



INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

KHARAGPUR – 721302

Centre for Robotics

TENDERING

Tender Ref: IIT/CFR/XIR_OTG/High_Torque_Motor/2019-20/01 Date: 28.08.2019

Sub: Supply and commissioning of 30 numbers High Torque Digital Servo-Motors at Centre for Robotics, IIT Kharagpur

Indian Institute of Technology Kharagpur invites sealed two part bids from reputed **Original Equipment Manufacturers (OEMs) OR their Authorized Dealers/Distributor**, who have adequate credential for supply of **30 nos. High Torque Digital Servo-Motors** to the **Centre for Robotics, at IIT Kharagpur**. The entire job must be completed within 21 days from the date of issue of Purchase Order.

Interested and eligible **Original Equipment Manufacturers (OEMs) OR their Authorized Dealers/Distributor** are requested to submit two sealed envelopes containing Technical Bid (Envelope – A) and Commercial Bid (Envelope – B) as per Annexures – I to VII placed in a larger sealed envelope super-scribing with reference number (**Tender No. IIT/CFR/XIR_OTG/High_Torque_Motor/2019-20/01 Date: 28.08.2019**)

to “**Prof. D.K. Pratihar, Office of Mechanical Engineering Department, Indian Institute of Technology, Kharagpur, P.O. Kharagpur Technology, PIN : 721 302**” *on or before 26.09.2019 at 3:00 PM.*

The technical bid will be evaluated first and price bids will be opened only in respect of those OEMs/Vendors, who are found technically qualified after evaluation of Technical bids. The **bids will be opened on 26.09.2019 at 4.00 PM** in the **Seminar Room of SRIC, IIT Kharagpur**.

Kindly refer to the Institute website www.iitkgp.ac.in [link: Tenders] for complete tender details. The same is also available in the CPP Portal [<https://eprocure.gov.in/eprocure/app>]. If there is any corrigendum/addendum, it shall only be published on Institute’s Website and Central Public Procurement Portal.

Prof. D.K. Pratihar

PIC, Centre for Robotics

IIT Kharagpur

Copy to

1. Notice Board
2. Institutes’ Web
3. CPP

Signature and Seal of Bidder

Page 1 of 13

ANNEXURE-I

1. Technical Specifications with certain terms and conditions

High Torque Digital Servo-Motor – 30 Nos.

1	Maximum Torque	About 400Kg.cm
2.	Rated Torque	About 140 kg.cm
3.	Operating Voltage	12 V - 24 V, DC
4.	Operating Angle Range	±180°
5.	Dead band	≤ 4 μs
6.	Input Signal	PWM:8 00 μs ~ 2200 μs, 500-400 Hz
7.	Operating Temperature Range	-20 to +60° C
8.	Speed (No-Load)	12 V : About 0.74s/60° 24 V : About 0.37s/60°
9.	No-Load Current	<0.1 A
10.	Stall Current	12 V : < 7 A 24 V : < 14 A
11.	Weight	Less than 1000 g
12.	Connector wire length	JR ; About 300mm
13.	Bearing	Yes
14.	CE Certification	Yes

