Sub: Procurement of Various Test Setup for Department of Civil Engineering, IIT Kharagpur

Indian Institute of Technology Kharagpur, an Institute of National Importance, invites sealed bids from reputed manufacturers or their authorized Distributors/Dealers for the equipment as per enclosed specification (Annexure-I).

Interested vendors are requested to send their sealed bids as per specification (Annexure-I) and General Terms & Conditions (Annexure-IV) along with details in the Technical Bid Format (Annexure-II) and signed Declaration (Annexure-III) under a Two-Cover System. Kindly refer the Institute website www.iitkgp.ac.in (Link: Tenders) for full tender details.

The quotation for consideration is to be sent in a sealed packet, containing two separate sealed envelopes (one each for Technical Bid and Price Bid) along with prescribed tender fee and Earnest Money Deposit (EMD) duly superscribed with Reference Number (Tender Enquiry No. and date) to the Office of the Head, Department of Civil Engineering, IIT Kharagpur, P.O. Kharagpur Technology, PIN : 721302 on or before 06.04.2015 by 3.00 p.m.

Vendors who have submitted their offers against Tender No. IIT/CE/ENQ/STR/MOD/14-15/572, dated 22-12-2014 for the same, may not apply afresh. However, if they wish, they may send their modified quotation.

For any query pertaining to this bid document, communication be addressed to Head, Department of Civil Engineering, Indian Institute of Technology, Kharagpur-721302 [Ph.: 913222-282253]

The technical bid will be evaluated first and price bids will be opened only in respect of those vendors, who are found technically qualified after evaluation of their technical bids.

The technical bids will be opened on 06.04.2015 at 3.30 p.m. in the Office of Head, Department of Civil Engineering, Indian Institute of Technology Kharagpur.

Head,
Department of Civil Engineering, IIT Kharagpur

Copy to:
1. Institute website
2. Notice Board
Technical Specifications of Various Test Setup for Department of Civil Engineering, IIT Kharagpur

1. Test set-up to measure bending Moment in a Simply Supported beam

Specifications:
1. Tabletop frame supporting a simply supported rectangular beam of length approx. 600-800 mm, both made of rugged, durable and non-corrosive material, having a single cut section in the beam to divide it into unequal parts, joined by friction-less hinges to demonstrate the action of Bending Moment and to comprehend the moment of resistance. The hinge should fully arrest the vertical movement while allowing pure bending to take place. The support position should be adjustable continuously.
2. Appropriate loading arrangement equipped with Force Transducers with output leads to measure direct forces at ends of lever arms with arrangement for display of Bending Moment diagrams online with the help of software supplied.
3. The software must be capable enough to compare the theoretical and experimental values of bending moments at the section
4. All necessary tools and accessories also to be supplied

2. Test set-up to measure Shear Force in a Simply Supported beam

Specifications:
1. Tabletop frame supporting a simply supported rectangular beam of length approx. 600-800 mm, both made of rugged, durable and non-corrosive material, having a single cut section in the beam to divide it into unequal parts, joined by connections to demonstrate the action of shear force. The support position should be adjustable continuously. The cut-section must permit relative vertical movement between the two parts, while arresting any bending.
2. Appropriate loading arrangement equipped with Force Transducers with output leads to measure direct forces at the cut-section with arrangement for display of Shear Force diagrams online with the help of software supplied.
3. The software must be capable enough to compare the theoretical and experimental values of shear forces at the section
4. All necessary tools and accessories also to be supplied

3. Test set-up to measure member forces in a plane cantilever truss

Specifications:
1. Pin jointed cantilevered plane truss model having at least two bay arrangement with rectangular symmetric cross sections of the members. One of the side of the cross sections of the members need to be at least 10 mm wide to facilitate strain gauge mounting. The length of bottom chord should be at least 750 mm with the height of the truss at least 350 mm for proper demonstration.
(2) Each truss member needs to be equipped with strain sensors, like strain gauges etc. which will be directly fed to a data acquisition system and analysis software. The entire assembly needs to be self supporting mounted on a table top rigid frame.

(3) All members of the truss and the supporting frame need to be made of rugged, durable and non-corrosive materials.

