



INDIAN INSTITUTE OF TECHNOLOGY, KANPUR

GT ROAD, KALYANPUR, KANPUR – 208016

UTTAR PRADESH, INDIA

TENDER REFERENCE NO: IITK/CE/EEM/2020-2021/02

BID SUBMISSION END DATE- 20.07.2020

TENDER DOCUMENTS

FOR

“Procurement and Installation of Self-Forming Dynamic Membrane Bio-Reactor (SFD-MBR) for PAVITRA GANGA Pilot Project Site at Jajmau, Kanpur, UP, India”

BID DOCUMENT

Online bids (Technical & Financial) from eligible bidders which are valid for a period of 120 days from the date of (Technical & Financial) Bid opening (21.07.2020) are invited for and on behalf of the Assistant Registrar, IIT Kanpur for “**Procurement and Installation of SFD-MBR for PAVITRA GANGA Pilot Project Site at Jajmau, Kanpur, UP, India**”.

Name of Work	Procurement and Installation of SFD-MBR for PAVITRA GANGA Pilot Project Site at Jajmau, Kanpur, UP, India
Date of Publishing	26.06.2020 (17.30 hrs)
Clarification Start Date and Time	26.06.2020 (17.30 hrs)
Clarification End Date and Time	10.07.2020 (16.00 hrs)
Queries (if any)	No queries will be entertained after clarification end date and time
Bid Submission Start Date	26.06.2020 (17.30 hrs)
Last Date and time of uploading of Bids	20.07.2020 (16.00 hrs)
Last Date and time of submitting , EMD and other documents at IIT Kanpur (if any)	21.07.2020 (12.00 hrs)
Date and time of opening of Technical Bids	21.07.2020 (16.00 hrs)
Date and time of opening of Financial Bids	Will be separately notified for Technically shortlisted/qualified bidders

Interested parties may view and download the tender document containing the detailed terms & conditions from the website <http://eprocure.gov.in/eprocure/app>

(The bids have to be submitted online in electronic form on www.eprocure.gov.in only. No physical bids will be accepted.)

INSTRUCTION FOR ONLINE BID SUBMISSION

The bidders are required to submit soft copies of their bids electronically on the Central Public Procurement (CPP) Portal i.e. <http://eprocure.gov.in/eprocure/app> , using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

REGISTRATION

- (i) Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL:<https://eprocure.gov.in/eprocure/app>) by clicking on the link “Online Bidder Enrolment” option available on the home page. **Enrolment on the CPP Portal is free of charge.**
- (ii) During enrolment/ registration, the bidders should provide the correct/ true information including valid email-id & mobile no. All the correspondence shall be made directly with the contractors/ bidders through email-id provided.
- (iii) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- (iv) For e-tendering possession of valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) is mandatory which can be obtained from SIFY /nCode/eMudra or any Certifying Authority recognized by CCA India on eToken/ SmartCard.
- (v) Upon enrolment on CPP Portal for e-tendering, the bidders shall register their valid Digital Signature Certificate with their profile.
- (vi) Only one valid DSC should be registered by a bidder. Bidders are responsible to ensure that they do not lend their DSCs to others which may lead to misuse and should ensure safety of the same.
- (vii) Bidders can then log into the site through the secured login by entering their userID/ password and the password of the DSC/ eToken.

SEARCHING FOR TENDER DOCUMENTS

- 1) There are various search options built in the CPP Portal to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, organization name, location, date, value, etc. 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.
- 2) 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.
- 3) 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.

PREPARATION OF BIDS:

- (i) For preparation of bid Bidders shall search the tender from published tender list available on site and download the complete tender document and should take into account corrigendum if any published before submitting their bids.
After selecting the tender document same shall be moved to the ‘My favourite’ folder of bidders account from where bidder can view all the details of the tender document.
- (ii) Bidder shall go through the tender document carefully to understand the documents required to be

submitted as part of the bid. Bidders shall 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.

- (iii) Any pre-bid clarifications if required, then same may be obtained online through the tender site, or through the contact details given in the tender document.
- (iv) Bidders should get ready in advance the bid documents in the required format (PDF/xls/rar/dwf/jpg formats) to be submitted as indicated in the tender document/schedule. **Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.**
- (v) Bidders can update well in advance, the documents such as experience certificates, annual report, PAN, EPF & other details etc., under “My Space/ Other Important Document” option, which can be submitted as per tender requirements. This will facilitate the bid submission process faster by reducing upload time of bids.