GENERAL TERMS AND CONDITIONS

- 1. Last Date of Submission of Sealed Bids (both technical and price bids, separately in two covers and placed, sealed in one envelope):** 26.09.2019 up to 3.00 P.M.
- 2. The Technical bids** will be opened on dt: 26.09.2019 at 4.00P.M. in the Seminar Room of SRIC, IIT Kharagpur.
- 3. Payment Terms & Performance Bank Guarantee (PBG):** 90% payment will be made on submission of shipping documents and balance 10% payment will be made on installation, commissioning and submission of PBG for performance period if the payment is made by LC, otherwise 90% will be made after successful installation and commissioning duly certified by the concerned Head of Department. Balance 10% may be released against submission of Performance Bank Guarantee to the tune of 10% of the total purchase order value. PBG shall be issued from any nationalized bank/ commercial bank, validity which shall be warranty period plus 60 days drawn. No advance/mobilization support, is payable against supply of stores. In the event of failure to deliver the stores beyond the specified date, liquidated damages @ 1% per month or part thereof in respect of the value of stores will be deducted, subject to a maximum of 5%; alternately the order will be cancelled and the undelivered stores purchased from elsewhere at the risk and expense of the vendor.
- 4. Warranty/Guarantee & On-site skill support:** Three years (03) onsite comprehensive OEM warranty from the date of successful installation and commissioning. The firm has to guarantee supply of spares for a minimum period of 10 years.
- 5. Earnest Money Deposit (EMD):** NIL
- 6. Tender Fee:** NIL
- 7. Delivery of Stores:** The store items are to be supplied within 21 days from the date of receipt of the Purchase Order.
- 8. Price:**
 - a. PRICE may be quoted either in INR or in foreign currency.
 - b. Where tenderer intends to quote in Indian Rupees (INR), the price should be quoted “FOR IIT Kharagpur“ basis. The price should be all inclusive.
 - c. Indian institute of Technology Kharagpur is a public Funded Academic & Research institute under the minister of Human Resource Development and is eligible for GST @5% vide Notification No.47/2017 dated:14.11.2017 and 10/2018- Integrated Tax (Rate) dated:25.01.2018 by the Ministry of Finance, Department of Revenue.

Necessary certificate in this regard will be issued as per requirement and on request of the successful bidder.

- d. Where tenderer intends to quote in foreign currency FCA/FOB source port price by Air/Sea to be quoted. In case of comparison between FOR IIT Kharagpur (quoted in INR) and FOB/FCA price (quoted in foreign currency) 20% will be added on FOB/FCA price after conversion to INR.
- e. Tenderer, who are Indian Agents of OEMs, should furnish a clear declaration as follows: We declare that I am/we are Accredited Agents of the suppliers aboard. DGS&D enlistment certificate needs to be attached (applicable only for the Indian Agents).
- f. Foreign bidders to disclose the name and address of agent and representative in India.
- g. IIT Kharagpur is registered DSIR, Govt. of India and eligible for exemption for payment of Customs Duties in Terms of Government of India Notification No.51/96-Customs dated 23.07.96. Necessary certificate in this regard will be issued as per requirement and on request of the successful bidder.
- h. Agency Commission, if any will be paid to the Indian agents in Rupees on receipt of the equipment and after satisfactory installation. Agency Commission will not be paid in foreign currency under any circumstances.
- i. The unit prices should be for the same unit as indicated in the Schedule to tender enquiry and not for any other unit.
- j. Discount, if any, should be indicated separately/prominently.
- k. Offers should normally be on fixed and firm price basis. Any clause making price variation will not be acceptable.

9. Bid: Technical Bid and Price Bid should be submitted in two separate sealed envelopes quoting reference number on the top of the envelope.

10. Acceptance of Tender: The Authority of IIT Kharagpur does not bind itself to accept the lowest priced bid and reserves the right to reject any or the entire tender bids received without assigning any reason thereof.

11. The addendum/corrigendum if any shall be published on Institute's **Website i.e. www.iitkgp.ac.in and on CPP Portal.**

12. Extra Features: If the bidder provides any other extra features on the Hardware or Software which are not mentioned in the tender product specifications, then that shall be highlighted in clear terms, with documentary evidence/literature.

13. Compliance List: The proposal should be properly indexed and a compliance list against the technical specifications should be provided.

14. Service: Response to ensure quality of services, the deputed Engineer from the OEM/Vendor shall have a minimum of 2 years of experience in the relevant field and must be in the payroll of the OEM/Vendor.

15. Installation and Commissioning: Free of cost at the Centre for Robotics, IIT, Kharagpur. The supplier must ensure timely installation of Experimental test setup with necessary

support to the indenters, as per details and lists to be made available by the Stores & Purchase Section or the indenting Departments/Centres/Schools.

