

**Tender Fee: Rs. 2,000/-**

(Foreign bidder (OEM) bidding directly without any Indian agent  
are exempted from Tender fee & EMD payment)

विश्वेश्वरय्या राष्ट्रीय प्रौद्योगिकी संस्थान, नागपुर-440010 (भारत)

VISVESVARAYA NATIONAL INSTITUTE OF TECHNOLOGY, NAGPUR-440 010 (INDIA)



**TENDER DOCUMENT FOR**

**SPLIT HOPKINSON PRESSURE BAR SYSTEM**

**TENDER NOTICE Advt. NO.: VNIT/STR/SERB/1 dt. 29.01.2018**



**VISVESVARAYA NATIONAL INSTITUTE OF TECHNOLOGY, NAGPUR- 440 010 (INDIA)**

**TENDER NOTICE Advt. No: VNIT/STR/SERB/1, Date : 29/01/2018**

Tenders in Sealed Envelope are invited for

**SPLIT HOPKINSON PRESSURE BAR SYSTEM** for Applied Mechanics Department

For complete details visit our website: [www.vnit.ac.in](http://www.vnit.ac.in). The bidders can download the tender form/ documents from **29<sup>th</sup> January 2018 to 28<sup>th</sup> February 2018** from Institute's website and send self addressed Envelope, invariably along-with bank draft of **Rs. 2,000/- (Rs. Two Thousand Only, Non Refundable)** drawn in favour of The Director, VNIT, Nagpur, towards **TENDER FEE** to Dy. Registrar(Stores), VNIT Nagpur (Foreign bidder (OEM) bidding directly without any Indian agent are exempted from Tender fee payment).

V.N.I.T will not be responsible for postal delay/ non-receipt of tender form/ D.D, sent through the post. Tender forms duly filled in all respect in Only original prescribed format, supplied by the VNIT, duly super-scribed , should reach office of the Stores officer, VNIT, Nagpur -440010, on or before **28<sup>th</sup> February 2018 upto 3.00 p.m** . The tenders are likely to be opened at **3.30 p.m** on the same day. The Director, VNIT reserves the right to accept or reject any or all tender offer.

**For Enquiry contact Stores office, VNIT, Tele No : 0712-2801243, 2801369**

**विश्वेश्वरय्या राष्ट्रीय प्रौद्योगिकी संस्थान, नागपुर 440 010 (भारत)**

**निविदा सुचना क : VNIT/STR/SERB/1, Date :26/01/2018**

**निम्नलिखित मदों की खरीदी हेतु मुहरबंद आमंत्रित है ।**

**SPLIT HOPKINSON PRESSURE BAR SYSTEM** for Applied Mechanics Department

संपूर्ण जानकारी के लिए इच्छुक विक्रेता संस्थान कि वेबसाइट [www.vnit.ac.in](http://www.vnit.ac.in) पर जा सकते हैं । इच्छुक विक्रेता निविदा प्रपत्र दि. २९ जानेवारी २०१८ से २८ फ़ेब्रुवारी २०१८ संस्थान कि वेबसाइट से डाउनलोड करे. इच्छुक विक्रेता निविदा प्रपत्र निविदा मुल्य रु. २०००/- (Non Refundable) बैंक ड्राफ्ट निदेशक, वी.एन.आय.टी., नागपुर, के साथ भेजे. डाक द्वारा विलंब होने पर / निविदा दस्तावेज न मिलने पर/ D.D न मिलने पर, वी.एन. आय. टी. (वि. रा .प्रो.सं) जवाबदेह नहीं होगा । संस्थान द्वारा प्रदत्त केवल वास्तविक निर्धारित प्रपत्र को पूर्ण रुप से भर कर दि. २८ फ़ेब्रुवारी २०१८ के अपरान्ह ३.०० बजे तक भेजे, या इससे पूर्व भंडार अनुभाग (वि. रा .प्रो.सं) नागपुर मे जमा करे. निविदा उसी दिन अपरान्ह ३.३० बजे खोली जाएगी । किसी भी या सभी निविदाओं को अस्वीकृत करने का अधिकार निदेशक का होगा।

Signature of Bidder  
(Authorized Signatory)

Stamp:

Date:

**INVITATION of QUOTATION/TENDER for**

**SPLIT HOPKINSON PRESSURE BAR SYSTEM**

Dear Vendor,

**Sub:** Tender Enquiry for Procurement of **SPLIT HOPKINSON PRESSURE BAR SYSTEM** for Applied Mechanics Department.

VNIT herewith invites tender / bid in sealed envelope for procurement of equipment "**SPLIT HOPKINSON PRESSURE BAR SYSTEM**" under research project at the Applied Mechanics Department. Interested bidders are requested to submit the most competitive bid / quotation, details below:-

