



Indian Institute of Technology Bhilai (IITBh)  
GEC Campus, Sejbahar, Raipur, Chhattisgarh, India – 492015  
www.iitbhilai.ac.in

### NOTICE INVITING TENDER

Indian Institute of Technology Bhilai (IITBh), an autonomous body under the Ministry of Human Resource Development, Govt of India invites e-bid for “Supply & Installation of (CNC) linear friction stir welding machine”. Tender Documents may be downloaded from Central Public Procurement Portal (URL:<http://eprocure.gov.in/eprocure/app>). Bidders are advised to submit duly filled bids as per the following schedule given along with a Tender document fee of Rs. 1500/- payable (non-refundable) through SBI i-collect link.

Invitation for Bids (IFB) No & date	IITBh/SP/NIT/ME/2019-20/17 date 29.07.2019
Place of Supply, Installation & Commissioning, Support etc.	Indian Institute of Technology Bhilai , GEC Campus, Old Dhamtari Road, Sejbahar, Raipur 492015 Chhattisgarh
Date of Pre-bid meeting	August 5 <sup>th</sup> , 2019, 1100 Hrs
Bid Submission Start date	August 9 <sup>th</sup> , 2019, 1000 Hrs
Last Date of Submission of Bids	August 21 <sup>st</sup> , 2019, 1500 Hrs
Date of Opening of Technical Bids	August 22 <sup>nd</sup> , 2019, 1515 Hrs
Tender Fee	Tender Fee - Rs. 1500/- & EMD - Rs. 1,30,000/- to be payable through SBI i-collect Link <a href="https://www.onlinesbi.com/sbicollect/icollecthome.htm?corpID=646425">https://www.onlinesbi.com/sbicollect/icollecthome.htm?corpID=646425</a> Step1. Click Check Box to proceed for payment. Step2. Select S and P Tender Fee and EMD. Step3. Fill all Details and Submit (This online payment receipt may be provided in the on line Technical e-bid)
Place of Opening of Technical Bids	Indian Institute of Technology Bhilai, GEC Campus, Old Dhamtari Road, Sejbahar, Raipur 492015 Chhattisgarh
Contact information	Deputy Registrar (Administration) Indian Institute of Technology Bhilai, GEC Campus, Old Dhamtari Road, Sejbahar, Raipur 492015 Chhattisgarh. T: 0771 297 3622 Email: <a href="mailto:sp@iitbhilai.ac.in">sp@iitbhilai.ac.in</a> Fortechnicalenquiries: <a href="mailto:rahul@iitbhilai.ac.in">rahul@iitbhilai.ac.in</a>

### **Call instructions for Online Bid Submission**

Department of Expenditure has issued the directive to publish the tender document on the Central Public Procurement Portal ([URL:http://eprocure.gov.in/eprocure/app](http://eprocure.gov.in/eprocure/app)). The bidders are required to submit soft copies of their bids electronically on the CPP Portal using valid Digital Signature Certificates. Below mentioned instructions are meant to guide the bidders for registration on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal. For more information bidders may visit the CPP Portal <http://eprocure.gov.in/eprocure/app>

### **Registration Process**

- 1) Bidders to enroll on the e-Procurement module of the portal <http://eprocure.gov.in/eprocure/app> by clicking on the link "Click here to Enroll". Enrolment on the CPP Portal is free of charge.
- 2) The bidders to choose a unique username and assign a password for their accounts. Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
- 3) Bidders to register upon enrolment their valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India with their profile.
- 4) Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSCs to others which may lead to misuse. *Foreign bidders are advised to refer "DSC details for Foreign Bidders" for Digital Signature requirements on the portal.*
- 5) Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / eToken.

### **Tender Documents Search**

- 1) Various built in options are available in the CPP Portal to facilitate bidders to search active tenders by several parameters. These parameters include TenderID, organization, location, date, value, etc.
- 2) There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as organization name, form of contract, location, date, other keywords etc. to search for a tender published on the CPP Portal.
- 3) Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective 'My Tenders' folder. This would enable the CPP Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
- 4) The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

### **Bid Preparation**

- 1) Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- 2) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid.
- 3) Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
- 4) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF formats. Bid documents may be scanned with 100 dpi with black and white option.
- 5) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the

bidders. Bidders can use “My Space” area available to them to upload such documents. These documents may be directly submitted from the “My Space” area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

### **Bid Submission**

- 1) Bidder to log into the site well in advance for bid submission so that he/she upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- 2) The bidder to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- 3) Bidder to select the payment option as “Off-line” to pay the tender fee/ EMD wherever applicable and enter details of the instrument.
- 4) A standard BoQ format has been provided with the tender document to be filled by all the bidders. Bidders to note that they should necessarily submit their financial bids in the prescribed format and no other format is acceptable. *In some cases, Financial Bids can be submitted in PDF format as well =*
- 5) The server time (which is displayed on the bidders’ dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
- 6) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data, which cannot be viewed by unauthorized persons until the time of bid opening.
- 7) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 8) Upon the successful and timely submission of bids, the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- 9) Kindly add scanned PDF of all relevant documents in a single PDF file of compliance sheet.

### **Assistance to Bidders**

- 1) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.
- 2) Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk. The contact number for the helpdesk is **0120-4200462, 0120-4001002, 0120-4001005.**

### **General Instructions to The Bidders**

- The tenders will be received online through portal <https://eprocure.gov.in/eprocure/app>. In the Technical Bids, the bidders are required to upload all the documents in .pdf format.
- Possession of Valid Class II/III Digital Signature Certificate (DSC) in the form of smart card/ e-Token in the company’s name is a prerequisite for registration and participating in the bid submission activities through <https://eprocure.gov.in/eprocure/app>. Digital Signature Certificates can be obtained from the authorized certifying agencies, details of which are available in the web site <https://eprocure.gov.in/eprocure/app> under the link ‘Information about DSC’.