16. **Period of Validity:** Bids shall remain valid for acceptance for a period of 90 days from the date of opening of the price bid.
17. The benefit of any downward price revision (revision on account of budget/financial policy, tax revision, EPZ etc.) is to be given to IIT Kharagpur by the selected OEM/vendor.
18. Past Performance of the Vendors will be judged at the time of Technical Evaluation.
19. The Institute does not bind itself to offer any explanation to those bidders whose technical bids have not been found acceptable by the Technical Evaluation Committee of the Institute.
20. Bidders should enclose the following documents:
 - a. Certificate of Registration / Trade License
 - b. Copy of mandatory test reports, national testing/reliability and endurance test reports etc., certified or conducted at the manufacturing site, granted by the bureaus/quality control departments/national testing laboratories.
 - c. Proforma Price Bid (without mentioning the price rate) may be attached with technical bids
 - d. Port or place of Shipment: Should be mentioned in the quotation.
 - e. Purchase order to be placed on: Should be mentioned in the quotation with full address, email address, phone number.
21. All tenders are to be handed over in a sealed box in the Office of Mechanical Engineering Department, IIT Kharagpur-721302, India. The bids (technical and price bids) once submitted shall be the property of the Institute and shall not be returned to the vendor in future. For speed post, the Postal Address is:

Prof. D.K. Pratihar
Professor, Mechanical Engineering Department
PIC, Centre for Robotics
IIT Kharagpur-721302, West Bengal (State)
India

22. **Opening of Price Bids:** The Price Bid(s) of only those vendor(s) who are found technically qualified will be opened and the same will be opened before the technically qualified vendor(s). The date for opening of price bids will be notified separately by email.
23. Tenderer or his/her authorized representative (with proper authorization letter for attending opening of technical bids and also for opening of price bids) may choose to be present at the time of opening of Technical Bids/Price Bids.

24. Technical Compliance Sheet :

1	Maximum Torque	About 400Kg.cm
2.	Rated Torque	About 140 kg.cm
3.	Operating Voltage	12 V - 24 V, DC
4.	Operating Angle Range	$\pm 180^\circ$
5.	Dead band	$\leq 4 \mu\text{s}$
6.	Input Signal	PWM:8 00 μs ~ 2200 μs , 500-400 Hz
7.	Operating Temperature Range	-20 to +60° C
8.	Speed (No-Load)	12 V : About 0.74s/60° 24 V : About 0.37s/60°
9.	No-Load Current	<0.1 A
10.	Stall Current	12 V : < 7 A 24 V : < 14 A
11.	Weight	Less than 1000 g
12.	Connector wire length	JR ; About 300mm
13.	Bearing	Yes
14.	CE Certification	Yes

IMPORTANT

- I. Director may accept or reject any or all the bids in part or in full without assigning any reason and does not bind himself to accept the lowest bid. The Institute at its discretion may change the quantity/upgrade the criteria/drop any item or part thereof at any time before placing the Purchase Order.
- II. The technical bid will be evaluated first and price bids will be opened in respect of those OEMs/Vendors, who are found technically qualified after evaluation of Technical bids. Date for opening price bids will be intimated later.
- III. A bid submitted with false information will not only be rejected but also the OEM/ vendor will be debarred from participation in future tendering process.
- IV. In case of any dispute, the decision of the Director of this Institute shall be final and binding on the bidders.
- V. For any query pertaining to this bid document, correspondence is to be addressed to the End user

Prof. D.K. Pratihari ,
PIC, Centre for Robotics
Professor
Department of Mechanical Engineering,
Indian Institute of Technology Kharagpur- 721302, West Bengal, India

[Ph:+91-03222-282992] Email: - dkpra@mech.iitkgp.ac.in

- VI. In case the due date for opening tender happens to be a holiday, the same will be opened on the next working day. The timings will however remain unchanged. Please Note that the Institute remains closed on Saturday & Sunday.
- VII. The Bidders are requested to submit the bids after issue of clarifications only considering the changes made if any. Bidders are totally responsible for incorporating/complying the changes/amendments issued if any, in their bid.