Description of the Goods / Equipment	Specifications	Unit / Quantity	Delivery Period & Place of Delivery	Price	Earnest Money Deposit (EMD) Amount in Rs
Please refer enclosed "QFA/Bill of Material" for complete details	As per QFA/Bill of Material	As per QFA/Bill of Material	<b>4 Weeks</b> from the Date of award of PO / Contract Applied Mechanics Department, VNIT, Nagpur	F.O.R. VNIT, Nagpur	<b>Rs. 50,000=00 Fifty Thousand only) in form of DD / Pay Order drawn on any of Nationalized Bank drawn in favor of the Director, VNIT, Nagpur [To be enclosed with the quotation in separate envelope] (Foreign bidder (OEM) bidding directly without any Indian agent are exempted from EMD payment)</b>

Signature of Bidder  
(Authorized Signatory)

Stamp:

Date:

**Schedule & Instructions for Tender/Bid Submission**

**Tender Ref. No: VNIT/STR/SERB/1     Date: 29.01.2018**

**Item:** Procurement of **"SPLIT HOPKINSON PRESSURE BAR SYSTEM"** for Applied Mechanics Department.

<b>Date of Issue</b>	:	29 <sup>th</sup> January 2018
<b>Last Date of Submission</b>	:	28 <sup>th</sup> February 2018 up to 3.00 pm
<b>Tender Fee</b>	:	Rs 2,000/- payable through DD drawn in favor of Director, VNIT, Nagpur
<b>Amount of EMD</b>	:	Rs. 50,000/- payable through DD drawn in favor of Director, VNIT, Nagpur
<b>Tender Opening Date &amp; Time</b>	:	<p>28<sup>th</sup> February 2018 up to 3.30 pm</p> <p>The total period of submission of bid will be 30 days, from the date of issue. Out of which initial 5 days period are kept for any queries/clarifications with PI/Indenter department.</p> <p>For any technical query/ clarification, please contact:</p> <p>Dr. M. D. Goel                      Assistant Professor                      Department of Applied Mechanics,                      VISVESVARAYA NATIONAL INSTITUTE OF TECHNOLOGY (VNIT), South Ambazari Road NAGPUR- 440 010, Maharashtra (INDIA).                      Email: <a href="mailto:mdgoel@apm.vnit.ac.in">mdgoel@apm.vnit.ac.in</a>,  <a href="mailto:mdgoel@gmail.com">mdgoel@gmail.com</a>                      Ph: +91-712-2801419                      Mobile: +91-7722043252</p>

**(Foreign bidder (OEM) bidding directly without any Indian agent are exempted from Tender fee & EMD payment).**

**Submission of Bid**

**"TWO BID"** viz. **Technical /Qualifying Bid** and **Price/Commercial Bid** Systems will be followed for this tender.

The Technical bid and the Financial bid should be sealed **in separate covers both duly super-scribed** and both these sealed covers are to be put **in a bigger cover** which should also be sealed and **duly super-scribed** with for **"SPLIT HOPKINSON PRESSURE BAR SYSTEM"**

**For Technical /Qualifying Bid** - Envelope to be super-scribed with **"TECHNICAL /QUALIFYING BID for "SPLIT HOPKINSON PRESSURE BAR SYSTEM"**, and should be submitted with prescribed Tender Fee & EMD and the associated supporting documents. Bill of material (without any price), indicating the compliance of technical specification should also be included with the qualifying bid. The Tender Fee & EMD / DD to be put in separate envelope.

Signature of Bidder  
(Authorized Signatory)

Stamp:

Date:

**For Price/Commercial Bid** - Envelope to be super-scribed with "**PRICE/COMMERCIAL BID** for "**SPLIT HOPKINSON PRESSURE BAR SYSTEM**". The Price should be indicated in the prescribed format in the Price/Commercial Bid only. Any other format will lead to disqualification.

Both above sealed covers are to be put **in a bigger envelope** which should also be sealed and **duly super-scribed** with - Tender for **SPLIT HOPKINSON PRESSURE BAR SYSTEM** for Applied Mechanics Department.

The sealed envelope super-scribed with - Tender for **SPLIT HOPKINSON PRESSURE BAR SYSTEM** for Applied Mechanics Department, and to be sent to Dy. Registrar (Stores), Visvesvaraya National Institute of Technology (VNIT), South Ambazari Road, Nagpur 440 010, INDIA. Sealed envelope can also be submitted in person in the "**Tender / Quotation Box**" kept in The Stores Section. VNIT, Nagpur. The last date of submission is **28<sup>th</sup> February 2018 by 3.00 P.M.**

Tender received after the last date / time of submission (as mentioned in tender notice) will not be considered and will lead to rejection.

Each envelope / cover should also indicate clearly the name and address of the bidder.

## **General Instructions, Terms & Conditions for the Bidder / Vendor**

### **1. Price Bid**

- a) The Prices should be quoted F.O.R. VNIT, Nagpur
- b) The price/rates quoted by the bidder shall be FIRM & FIXED and shall not be variable / subject to adjustment on any account.
- c) The price bid shall be valid for a period of 180 days from the date of opening
- d) The duties, taxes and other levies payable by the vendor shall be shown separately in bidding document. The basic price per unit should be separately mentioned in price bid in the given format.
- e) Duties & taxes viz. Custom, GST, Freight / Transportation, Packing & Forwarding, Insurance, Price Ex-Works etc. shall be indicated separately in the given format only.
- f) **The bidder is requested for special educational discount to the Institute.**
- g) The contract shall be for the full quantity as described in QFA/Bill of Material. Correction if any, shall be made out by crossing out, initialling, dating and re-writing.
- h) In case of price quoted in foreign currency, its conversion rate to INR on the date of opening the quotation/tender shall be considered

