our website [www.nitw.ac.in](http://www.nitw.ac.in). Alternatively, these documents can be obtained from the office of the Central Stores, NIT Warangal – 506 021 (T.S.) on a written request addressed to the Stores Officer, Central Stores, National Institute of Technology Warangal, Warangal –506 021 (T.S.) on payment (non-refundable) **towards cost of the tender Rs.500/-** (inclusive of all) or as specified against each item. The payment towards the cost of the tender documents shall be made in the form of Demand Draft obtained from any **nationalized bank** in favour of **Director, NIT Warangal**, Payable at Warangal. The Offer without Tender Fee/cost of the documents will be rejected summarily.

The General Conditions of the Contract are applicable to all the items/equipment mentioned in the Tender Notice.

**I. GENERAL CONDITIONS OF CONTRACT (GCC):**

- (1) **Validity of the offer:** The Offer shall be valid for **90** days from the date of opening of the quotation.
- (2) **Clarification of bids:** During opening or evaluation, the purchaser may at its discretion, seek the required clarification from the bidders. However, no change in prices or substance of the bid shall be sought, offered or permitted. If the bid is not substantially responsive, it will be rejected by the Purchaser and may not subsequently be made responsive by the Bidder by correction of the non-conformity. Unsigned communication/ bids will not be accepted and will be rejected summarily.
- (3) **EMD:** EMD for the specified amount shall be submitted along with the offer in the form of Demand Draft obtained from any **nationalized Bank** in favour of “**Director, National Institute of Technology Warangal**”, Payable at Warangal. For details refer corresponding specification sheet.

No interest will be paid on the EMD. The EMD will be forfeited, if the supplier withdraws his tender during the validity period of the bid. Offer without EMD and tender fee will be rejected summarily.

- (4) **Prices**: The price quoted shall be on FOR Destination basis, i.e. the price shall include installation & commissioning, Standard Warranty period of ONE year, packing, forwarding, freight and all taxes & duties, insurance, etc. However the quote should indicate the basic price, discount, other duties/taxes and levies separately (Format under the heading **FINANCIAL BID** is enclosed as Annexure–II to this bid document). Concessions extended to Educational Institutions, if any shall be mentioned in the quotation.
- (5) **AMC**: Comprehensive AMC i.e., after completion of warranty period shall be quoted for the subsequent years (year wise) at least for FIVE Years. However, the purchaser reserves the right whether to enter into AMC or not.
- (6) **Duty Exemptions**: The institute is exempted from payment of customs duty/excise duty under 10/97 issued by the DSIR and as amended from time to time. The necessary exemption certificates will be issued by the institute only on the receipt of the Cargo Arrival Notice/Order Acknowledgement.
- (7) **Payment**: Payment in the form of Cheque/DD/FDD/FLC will be made only on the receipt of material and its satisfactory performance and on production of bank guarantee at the rate of 10% of the order value wherever applicable. However, payment can be made ready in the form of cheque against the proforma invoice but the cheque will be released only after installation and satisfactory performance of the equipment.
- (8) **Evaluation**: Evaluation of the Bids shall be made strictly in terms of provisions and criteria disclosed in the bidding document for the quantities including optional items mentioned in the bid. However, the institute reserves the right whether to purchase the optional items along with the main equipment or not.

Notwithstanding the above, the Purchaser reserves the right to accept or reject any quotation, cancel the bidding process and reject all quotations at any time prior to the award of the contract. Also, the Director reserves the right to cancel the purchase order if the firm fails to comply with the delivery schedules without any notice and bid security/EMD in any form will be forfeited.
- (9) **Training**: Training (if required) shall be provided by the supplier on free of cost.
- (10) **Delivery period**: The ordered item shall be delivered within 30-45 days from the date of Purchase Order or opening of FLC as applicable or on mutually accepted date and terms.
- (11) **Liquidated Damages**: The Institute reserves the right to impose 'LD clause' if the supplier fails to perform the contract within the specified period and can even terminate the contract on the whole or in parts thereof.
- (12) **Security deposit**: The successful tenderer will have to deposit @ 5% of the order value within 07 days of issuance of LOI/order towards security deposit. Else the offer is liable for rejection and the EMD will be forfeited.