(4) There should be appropriate nodal loading arrangement equipped with load cell and to accurately measure applied forces.

(5) The software must be capable enough to compare the theoretical and experimental values of member forces etc. for different loading arrangements at nodes

(6) All necessary tools and accessories also to be supplied

4. Test set-up to measure vibrational responses of various simple models

Specifications:

(1) A comprehensive unit consisting of a main rigid frame and various models, e.g. simple spring-mass system, rectangular beam, torsional disc type of structure to demonstrate the effects of resonant frequency, mode shapes, damping, phase change through both free and forced vibration effects.

(2) The system should be operational through facilities to suddenly release parts of structures, or contact/ non-contact devices for excitation. The force should be measurable by load cell and responses needs to picked up by accelerometer type of sensors. Facility for data acquisition and analysis in software and comparison to theoretical computations is a must for the software. The frequency and magnitude of the excitation should be controllable with accuracy.

(3) The overall dimension of the entire frame needs to be restricted to maximum 1.75 m in any direction. All materials need to be made of rugged, durable and non-corrosive materials. The entire assembly needs to be self supporting mounted on a table top rigid frame.

(4) Continuous display of all key parameters over a display unit is mandatory

(5) All necessary tools and accessories also to be supplied

5. Test set-up to measure torsional vibration responses of discs-shaft assembly

Specifications:

(1) The unit, consisting of at least three discs mounted over a metal shaft, should be capable for undergoing controlled torsional vibrational responses, to demonstrate the effects of resonant frequency, damping, phase change through both free and forced vibration effects, torsional stiffness, mass moment of inertia etc.

(2) All materials need to be made of rugged, durable and non-corrosive. The entire assembly needs to be self supporting mounted on a table top rigid frame. The discs should be having diameters 100mm-250 mm with thickness 10-20 mm. The bar needs to be at least a metre long and diameter approximately 5 mm.

(3) Continuous display of all key parameters over a display unit is mandatory

(4) User should be able to impart perfectly controlled twist to the rod through the mounted discs with any specified angle.
6. Test set-up to demonstrate column buckling failure

Specifications:

(1) The unit, consisting of a column approximately 1 m height made of metal housed in a rigid frame to demonstrate the effects of column buckling.

(2) All materials need to be made of rugged, durable and non-corrosive. The entire assembly needs to be self-supporting mounted on a table top rigid frame.

(3) The buckling load needs to be measured with a force transducer. The displacement with an accurate displacement sensor. Continuous display of all key parameters such as the buckling load and lateral displacement over a display unit is mandatory.

(4) All necessary tools and accessories also to be supplied.

In the event you are interested, please send your offer within the specified date & time, offering institutional discount, as applicable. Conditional offers and request for mobilisation advance will not be accepted. Kindly note that, entire cost of supply and installation (functional machine in all respect) has to be borne by the supplier.
TECHNICAL BID DOCUMENT
Annexure – II

FORMATTO BE FILLED BY THE MANUFACTURERS/INDIAN AGENTS (ON BEHALF OF THEIR FOREIGN PRINCIPLES) OR THEIR AUTHORIZED COUNTRY DISTRIBUTORS/REPRESENTING DEALERS/REGIONAL AGENCIES, SUBMITTING TENDER FOR PROCUREMENT OF VARIOUS TEST SETUP FOR DEPARTMENT OF CIVIL ENGINEERING, IIT KHARAGPUR

1. Name of the Tenderer:

2. Status of the Tenderer:
   (attach documents, if registered company/partnership/proprietyship)

3. Whether OEM/representing foreign principle:
   (attach copy of certificate/authorization)

4. Mention agency commission:
   (if the vendor is Indian agent)

5. Attach DGS&D enlisted certificate:
   (if the vendor is Indian agent)

6. If payment is made through LC, then LC opening charges should be clearly mentioned.

8. Details of key top official/authorized official:
   (attach details)

9. Details of tie-ups for supply/services, if any:
   (Attach details, agreements, escalation matrix)

10. Income Tax and Service Tax return of previous three assessment year (copy):

11. Financial status of bidder and/or his associates including Annual Report & Balance Sheet/Statement of Account of past three years with Registration of Companies (ROC) receipts duly authenticated by Chartered Accountant:

12. Current list/address of clients where similar material has been supplied and successfully working:

13. Name of the vendor's three largest clients, to whom similar products and services were extended & amount of transaction/annual bill to such clients:

14. Name and address of Vendor's bankers and attach a Solvency Certificate from the Bank:

15. Income Tax Permanent A/c No. (attach copy):

16. Details of EMD, issuing branch and date:

Certified that all above information are correct to the best of my/our information, knowledge and belief.