### **2. Technical Bid**

- a) The good/s offered must meet / comply with the Technical Specifications detailed in "**Technical/Qualifying Bid**" given in tender. In case of deviation if any, the firm's bid is liable to be treated as non-responsive.
- b) VNIT has the sole discretion to accept or reject tenders / bids based on deviations, if any, from the technical specification.
- c) The price bids of the bidders who **do not conform** to the Technical Specifications & Eligibility Criteria given in Technical/Qualifying Bid will not be opened. The EMD of such bidder/s will be returned in due course.

### **3. Bid Evaluation**

The Purchaser will evaluate and compare the bids determined to be substantially responsive i.e. which

- a) Are properly signed, and
- b) Confirm to the general terms and conditions, special conditions, and technical specifications.

**4.** Each Bidder shall submit only one bid.

**5.** Bidder shall submit Firm's registration certificate, GST registration certificate, PAN, Delivery Period, Warranty/Guarantee, others etc with the bid

**6.** Bidder shall furnish the information in the prescribed format of Technical and Price Bid only (as applicable). Any other format will lead to disqualification. Each and every document

Signature of Bidder  
(Authorized Signatory)

Stamp:

Date:

submitted with Technical and Price Bid should be duly signed & stamped. **Incomplete or Conditional Bid(s) will not be accepted.**

7. **Tender Fee:** The Tender fee of **Rs. 2000/-** in the form DD drawn in f/o Director VNIT, Nagpur should be sent along with technical bid. Firm/Vendor registered with the NSIC or MSME or SSI are having exemption from submission of tender fees. Firm/Vendor registration certificate in above respect will be essential to claim exemption. **(Foreign bidder (OEM) bidding directly without any Indian agent are exempted from Tender fee).**
8. **Earnest Money Deposit (EMD):** Bidder shall submit **Rs.50,000/-(Fifty Thousand Only)** EMD in form of Demand Draft / Fixed Deposit Receipt / Bank Guarantee in favor of **"Director, VNIT Nagpur"** payable at Nagpur. The EMD to be submitted strictly in a separate envelope super scribed with Vendor / Firm's name & address & also on back side of DD with stamp. **Bid received without EMD will be summarily rejected.** Firms / Vendors registered with the NSIC or MSME or SSI are having exemption from submission of EMD. Firms / Vendors registration certificate in above respect will be essential to claim exemption. **(Foreign bidder (OEM) bidding directly without any Indian agent are exempted from EMD payment).**
9. **Specification and Make:** Bid should be given for the exact specification and make as shown in the tender enquiry against Sr. No. of the item / good. The bid which is not as per our tender enquiry will be treated as non responsive.
10. **Client List:** Bidder shall furnish information of Client list along with the order copy of similar good/s / equipment supplied to any IIT/NITs/ any Govt. Organization including details of price & all other charges / duties with the bid.
11. **ISI Certification:** Where ISI certification marked goods / items are available in market, procurement should generally be limited to goods with those or equivalent marking only.
12. **Authorization Certificate:** Bidder should enclose latest authorization certificate from their principal / original equipment manufacturer (OEM).
13. **Taxes:** GST or any other taxes as per Govt. norms shall be applicable from time to time. The % of Tax must be indicated separately in the bid.
14. **Good/s for Research Purpose: Concessional GST @ 5% will be applicable for purchase of goods viz Scientific & Technical instruments and other required for the Research purposes only.** This is in accordance of Govt. of India, Ministry of Finance Notification 45/2017-Central Tax (Rate) dated 14<sup>th</sup> November, 2017 and 47/2017-(Integrated Tax (Rate) dated 14<sup>th</sup> November, 2017, and VNIT Circular Ref.- VNIT/Acct/2017-18-GST/5390 dated 27<sup>th</sup> November, 2017. The description of goods is given in Govt of India notification dated 14<sup>th</sup> November, 2017 mentioned above. A certificate in this respect will be issued to the vender by the Institute.
15. **Taxes (For Import Item)** - Govt of India Ministry of Science & Technology, DSIR, NewDelhi vide letter No TU/V/RG-CDE(190)/2016 dated 19/09/2016 has issued Certificate of Registration to VNIT, Nagpur for purposes of availing customs duty exemption in terms of Govt. Notification 51/96-Customs dated 23<sup>rd</sup> July, 1996 and this registration is valid up to 31.08.2021. VNIT is eligible to avail partially exemption for Customs Duty. Necessary documentation / exemption certificate for the same will be provided by the Institute wherever applicable. The supplier who has quoted the price in Rupees, but importing the items from the foreign country has to sign the High Sea Sale Agreement. Against High Sea Sales Agreement GST is not applicable; Custom Duty is applicable under Notification No 51/96. The charges towards HSS agreement, if any, will have to be borne by the firm.
16. **Valid Period of Quotation/offer:** The bidder should clearly mention the valid period of quotation/offer in the bid. The quotation/offer shall be normally valid for a period of 180 days from the date of opening the tender.
17. **Rate Contract:** If the Good/s under enquiry is mentioned under the Govt of India, DGS & D rate contract, Vendor shall supply the good/s at DGS & D contract rate as VNIT Nagpur is Government of India's Institute of National Importance under the Ministry of HRD.