SUBMISSION OF BIDS:

- (i) Bidder should 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.
- (ii) Bidder should prepare the EMD as per the instructions specified in the NIT/ tender document. The details of the DD/BC/BG/ others physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise the uploaded bid will be rejected.
- (iii) While submitting the bids online, the bidder shall read the terms & conditions (of CPP portal) and accepts the same in order to proceed further to submit their bid.
- (iv) Bidders shall select the payment option as offline to pay the EMD and enter details of the DD/BC/BG/others.
- (v) Bidder shall digitally sign and upload the required bid documents one by one as indicated in the tender document.
- (vi) Bidders shall note that the very act of using DSC for downloading the tender document and uploading their offers is deemed to be a confirmation that they have read all sections and pages of the tender document without any exception and have understood the complete tender document and are clear about the requirements of the tender document.
- (vii) Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document. For the file size of less than 1 MB, the transaction uploading time will be very fast.
- (viii) **If price quotes are required in XLS format, utmost care shall be taken for uploading Schedule of quantities & Prices and any change/ modification of the price schedule shall render it unfit for bidding. Bidders shall download the Schedule of Quantities & Prices i.e. Schedule-A, in XLS format and save it without changing the name of the file. Bidder shall quote their rate in figures in the appropriate cells, thereafter save and upload the file in financial bid cover (Price bid) only. If the template of Schedule of Quantities & Prices file is found to be modified/corrupted in the eventuality by the bidder, the bid will be rejected and further dealt as per provision of clause no 23.0 of ITB including forfeiture of EMD. The bidders are cautioned that uploading of financial bid elsewhere i.e. other than in cover 2 will result in rejection of the tender.**
- (ix) Bidders shall submit their bids through online e-tendering system to the Tender Inviting Authority (TIA) well before the bid submission end date & time (as per Server System Clock). **The TIA will not be held responsible for any sort of delay or the difficulties faced during the submission of bids online by the bidders at the eleventh hour.**
- (x) After the bid submission (i.e. after Clicking “Freeze Bid Submission” in the portal), the bidders shall **take print out of system generated acknowledgement** number and keep it as a record of evidence for online

submission of bid, which will also act as an entry pass to participate in the bid opening.

- (xi) Bidders should follow the server time being displayed on bidder's dashboard at the top of the tender site, which shall be considered valid for all actions of requesting, bid submission, bid opening etc., in the e-tender system.
- (xii) All the documents being submitted by the bidders would be encrypted using PKI (Public Key Infrastructure) encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology.

ASSISTANCE TO BIDDERS:

- (i) 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 contract person indicated in the tender. The contact number for the helpdesk is 0512-259-7792 between 10:30 hrs to 17:00 hrs.
- (ii) 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 24 x 7 Help Desk Number 0120-4200462, 0120-4001002 and 0120-4001005. The helpdesk email id is support-eproc@nic.in

INSTRUCTION FOR e-PROCUREMENT

1. **PREPARATION AND SUBMISSION OF BIDS :**

- a. The detailed tender documents may be downloaded from <http://eprocure.gov.in/eprocure/app> till the last date of submission of tender. The Tender may be submitted online through CPP Portal <http://eprocure.gov.in/eprocure/app>
 - b. The bidder should submit the bid online in two parts viz. Technical Bid and Financial Bid. Technical Bid should be upload online in cover 1 and Financial Bid in “.Xls” should be upload online in cover-2
2. **SUBMISSION OF THE BID :** All interested eligible bidders are requested to submit their bids online on CPP Portal: <http://eprocure.gov.in/eprocure/app> as per the criteria given in this document:

- a. Technical Bid should be upload online in cover-1.
- b. Financial Bid should be upload online in cover-2

Both Technical and Financial Bid covers should be placed online on the CPP Portal (<http://eprocure.gov.in/eprocure/app>).