Tenderers are advised to follow the instructions provided in the ‘Instructions to the Tenderers for the e-Submission of the bids online through the Central Public Procurement Portal for e-Procurement at <https://eprocure.gov.in/eprocure/app>.

**SECTION I: INVITATION FOR BIDS (IFB)**

1. Bidder should take into account notifications, corrigendum published, if any on the tender document before submitting their bids.
2. Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Any deviations from these may lead to rejection of the bid.
3. The two-bid system will be followed for this tender. In this system, online offer should be submitted under TWO-BID system in two separate e-packets i.e. "Technical eBid" and "Commercial eBid".

**Online Envelope No. 1: "Technical Bid" shall contain (Pdf format only)**

- a. Scanned copy of Payment Advice (with DU number) for Tender Fee of Rs. 1,500/- (Rupees Fifteen hundred only) and EMD of Rs. 1,30,000/- (Rupees One Lakh Thirty Thousand only)

Payment Instructions:

Tender fee and EMD should be paid through SBI i-collect Link given below:  
<https://www.onlinesbi.com/sbicollect/icollecthome.htm?corpID=646425>

Step1. Click Check Box to proceed for payment.

Step2. Select S and P Tender Fee and EMD.

Step3. Fill all Details and Submit

(This online payment receipt may be provided in the on line Technical e-bid).

- b. A scanned copy of Authorization letter with proper seal and signature of the authorized person (with name, designation, email id & contact no.), as per the format attached at Annexure – D
- c. A scanned copy of Certificate of Incorporation, Partnership Deed/ Memorandum and Articles of Association/ any other equivalent document showing date and place of incorporation, as applicable.
- d. A scanned copy of the commercial bid without prices (prices blocked) and copy of commercial terms & conditions (in details) as included in the commercial bid. IITBh reserves the right to reject the bid in case of discrepancy observed in the un-priced commercial bid and the actual commercial bid.
- e. Scanned copy of audited balance sheet or the certificate from a Chartered Accountant for the financial year 2017-18, 2016-17 and 2015-16 indicating the annual sales turnover of the bidder.
- f. The detailed technical specification, make, model, part number & compliance of each item offered supported by the printed catalogue/ leaflet published by the Principal Manufacturer.
- g. Undertaking to the effect that a Performance Guarantee of 10% the order value will be submitted in case IIT Bhilai decides to place the Purchase Order.
- h. Undertaking to the effect that the terms and conditions, clauses etc. stipulated in this tender are acceptable.
- i. Other documents necessary in support of eligibility criteria, product catalogues, brochures etc.

*IITBh reserves the right to reject the bid if any of the above listed document/s is not submitted.*

**Online Envelope 2: "Commercial Bid" shall contain**

1. The Commercial Bid along with detailed terms and conditions, complete in all respects with proper seal and signature of authorized person with name, designation, e-mail id and contact no.
2. In case bidder requires any clarifications/ information, they may contact IITBH address given in the tender schedule.
3. Commercial bids of the qualified bidders only will be opened, in the presence of the bidders or their authorized representative of the bidders, who choose to attend, at the time place and date to be informed later. The authorized representative of bidders, present at the time of opening of the bids shall be required to sign an attendance register as a proof of having attended the commercial bid opening.
4. The bidder's name, bid prices, discounts and other appropriate details will be announced at the time of the opening of the commercial bids.
5. Commercial bids must be offered in the format attached.
6. The applicable exact rates of Taxes will be added as per above columns.
7. In case of any mistake or error in calculations or any discrepancy in price quoted in word and figures, the LOWEST amount will be considered for comparison. If this lowest price is not acceptable to the bidder, their bid will be rejected. In this case. IIT Bhilai reserves the right to forfeit their EMD.
8. IIT Bhilai reserves the right to place part orders. In case bidder requires any clarifications/ information, they may contact IITBH address given in the tender schedule.

(END OF SECTION I)

## SECTION II: INSTRUCTIONS TO BIDDERS (ITB)

### 1. Locations for the Supply, Installation & Warranty Services

The entire Setup as described as per the Technical Specifications given in the Section - IV must be supplied, installed, commissioned & supported at Indian Institute of Technology, Bhilai.

2. All the items covered in the Setup as per the technical specifications given in the Section – IV must be supplied within 24 weeks from the date of placement of order. Supplier should complete the installation within two Weeks from the date of supply.

### 3. Eligibility Criteria:

1. The bidder must be OEM or representative of the foreign concern in India
  - a) In a tender, either the Indian agent on behalf of the principle/ OEM itself can bid but both cannot bid simultaneously for the same item/ product in the same tender.
  - b) If an agent submits bid on behalf of the principle/OEM, the same agent shall not submit a bid on behalf of another principle/ OEM in the same tender for the same item/ product. There must be authorization letter for this tender reference issued by principle/ OEM in firm of the agent.
2. The bidder must have supplied similar system/ setup in at least 2 Indian Institutes of Technology (IITs) or at least 5 centrally funded technical institutes (CFTIs) or 3 international research institutes with QS ranking less than 300 in last 10 years. Complete list along with the contact details of the customers (as mentioned above) must be provided.
3. The committee reserves the right to reject the technical bid if above condition is not satisfied.
4. Committee also reserves the right to modify the stipulated eligibility criteria any time during the tenure of procurement.
5. Provision for pre-dispatch inspection if required.
6. Separate prices should be shown for (a) basic equipment (b) essential accessories (c) optional accessories (d) normal spares particularly of the items which are likely to sustain damage or failure in use.
7. For imported items, price may be quoted on both FOB and CIP basis
8. The bidder has to stand guarantee for the relocation of the equipment once the permanent campus of IIT Bhilai gets ready for shifting. This is the bidder's responsibility to dismantle the set up in temporary campus and re-install it to our Kutelabhatha Campus approx. 45 km away. The dismantling, packing, insurance, transport, material handling system support, unpacking, re-installation and commissioning of the system with test running and its conformity must be carried out by the bidder. Necessary charges for the same may be shown separately in their quotation. IIT Bhilai is likely to be shifted to its permanent campus within 04 years

*If in the view of bidder, any exemption/ relaxation is applicable to them from any of the eligibility requirements, under any Rules/ process/ Guidelines/ Directives of Government of India, bidder may submit their claim for the applicable exemption/ relaxation, quoting the valid Rule/ process/ Guidelines/ Directives. In this case the bidder must submit necessary and sufficient documents*

along with the technical bid, in support of his claim. The applicability of exemptions and /or validity of documents submitted by the bidders will be evaluated by the bid evaluation committee during technical evaluation of bids.