Signature of Bidder  
(Authorized Signatory)

Stamp:

Date:

18. **Installation:** Goods / Equipments shall be delivered / installed at concerned laboratory / department of VNIT by the Bidder at free of cost.
19. **Service centre:** Vendor shall provide the details of Service Centre in Nagpur or other region with name of contact person, their contact nos. & address.
20. **Payment (Indigenous Item):** Institute will release the full & final (100%) payment after delivery of items and its successful installation/ demonstration at concerned department / laboratories of VNIT Nagpur. The vendor will be required to submit the bills in triplicate along with delivery memo. Payment will be made through Crossed Cheque / ECS / NEFT / RTGS. For electronic payment mode, Firm / Company bank details on letter head will be required.
21. **Payment (For Foreign Bidders) :** Institute will release 85% of PO cost on dispatch of original documents and receiving of goods at Nagpur Airport through LC / telegraphic transfer, 5% after delivery / installation of goods and balance 10% will be released after the expiry of guarantee/ warrantee period. Letter of Credit amendment charges will be borne by the beneficiary
22. The quantity may increase / decrease as per requirement and payment will be made as per actual supply on the rates quoted by your firm.
23. **Ref. No. of this tender / quotation enquiry must be mentioned on envelope / cover containing quotation.**
24. Vendor shall enclose copies of all essential certificates / documents, failing which the bid is liable to be disqualified. Each document enclosed with bid should be duly self-attested with stamp/seal by the vendor, failing which submitted quotation will be treated as non-responsive.
25. Any certificate / document above submitted by the vendor are found to be incorrect / false/ forged/ fake, intentionally / un-intentionally at any stage, will lead to disqualification of vendor. Institute shall be free to take any action by blacklisting the vendors firm.
26. Incomplete or conditional quotation/bid shall be summarily rejected
27. **Educational Discount:** VNIT, Nagpur is a Govt of India's Institute of National Importance engaged in education & research of National & International repute, the Vendors shall give / offer the special educational discount on quoted rates.
28. The vendor shall take full responsibility in case of any damage, loss or injury to any person / building or to any part thereof, and shall repair / and make good the loss, at his own cost.
29. Balance sheet, profit & loss account for the proceeding 3 financial year must be enclosed as an evidence of the financial requirement.
30. **Guarantee or Warrantee & Delivery of Goods**
  - a) **Guarantee/Warranty:** Normal comprehensive Warranty/ Guarantee of **ONE YEAR** shall be applicable to the supplied goods. In case any part or whole of the equipment is found to be defective during the guarantee period, then the same will have to be replaced/repaired free of cost at our premises. The Vendor should guarantee that the good/s and its accessories supplied are complete in every respect and confirm to the technical specification mentioned in the Bill of Material
  - b) **Performance Guarantee:** A performance guarantee of 10% of the total invoice value for good/s costing 10 Lacs & above, and valid for three year covering the entire warranty period will be required from the vendor executing the purchase order. In case of violation of any of the conditions of guarantee / warranty (for one year), the aforesaid performance guarantee shall be invoked by VNIT.
  - c) **Delivery:** Goods shall be supplied / delivered by the Vendor at the installation site in concerned department of VNIT Nagpur at free of cost on working days. Vendor shall deliver the material strictly as per the delivery schedule given in PO. Vendor shall strictly be adhered to above, failing which **Liquidated Damages Clause** will be applicable.

**31. Liquidated Damages Clause:**

- a) Penalty may be imposed as per P.O. terms and conditions. Goods should be securely, safely and adequately packed and dispatched at the risk of supplier and packing costs quoting this order reference should be kept in all package. Firms are requested to deliver the goods in our stores/section/department before 4.00 pm on any working day/s.
- b) The Director, V.N.I.T. Nagpur reserves the right to recover from the vendor, liquidated damages a sum equivalent to 1/2 percent of the price of the undelivered stores at the stipulated rate for each week or part thereof, during which the delivery of such stores, may be delayed subject to, a maximum limit in the case of an order exceeding Rs. One Lakh in value, upto **10** percent and in the case of an order not exceeding Rs. One Lakh in value upto **5** percent of the stipulated price, of the stores so undelivered.
- c) To purchase elsewhere, on vendor's accounts, at his risk, the stores etc. undelivered, or other of a similar description, where others exactly employing with the particulars, are in the opinion of the Director, Visvesvaraya National Institute of Technology, Nagpur are not readily procurable, without cancelling the contract, in respect of consignment not yet due for delivery.
- d) If the Supplier fails to deliver the material/goods within the stipulated delivery period, then Amount of EMD given by the Vendor shall be forfeited. In case of Supplier [registered with MSME/NSIC/SSI etc.] not required to submit the EMD, the Institute reserves the right to initiate action including reporting to principal Govt authorities.
- e) To cancel the contract.