3. **TECHNICAL BID:** Signed and Scanned copies of the Technical bid documents as under must be submitted online on CPP Portal: <http://eprocure.gov.in/eprocure/app>.

a) **List of Documents to be scanned and uploaded (Under Cover-1) within the period of bid submission:-**

- i. Scanned copy of Bank details. (Bank details of principal supplier in case of Import shipments)
- ii. Scanned copy of work experience.
- iii. Scanned copy of certificate of GST. (GSTIN of Indian Agent in case of Import Shipments)
- iv. Scan copy of tender acceptance letter.
- v. Scanned copy of specifications or brochures (if any).
- vi. Other document related with tender (if any).

b) **For Import Shipments – Shipping Terms Ex-Works/FOB are preferred.**

NOTE - no indication of the rates/amounts be made in any of the documents submitted with the TC-BID.

4. **Financial Bid**

- a. The currency of all quoted rates shall be in **USD/INR/EUR** only.
- b. In preparing the financial bids, bidders are expected to take into account the requirements and conditions laid down in this Tender document. The financial bids should be uploaded online as per the specified “.Xls” format i.e. Price Bid Excel sheet attached as ‘.Xls’ with the tender and based on the scope of work, service conditions and other terms of the Tender document. It should include all costs associated with the Terms of Reference/Scope of Work of the assignment.
- c. The Financial Proposal should be inclusive of all applicable taxes, duties, fees, levies, and other charges imposed under the applicable laws. The rates quoted in the Tender are inclusive of all applicable taxes, duties etc. **except service tax**. The service tax component shall be re-immersible by the department after receipt of paid challans etc. if applicable.

5. Last Date for Submission of Tender:

- a. Online bids complete in all respects, must be submitted on or before the last date and time specified in the schedule of events.
- b. The IIT, Kanpur may, at its own discretion, alter/extend the last date for submission of tenders.

6. Bid Validity

- a. All the Bids must be valid for a period of 120 days from the last date of submission of the tender for execution of Contract. However, the quoted rates should be valid for the initial/ extended period of the Contract from the effective date of the Contract. No request will be considered for price revision during the original Contract period.
- b. A bid valid for a shorter period shall be declared as non-responsive.
- c. In exceptional circumstances, prior to expiry of the original time limit, the IIT may request the bidders to extend the period of validity for a specified additional period beyond the original validity of 120 days. The request and the bidders' responses shall be made in writing. The bidders, not agreeing for such extensions will be allowed to withdraw their bids without forfeiture of their Bid Security.

7. Modification / Substitution/ Withdrawal of bids:

- a. No Bid shall be modified, substituted or withdrawn by the Bidder after the Bid's due Date.
- b. Any alteration/ modification in the Bid or additional information supplied subsequent to the Bid's due Date, unless the same has been expressly sought for by the Authority, shall be disregarded.

8. Rejection of the Bid: The bid submitted shall become invalid and tender fee shall not be refunded if:-

- a. The bidder is found ineligible.
- b. The bidder does not upload all the documents as stipulated in the bid document.

INDIAN INSTITUTE OF TECHNOLOGY, KANPUR

Tender Notice

E-tender /Online bids are invited for reputed firms from eligible bidders for the work of “**Procurement and Installation of Self-Forming Dynamic Membrane Bio-Reactor (SFD-MBR) for PAVITRA GANGA Pilot Project Site at Jajmau, Kanpur, UP, India**”.

The Demand draft for Rs.1,20,000/- (One Lakh Twenty Thousand) towards Bid Security/ EMD in favour of **Registrar IIT Kanpur** must reach **Dr. Vinod Tare, Department of Civil Engineering, IIT Kanpur-208016** latest by 12:00 Hrs on the bid opening day i.e. **21.07.2020**

Please note all bid related documents scanned copy is to be submitted on the online portal, only Demand draft has to physical reach the aforementioned address.

The tender document along with other details may be downloaded from the CPP Portal: <http://eprocure.gov.in/eprocure/app>

IIT Kanpur reserves the right to accept or reject any or all the tenders without assigning any reasons thereof.

**Sd/-
Assistant Registrar**

Tender document

**Environmental Engineering and Management, Department of Civil Engineering
Indian Institute of Technology Kanpur
Kanpur (UP) 208016 India**

Enquiry Date: June 26, 2020

Enquiry No: IITK/CE/EEM/2020-2021/02

IIT Kanpur invites proposals from interested parties to supply and commission SFD-SBR for one of its sponsored projects titled: "PAVITRA GANGA" which will be installed at the Pilot Project Site in Jajmau, Kanpur, UP, India.