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Dated signature & seal of the Authorized person of OEM/Vendor

NOTE: This is to be submitted in a separate sealed envelope superscribing "TECHNICAL BID", Notice inviting Tender No. IIT/CE/ENQ/STR/MOD/14-15/572 dated 22-12-2014 and name of the bidder. All technical documents like literature, catalogues, etc. are to be put in the same envelope. Price bid of that company/firm only will be opened which dotechnically qualify, for further consideration. Attach all relevant documents in the same serial order as above, properly indexed, duly signed and sealed.
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. 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.

______________________________________________
Signature of the Authorized Person

Date: --------------------------- Full Name:---------------------------

Place: --------------------------- Company Seal:---------------------------
Annexure IV

GENERAL TERMS AND CONDITIONS

1. **Important Dates**: Last Date of Submission of Sealed Bids: 06.04.2015- upto 3.00 pm. The Technical bids will be opened on 06.04.2015 at 3.30 pm in the Office of the Head, Department of Civil Engineering, I.I.T., Kharagpur.

2. **Payment Terms & Performance Guarantee**: 90% payment will be made on successful installation and commissioning duly certified by the concerned Head of the Department/Centre/School/Unit. A sum of 10% of the invoice value shall be retained as Security Deposit towards Performance Guarantee. The security deposit so retained may be refunded on submission of Bank Guarantee towards Performance Guarantee for the equivalent value of security Deposit valid for **05 (Five) years warranty period plus sixty days** drawn on any commercial bank. 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.

3. **Warranty/Guarantee & On-site skill support**: 05 (Five) years onsite comprehensive OEM warranty from the date of successful installation and commissioning. The OEMs/Authorized Distributors and Dealers must attach certificate about their after sales and service facilities, escalation support for on-call service or station engineer etc.

4. **Delivery of Stores**: The store items be supplied within 45 days from the date of receipt of the Purchase Order.

5. **Tender Fee**: An amount of 5,000.00 (Rupees five thousand only) as tender fee (non refundable) is to be paid. The payment shall be made by Demand Draft from any Nationalized Bank /Commercial Bank and paid in favour of “Indian Institute of Technology Kharagpur”, payable at Kharagpur. Bids without Tender Fee will not be accepted. This should be enclosed separately in an envelope and stapled with the Technical Bid document superscribing Tender fee.

6. **Earnest Money Deposit (EMD)**: An amount of **1,00,000.00** (Rupees One lakh only) (Refundable) in the form of Demand Draft drawn in favour of “Indian Institute of Technology Kharagpur”, payable at Kharagpur or Bank Guarantee as per format at **Annexure V. E.M.D. should be enclosed separately in an envelope and stapled with the Technical Bid document superscribing EMD.** The validity of the EMD should be 6 (six) months from the date of issue. **Any bid without EMD will summarily rejected. No interest is payable on EMD.** EMD will be refunded to the unsuccessful bidder, finalization of the tender process. The EMD of vendor awarded with the contract to be treated as part of security deposit towards Performance Guarantee. No interest is payable on Security Deposit. Security Deposit shall be forfeited if the selected vendor after award of contract, fails to execute the same.

7. **Price**: Price should be quoted only in Indian Rupees on free delivery at site, showing clearly the following break up:
   (a) Ex-works Price
   (b) Packing & Forwarding
   (c) Freight & Insurance
(d) Incidentals
(e) Taxes payable by the Institute.

Excise Duty Exemption Certificate and Inter-state transit Way Bill will be issued only to the Selected Bidder as may be mentioned in the Purchase Order.