In the event of action being taken under (b) or (c) above, the vendor shall be liable to make good for any loss, which the Institute may sustain, by reason of higher price of items/goods, so purchased or the otherwise, howsoever :

The decision of the Director, Visvesvaraya National Institute of Technology, Nagpur shall be final as regards to the acceptability of stores supplied by the seller and the Director, Visvesvaraya National Institute of Technology, Nagpur, shall not be required to give any reason in writing or otherwise at any time for the rejection of stores.

**32. Award of Purchase Order / Work Contract**

- a) Notwithstanding the above, the Purchaser reserves the right to accept or reject any bid and to cancel the bidding process and reject all bids at any time prior to the award of contract.
- b) The Purchaser will issue the **Purchase Order / Work Contract** to the vendor / bidder whose bid has been determined to be substantially responsive and who has offered the lowest evaluated bid price. The terms of the accepted offer shall be mentioned in the purchase order.
- c) On receiving of order by vendor, the vendor shall deliver / supply / install the good/s at free of cost up to installation site of concerned department of VNIT, Nagpur, failing which cost of delivery / installation will be deducted from the Vendors bill payment.
- d) After receiving of the Purchase Order / award of contract, it will be Vendor's obligation / responsibility to supply or delivery of the good/s as per specifications within specified time schedule.
- e) Expression of vendor's inability for the supply or delivery of good/s as per specifications will lead to cancellation of PO and EMD (as submitted) will be forfeited. Further Institute may also disqualify / debar the Vendor from participating in any of its future enquiries for a period as recommended by institute authorities.

**33. Post Delivery / Installation Warranty & Support:**

- a) The Vendor should have their office or authorized representative / dealer in Nagpur. They should mention in detail their support infrastructure by which minimum downtime will be ensured.

Signature of Bidder  
(Authorized Signatory)

Stamp:

Date:



- b) The Vendor shall submit details of Service Centres / Factory and information on service support facilities that would be provided after warranty period [Form ].
  - c) The Vendor will have to give undertaking that in case of any breakdown / damages during warranty period the goods / equipment will be restored back to its original status within **15 WORKING DAYS** (This may include replacing some spares also).
- 34.** Any corrigendum / amendment regarding this tender enquiry will be issued on institute website only. [<http://stores.vnit.ac.in>]
- 35.** Director, VNIT, Nagpur reserves the right to accept or reject or cancel any or all enquires or bids/PO at any stage without assigning any reason thereof.
- 36. For any disputes, the place of jurisdiction shall be Nagpur, Maharashtra (India) only**
- 37. It will be presumed that the vendor has read carefully all the above mentioned instructions, terms & conditions and abide by same.**
- 38.** All Communication are to be addressed to –  
**Director**  
Visvesvaraya National Institute of Technology,  
South Ambazari Road,  
Nagpur 440 010  
Maharastara (India)
- 39.** We look forward to receiving your bids and thank you for your interest in this project.

**Dean (P & D)**  
**VNIT, Nagpur**

**TECHNICAL/  
QUALIFYING BID**

Signature of Bidder  
(Authorized Signatory)

Stamp:

Date:

**Technical Specifications and Eligibility Criteria**

**[A] Technical Specifications**

**QUOTATION FORMAT ANNEXURE (QFA)**

REF NO.: VNIT/STR/SERB/1

Date: 29/01/2018

Sr. No.	Name of the Component	Technical Specifications	Quantity	Compliance Yes/No	OEM Remarks, if any
	<b><u>SPLIT HOPKINSON PRESSURE BAR SYSTEM</u></b> <b>(For Research Purpose)</b>				
1.	Partial SHPB Pressure Bar System including	1. Automated Gas Launcher for 2-inch bar system. 2. Speed sensor made up of fiber optic beam break sensor with response time 1 $\mu$ s 3. Compatible Data Processing Software 4. Drawings of all components. 5. Suitable guidelines and manuals	One each		
2.	2 Inch diameter Aluminium and Polymeric Bar along with strikers set of different lengths	Strikers bar lengths: 6", 9",12", 18", 24" and 36" or as per standards for each aluminum and polymer bar system	One Set of each aluminium and polymer bar system		

**Technical Requirement:**

The Split Hopkinson Pressure Bar (SHPB) system is used for testing different materials at high strain rates in compression over wide range of strain rates. Original equipment manufacturer (OEM) is required to supply Split Hopkinson Pressure Bar system/components to Visvesvaraya National Institute of Technology(VNIT), Nagpur, India which can be used to test materials in compression mode and it should meet the following technical requirements :

- 1) The Split Hopkinson Pressure Bar (SHPB) System should be capable of conducting compressive testing at strain rates ranging from 300 per sec or less to 7000 per sec or more at room temperature. Further, it should be capable to facilitate high temperature testing ranging from room temperature to 80 °C without modification in basic design. Maximum temperature comfortably attainable by the SHPB system with no deleterious effect on the results as well as on the instrument should be indicated by the OEM in technical bids. The minimum and maximum values of strain rates attained by SHPB system should be indicated by the OEM in technical bids for the specified sample size.
- 2) The Original Equipment Manufacturer (OEM) has to fabricate the SHPB system/components with high strength materials so that all the foams of wide material range (like aluminium foam, polymeric foam etc.) with typical yield strengths of these materials would be varying from 2 MPa to 20 MPa or higher can be tested in the strain rate ranges mentioned above in compression mode.
- 3) The striker bar accelerator assembly of SHPB system should contain a gas reservoir gun which can operate compulsory by compressed air to impart velocities to the striker bar ranging from 5 m/s to 50 m/s, through a barrel (launch tube) and it should be of 2-inch bar systems. The SHPB system

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should be capable of accommodating different lengths of striker bars (maximum upto 1 m) and also striker bars of different materials for future expansion.