Note: The bidders should provide sufficient documentary evidence to support the eligibility Criteria. IITBH reserves the right to reject any bid not fulfilling the eligibility criteria.

#### **4. Amendment to Bidding Documents**

4.1 At any time prior to the deadline for submission of bids, IITBH may, for any reason, whether on its own initiative or in response to the clarification request by a prospective bidder, modify the bid document.

4.2 The amendments to the tender documents, if any, will be notified by release of Corrigendum Notice on institute website against this tender. The amendments/ modifications will be binding on the bidders.

4.3 IITBH at its discretion may extend the deadline for the submission of bids if it thinks necessary to do so or if the bid document undergoes changes during the bidding period, in order to give prospective bidders time to take into consideration the amendments while preparing their bids.

#### **5. Preparation of Bids**

Bidder should avoid, as far as possible, corrections, overwriting, erasures or postscripts in the bid documents. In case however, any corrections, overwriting, erasures or postscripts have to be made in the bids, they should be supported by dated signatures of the same authorized person signing the bid documents. However, bidder shall not be entitled to amend/ add/ delete/ correct the clauses mentioned in the entire tender document.

#### **6. Forfeiture of EMD**

6.1 In case of the bidder whose offer is accepted, the EMD will be returned on submission of Security Deposit. However, if the return of EMD is delayed for any reason, no interest/ penalty shall be payable to the bidder.

6.2 The successful bidder, on award of contract/ order, must send the contract/ order acceptance in writing, within 15 days of award of contract/ order, failing which the EMD will be forfeited and the order will be cancelled.

6.3 If the bidder withdraws the bid during the period of bid validity specified in the tender.

#### **7. Period of validity of bids**

7.1 Bids shall be valid for minimum 120 days from the date of submission. A bid valid for a shorter period shall stand rejected.

7.2 IITBH may ask for the bidder's consent to extend the period of validity. Such request and the response shall be made in writing only. The bidder is free not to accept such request without forfeiting the EMD/ BG. A bidder agreeing to the request for extension will not be permitted to modify his bid.

#### **8. Deadline for Submission of Bids – online only**

8.1 The Bid documents shall be neatly arranged. They should not contain any terms and conditions, printed or otherwise, which are not applicable to the Bid. *The conditional bid*

*will be summarily rejected.*

8.2 Bids must be received by IITBH before the due date and time at the address specified in the tender document.

8.3 IITBH may extend this deadline for submission of bids by amending the bid documents and the same shall be suitably notified on its website.

8.4 IIT Bhilai shall not be responsible and liable for the delay in receiving the bid for whatsoever reason.

## **9. Bid Opening & Evaluation of Bids**

9.1 The technical bids will be evaluated in two steps.

- The bids will be examined based on eligibility criteria stipulated at Section II Para 3 to shortlist the eligible bidders.
- The technical bids of only the short listed eligible bidders shall be evaluated based on technical specifications stipulated at Section – IV

9.2 The bidders whose technical bid is found to meet both the requirements as specified above will qualify for opening of the commercial bid and will be informed about the date and time of the opening of the commercial bid.

9.3 The duly constituted Tender Evaluation Committee (TEC) shall evaluate the bids. The TEC shall be empowered to take appropriate decisions on minor deviations, if any.

9.4 The bidder's name, bid prices, discounts and such other details considered as appropriate by IITBH, will be announced at the time of opening of the commercial bids.

## **10. Comparison of Bids**

10.1 Only the short-listed bids from the technical evaluation shall be considered for commercial comparison.

10.2 For comparison of prices, the prices quoted by the bidder for all the items taken together, as per Section – V: Price Bid shall be considered.

10.3 The bids shall be evaluated on the basis of the total prices including all taxes and duties.

10.4 For the purpose of comparison of prices on equal basis, the prices quoted in foreign currency (if any) by bidders shall be converted to equivalent Indian Rupees. The exchange rate as on the date of opening of technical bids shall be considered for the purpose of comparison.

## **11. Purchase Order**

11.1 IITBH shall issue purchase order to the eligible bidder whose technical bid has been accepted and determined as the lowest evaluated commercial bid based on the Grand Total calculated of all items + taxes etc. of the Commercial Bids. However, IITBH reserves the right and has sole discretion to reject the lowest evaluated bid.

11.2 If more than one bidder happens to quote the same lowest price, IITBH reserves the right to decide the criteria and further process for awarding the contract, decision of IITBH shall be final for awarding the contract.

## **12. End User Certificate (if applicable)**

IITBH can provide end user certificate in advance in order to save on time/ delivery period. However, this does not mean that the order shall be placed on the same bidder. The bidder may



submit the format of end user certificate at the earliest, preferably along with the technical bid.

**13. Purchaser's Right to amend / cancel**

- 13.1 IITBh reserves the right to amend the eligibility criteria, commercial terms & conditions, Scope of Supply, technical specifications etc.
- 13.2 IITBh reserves the right to cancel the entire tender without assigning any reasons thereof.
- 13.3 IITBh reserves right to place part orders.