A. Terms and Conditions:

- 1) All equipment must be compatible with Indian electrical standards and codes.
- 2) Engineering documentation of the proposed wastewater treatment plant must be submitted during the execution.
- 3) Delivery of the equipment to an airport or seaport in India will be completed within 6 months from the date of order acceptance by the Vendor.
- 4) The vendor will complete installation and commissioning within one month from the date the equipment is delivered on site in Kanpur.
- 5) Vendor shall have presence and offices in India to ensure timely support and shall have local service team and capabilities.
- 6) IIT Kanpur is fully exempted from payment of GST on Imported Goods against our DSIR certificate.
- 7) IIT Kanpur is partially exempted from payment of Customs Duty (We will provide Custom Duty Exemption Certificate, CD applicable is 5.5%).
- 8) The Institute reserves the right of accepting or rejecting any quotations without assigning any reason thereof.

B. Specifications for pilot-scale wastewater treatment system:

- 1) The pilot plant shall have a small footprint and biological treatment technologies shall be capable to be operated at design MLSS concentrations of ≥ 8000 mg/L.
- 2) The pilot plant has a treatment capacity to treat average wastewater flow rate $80 \text{ m}^3/\text{d}$; a peak hourly wastewater flow rate of up to $4.0 \text{ m}^3/\text{h}$ and a power requirement during ADF treatment not exceeding 10 kW.
- 3) The effluent from the system shall meet the criteria (monthly average with 24 hour composite samples) given in Table 1 with an estimated wastewater (influent that will be received as supernatant of primary settling tank of adjacent existing 130 MLD capacity sewage treatment plant with range of parameters given in Table 1).

Table 1: Estimated Influent Characteristics and Expected Effluent Characteristics

S No	Parameter	Estimated in Influent	Expected in Effluent
1	pH	7 - 9	7 - 9
2	TDS	800 - 1600	≤ 1600
3	TSS, mg/L	100 - 600	≤5
4	BOD5 at 20 C, mg/L	100 - 400	≤5
5	COD, mg/L	250 - 800	≤70
6	NH4-N, mg/L	5 - 30	≤ 5
7	TN, mg/L	10 -50	≤ 10
8	TP, mg/L	1 - 5	≤2

- 4) The pilot plant shall be fully automated and shall not require continuous operator presence. The proposed treatment technology shall be robust and shall not require special skilled operators.
- 5) The plant shall include a filtration step to separate solid from liquids resulting in low TSS and turbidity for potential further reuse of the treated effluent.
- 6) The plant should utilize a continuous filtration system maintaining a steady filtration performance not falling below 800 liters per hour per m² of active filter surface (Operating flux of the filtration step ≥800 L/m²*h).
- 7) The plant should achieve an overall recovery of 95% based on the influent flow rate and shall use filtrate for the cleaning mechanism to minimize the usage of cleaning liquids or agents
- 8) The proposed treatment technology shall be energy efficient e.g. filtration step preferably shall be by gravity.
- 9) The plant should be capable to operate at MLSS levels of 5 – 20 g/L to realize high compact biological treatment
- 10) The plant should record flow rate, filling level, turbidity and TSS online and control filtration performance automatically with the possibility to change settings remotely
- 11) The plant and all its components including tubes, pipes, valves, sensors, electronic/electrical devices/fittings shall be able to operate in the atmospheric temperature range of 2-50°C and in a highly corrosive atmosphere with H₂S, ammonia, etc. gases emitted as a result of anaerobic decomposition of organics in the vicinity.
- 12) The component / parts of the system which shall be submerged or in direct contact with wastewater should be furnished out of stainless steel 304 or better
- 13) The plant includes a biological reactor and a liquid/solid separation system which is NOT based on gravity settling, and does NOT involve submerged or pressurized micro- or ultrafiltration membranes.
- 14) The plant includes an aeration system (blower, diffusers) sized according to the requirements of the biological processes. The system utilizes membrane disc, Tube or plate diffusers achieving minimum 6.7 kg/h specific oxygen transfer into the biological process.