INSTRUCTIONS & SPECIAL CONDITIONS

1. **GENERAL:** Tenderer, who are Indian Agents of OEMs, should furnish a clear declaration as follows: We declare that I am/we are Accredited Agents of the suppliers aboard. DGS&D enlistment certificate needs to be attached (applicable only for the Indian Agents).
2. **DEVIATION FROM SPECIFICATIONS:** It is in the interest of the tenderer to study the specifications in the tender schedule thoroughly before quoting so that, if the tenderer makes any deviations, the same are prominently brought out in the body of the tender. If you need to add any optional items to your system in order to meet our specifications, you are requested to quote for the total including the option required to suit our requirements. Otherwise, your tender will not be considered at all. 3. **TENDERERS SHALL SUBMIT ALONG WITH THEIR TENDER:** (i) Complete address and tele links for contact persons of principals and Indian agent offices dealing with this purchase. (ii) Name and full address of the OEM's Banker and their swift code. (iii) Port of shipment and Country of origin is to be provided for each item. (iv) Purchase order to be placed on: Should be mentioned in the quotation with full address.
3. **PERFORMANCE BANK GUARANTEE:** On behalf of the Principal, Indian Agent must be able to provide Performance Bank Guarantee of the amount equivalent to the 10% of the cost of equipment from any Nationalized Bank. The Performance Bank Guarantee is required for the entire period of Warranty. Performance Bank Guarantee must remain valid for a period sixty days beyond the expiry of the Warranty Period. Bid security will be refunded back on submission of performance Security.
4. **GUARANTEE:** The tenderer has to declare that the goods sold to the buyer under this contract shall be of the best quality and workmanship and shall be strictly in accordance with the specifications.
5. **JURISDICTION:** All questions, disputes, or differences arising under, out of or in connection with the contract, if concluded, shall be subject to the exclusive jurisdiction at the place from which the acceptance of Tender is issued i.e. Jurisdiction of KOLKATA HIGH COURT. Acceptance to this effect is also necessary at the time of opening of Technical Bid.
6. **ACKNOWLEDGMENT:** It is hereby acknowledged that we have gone through all the points listed under "Instructions & Special Conditions" outlined above, and those in the accompanying note on "Important Conditions", and we agree to abide by them under the penalty of permanent disqualification for Tender participation and for related penal actions for non-abidance of the conditions.
7. Interested vendors must be able to supply adequate spares and consumable during three years of comprehensive warranty. Vendor should also ensure trouble free service and performance for another seven years beyond three years Comprehensive Warranty Period with adequate spares and accessories.

Eligibility Criteria / TECHNICAL BID

S. No	Description	Submitted (Yes / No)
1	Registration Certificate	
2	PAN and GST Certificates	
3	Status of the Tenderer (attach documents, if registered company/ partnership /proprietorship)	
4	Whether OEM/representing foreign principle (attach copy of certificate/authorization)	
5	Details of key top official/authorized official with e-mail id and contact number	
6	Income Tax Returns of latest last three years	
7	Current list and address of clients where One similar material/ products has been supplied (attach Pos)	
8	Other documents like literature, catalogues etc.,(if any)	

NOTE:

- 1. Attach all relevant documents in the same serial order as above, properly indexed, duly signed.**
- 2. This is to be submitted in a separate sealed envelope** super scribing “TECHNICAL BID”, Notice inviting **Tender Reference no:** _____ **date:** _____ and name of the bidder.
- 3. Price bid of that company/firm only will be opened which do technically qualify, for further consideration. Attach all relevant documents in the same serial order as above, properly indexed, duly signed and sealed.**

Signature and seal of the Bidder

DECLARATION

1. I, -----Son /Daughter of Shri -----
-----Proprietor/Partner/CEO/MD/Director/Authorized Signatory of
M/s.-----am competent to sign this declaration and
execute this tender document.
2. Tender ref no: _____ dt:_____ . I have
carefully read and understood all the terms and conditions of the tender and hereby convey
my acceptance of the same.
3. The information/ documents furnished along with the above application are true and
authentic to the best of my knowledge and belief.
4. I/we am/are well aware of the fact that furnishing of any false information/ fabricated
document would lead to rejection of my tender at any stage besides liabilities towards
prosecution under appropriate law.
5. Each page of the tender document and papers submitted by my Company is
authenticated, sealed and signed, and I take full responsibility for the entire
documents submitted.
6. I/we hereby confirm and declare that I/we am/are not blacklisted /De-registered / debarred
by any Government department/ Public Sector Undertaking/ Private Sector/ or any other
agency for which we have Executed/ Undertaken the works/ Services.