- (13) **Performance Security**: The Institute reserves the right to insist for performance security @ 10% of the order value towards warranty obligations. And the performance warranty will be released on entering into AMC with the institute. The payment towards AMC will be paid quarterly on completion of quarter or on mutually agreed terms.
- (14) **Inspection and tests**: The purchaser's right to inspect, test and, where necessary, reject the Goods after the Goods' arrival at Site shall in no way be limited or waived by reason of the Goods having previously been inspected, tested and passed by the purchaser prior to the goods shipment. The Inspection and test certificates shall accompany the goods/invoice. The infrastructure facilities to install and operate the equipment shall be declared in the bidding documents.
- (15) **Sample**: If insisted, samples shall be provided by the supplier at the entire cost and risk of the supplier.
- (16) **Defective material**: The defective material/samples from premises of NIT Warangal will be lifted at the entire cost & risk of the firm and the defective material will be lying at their own risk and cost.
- (17) **Manuals and drawings**: The supplier shall supply operation and maintenance manuals together with drawings of the equipment to enable the Institute to operate, maintain, adjust and repair all parts of the equipment as stated in the specifications.
- (18) **Packing**: Each package shall be marked with (i) Order No., (ii) Reference number of the packing list and (iii) supplier's name on three sides of the package with proper paint/indelible ink.
- (19) **Delivery and Documents**: Upon delivery of goods, the supplier shall notify the purchaser and Insurance company by fax the full details of the shipment like contract No., description of the goods, quantity and name of the consignee etc., Also, the supplier shall mail copies of the documents like, Supplier's Invoice, RR/LR, packing list, insurance certificate, warranty certificate and inspection certificate issued by the concerned agency/factory etc.,
- (20) **Corrupt or Fraudulent practices**: The bidders shall observe the highest standard of ethics during the whole transaction. Contrary to the above the offer will be rejected for award of contract and firms will be declared as ineligible even for further period as deemed fit by the Institute.
- (21) **JURISDICTION**: The Courts of Warangal alone will have the jurisdiction to try and any matter dispute or reference between the parties arising of this agreement/contract.
- (22) **Indexing the bid documents**: All pages of the Bid Documents shall be numbered and the first page shall be the table of contents. (Format enclosed as Annexure –I) to this bid document) and the last page shall be the declaration certificate (format enclosed as Annexure – IV)

In addition, the Special Conditions of Contract (if mentioned along with the specifications of the item) shall supplement these General Conditions of Contract. Wherever there is a conflict, the provisions mentioned in the SCC shall prevail over these General Conditions of Contract.

IF A FIRM IS QUOTING FOR MORE THAN ONE ITEM, SEPARATE ENVELOPES MUST BE USED FOR EACH ITEM.

Please note that the institute reserves the right to accept or reject any bid and to annul the bidding process and reject all bids at any time prior to the award of contract, without thereby incurring any liability to the affected Bidder or bidders.

Date & Seal

Name and Signature of the  
competent authority of the firm



**NATIONAL INSTITUTE OF TECHNOLOGY**  
WARANGAL – 506 004  
**MECHANICAL ENGINEERING DEPARTMENT**

No. NITW/MED/

Date: 22-04-2016

**Specifications of 6-axis Robot:**

**1. Robot:**

Horizontal reach :  $\geq 1200$  mm  
Controlled Axis : 6 (vertically articulated)  
Payload : up to 10 Kg  
Repeatability :  $\pm 0.08$  mm

<b>Range of Motion</b>	S- Axis (turning)	-170° - +170°
	L- Axis (Lower Arm)	-90° - +155°
	U-Axis (upper Arm)	-175° - +240°
	R- Axis (Wrist roll)	-180° - +180°
	B- Axis (wrist Pitch / yaw)	-135° - +135°
	T- Axis (wrist twist)	-360° - +360°
<b>Maximum Speed</b>	S- Axis (turning)	3.75 rad/s, 215°/s
	L- Axis (Lower Arm)	3.32 rad/s, 190°/s
	U-Axis (upper Arm)	3.75 rad/s, 215°/s
	R- Axis (Wrist roll)	7.16 rad/s, 410°/s
	B- Axis (wrist Pitch / yaw)	7.16 rad/s, 410°/s
	T- Axis (wrist twist)	10.6 rad/s, 610°/s

**2. Robot Controller Specifications:**


Items	Specifications
Configuration	Dust Proof
Cooling System	Indirect cooling
Ambient Temperature	During Operation 0° C to + 45°C
Power Supply	Three Phase 220 VAC (+10%, -15%), 50 Hz ( $\pm 2\%$ )
Programming capacity	JOB: 200,000 steps, 10,000 instructions CIO Ladder: 20,000 steps
Programming Language	VAL or Equivalent Language
Expansion Slots	PCI: 2 Slots
Interface	RS- 232: 1 ch
Control Method	Software servo control
Drive Units	SERVOPACK for AC Servomotors (can control up to 9 axes)