**14. Corrupt or Fraudulent Practices**

- 14.1 It is expected that the bidders who wish to bid for this project have highest standards of ethics.
- 14.2 IITBh will reject bid if it determines that the bidder recommended for award has engaged in corrupt or fraudulent practices while competing for this contract.
- 14.3 IITBh may declare a vendor ineligible, either indefinitely or for a stated duration, to be awarded a contract if it at any time determines that the vendor has engaged in corrupt and fraudulent practices during the award / execution of contract.

**15. Interpretation of the clauses in the Tender Document / Contract Document**

In case of any ambiguity/ dispute in the interpretation of any of the clauses in this Tender Document, the interpretation of the clauses by Director, IITBh shall be final and binding on all parties.

(END OF SECTION II)

### SECTION III: SPECIAL CONDITIONS OF CONTRACT (SCC)

#### 1. Prices

- 1.1 The price quoted shall be considered firm on F.O.R. basis till IITBh and no price escalation will be permitted (except Govt. Statutory Levies).
- 1.2 Bidder can quote in Foreign Currency or INR.
- 1.3 For imported items, price may be quoted on both FOB and CIP basis.
- 1.4 Tenderer may bid on behalf of their principals abroad. In such case, the bidders must provide the details viz. name & address on whom the Supply Order/ Letter of Credit is to be placed/ established with bank/ account details etc. in their commercial bid. In such case the EMD and Performance Bank Guarantee must be provided by the bidder in INR.
- 1.5 If IITBh places import order in foreign currency directly on supplier abroad, the customs duty payable, if any after availing exemption under customs notification no. 51/96 (amended 24/2007) will be reimbursed at actual on submission of documentary proofs/ BoE etc. The Customs Duty Exemption certificate (CDE) will be issued in the name of supplier abroad and only if the order is placed in foreign currency.
- 1.6 Additionally, it may be noted that in respect of GST as per notification No.45/2017 central tax (Rate) dated 14.11.2017 and Notification No. 47/2017-Integrated Tax (Rate) dated 14.11.2017 and G.O.(MS) No.161 CT&RD dated 14.11.2017, the GST payable by IITBH is 5% only against the tariff rate.
- 1.7 The statutory taxes and duties applicable at the time of supply of material shall be applicable and will be reimbursed on submission of requisite documents/ proofs as the relevant Government Notification.
- 1.8 In case due to any error/ oversight, the GST/Customs Duty quoted by the bidder is less than the actual rate as per tariff, the bidder will not be permitted to rectify the error/oversight. The orders/ contract will be placed for the total amount including the (lower) rate/s quoted by the bidder, with reduced basic amount to the extent of difference in tax/duty amount, so that the total amount (basic + actual rate as per tariff), remains same (quoted basic + quoted rate). The difference amount payable, if any, between the quoted rate and actual rate as per tariff (without exemption) shall be borne by the bidder. The exemption certificate, if applicable, will be issued for the reduced basic amount only.

#### 2. Software Licenses

The software licenses, if any, shall be required in the name of user. The licenses shall contain paper licenses and at least one set of media (CDs) – wherever applicable. All software licenses quoted should be of perpetual.

#### 3. Performance Bank Guarantee (PBG)

The successful bidder to submit performance security for an amount of 10% of the order value in the form of BG from any nationalized bank and should be valid for 60 days beyond the date of completion of all contractual obligation including warranty obligation. And it will be returned after 60 days beyond warranty period.

#### 4. Completeness Responsibility

Notwithstanding the scope of work, engineering, supply and services stated in bid document,

any equipment or material, engineering or technical services which might not be even specifically mentioned under the scope of supply of the bidder and which are not expressly excluded there from but which – in view of the bidder - are necessary for the performance of the equipment in accordance with the specifications are treated to be included in the bid and has to be performed by bidder. The items which are over & above the scope of supply specified in the Schedule of Requirements may be marked as “Optional Items”.

## **5. Warranty**

All the equipment's and components supplied must have 3 (Three) years covering all parts & labour starting from the date after the successful installation, during the warranty period, Bidder will have to undertake comprehensive maintenance of the entire hardware components, equipment, support and accessories supplied by the Bidder at the place of installation of the equipment.

The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract. The supplier further warrants that all Goods supplied under this contract shall have no defect arising from design, materials or workmanship (except when the design and/or material is required by the Purchaser's specifications) or from any act or omission of the supplier. The warranty should be comprehensive on site, repair/replacement basis free of cost.

The defects, if any, during the guarantee/warranty period are to be rectified free of charge by arranging free replacement wherever necessary.

Goods requiring warranty replacements must be replaced on free of cost basis.

Collecting of faulty Hardware from onsite and provisioning the replacement of Hardware under warranty at onsite shall be the responsibility of the supplier.

IIT Bhilai reserves the right to invoke the Performance Bank Guarantee submitted by bidder, in case a) Supplied equipment & Software components fail to achieve the performance as stipulated in this document and / or b) The bidder fails to provide the warranty and other services in scheduled time frame, as stipulated in this document, penalty clauses mentioned under point 9 of this tender shall be applicable.

## **6. Payments**

6.1. For foreign currency payments: 90% of the payment will be made through irrevocable Letter of Credit (LC) at site. 10% on successful installation, commissioning and acceptance by IITBh through SWIFT, any loss due to fluctuation in foreign exchange rates will be at beneficiary account.

The LC operating charges inside India will be to IITBh account and those outside India will be to beneficiary account. The LC confirmation charges & LC amendment charges, if requested/ required, will be to beneficiary account.

6.2. For INR Payment by NEFT – 90% against delivery and submission of Performance bank Guarantee and 10% against Installation, commissioning & acceptance by IITBh within 30 Days.