Signature of the Authorized Person

Date: -----

Full Name: -----

Place: -----

Company Seal: -----

MODEL BANK GUARANTEE FORMAT

Whereas(thereinafter called the
“tenderer”) has submitted their offer dated
..... for the supply of
..... (hereinafter called the “tender”)
against the purchaser’s tender Notice No.
KNOW ALL MEN by these presents that WE
..... of
..... having our registered
office at are bound unto
.....(hereinafter called the “Purchaser”) in the sum of
..... for which
payment will and truly to be made to the said Purchaser, the Bank binds itself, its successors and
assigns by these presents. Sealed with the Common Seal of the said Bank thisDay
of 20

THE CONDITIONS OF THIS OBLIGATION ARE

- (1) If the tenderer withdraws or amends, impairs or derogates from the tender in any respect within the period of validity of this tender.
- (2) If the tenderer having been notified of the acceptance of his tender by the Purchaser during the period of its validity:
 - (a) If the tenderer fails to furnish the Performance Security for the due performance of the contract.
 - (b) Fails or refuses to accept/execute the contract.

We undertake to pay the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser will note that the amount claimed by it is due to it owing to the occurrence of one or both the two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to and including 45 days after the period of tender validity and any demand in respect thereof should reach the Bank not later than the above date.

(Signature of the authorized officer of the Bank)

Name and designation of the officer
Seal, name & address of the Bank and address of the Branch

**(on the official Letterhead of the firm)
PRICE BID**

Tender No. IIT/CFR/XIR_OTG/High_Torque_Motor/2019-20/01 Date: 28.08.2019

Tender for Supply and commissioning of 30 numbers High Torque Digital Servo-Motors at Centre for Robotics, IITKharagpur with 3 Years of warranty.

No .	Description	Qty	Unit Price without taxes (in Rs.)	Taxes Rs	Unit Price with Taxes (in Rs.)	Total Amount (in Rs.)
		A	B	C	D=(B+C)	E =(A * D)
1	High Torque Digital Servo-Motor Make: Model:					

In words : Rupees _____

1. In case of discrepancies between words and figures, the bid which is least of the two versions will be confirmed.
2. Indian institute of Technology Kharagpur is a public Funded Academic & Research institute under the minister of Human Resource Development and is eligible for GST @5% vide Notification No.47/2017 dated:14.11.2017 and 10/2018- Integrated Tax (Rate) dated:25.01.2018 by the Ministry of Finance, Department of Revenue.
3. Above quoted price is including transportation, installation and other Charges.

Signature of the bidder along with seal

Checklist for Enclosures

(Bidder Should fill up YES or NO and page no without fail)

S.No	Bid Enclosures	Yes/ No	Pg. No .
	Technical Bid (Envelope – A) contains the following documents		
1	Registration Certificate		
2	PAN and GST Certificates		
3	Status of the Tenderer (attach documents, if registered company/ partnership /proprietorship)		
4	Whether OEM/representing foreign principle (attach copy of certificate/authorization)		
5	Details of key top official/authorized official with e –mail id and contact number		
6	Income Tax Returns of latest last three years		
7	Current list and address of clients where three similar material/ products has been supplied (attach Pos).		
8	Other documents like literature, catalogues etc.,(if any)		
	Financial Bid (Envelope – B)		
1	Price Bid (As per the format given at Annexure – VII)		

Note : All pages of the bid documents must be serially numbered and signed.