- 4) Striker bar, incident bar, transmitter bar should be made up of same material and should be have 2-inch diameter. All the bars should have a straightness of 0.1 mm/m or better. The length of bars (incident and transmitter) along with over all length of system must be mentioned in the bid.
- 5) The OEM is required to supply the length of striker bars, incident bars, transmitter bars in such a way that it can achieve the above-mentioned strain rate ranges in compression modes for testing different materials and yet these bars should be in their elastic regime throughout the testing for avoiding deformation of these bars
- 6) The OEM is required to supply rates of two sets of incident bars and transmitter bars separately (including three striker bars of different length but of the same material) made up of Aluminium Alloy and Polymer that will be capable to test above mentioned foam materials at the specified range of strain rates without any issue.
- 7) The Original Equipment Manufacturer (OEM) should supply a latest version, user friendly software, that works on windows operating system for controlling the instrument, data acquisition and post processing of the measured data. The control software should have features like wave dispersion correction, post processing the data to present it as engineering stress-strain curve as wells as true stress-strain curve, strain rate measurement, adiabatic temperature correction etc. OEM should also provide minimum specifications (like CPU speed, memory, HDD etc.) of the compatible computer system to operate the above software.
- 8) A laser interrupt based velocity measurement system with necessary accessories should be quoted separately with the SHPB system to measure the velocities of the striker bar. The velocity measurement system should be suitably placed on the SHPB system so as to measure the velocities of the striker bar just before the impact with incident bar. Necessary accessories required for velocity measurement system as well as it calibration report should be provided.
- 9) The necessary tool kit required for operation and maintenance of SHPB system should be supplied with the SHPB system/component.
- 10) The OEM has to provide specimen geometry (Engineering Drawing in AutoCAD softcopy) adaptable for the supplied SHPB system/component and to enable testing in the above-mentioned compressive strain ranges.
- 11) OEM has to specify the electrical supply requirements for functioning of the system/component.
- 12) OEM should mention the details of materials used in developing the component.

#### **[B] Eligibility Criteria**

- i) The Bidder should be OEM or authorized representative / supplier of the OEM. In case of authorized representative/supplier, the authorization letter from the OEM is essential.
- ii) The Bidder should be able to supply / manufacture the good/s of the most recent series models incorporating the latest developments and meeting technical specifications given in this tender.
- iii) The Bidder must have supplied & satisfactorily installed / commissioned the similar Good/s as specified in "QFA/Bill of Material" in the preceding 3 years (2014-15, 2015-16, 2016-17) period. Please attach necessary documents in support of above.
- iv) The Bidder shall furnish brief write-up, backed with adequate data, explaining firm's present capacity and experience (both technical and commercial) for the manufacture and supply of the required Good/s within the period specified for time of completion after meeting all their current commitments.
- v) The bidder shall clearly confirm the manufacturing unit / factory information and their in-house testing facilities and same will be available for the inspection.

Signature of Bidder  
(Authorized Signatory)

Stamp:

Date:

**[C] Acceptance Criteria:**

- (a) The OEM has to submit pre-installation site requirements/guidelines, if any, for SHPB system/component along with the technical bid.
- (b) OEM has to produce list of users (Government / Public Sector Unit / Recognized Private organization) of the specific product for which they are submitting the technical bid as well as the contact details of the user in India as well in other places in the world. OEM is required to produce certificate of reference along with the technical bid (Compulsory).
- (c) Quotation submitted by the OEM will only be accepted and will be considered for further evaluation by VNIT, Nagpur.
- (d) The OEM should provide the engineering drawings of all types of compressive specimens well in advance before the installation of the SHPB system/component at VNIT, Nagpur.
- (e) The OEM has to supply the all the manual and related documents for proper operation and maintenance of the system/components.
- (f) The OEM has to provide minimum 1-year warranty for SHPB system/components with all its components from the date of successful installation and acceptance by VNIT, Nagpur. Any repair and servicing, replacement within the warranty period is the responsibility of the OEM including the transportation expenses (for personnel as well as for equipment & parts).
- (g) Delivery time at VNIT Nagpur should be mentioned.
- (h) The cost of each component should be mentioned component wise. OEM can also propose the other components necessary for smooth functioning of this system with their cost wise break up. VNIT Nagpur has the right to add or drop/ choose any components from the quoted one.

The above information shall be furnished by the bidder invariably in appropriate Schedules / Annexure as may be relevant.