6.3. Payments towards AMC shall be paid at the end of each quarter.

**7. Ship to:**

The Director,  
Indian Institute of Technology, Bhilai  
GEC Campus, Sejbahar, Raipur – 492 015 Chattisgarh, INDIA

**8. Liquidated Damage:**

IIT Bhilai reserves the right to levy penalty @ of 1 % of order value per week of delay in supply and /or installation, beyond the schedule as mentioned in this tender document subject to maximum of 10% of the order value. IITBH reserves the right to cancel the order in case the delay is more than 06 weeks. The delay in delivery and/or installation not attributed to supplier viz. delay in site preparation, delay in submission of required documents etc. and the conditions arising out of Force Majeure will not be considered for the purpose of calculating penalties.

**9. Force Majeure**

IIT Bhilai may consider relaxing the penalty and delivery requirements, as specified in this document, if and to the extent that, the delay in performance or other failure to perform its obligations under the contract is the result of a Force Majeure. Force Majeure is defined as an event of effect that cannot reasonably be anticipated such as acts of God (like earthquakes, floods, storms etc.), acts of states / state agencies, the direct and indirect consequences of wars (declared or undeclared), hostilities, national emergencies, civil commotion and strikes at successful Bidder's premises or any other act beyond control of the bidder.

**10. Arbitration**

All disputes/claims of any kind arising out of supply, commissioning, acceptance, warranty maintenance etc. under this Contract, shall be referred by either party (IIT Bhilai or the bidder) after issuance of 30 days' notice in writing to the other party clearly mentioning the nature of dispute to the Sole Arbitrator appointed by IIT Bhilai. The venue for arbitration shall be specified in the purchase order/agreement. The arbitration proceedings shall be conducting in English and as per the provisions of Indian Arbitration and Conciliation Act, 1996. The decision of the Arbitrator shall be final and binding on both the parties.

**11. Jurisdiction**

The disputes, legal matters, court matters, if any shall be subject to Raipur jurisdiction only.

**12. Risk and Ownership**

Upon 90% of payment, IIT Bhilai shall become owners of goods ordered but all risks, responsibilities; liabilities thereof in all goods shall remain with selected bidder till delivery of all goods to all end users. Part deliveries shall not be treated as deliveries. Only full deliveries of all items ordered will be considered as delivery.

**13. Indemnity**

Selected bidder shall save, indemnify and hold harmless IIT Bhilai from any third-party Govt. Claims, losses penalties, if any, arising in connection with this Contract.

**14. Assignment**

Selected bidder/ Party shall not assign, delegate or otherwise deal with any of its rights or obligation under this Contract without prior written permission of IIT Bhilai.

**15. Severability:**

If any provision of this Contract is determined to be invalid or unenforceable, it will be deemed to be modified to the minimum extent necessary to be valid and enforceable. If it cannot be so modified, it will be deleted and the deletion will not affect the validity or enforceability of any other provision.

**(END OF SECTION III)**

**Section – IV: TECHNICAL SPECIFICATIONS**  
**OF**  
**CNC LINEAR FRICTION STIR WELDING MACHINE**

Friction stir welding is a solid state joining process. It is performed in three stages namely plunging, dwelling (or heating) and welding. IIT Bhilai intend to purchase a 40 kN computer numerical controlled (CNC) linear friction stir welding machine that is capable to perform all stages of friction stir welding process. The machine should be better or as per below specification

<b>Technical Specification for CNC Friction Stir Welding machine</b>		
<b>S. No.</b>	<b>Feature</b>	<b>Specification</b>
	<b>Spindle</b>	
1	Spindle speed (Servo controlled clockwise and anticlockwise direction)	Upto 3000 RPM or higher (infinite variation)
2	Spindle torque	85 N-m or higher @1650 rpm
3	Thrust load on spindle	40 kN or higher
4	FSW Tool collet	(a) 40 Tapper as per the appropriate standard (b) Suitable tool holding mechanism with appropriate collet and lock nut should be provided (c) Suitable collet of size 5, 8, 12,16,20 and 25 mm should be provided
5	Tools for welding	Tools should be provided to weld Aluminum and magnesium alloy
6	Tilt angle (Manual or servo control)	+/- 5° (or higher) with a least count of 0.5°
	<b>Axis Travel</b>	
7	X axis (Servo control)	400 mm or higher, 10 micron resolution or better; repeatability and accuracy of 10 micron or better
8	Y axis	70 mm or higher (In case of manual travel, suitable conversion factor should be provided exactly define the linear movement)
9	Z axis (Servo control)	150 mm or higher, (10 micron resolution or better; repeatability and accuracy of 5 micron or better)
10	Welding direction	X Axis
	<b>Table Size</b>	

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11	X- Direction		600 mm or higher
12	Y- Direction		300 mm or higher
13	Worktable and its Clamping		(a) Arrangement must be provided with atleast 4 clamps to hold upto 12 mm thickness of the material on the worktable (b) Arrangements should be made so that the work table and clamps does not get rust/corrosion either by choosing appropriate material, coating etc.
<b>Feed Rate</b>			
14	X axis		Upto 500 mm/min or higher with infinite variation
15	Z axis (for tool plunging)		Upto 40 mm/min or higher with infinite variation
<b>Controller</b>			
16	Control system		Latest Siemens, FANUC CNC control or equivalent OEM
17	HMI/Computer system to perform FSW		Computer with i3 processor (or better), Memory ( min. 500GB) and RAM (min. 6GB) with display monitor (LCD, min. 21 inch) with latest windows OS
<b>Weld ability</b>			
18	Specimen size to be welded	X – Direction	300 mm or higher
19		Y – Direction	200 mm or higher
20	Material To be Weld		Aluminum, copper, Magnesium and steel alloys
21	Minimum thickness		0.5 mm or lower
22	Maximum Thickness		5 mm or higher (3 mm or higher for the steel and 12 mm or higher for aluminum)
23	Welding option		Displacement and force control
24	Material configurations		Similar and dissimilar materials
25	Joint configurations		Butt and Lap configuration
<b>Hydraulic and Cooling system</b>			
26	Cooling		Spindle should be liquid cooled and proper cooling mechanism should be provided to protect internal parts and circuits. Machine

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			should automatically stop in case of faulty cooling system or temperature has gone beyond a critical value.
27	Vibration Control		Control with anti-vibration pads, Machine should not vibrate or produce noise during any stage of FSW process.
28	Hydraulic Oil		ISO 68 or equivalent standard, Hydraulic tank of required capacity should be provided for the proper functioning of the machine.
29	Electric supply		Maximum 440 V
	<b>Data acquisition system and sensors:</b>		
30	Data acquisition system		<p>Various sensors should be fitted within the machine to measure and display following variable with respect to time</p> <ul style="list-style-type: none"> <li>• Force (X and Z direction),</li> <li>• Torque (Z direction),</li> <li>• Spindle rpm,</li> <li>• welding speed,</li> <li>• spindle motor power consumption</li> <li>• feed motor power consumption</li> </ul>
31	Display panel for data input, diagnostic and control		<p>(a) An interface to communicate with the machine for providing various input parameters (Rotation speed, traverse speed, plunge depth etc.) to perform welding</p> <p>(b) To view all sensors data in real time during the ongoing process</p> <p>(c) Automatic storage of each individual weld parameter in a systematic matter:</p> <p>(i) The file must be stored in MS Excel (.xlsx/.csv) for easy viewing, transfer and processing in the local computer of the user</p> <p>(ii) The file must contain all sensors data from the start to the end of the process</p> <p>(iii) It should have provision for internet connection for transferring the data</p>
32	Force measurement through load cell	X axis	5 kN or higher
33		Z axis .	40 kN or higher
34	Accuracy of measurement system		0.2% or Better
35	Documentation		<p>The following documents (hard copy 2 sets &amp; soft copy in CD/ Flash Drive/ HDD)</p> <ol style="list-style-type: none"> <li>1. All the data and results of testing and calibration of the entire system at supplier site as well as IIT Bhilai site shall be properly documented and supplied to IIT-Bhilai.</li> <li>2. Calibration Certificates (traceable to National / International Standard) of all the</li> </ol>



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		<p>artifacts/ reference standards used for the same shall be provided.</p> <p>3. Operations, calibration, application software manual - This document should explain all the measurement options, calibration, application of the system with sketches and detailed explanation.</p> <p>4. System administration &amp; maintenance manual - This document should explain the detailed system configuration and administration with the help of sketches. System manual should explain known possible errors and solution for the same. The safety instructions need to be clearly mentioned in this document.</p> <p>5. User manual and service manual (for both Mechanical and Electronic Hardware/ Circuits) in English language should also be provided.</p> <p>6. Manuals of third party items such as controller etc.</p>
36	<p>IIT Bhilai is currently operating from its transit campus in GEC Raipur and the location where machine will be installed has space constraint. In order to have a smooth installation and commissioning of the machine it is recommended that overall height and width/Length of the machine/packaging should not be more than 7.5 and 8 feet respectively. <b>Suppliers are welcome to visit our transit campus during pre-bid meeting and look at the lab space. Bidder should send the drawings of machine with various dimension.</b> Failing to meet space requirement may lead to rejection of tender.</p>	
	<p><b>Inspection, installation, commissioning and training</b></p>	
37	<p>All the essential requirements ensuring ready-to-use set up at IIT Bhilai.</p>	
38	<p>Commissioning as per the test charts both for geometric and welding performances.</p>	
39	<p>Standard training at IIT Bhilai</p>	
	<p><b>Warranty</b></p>	
40	<p>The machine shall have Comprehensive warranty for a minimum period of 3 years after commissioning for defect-free operation and specified accuracies at IIT- Bhilai. Preventive maintenance should be done twice a year.</p>	
41	<p>Any defect observed during the warranty period shall be replaced/repaired free of cost with minimum down time. All the software updates during the warranty period shall be supplied, installed and trained to our personnel on real time basis at free of cost.</p>	

**Note: Bidder has to upload the documents related to technical compliance.**

(Signature of the tenderer)

Name:

Seal of the Company

**ANNEXURE A**

**PROFORMA OF BANK GUARANTEE**  
**(on non-judicial paper of appropriate value)**

To,

**The Director**  
**Indian Institute of Technology Bhilai,**  
**GEC Campus, Old Dhamtari Road**  
**Sejbahar, Raipur 492015 Chhattisgarh**

BANKS GUARANTEE NO:

DATE:

Dear Sir(S)

This has reference to the Purchase Order No. \_\_\_\_\_ Dated \_\_\_\_\_ been placed by Indian Institute of Technology Bhilai (IITBH), Raipur on M/s \_\_\_\_\_ (Name & Address of Bidder) for supply, installation, commissioning and warranty of \_\_\_\_\_ (description of items) at client's site.

The conditions of this order provide that the Bidder shall,

1. Arrange to deliver the items listed in the said order to the consignee, as per details given in said order, and
2. Arrange to install and commission the items listed in said order at client's site, to the entire satisfaction of IITBH and
3. Arrange for the warranty service support towards the items supplied by Bidder on site as per the warranty clause in said purchase order.

M/s (Name of bidder) has accepted the said purchase order with the terms and conditions stipulated therein and have agreed to issue the performance bank guarantee on their part, towards promises and assurance of their contractual obligations vide the Supply Order No. \_\_\_\_\_ M/s. \_\_\_\_\_ (name of vendor) holds an account with us and has approached us and at their request and in consideration of the promises, we hereby furnish such guarantees as mentioned hereinafter.

IITBH shall be at liberty without reference to the Bank and without affecting the full liability of the Bank hereunder to take any other undertaking of security in respect of the suppliers obligations and / or liabilities under or in connection with the said contract or to vary the terms vis-a – vis the supplier or the said contract or to grant time and or indulgence to the supplier or to reduce or to increase or otherwise vary the prices or the total contract value or to forebear from enforcement of all or any of the obligations of the supplier under the said contract and/or the remedies of IITBH under any security now, or hereafter held by IITBH and no such dealing(s) with the supplier or release or forbearance whatsoever shall have the effect of releasing the bank from its full liability of IITBH hereunder or of prejudicing right of IITBH against the bank.

This undertaking guarantee shall be a continuing undertaking guarantee and shall remain valid and irrevocable for all claims of IITBH and liabilities of the supplier arising up to and until \_\_\_\_\_ (date).

This undertaking guarantee shall be in addition to any other undertaking or guarantee or security whatsoever that IITBH may now or at any time have in relation to its claims or the supplier's obligations/ liabilities under and / or in connection with the said contract and

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IITBH shall have the full authority to take recourse to or enforce this undertaking guarantee in preference to the other undertaking or security(ies) at its sole discretion and no failure on the part of IITBH in enforcing or requiring enforcement of any other undertaking or security shall have the effect of releasing the bank from its full liability hereunder.

We\_\_\_\_(Name of Bank) hereby agree and irrevocably undertake and promise that if in your (IITBH's) opinion any default is made by M/s\_\_\_\_\_(Name of bidder) in performing any of the terms and /or conditions of the agreement or if in your opinion they commit any breach of the contract or there is any demand by you against M/s\_\_\_\_\_(Name of bidder), then on notice to us by you, we shall on demand and without demur and without reference to M/s\_\_\_\_\_(Name of bidder), pay you, in any manner in which you may direct, the amount of Rs.\_\_\_\_\_/-( Rupees\_\_\_\_\_ Only ) or such portion thereof as may be demanded by you not exceeding the said sum and as you may from time to time require. Our liability to pay is not dependent or conditional on your proceeding against M/s\_\_\_\_\_(Name of bidder) and we shall be liable & obligated to pay the aforesaid amount as and when demanded by you merely on an intimation being given by you and even before any legal proceedings, if any, are taken against M/s\_\_\_\_\_(Name of bidder)

The Bank hereby waives all rights at any time inconsistent with the terms of this undertaking guarantee and the obligations of the bank in terms hereof shall not be anywise affected or suspended by reason of any dispute or disputes having been raised by the supplier (whether or not pending before any arbitrator, Tribunal or Court) or any denial of liability by the supplier or any order or any order or communication whatsoever by the supplier stopping or preventing or purporting to stop or prevent payment by the Bank to IITBH hereunder.

The amount stated in any notice of demand addressed by IITBH to the Bank as claimed by IITBH from the supplier or as suffered or incurred by IITBH on the account of any losses or damages or costs, charges and/or expenses shall as between the Bank and IITBH be conclusive of the amount so claimed or liable to be paid to IITBH or suffered or incurred by IITBH, as the case may be and payable by the Bank to IITBH in terms hereof.

You (IITBH's) shall full liberty without reference to us and without affecting this guarantee, postpone for any time or from time to time the exercise of any of the powers and rights conferred on you under the contact with the said M/s\_\_\_\_\_(Name of bidder) and to enforce or to forbear from endorsing any power or rights or by reason of time being given to the said M/s\_\_\_\_\_(name of bidder) which under law relating to the sureties would but for the provisions have the effect of releasing us.

You will have full liberty without reference to us and without affecting this guarantee, postpone for any time or from time to time the exercise of any of the powers and rights conferred on you under the contract with the said M/s\_\_\_\_\_(Name of bidder) and to enforce or to forbear from endorsing any power or rights or by reason of time being given to the said M/s\_\_\_\_\_(Name of bidder) which under law relating to the sureties would but for the provisions have the effect of releasing us.

Your right to recover the said sum of Rs.\_\_\_\_\_/-( Rupees\_\_\_\_only) from us in manner aforesaid will not be affected/ or suspended by reason of the fact that any dispute or disputes have been raised the said M/s\_\_\_\_\_(Name of bidder) and/ or that any dispute or disputes are pending before any officer, tribunal or court or Arbitrator.

The guarantee herein contained shall not be determined or affected by the liquidation or winding up, dissolution or change of constitution or insolvency of the said M/s\_\_\_\_\_(Name of bidder) but shall in all respects and for all purposes be binding and operative until payment of

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all dues to IITBH in respect of such liability or liabilities.

Our liability under this guarantee is restricted to Rs. \_\_\_\_\_/-  
(Rupees \_\_\_\_\_ Only). Our guarantee shall remain in force until unless a suit action to enforce a claim under guarantee is filed against us within six months from (which is date of expiry of guarantee) all your rights under the said guarantee shall be forfeited and we shall be relieved and discharged from all liabilities there under.

We have power to issue this guarantee in your favour under Memorandum and Articles of Association of our Bank and the undersigned has full power to do under the power of Attorney dated.

Notwithstanding anything contained herein:

- a) Our liability under this guarantee shall not exceed Rs \_\_\_\_\_ (in words)
- b) This bank guarantee shall be valid up to \_\_\_\_ & unless a suit for action to enforce a claim under guarantee is filed against us within six months from the date of expiry of guarantee. All your rights under the said guarantee shall be forfeited and we shall be relieved and discharged from all liabilities there after i.e. after six months from the date of expiry of this Bank guarantee
- c) We are liable to pay the guaranteed amount or any parts thereof under this bank guarantee only and only if you serve upon us a written claim or demand or before \_\_\_\_\_
- d) The Bank guarantee will expire on (Min 18 months from the date of successful installations of the items in the order) \_\_\_\_\_ Granted by the Bank

Signature of the authorized officer of the bank  
Name of the officer \_\_\_\_\_  
Designation of the officer \_\_\_\_\_  
Seal, name and address of the Bank and address of the Branch.