- 15) Chemical dosing system may be used to supplement any biological P removal to achieve the effluent quality shall be part of the treatment system.
- 16) The biological treatment system shall include an anoxic and aerobic process zone. Mixing of the anoxic process zone by a dedicated mixer to avoid sedimentation.
- 17) The plant includes all controls, probes, and automation necessary for unmanned operation.
- 18) The procurement includes all piping, valves, and accessories necessary for plant installation with easy electric and hydraulic connections.
- 19) The plant is procured as a turn-key system, allocated into one or maximum 2 customized containers of 40 ft.
- 20) Sewage to the plant shall be supplied by gravity by pumping the primary treated sewage into an intermediate overhead reservoir of suitable capacity, to be specified by the proponent and included in the proposal (otherwise a feed pump may be required), after primary settling through the channel joining Primary Settlement Tank to aeration tank of existing STP. Discharge of treated effluent shall be via gravity to the existing disinfection system or elsewhere as the client desires. Similarly, access shall be provided to waste sludge via pumping to sludge handling or elsewhere as the client desires. No separate disinfection and sludge treatment system shall be required as part of the pilot plant.

Evaluation Criteria

The evaluation criteria for the submission are:

1. Bids in two parts: technical bid and financial bids
2. The technical bid should include:
 - a. Flow sheet
 - b. Detailed drawing with technical specifications of each component/part
 - c. Company profile with experience of delivering similar plants
 - d. CVs and experience of team members involved
 - e. 2x reference letters from clients
3. The financial bid should include Fixed price quotation for delivering the plant including commissioning in appropriate currencies. Payment to any Indian agency should be quoted in INR.
4. Those who qualify technical bids will be invited for a presentation (may be through a virtual meeting)

Terms and Conditions:

1. The supplier should supply any software updates at least up to the first three years for the program
2. All specification required against tender inquiry must be submitted by a bidder alone.
3. The supplier should provide the technical support as and when needed as appropriate.
4. Quotation must indicate the price including the freight charges up to an Indian air or seaport.
5. 90 % of the payment will be made at the time of shipping of the equipment. The balance payment will be made after delivery and installation of the equipment in Kanpur.
6. Quotation should carry proper certifications like proprietary certificate, authorization certificate from manufacturer, etc.
7. Validity of quotation should be at least for 120 days.
8. Institute is exempted for partial custom duty (CD applicable to IIT Kanpur is 5.15%).
9. The delivery period should be specifically stated, earlier delivery may be preferred.
10. The Vendors shall provide the banking details along with their letterhead duly signed and stamped.
11. Any request for changing banking details will be accepted only if the vendor provides an indemnity bond certificate by the bank for the same.
12. Concessional rate of GST (@ 5%) will be applicable with reference to Notification No. 45/2017 Central Tax (Rate) dated 14/11/2017. We will provide relevant certificate for this purpose. On import items for research purpose presently the GST applicable is 0% (Zero). DSIR certificate along with CDEC has to be submitted for availing concession. Vendor should use these GST rates in their quotation
13. The Penalty @1% per week or part thereof subject to max 10% of the total price will be deducted from the balance payment, if installation is not completed within aforesaid period due to fault of the vendor.
14. The indenter reserves the right to withhold placement of final order. The right to reject all or any of the quotations and to split up the requirements or relax any or all of the above conditions without assigning any reason is reserved.
15. At any time prior to the deadline for submission of bid, the Institute may, for any reason, at its own initiative, modify the bid document by amendments. Such amendments shall be uploaded on the website through corrigendum and shall form an integral part of bid document. The relevant clauses of the bid document shall be treated as amended accordingly. It shall be the sole responsibility of the prospective bidders to check the website from time to time for any amendment in the tender document. In case of failure to get the amendments, if any, the Institute shall not be responsible for it.
16. The Indenter reserves the right to increase/decrease the specified quantities of any item(s) given in the tender. The bidder will execute the varied quantity of work on the quoted rates.
17. Incomplete tender or tender not conforming to any or all the above terms and conditions will be rejected.

Dr. Vinod Tare
Professor, Department of Civil Engineering
Indian Institute of Technology Kanpur,
Kanpur-208016, Uttar Pradesh, India

TENDER ACCEPTANCE LETTER
(To be given on Company Letter Head)

Date: _____

To,

Sub: Acceptance of Terms & Conditions of Tender.

Tender Reference No: _____

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: _____ as per your 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 from Page No. _____ to _____ (including all documents like annexure(s), schedule(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/ organisation too have 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/ terminated/ banned 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/ organisation 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 full said earnest money deposit absolutely.

Yours Faithfully,
(Signature of the Bidder, with Official Seal)