**FORM 1**

**Check List for TECHNICAL / QUALIFYING BID**

Ref No.: VNIT/STR/SERB/1

Date: 29.01.2018

Read the **Instructions** below:

Please fill in details of certification / compliance enclosed in respect of this tender enquiry in the following format (Yes / No) only. **Any other format will lead to disqualification.** Any reference to product brochure without filling **appropriate** entry as "Yes/No" in the column will lead to disqualification.

If there is any deviation from the required specification then, it should be clearly specified in the "Remarks" column and appropriate documentary proof, may be enclosed without fail. **Please arrange all enclosures in following order only**

Sr. No.	Requirement	Details of Certification Enclosed Mention - YES/NO	Page No.	Remarks
1.	EMD of ₹ 50,000=00 ( <b>Foreign bidder (OEM) bidding directly without any Indian agent are exempted from Tender fee &amp; EMD payment).</b>			
2.	Latest Manufacturer's / OEM Authorization Letter			
3.	Service Centre Details with Address & Telephone Nos.			
4	Order Copies of preceding 3 financial Years (2014-15, 2015-16 & 2016-17) duly certified, indicating details of Order Value executed (Enclose Proof)			
5	Product Literature / Information Brochure			
6	Preferably Vender/OEM should have ISO 9000 or similar Certification for Quality			
7	Certificate of Incorporations			
8	Registration Certificate			
9	Company Profile			
10	Customer List / Client List			
11	Technical Manpower Employed with Qualifications & Experience & their tenure			
12	PAN			
13	GST Registration Certificate			
14	Methodology of Warranty Support			
15	Brief History of the Company/ Firm with credentials if any			
16	Warranty/ Guarantee (1 year)			

**FORM 2**

**MANUFACTURERS (OEM) AUTHORIZATION LETTER**

REF No.

Date

To

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Dear Sir,

We ..... who are established and reputable manufacturers of ..... (*Name and description of goods offered*) having factories at ..... (*address of factory do hereby authorize M/s ..... (Name and address of Agent)*) to submit a bid, and sign the contract with you for the goods manufactured by us against the above IFB No. VNIT/STR/. We hereby extend our full guarantee and warranty of 3 years for the goods and services offered for supply by the above firm against this IFB.

Yours truly,

(Name with Stamp/Seal of Competent Authority)

**Note:** This letter of authority should be on the letterhead of the manufacturer and should be signed by a person competent and having the power of attorney to legally bind the manufacturer. It should be included by the Bidder in its bid.

Signature of Bidder  
(Authorized Signatory)

Stamp:

Date:

**FORM 3**

**SERVICE SUPPORT DETAILS**

LOCATION OF NEAREST SERVICE CENTER:-

Phone No.	Fax / Telex No.	Status of Office working Days & Hours	Number of Engineers	Value of Min. Stock Available at all times	List of Models & Types of Equipment under Service during last 2 years	Name of the Organization where the equipment are currently under AMC/ Service

Signature of Bidder  
(Authorized Signatory)

Stamp:

Date:



**FORM 4**

**PERFORMANCE STATEMENT**

**(From 2014-15 onwards)**

Name of the Firm \_\_\_\_\_

Order placed by (Complete Address of Purchaser)	Purchase Order No. & Date	Description and Quantity of ordered equipment	Value of order	Date of completion of delivery		Remarks indicating Reasons for late delivery, if any	Has the equipment been satisfactorily Functioning (Attach a certificate from the Purchaser /Consignee)
				As per Contract	Actual date of supply		
1	2	3	4	5	6	7	8

Signature of Bidder  
(Authorized Signatory)

Stamp:

Date:

**FORM 5**

**CAPABILITY STATEMENT (CS)**

1. Name & Address of the Bidder:

2. Phone:

3. Classification

- (1) Manufacturer : Y/N
- (2) Authorized Agent: Y/N
- (3) Dealer : Y/N
- (4) Other (Please specify)

4. Plant:

Location:

Description, Type & size of building:

Is property on lease or free hold? If on lease, indicate date of expiry of lease in such case:

5. Type of equipment(s) manufactured and supplied during last 2 years.

Name of Equipment	Capacity/Size	Quantity Manufactured	Nos. of Purchase Orders on hand

6. Types of Equipment(s) supplied during last 2 years other than those covered under 5 above.

Name of Equipment	Capacity / Size & Model	Name of Manufacturer & Country of origin	Total Nos. of Equipment(s) Supplied in India	No. of orders on hand

7. Turnover for similar equipments sold in last two years:

8. Details of Testing facilities available :

- i) List of testing equipment available.
- ii) Give details of type tests, which can be carried out using testing equipment.
- iii) Details of the staff available for testing.

9. Personnel/Organization: Give Organization chart for following indicating clearly the No. of employees at various levels.