**3. Programming / technical Pendant:**

Items	Specifications
Operation Device	Select keys, axis keys, numerical / application keys, mode selector switch with keys (mode: tech play, and remote), Emergency stop button, enable switch, compact flash card interface device (compact flash is optional)
Display	5.7 inch colour LCD, touch panel 640X 480 pixels (Alphanumeric characters)
Cable length	Standard: 8 m

4. End effector: Suitable end effector for holding welding torch, drill-spindle, assembly, etc.  
5. AMC: Warranty for one year and AMC for one more year may be provided. AMC for 5 years is not required.

  
Initiator

  
Head,  
Mechanical Engineering Department

**EMD - Rs. 30,000/-**

Date & Seal

Name and Signature of the  
competent authority of the firm

Annexure – I  
(to be enclosed as age – 01)

Table of contents		
Sl. No.	Description	Page No.
01	Certificate regarding page numbering	02
02	Registration and Tax clearance certificate of the supplier issued by the competent authority.	
03	Customs / Excise / VAT / CST Tariff Number with percentage of Tax without any concession	
04	Manufacturers Authorization Certificate (if the offer is from a Distributor / Dealer).	
05	Make and Model number of the item together with Technical Literature / Brochures / Catalogues for the item quoted and list of Clientile.	
06	Financial Bid in a separate envelope. The envelope shall be sealed and titled as Financial Bid for _____(mention the name of the item) and shall carry the name and address of the firm. <b>as per the format given</b>	
07	Annual Turnover of the firm <b>as per the format given</b>	
08	Declaration Certificate (shall be the last page)	

Annexure -II  
(Format for certificate of page numbering &  
To be enclosed as **page No.02**

<p><b><u>CERTIFICATE</u></b></p> <p style="text-align: center;">Certified that this bid document is carrying _____ pages (in figures and words) and each page is numbered.</p> <p>Date: _____</p> <p style="text-align: right;">Sig. of the tenderer &amp; With seal</p>
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Annexure – III  
(Format for Financial Bid)

(To be enclosed in a separate envelope and shall be sealed. The Words  
'FINANCIAL BID' shall be annotated on the enveloped)

**FINANCIAL BID**

Name & Description of the Item : \_\_\_\_\_

Basic Price	Discount	Packing & Forwarding	Freight	Taxes & Duties	Insurance	Any other cost*	Total Amount for Qty. ONE (inclusive of all) in INR
(1)	(2)	(3)	(4)	(5)	(6)	(7)	Figures and words*

\* Rupees \_\_\_\_\_

\* cost towards Optional items or AMC

Gross Total(Inclusive of all): (Qty X price for each one) : in Figures: Rs. \_\_\_\_\_

In words: Rupees: \_\_\_\_\_

Date and seal :

Name & Sig. of the competent  
authority of the firm

Annexure IV  
(Format for declaration &  
to be enclosed as last page of the bid document)

**DECLARATION**

(To be furnished by the supplier on company's Letter Head)

I/we hereby solemnly declare and affirm that the above documentary evidence/declarations are true and correct to the best of my knowledge and beliefs. No part of it is false and nothing has been concealed therein.

Date & Seal

Name and Signature  
of the competent Authority of the firm

Annexure-V  
(Format for Annual Turnover)

**ANNUAL TURNOVER**

Sl. No.	Annual turnover w.r.t. scientific equipment			Remarks if any
	2012-13	2013-14	2014-15	
(1)	(2)	(3)	(4)	(5)

Sig. of the Chartered Account with seal

The relevant documents are enclosed as Page Nos. \_\_\_\_\_

Certified copies of ITRs are enclosed as page Nos. \_\_\_\_\_

Sig. of the tendered with Seal

- Note : (i) Documentary evidence shall be submitted along with the format  
(ii) Certified copies of ITRs of the above years shall be enclosed.



PLEASE PASTE THIS SLIP ON YOUR ENVELOPE

Enquiry No. & Date: \_\_\_\_\_  
Name of the Item(s): \_\_\_\_\_  
(as mentioned in the Enquiry)  
Due Date: \_\_\_\_\_

**To**  
**TENDER BOX**  
**C/o. DIRECTOR**  
**National Institute of Technology**  
**W A R A N G A L -506 021 (T.S.)**

From : \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_