8. **Bid:** Technical Bid and Price Bid should be submitted in two separate sealed envelope quoting reference number on the top of the envelope. Tender Fee and EMD should be enclosed with the Technical Bid documents, in separate sealed envelopes, stapled with the packet containing Technical Bid documents. The OEMs may either bid directly or authorize their Country/Regional/State Distributors/Dealers/Vendors, to quote with valid authorization certificate, capability to sale and service of the products.

9. Attach **DGS&D enlisted certificate**

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

12. **Compliance List:** The proposal be properly indexed and a compliance list against the technical specifications should be provided. Any bid without proper technical specifications will be rejected.

13. **Service:** Response To ensure quality of services, the deputed Engineer from the OEM/Vendor shall have a minimum of 3 years of experience in the relevant field and must be in the payroll of the OEM/Vendor.

14. **Installation and Commissioning:** Free of cost at IIT, Kharagpur. The OEM must ensure timely installation of the equipment with necessary support to the indenters, as per details and lists to be made available by the Stores & Purchase Section or the indenting Departments/Centers/Schools.

15. **Validity of licenses:** Software’s licensing price or policy (if any) shall be clearly mentioned. (a) All licenses should be perpetual. (b) All the accessories shall be from the same OEM.

16. The OEM should be an ISO-9000 and ISO-14001 certified company with due credits to energy conservation and green earth compliance.

17. **Relevant documents of the OEM shall be enclosed, along with the Technical Bid. Any explanation on this account shall be supported with documentary evidence from the principals.**

18. **Conditional Offer** will not be accepted.

19. **Period of Validity:** Bids shall remain valid for acceptance for a period of 120 days from the date of opening of the price bid.

20. 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.
21. Name and address of past satisfactory supplies by the bidder to at least one reputed institute/laboratory in India to whom this equipment of similar or higher capacity have been supplied should be mentioned in the technical bid along with documentary evidence and contact details (Client certificate//PO copy)

22. 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.

23. Bidders should enclose the following documents:
   (i) Certificate of Registration / Trade License
   (ii) Enlistment form (R1), complete in all respect
   (iii) Attested copy of PAN card, Service Tax, CST/VAT registration papers
   (iv) Banker’s Solvency Certificate.
   (v) Audited statement of accounts and IT returns for the last three years
   (vi) Authorized Distributors/Vendors must submit appropriate authorization certificate and letter from their OEMs, for participation in the said tender.
   (vii) Name and address of past satisfactory supplies or minimum three clients in the past five years to whom such items/stores have been supplied should be mentioned in the technical bid.
   (viii) 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.
   (ix) Copy of product literature, for which the prices have been quoted.
   (x) A write up on service and maintenance capability, mitigation of risks or breakdown and replacement capability, with the escalation support matrix suggested for the Institute. Vendors must indicate their sales and support service centre in India and their plan to address issues about services, maintaining minimum service inventory etc.
   (xi) Signed copy of the tender document, with company seal, agreeing to the terms & conditions and declaration.

24. All tenders are to be dropped in the office of the Head, Department of Civil Engineering, IITKharagpur. 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.

25. The person/officer signing the tender/bid documents should be delegated with an appropriate Power of Attorney (duly endorsed by a Notary Public) by the Chief Executive Office/Managing Director of the Company to sign such documents.

26. 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.

27. 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.

28. IMPORTANT

1. 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.
2. 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.

3. The OEMs/Vendors need to submit a certificate during opening of technical bids that they are not currently debarred or blacklisted in IIT Kharagpur for any supplies, products or services, or at present in any national organization or educational institute/ university.

4. In case of any dispute, the decision of the Director of this Institute shall be final and binding on the bidders.

5. For any query pertaining to this bid document, correspondence be addressed to:

   The Head, Department of Civil Engineering,
   Indian Institute of Technology, Kharagpur-721 302 India
   [Ph.: 03222-282253; Fax: 03222-282254]

6. 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.

   Head,
   Department of Civil Engineering, IIT Kharagpur
MODEL BANK GUARANTEE FORMAT FOR FURNISHING EMD

Whereas ________________________________________________ (hereinafter 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 __________________________________________________________ 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 this ____________________________ Day 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 of 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