Quality assurance	
Production	
Marketing	
Service	
Spare parts	
Administrative	

10. Nearest Service Centres to each of the destination of installations:

Signature of Bidder  
(Authorized Signatory)

Stamp:

Date:

Location	
Phone No.	
Year of Establishment	

11. Details of Organization (Enclose details of Organization Chart & Span of Control)at Service Centre:

No. of skilled employees	
No. of Unskilled employees	
No. of Engineering employees	
No. of Administrative employees	
List of special repair/workshop Facilities available (Specify Details of Equipments And Test(s) those which are performed)	
The storage space available for spare parts (Sq.m)	
Value of minimum stock of spares available at all the service centre in Respective currency	
Value of the models/types by number of equipment serviced by the centre in the last twoyears	

12. Enclose details of services provided duly authenticated by certification from the user in each case  
 13. Names of two buyers to whom similar equipment was supplied in the past and to whom reference may be made by the Purchaser regarding the bidder's technical and delivery ability.

**Buyer 1; Address & Contact No**

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**Buyer 2; Address & Contact No**

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**PRICE/  
COMMERCIAL BID**

Signature of Bidder  
(Authorized Signatory)

Stamp:

Date:

**PRICE / COMMERCIAL BID**

REF No.: VNIT/STR/SERB/1

Date:29.01.2018

Item :: "**SPLIT HOPKINSON PRESSURE BAR SYSTEM**" for Applied Mechanics Department"

Sr. No	Item with Specifications	Qty	Basic Rate P.U. (Rs.)	GST % & Amount P.U. (Rs.)	Total Amount P.U. (Rs.)
1	<b><u>SPLIT HOPKINSON PRESSURE BAR SYSTEM</u></b> (Details Specification as per above)				
	Educational Discount				
	Total Cost F.O.R. V.N.I.T. Nagpur				

[Note - The bidder should offer / quote special educational discount for the Institute.]

**[A] DUTIES & TAXES (if applicable):**

1. Custom Duty if any : \_\_\_\_\_
2. GST @ \_\_\_\_\_% : \_\_\_\_\_
3. Freight/ Transportation : \_\_\_\_\_
4. Insurance @ \_\_\_\_\_% : \_\_\_\_\_
5. Packing & Forwarding : \_\_\_\_\_
6. Others, (if any) : \_\_\_\_\_
7. **Final Offer (Including Installation Charges & Taxes) FOR VNIT Nagpur** : \_\_\_\_\_

**[B] Others Details (Enclosed)**

1. EMD No. & Amount : No.:\_\_\_\_\_ Dt.\_\_\_\_/\_\_\_\_/2017 Rs. 50,000/-
2. Specification as per Requirements : Yes / No
3. Warranty/Guarantee : \_\_\_\_\_Years
4. Delivery period : \_\_\_\_\_
5. Firms Registration Certificate : \_\_\_\_\_
6. Authorization Certificate : \_\_\_\_\_
7. Details of client lists : \_\_\_\_\_
8. GST Registration Certificate : \_\_\_\_\_
9. PAN / GST No. : \_\_\_\_\_
10. Others, (if any) : \_\_\_\_\_

**Note: Price/Commercial Bid & other details should be furnished as per Institute's prescribed format if failed, the Price / Commercial Bid is treated as unresponsive and will be disqualified.**

The Firm/Company agrees to supply the above items for **final offer price (Rs. \_\_\_\_\_/- [In Words Rs.....])** inclusive of duties & taxes at [A] above within the period specified in the Invitation for Quotations. We also confirm that the normal commercial warrantee /guarantee of **12 months** shall apply to the offered goods.

Signature of Bidder  
(Authorized Signatory)

Stamp:

Date:

**FORM 6**

**FORMAT OF QUOTATION / BILL OF MATERIAL**

REF No.: VNIT/STR/SERB/1

Date:29.01.2018

Sr. No.	Description of Goods	Specifications	Qty.	Unit	Quoted Unit Rate in Rs. /	Total Amount	
						In Figures	In Words
	Please refer enclosed "QFA/Bill of Material" for complete details.	As per "QFA/Bill of Material"					
						GST % GST Amt.	

**Gross Total Cost : Rs. ....**

We agree to supply the above Goods/Equipment/Software in accordance with the technical specifications for a total contract price of ..... (In figure) (In word Rs ..... ) within the period specified in the Invitation for Quotations. We also confirm that the normal commercial warrantee /guarantee of **12 months** shall apply to the offered goods.

Signature of Bidder  
(Authorized Signatory)

Stamp:

Date:

**FORM 7**

**PRICE SCHEDULE**

REF No.: VNIT/STR/SERB/1

Date:29.01.2018

1	2	3	4	5					6	7	8
Schedule No	Item Description	Country of Origin	Quantity & Unit	Price for each unit					Unit Price	Total Price	GST (%) & Amount payable
				Ex-factory, Ex-warehouse, Ex-show room, Off the shelf	Custom Duty, as per actual	Packing & Freight	Inland transportation insurance and other local costs incidental to delivery	Incidental services			(To be mentioned clearly as Extra)
				(a)	(b)	(c)	(d)	(e)	a+b+c+d+e	4 x 6	

**Note:** In case of discrepancy in unit price and total price, the unit price shall prevail.

Total Bid Price in figure \_\_\_\_\_

In word \_\_\_\_\_

Signature of Bidder \_\_\_\_\_

Name \_\_\_\_\_

Business Address \_\_\_\_\_

Place:

Date:

Signature of Bidder  
(Authorized Signatory)

Stamp:

Date: