

“Supply and Installation of an Internal Combustion Engine Setup with Transient Dynamometer and Other Engine Accessories at IIT Bhilai”



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

Indian Institute of Technology Bhilai (IITBh), an autonomous body under the Ministry of Human Resource Development, Govt of India invites e-bid for *“Supply and Installation of an Internal Combustion Engine Setup with Transient Dynamometer and Other Engine Accessories at IIT Bhilai”*. Tender Documents may be downloaded from Central Public Procurement Portal <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. 1,500/- (non-refundable) by Demand Draft favouring Director, IIT Bhilai payable at Raipur.

Invitation for Bids (IFB) No & date	IITBh/ME/2018-19/T031 date 04.10.2018
Place of Supply, Installation & Commissioning, Support etc.	Indian Institute of Technology Bhilai, GEC Campus, Old Dhamtari Road, Sejbahar, Raipur 492015 Chhattisgarh
Date of Prebid	October 15 th , 2018, 1500 Hrs
Last Date of Submission of Bids	November 5 th , 2018, 1500 Hrs
Date of Opening of Technical Bids	November 6 th , 2018, 1515 Hrs
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 E: administration@iitbhilai.ac.in <i>For technical enquiries</i> E: pravesh@iitbhilai.ac.in

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 enrol on the e-Procurement module of the portal <http://eprocure.gov.in/eprocure/app> by clicking on the link “Click here to Enrol”. 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 1800 233 7315.

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 Demand Draft towards tender fee of Rs. 1,500/- (Rupees One Thousand Five Only) drawn in favour of Director, IIT Bhilai payable at Raipur. Demand draft/ Bank Guarantee towards EMD of Rs.86,000/- (Rupees Eighty Six Thousand only) drawn in favour of **Director, IIT Bhilai** payable at **Raipur**. The Demand Draft/ bank Guarantee must reach physically at the place of Opening of the Tender on or before the Due Date & Time of the Tender Submission.
 - b. A scanned copy of Authorization letter with proper seal and signature of the authorised person (with name, designation, email id & contact no.), as per the format attached at **Annexure – C**
 - 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. The manufacturer of equipment must have supplied and experienced in installing three similar engine setup in industry/industries and three Indian Institutes of Technology (IITs). Complete list along with the contact details of such customers, Documentary evidence (like Customers Feedback, performance certificate etc.) must be provided.
 - e. 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.
 - f. 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.
 - g. The detailed technical specification, make, model, part number & compliance of each item offered supported by the printed catalogue/ leaflet published by the Principal Manufacturer.
 - h. 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.
 - i. Undertaking to the effect that the terms and conditions, clauses etc. stipulated in this tender are acceptable.

“Supply and Installation of an Internal Combustion Engine Setup with Transient Dynamometer and Other Engine Accessories at IIT Bhilai”

- j. 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

The Commercial Bid along with detailed terms and conditions, complete in all respects with proper seal and signature of authorised person with name, designation, e-mail id and contact no.

- 4. In case bidder requires any clarifications/ information, they may contact IITBH address given in the tender schedule.
- 5. 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.

The bidder’s name, bid prices, discounts and other appropriate details will be announced at the time of the opening of the commercial bids.

(END OF SECTION I)

SECTION II: INSTRUCTIONS TO BIDDERS (ITB)

1. Locations for the Supply, Installation & Warranty Services

The entire products as described in Schedule of Requirements at **Section - IV** must be supplied, installed, commissioned & supported at Indian Institute of Technology, Bhilai.

2. All the items covered in the Schedule of Requirements at Section – IV must be supplied within **06 – 08 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 manufacturer of equipment must have supplied and experience in installing three similar engine setup in industry/industries and three Indian Institutes of Technology (IITs). Complete list along with the contact details of such customers, Documentary evidence (like Customers Feedback, performance certificate etc.) must be provided.
3. IIT Bhilai may consider to take feedback from the bidder’s previous customers about the similar setups.
4. The committee reserves the right to reject the technical bid if above condition is not satisfied.
5. Committee also reserves the right to have relaxation on eligibility criteria any time during the tenure of procurement.
6. Provision for pre-dispatch inspection if required.
7. Separate prices must be shown for items listed in the technical specifications which are likely to sustain damage or failure in use.
8. Bidder must assure to supply spare items/parts for engine setup for at least ten years. Necessary charges for the same may be shown separately in their quotation.
9. For imported items, price may be quoted on both FOB and CIP basis.
10. 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 dismounting, 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.

11. Bidder must supply all the components listed in the technical specifications.

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. Award of Contract

11.1 IITBH shall award the contract 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 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.
- 1.7 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 03 (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 NEFT, 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% after Delivery, 10% after 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 **specified period**. 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: Schedule of Requirements

SN	Technical Specifications	
1.	AC Transient Dynamometer with Controller	<p>AC Servo Motor Dynamometer with Drive and motor mounting frame</p> <ul style="list-style-type: none"> • AC Motor: 45 kW or higher. • Base Speed: 2500 RPM or higher. • Rated Torque: 135 N-m or higher at 2500 RPM • Power: Rated Power should be in the range of 2500-3700 RPM or higher speed • Max Speed: 6000 RPM or higher • Controlling Accuracy: <p>Full Throttle Performance</p> <ul style="list-style-type: none"> o Torque Controlling: ± 0.25 % of Full Range or better o Speed Control: ± 2 RPM of Full range or better <p>Part Throttle Performance</p> <ul style="list-style-type: none"> o Torque Controlling: ± 0.5 % of Full Range or better o Speed Control: ± 5 RPM of Full range or better <p>The main shaft of the Dynamometer should be fitted with flange coupling at Driving end. The Dynamometer must be suitable for loading the prime mover under test in both directions of rotation (Bi-Directional) and should be capable to test from Single Cylinder Engines (Motorcycle Engines) & CRDI Single Cylinder Engines up to 4 Cylinder CRDI engines up to 1250 CC.</p> <p>The Control and Regenerative unit should be mounted on a separate Panel. The Load/Torque indicator must have a resolution of minimum 0.1 N-m. Dynamometer Controller should display the RPM with a resolution of ± 1 RPM or better. Dynamometer controller (Interface for AC Drive with INT/EXT controls): Provision for Constant speed operation, Constant Torque operation with safety Features of over speed, over torque and overheating from computer.</p>
2	Load Cell	Suitable Load Cell (Range: 0-150 kg or wider, Accuracy: 0.05% of FSD or better)
3	Cardan shaft and Cardan shaft guard	Cardan Shaft: Propeller shaft must be capable to take up to 400 N-m torque. Cardan Shaft guard must be provided made up of MS or steel.
4	Throttle Lever Position Actuator with controller	Throttle Lever Position Actuator with controller: Response Time- better than 20 ms or better at no load and 80 ms or better at nominal positioning force/torque (200 N/ 4 Nm) with Control Accuracy better than 0.05%.
5	Universal Engine Mounting Test bed	With all accessories for easy mounting and change of engines of different type [Single cylinder engine (Like Kirlosker TV-1/ DM10), Double Cylinder Engines (Tata Ace or Similar), Motorcycle engines etc.]. Heavy duty rigid Dyno & Engine universal mounting Structure with appropriate couplings and vibration dampening. Universal Test

“Supply and Installation of an Internal Combustion Engine Setup with Transient Dynamometer and Other Engine Accessories at IIT Bhilai”

		bed should have minimum size of 1000 mm × 1000 mm. Bed type should be T-slot for fixing the engine which should be made up of cast iron. Test bed should have 6 degree of freedom in X, Y and Z coordinates including negative and positive directions for initial adjustment during engine installation. X degree of freedom should be minimum ± 400 mm. Y degree of freedom should be minimum ±300 mm. Z direction of freedom should be minimum ±100 mm. IIT Bhilai will provide only the necessary small civil construction modifications and necessary electrical AC power supply. Necessary training and tools for alignment and operation of different type of engines on test bed needs to be provided
6	Common Base Frame	Heavy Duty Fabricated and Machined Common Base Frame with Machined Pads must be provided for Mounting various Equipment's like Dynamometer, Universal Engine Mounting Bed, Throttle Actuator etc. The Frame must be Provided with Anti Vibration Mounts for Mounting and levelling on Ground and Isolators for Dynamometer Isolation.
7	Gravimetric Fuel Consumption meter	Accuracy: ± 0.5% of fsd for weight or better, ± 0.1 s for time or better and overall accuracy within ± 0.5% of fsd.
8	Heavy Duty Rotary Encoder	Heavy Duty hollow shaft rotary encoder with resolution of 3600 PPR or higher
9	Temperature Sensors and Pressure Transducers	<p>Suitable Temperature Sensors and Pressure Transducers of recognised make on a panel.</p> <ul style="list-style-type: none"> • For Lubricating Oil Pressure- (0 – 10 bar Gauge) – 1 No. (Accuracy: ± 0.15 % of FSD or better) • For Inlet air pressure- (0 – 10 bar Gauge) – 1 No. (Accuracy: ± 0.15 % of FSD or better) • For Exhaust gas pressure- (0 – 10 bar Gauge) – 1 No. (Accuracy: ± 0.15 % of FSD or better) • For Barometric pressure (0 – 1.6 bar Absolute) – 1 No (Accuracy: ± 0.15 % of FSD or better) • RTD PT-100 (Range: 0 – 200°C, Accuracy: ± 0.5 % of FSD or better)-4 Nos. including mounting adapter and connection accessories • Thermocouples with compensating cable & connector (Range: 0 – 1000°C, Accuracy: ± 0.5 % of FSD or better)- 2 Nos. including mounting adapter and connection accessories <p>Indication of Temperatures & Pressures should be provided on PC.</p>
10	Engine Start Stop and Emergency Controller	Engine Start Stop Controller with emergency stop must be provided in the controller side.

“Supply and Installation of an Internal Combustion Engine Setup with Transient Dynamometer and Other Engine Accessories at IIT Bhilai”

11	Control and interface computer	Control Desk with PC Controls for Engine Test Bed with Windows Software. Appropriate racks for housing various controls and accessories.
12	Cables and other installation materials	Associated Cables, Conduits & other Installation material, System Engineering, Design & Integration, Project management & documentation and installation at IIT Bhilai.
13	Cooling tower and accessories	Cooling Tower should be equipped with Centrifugal Pump for Raw Water feeding. <ol style="list-style-type: none"> 1. Starter and Cable for Pump must be included. 2. Stater for Cooling Tower Fan Motor must be included. 3. Cooling tower must be compatible for the engine system and must be capable to function properly for the rated load and rated power engine operating conditions. 4. Supplier will be responsible to install the cooling tower in conjunction with the engine setup.
14	Engine with Harness	Engine must be equipped with CRDI fuel injection system, twin Cylinder, four Stroke Diesel Engine with Mounting Arrangements, Flywheel Adapter, Engine wiring Harness, Required Cables, Silencer etc.
15	Data acquisition system for temperature and pressure measurement	16 channel modular data logger system must be included for acquiring temperature and pressure data. It must be able to connect various types of thermocouples such as B, E, J, K, L, N, R, S, T, U, analog current (4-20 mA) and linear voltage (0-5 V, 0-10 V). PC based data logging software based on Windows must be included with DAQ system
16	In-cylinder pressure Sensor	M10 Monitoring Sensor must be supplied and fixed on the engine head by the supplier. Two numbers of in-cylinder pressure sensor must be supplied for each cylinder in twin-cylinder engine. With necessary power supply, wiring and termination to ECA.
17	Data acquisition system for In-Cylinder pressure measurement with angle encoder	Data acquisition system (DAQ) for in-cylinder pressure acquisition with 0.1-degree or better crank resolution must be included with its interface software Logging of up to 4 Channels. DAQ hardware and Interface software should be capable to analyse the raw signal from in-cylinder pressure sensor to pressure values. Junction Box for PC Base Engine In-cylinder Combustion Analysis System. Heavy Duty hollow shaft rotary angle encoder must be included and installed in synchronization with in-cylinder pressure sensor and TDC values. The resolution of encoder must be 3600 PPR or higher. Combustion data analysis software for analysing combustion data must be included with the setup.
18	Other necessary items	Engine Mounting arrangement with Brackets, Flywheel Adapter Plate and provision for Combustion Sensor mounting in place of Heater Plugs (or independently fabricated hole on cylinder head) in recessed mounting provision. Setup should include Drive Panel, Calibration arms. Bidder must supply associated cables, conduits & other Installation materials etc. System Engineering, Design & Integration, Project

“Supply and Installation of an Internal Combustion Engine Setup with Transient Dynamometer and Other Engine Accessories at IIT Bhilai”

		management & documentation and installation must be done by the bidder.
19	Warranty	Three years' onsite warranty, terms of support after warranty needs to be specified.
20	Annual Maintenance Contract (AMC)	Offer for 3 years AMC after the warranty period clearly indicating the scope of AMC.
21	Inspection, installation, commissioning and training	Installation and commissioning must be done by the bidder. All the essential requirements ensuring ready-to-use set up at IIT Bhilai. One set of maintenance and operating manuals in English. Standard training at IIT Bhilai for five people. Manuals of third party items must be provided by the bidder.
22	Packaging, insurance and transport	As per standard terms (seaworthy packing etc.)

“Supply and Installation of an Internal Combustion Engine Setup with Transient Dynamometer and Other Engine Accessories at IIT Bhilai”

Section – V: Price Bid

PRICE BID FORMAT

Sr. No	Name and Specification of the Item	Make / Model No / Part No	Unit Cost (in FE / INR)	Qty.	Other Charges (as / if applicabl	Duties / Taxes (in %)	Total Cost (in FE / INR)
1	AC Transient Dynamometer with Controller				-	-	-
2	Load Cell				-	-	-
3	Cardan shaft and Cardan shaft guard				-	-	-
4	Throttle Lever Position Actuator with controller				-	-	-
5	Universal Engine Mounting Test bed				-	-	-
6	Common Base Frame				-	-	-
7	Gravimetric Fuel Consumption meter				-	-	-
8	Heavy Duty Rotary Encoder				-	-	-
9	Temperature Sensors and Pressure Transducers				-	-	-
10	Engine Start Stop and Emergency Controller				-	-	-
11	Control and interface computer				-	-	-
12	Cables and other installation materials				-	-	-

“Supply and Installation of an Internal Combustion Engine Setup with Transient Dynamometer and Other Engine Accessories at IIT Bhilai”

13	Cooling tower and accessories				-	-	-
14	Engine with Harness				-	-	-
15	Data acquisition system for temperature and pressure measurement				-	-	-
16	In-cylinder pressure Sensor				-	-	-
17	Data acquisition system for In-Cylinder pressure measurement with angle encoder				-	-	-
18	Other necessary items				-	-	-
19	AMC charges for 3 years after completion of warranty period (INR)				-	-	-
20	Relocation charges						
21	Other Charges (if applicable)				-	-	-
	Total amount (in words):				-	-	-

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

Note –

1. Commercial bids must be offered in the format above.
2. The applicable exact rates of Taxes will be added as per above columns.
3. 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.
4. IIT Bhilai reserves the right to place part orders.

ANNEXURE A - PROFORMA OF BANK GUARANTEE

(on non-judicial paper of appropriate value)

To,

The Director

Indian Institute of Technology Bhilai,

GEC, Campus 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 comprehensive 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

“Supply and Installation of an Internal Combustion Engine Setup with Transient Dynamometer and Other Engine Accessories at IIT Bhilai”

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 the 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 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

“Supply and Installation of an Internal Combustion Engine Setup with Transient Dynamometer and Other Engine Accessories at IIT Bhilai”

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 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 26 months from the date of successful installations of the items in the order) _____ Granted by the Bank

Yours faithfully,

For (Name of Bank)

SEAL OF THE BANK

Authorised Signatory

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: IITBH/ME/2018-19/T031 dated 04-10-2018.

Name of Tender / Work: Supply and Installation of an Internal Combustion Engine Setup with Transient Dynamometer and Other Engine Accessories at IIT Bhilai

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://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)

Email id for correspondence.

“Supply and Installation of an Internal Combustion Engine Setup with Transient Dynamometer and Other Engine Accessories at IIT Bhilai”

Summary Information Sheet

IFB No:		
Sr. No.	Information heading	Details
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	Name of Bank	
14	Account No.	
15	IFSC Code	

Authorized Signatory.

(Signature of the Bidder, with Official Seal)

**Annexure – C
Authority Letter**

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 **IITBh/ME/2018-19/T031** dated 04-10-2018 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)

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 of20.....

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 and designation of the officer
Seal, name and address of the Bank and address of the Branch.