**ANNEXURE B**

**TENDER ACCEPTANCE LETTER**  
**(To be submitted on Company Letter Head)**

Date: \_\_\_\_\_

To,

**The Director**  
**Indian Institute of Technology Bhilai,**  
**GEC Campus Sejbahar,**  
**Raipur 492015 Chhattisgarh**

**SUB:** Acceptance of Terms & Conditions of Tender.

**Tender Reference No./ Date:**

**Name of Tender / Work:**

**Dear Sir,**

1. I / We have downloaded / obtained the tender document(s) for the above mentioned 'Tender/Work' from the web site(s) namely: [www.iitbhilai.ac.in](http://www.iitbhilai.ac.in), <http://eprocure.gov.in/eprocure/app> as per your NIT / advertisement, given in the above-mentioned website(s).
2. I / We hereby certify that I / We have read the entire terms and conditions of the tender documents (including all documents like annexure(s), schedules(s), etc.), which form part of the contract agreement and I / We shall abide hereby by the terms / conditions/ clauses contained therein.
3. The corrigendum(s) issued from time to time by your department / organization too has also been taken into consideration, while submitting this acceptance letter.
4. I / We hereby unconditionally accept the tender conditions of above mentioned tender document(s) / corrigendum(s) in its totality / entirety.
5. I / We do hereby declare that our Firm has not been blacklisted / debarred by any Govt. Department/Public sector undertaking.
6. I / We certify that all information furnished by our Firm is true & correct and in the event that the information is found to be incorrect/untrue or found violated, then your department/ organization shall without giving any notice or reason therefore or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of the fully said earnest money deposit absolutely.

**Yours Faithfully,**

**Authorized Signatory:**  
**(Signature of the Bidder, with Official Seal)**

**ANNEXURE C**

**AUTHORITY LETTER**

(To be submitted on Company Letter Head)

**AUTHORIZATION**

We \_\_\_\_\_ (name of the bidder) hereby authorise Shri / Smt. \_\_\_\_\_ (name of the authorised person) to sign and submit the bid to IITBH against their Tender No. \_\_\_\_\_ dated \_\_\_\_\_. Shri / Smt. \_\_\_\_\_ (name) is also authorised to negotiate the terms and conditions pertaining to the said tender on behalf of M/s \_\_\_\_\_ (name of bidder). The specimen signature of Shri / Smt. \_\_\_\_\_ (name) is appended below.

Specimen Signature:

Name:

The undersigned is authorised to delegate the authority on behalf of M/s \_\_\_\_\_ (name of bidder), as stipulated above

For \_\_\_\_\_  
(name of bidder)

Signature & Company Seal:

Name:

Designation:

Email:

Mobile No.:

**ANNEXURE D**

**BANK GUARANTEE FORMAT FOR FURNISHING BID SECURITY (EMD)**

(To be submitted on Bank Letter Head)

Whereas ..... (hereinafter called the “tenderer”) has submitted their offer dated.....for the supply of ..... (hereinafter called the “Tender”) against the Purchaser’s tender enquiry 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 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 (IIT Bhilai) 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 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 of the officer \_\_\_\_\_  
Designation of the officer \_\_\_\_\_  
Seal, name and address of the Bank and address of the Branch.

**ANNEXURE E**

**SUMMARY INFORMATION SHEET**  
**(To be submitted on Company Letter Head)**

<b>Sr.</b>	<b>Information heading</b>	<b>Details</b>
1	Name of the Vendor	
2	Name of the person(s) to whom, all references shall be made, regarding this TENDER/PROJECT (Authorized Signatory)	
3	Address of the Contact Person	
4	Designation of the Contact Person	
5	Telephone number(s) of the Contact Person.	
6	Mobile number of the Contact Person	
7	Fax number of the Contact Person	
8	Email ID(s) of the Contact Person	
9	Annual Turnover (in Lakhs): Last three Years (In INR)	1)
		2)
		3)
10	Years of Operation (in Years):	
11	PAN Number	
12	GSTN	
13	Bank Name and Account No.	
14	IFS Code	

Authorized Signatory:  
(Signature of the Bidder, with Official Seal)



**ANNEXURE F**

**PREVIOUS WORK ORDER DETAILS**

(To be submitted on Company Letter Head)

<b>S. No.</b>	<b>Evaluation Criteria</b>	<b>Name of the Client with Order No. &amp; date</b>	<b>Date of Satisfactory Completion Certificate Issued by the Client</b>	<b>Remarks</b>
1	Experience in supplying and installing of similar setup/equipment in at least 2 Indian Institutes of Technology (IITs) or at least 5 centrally funded technical institutes (CFTIs) or 3 international research institutes with QS ranking less than 300 in last 10 years.			Supporting Documents are to be attached.

Authorized Signatory:  
(Signature of the Bidder, with Official Seal)

**ANNEXURE G**

**TURNOVER DETAILS**

(To be submitted on Company Letter Head)

Evaluation Criteria			Remark
Bidder's Annual Turnover for last three financial years	Financial Year	Turnover in Rs.	Supporting Documents are to be attached.

Authorized Signatory:  
(Signature of the Bidder, with Official Seal)

**ANNEXURE H**

**CHECK LIST - UNDERTAKING**

<b>S.NO</b>	<b>Document Description</b>	<b>Enclosed (Yes/No)</b>	<b>Page No.</b>	<b>Remarks</b>
1	Scanned copy of online payment receipt of Rs. 1,500/- towards tender fee.			
2	Scanned copy of online payment receipt of Rs. 1,30,000/- or MSME/NSIC Exemption certificate towards EMD.			
3	Scanned copy of OEM/ Authorized dealer certificate			
4	Details of Similar type of setup/Equipment, as per Tender			
6	Annual turnover details for last three years			
7	Scanned signed copies of Annexures from A to G			
8	Scanned copy of Technical Compliance			

I / We do hereby declare that all the above mentioned documents are enclosed as per the tender document.

Authorized Signatory:  
(Signature of the Bidder, with Official Seal)