



**INDIAN INSTITUTE OF INFORMATION TECHNOLOGY
DESIGN AND MANUFACTURING KANCHEEPURAM
(An Institute of National Importance under MoE, Government of India)
Melakkottaiyur, Off Vandalur-Kelambakkam Road, Chennai – 600 127,
Tamil Nadu.**

NOTICE INVITING TENDER (E-PROCUREMENT MODE)

Indian Institute of Information Technology Design and Manufacturing (IIITDM) Kancheepuram invites **e-tender under TWO BIDS** with prequalification systems from the vendors who fulfils the eligibility as given below in the campus.

Sl. No.	Particulars	Quantity Required
1	Operation & Maintenance of Sewage Treatment Plant of 950 KLD capacity with MBBR/FBBR system by engaging manpower, supplying of chemicals, electrical repair and maintenance at IIITDM, Kancheepuram by specialized agency.	As per Annexure-3

The tender document may be downloaded from the website <http://iiitdm.ac.in> or <https://mhrd.euniwizarde.com>. or <https://eprocure.gov.in/epublish/app>

The offers, in the prescribed format shall be submitted online at <https://mhrd.euniwizarde.com> as per the tender document. No tender will be accepted in hard copy, fax, email or any other such means. The intending, bidders must be registered with eWizard procurement <https://mhrd.euniwizarde.com>.

Tender Number /Date	IIITDM/2022-23/STP/002; DT: 13 th June 2022
Pre-bid meeting / Site visit	20 th June, 2022; 11:00 Hrs.
Bid Submission	05 th July, 2022; 15:00 Hrs.
Technical Bid Opening	05 th July, 2022; 15:30 Hrs.
EMD	Bid declaration form duly typed in letter head of the bidder must be enclosed (Annexure – 1).
Security Deposit / Performance Guarantee	Successful Bidder shall submit the Security Deposit at 3% of Contract value.
Estimated cost	Rs. 26,60,220/- Per Annum (Excl. GST)

TERMS & CONDITIONS GOVERNING THE CONTRACT

1. Eligibility Criteria: In order to be considered for the contract of the works as detailed under 'Technical Bid' in this Tender Document the tenderer shall:

- 1.1 Have a corporate or works office at Chennai for the same valid certificate/proof shall be submitted.
- 1.2 Valid proof of firm registration, ESI & EPF registrations shall be submitted.
- 1.3 Be a specialized agency having Experience in executing similar STP operation & maintenance works" preferably awarded by the State Govt. / Central Govt. / Autonomous / Reputed corporate institutions / Residential complexes for the value enlisted below and executed on or after 01/01/2018 with the STP Capacity more than or equal to 950 KLD.

- (i) Rs. 21.29 lakhs Excl. GST for a single work order
(Or)
- (ii) Rs. 13.31 lakhs Excl. GST each for two work orders

At least, one work should be in live and shall produce a valid documentary proofs for work completion from the scheduled works mentioned.

2. Earnest Money Deposit/Bid Declaration Form:

Instead of EMD, Bidders are to execute a Bid declaration form accepting that if they withdraw or modify their Bids during the period of validity or if they fail to execute the awarded work as per the work order/contract they will be debarred for the period of one year for bidding for any tender of the institute. Further, the debarment will be intimated to all Institute of Government of India/ Governmental organizations for bidding by the firm for any tender (**Declaration format enclosed as Annexure-1**).

3. Security Deposit & Contract Agreement:

- 3.1 On receipt of notification of award, successful bidder shall be required to send the acceptance of work order within 07 working days and further should commence the **Operation & Maintenance of STP plant** from 10 days after the award of work. Manpower to be deployed at least 72 hours (03 days) before commencement of Contract period.
- 3.2 Successful Bidder shall submit the Security Deposit of 3% of Contract value in the form of a Crossed Demand Draft/Pay Order/Banker's cheque/FDR drawn/Bank guarantee in favor of "The Registrar, IIITDM Kancheepuram", payable at Chennai within 07 (SEVEN) working days of the receipt of Notification of Award (NOA) / Award of Work order from IIITDM Kancheepuram (the Defect Liability Period as specified (i.e., 12 months after completion of work).
- 3.3 The successful bidder shall be required to sign a detailed contract / agreement with IIITDM Kancheepuram within a period of 07 working days after depositing Security Deposit. Failure to do so on the part of the Contractor, Notification of Award is liable to be cancelled and Security Deposit is liable to be forfeited.
- 3.4 In case of failure to commence the work by the Contractor within 07 days after signing of the contract or handover of site, the Institute shall be at the liberty to terminate the Award and forfeit the Security Deposit.

4. Pre-Bid meeting:

- 4.1 For better appreciation of "Technical Bid" under this contract, the pre-bid meeting scheduled on 20.06.2022 @11:00 hrs.
- 4.2 The bidders are advised to inspect and examine the site and satisfy themselves before submitting their bids. The tenderer shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid. A tenderer shall be deemed to have full

knowledge of the site whether he/she inspects it or not and no extra charges consequent on any misunderstanding or otherwise shall be allowed. Submission of bids by a bidder implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and local conditions and other factors having a bearing on the execution of the work.

5. Preparation of bids - Two bid system (simultaneous receipt of separate technical and financial bids):

5.1 Technical bid shall consist of only prequalification document along with supported documents, which shall be uploaded as detailed below:

5.1.1 Complete prequalification papers, Name of the Agency and also commercial terms etc., offered (**Note: Price column in this cover should be kept blank**).

5.1.2 Duly filled and digitally signed Bid submission, bid declaration & self-declaration Proforma (**As per Annexure – 1**).

5.1.3 Duly filled and digitally signed copy of Qualification Proforma along with a copy of GST certificate, Proof/correspondence for corporate office at Chennai, Firm Registration certificate, Live work order, PAN No., ESI No. & EPF No. (Issued by appropriate authority to be attached) & Work order, work completion certificate with STP capacity as per the eligibility criteria referred in clause no. 1

5.2 Financial bid indicating item-wise price for the items mentioned in the technical bid, special concession in rates if any applicable for Educational Institutions shall also be offered and indicated clearly.

5.3 Both the covers should be submitted through online eWizard portal <https://mhrd.euniwizarde.com> before due date and time.

6. Technical terms:

6.1 The selected contractor will have to carry out Comprehensive operation and maintenance of Sewage Treatment Plant (STP) installed in the IIITDM, Kancheepuram.

6.2 The contract is inclusive of day to day operation & maintenance of STP plant, mixing of required chemicals, preventive, breakdown & trouble shooting maintenance of motor pumps and panels (i.e., Electrical / Electronics / Mechanical / Electro-mechanical) of all installation of the systems, repairs, spare installations, testing & commissioning as per the relevant CPWD, Indian Electrical & civil and other product standards for the systems.

6.3 The contract also includes periodical checking & cleaning of all the items / parts mentioned in annexure-3 as well as to its subparts i.e., civil, electrical & mechanical parts, filters, motors, blowers, electric control panels, drives, automation systems, connecting cables, wires as well as checking of STP plant efficiency etc., as per direction of Engineer in charge. During service of Systems/ Equipments, Safety / precautionary items shall be supplied to the operator, which is in the scope of contractor and if required WORK IN PROGRESS, OUT OF SERVICE & DANGER PLATES etc., shall be kept in places in terms of safety.

6.4 The contract shall include providing all manpower, tools and tackles like ladder, stools, spanners, testing equipment, special equipments, cranes, jacks, etc., and replacement of defective spare parts etc. The procurement of defective parts is in the scope of institute. Whereas, the same is not applicable if the fault occurred due to contract manpower misconduct/irresponsibility.

- 6.5 Daily, Weekly, Monthly Periodical maintenance & Breakdown maintenance as and when required should be carried out and including replacement of parts / sub parts for the effective functioning of the equipment during the contract period and all the necessary services / complaints / replaced equipments reports should be submitted to IIITDM, Kancheepuram, the register for all such periodical maintenance to be maintained and subject to inspection by IIITDM.
- 6.6 Break down maintenance including any number of complaints / break downs for the period of contracted year shall be carried out by the contractor with in the stipulated time of complaint i.e., the complaint/call shall be completed within 24 hours if it is minor work and consumable replacements. The major components like motors, pumps, coils, blower fans, pipes etc., as applicable must be replaced within 07 working days upon material procurement by the agency as per relevant items (under special repair / replacement working days may be extended with prior approval of Engineer-in- charge of IIITDM for replacement).
- 6.7 The selected contractor shall ensure that the persons deployed are punctual, disciplined and vigilant in performance of their duty. The tenderer shall engage medically and physically fit persons and they shall be duty bound to display the same at the time of providing the service. The tenderer must employ adult labour only. Employment of child labour will lead to termination of contract.
- 6.8 **All the manpower deputed by the selected contractor shall wear uniform, safety helmet, Safety shoe, safety hand Glove, Nose mask and other safety Personnel Protective Equipments (PPEs) as per STP maintenance standard with identification badge/ID card issued by the Contractor.**
- 6.9 The selected contractor shall deploy his persons in such a way that the persons get weekly rest, the working hours/leave for which the work is taken from them, under relevant provisions of central Minimum Wages Act, and such other Acts as applicable. As amended from time to time or furnishing any information, or submitting or fulfilling any settlement under the provision of the said regulations and rules which is materially incorrect, they shall without prejudice to any other liability pay to the Registrar of the Institute a sum as may be claimed by the Institute.
- 6.10 The contractor shall follow all safety norms & security rules framed by Govt. norms & IIITDM from time to time regarding removal of materials from site, issue of identity cards, control of entry of persons and other similar matters.
- 6.11 The contractors' personnel shall not disclose any information or drawings furnished to him by IIITDM. Any drawings, records and other information prepared by the contractor or by IIITDM or jointly by both for the execution of the work shall not be disclosed without the prior approval of the IIITDM. No photograph of the institute or in and around places within the premises of IIITDM shall be taken.
- 6.12 The contractor shall keep his work spot and surroundings neat, clean and tidy. It should be free from dust, rubbish, scrap, surplus materials and unwanted tools and equipments. The Engineer in charge or his authorized representative has the right to stop the work, if the contractor fails to improve upon the house keeping after having been notified.
- 6.13 Engineering in charge will have the right to withdraw the work permit for any of the workmen for reasons of misconduct, incompetence in work, violation of safety and fire rules, negligence on duty etc.
- 6.14 Any other work covered under respective terms and conditions, if required or insisted by any regulatory body including tests and calibrations, etc., shall be undertaken by the agency.
- 6.15 The knowledge/Information of availability of manpower on daily basis shall be the responsibility of contractor himself and not by IIITDM. Contractor should ensure availability of his representative

throughout the contract period who shall be responsible for manpower availability and their record keeping.

- 6.16 The contractor shall depute staff round-the clock to ensure maintenance services on all days in a Month as per requirement.
- 6.17 The contractor shall note that they shall have to carry out their work in close & smooth co-ordination with other contractors/agencies working in the same premises.
- 6.18 Police Verification of the antecedents of the persons to be engaged at IIITDM Kancheepuram shall be obtained by the tenderer in advance and made available to IIITDM Kancheepuram within 3 months from the award of contract.
- 6.19 The Registrar of the Institute or any person authorized by the Registrar shall be at liberty to carry out surprise check on the persons deployed by the tenderer in order to ensure that required numbers of persons are deployed and that they are providing the service properly.
- 6.19.1 All tools and accessories used for operation, maintenance, replacement, repairs, testing/measuring etc., are contractor's scope those tools & tackles should be submitted and approved by Engineering in charge.
- 6.19.2 Work without proper tools and tackles will not be permitted. Before starting the contract, the tenderer has to get the approval for tools for maintenance.
- 6.19.3 Minimum tools requirements are:
- | | | |
|----------------------------------------------------------------|---|---------|
| i. Cutting plier | - | 1 Nos. |
| ii. Screw driver set | - | 1 set |
| iii. Ring spanner full set | - | 1 Set |
| iv. Double handed spanner full set | - | 1 Set |
| v. Wrench spanner | - | 2 No's. |
| vi. Hammer | - | 1 No's. |
| vii. Box spanner | - | 1 Set |
| viii. Digital Insulation tester/Megger/Earth resistance tester | - | 1 Nos. |
| ix. Clamp meter & multi meter | - | 1 No |
| x. Allen key spanner set | - | 1 set |
| xi. Drilling Machine (Power) | - | 1 No's |
| xii. Hex saw, Poker | - | 1 Set |

And other related to the operation and maintenance work related tools and tackles.

- 6.20 Quoted rate is inclusive of all service, repair, rectification, spare/material replacement & transport of all the Sewage Treatment Plant equipment as well as all its subparts for smooth & effective functioning of STP water system.
- 6.21 The contractor shall display a board / notice / log sheet of the process of Sewage Treatment Plant Operation & Maintenance schedule and shall maintain necessary records or registers about the operation and maintenance, date of service carried out / next due date duly signed by the service engineer / technician of contractor.
- 6.22 The contractor shall intimate & record each and every repair or service carried out during the contract period and shall be submitted to the Engineer-in-charge of IIITDM.
- 6.23 The Contractor shall employ its labour in sufficient numbers to maintain the required rate of progress and of quality to ensure workmanship of the degree specified in the Contract and to the satisfaction of the Engineer-in-Charge.
- 6.24 Work shall be executed and completed as per the technical terms and conditions of this document. In case the Contractor fails to complete the assigned work within specified Period, IIITDM Kancheepuram may recover Liquidated Damage and/or terminate the Contract and/or forfeit the

Security Deposit. IIITDM Kancheepuram on its part would be required to handover the site to the Contractor free from any encumbrance.

7. Commercial terms:

- 7.1 The contract shall be in force for a period of THREE YEARS, whereas work order will be issued on an annual basis taking into the account of satisfactory performance of the preceding year, further it may be extendable for a period of two more years on same price, terms and conditions of last year.
- 7.2 Payment will be made on monthly basis after satisfactory completion of the operation & maintenance service during that period and upon submission of necessary reports of FORM XVII as per register of wages, ESI, EPF & Salary slip correspondences as required. The rate inclusive of operation, maintenance, inspection, testing, fault rectification and incidental expenses etc.,
- 7.3 The persons deployed shall remain under the control and supervision of the selected contractor and shall be liable for payment for their wages etc., and all other dues which the tenderer is liable to pay under various labour regulations and other statutory provisions.
- 7.4 The tenderer shall ensure that all the employees get **minimum wages [Zone A]** as per the Central Minimum Wages Act, 1948 read with Minimum Wages (Tamil Nadu) Rules, 1953 and such other benefits as are admissible under various labour laws. He shall provide full information in respect of wages etc., paid to his employees so deployed in conformity with the provisions of contract Labour (Regulation and Abolition) Act, 1970.
- 7.5 IIITDM Kancheepuram shall pay the agreed amount on production of monthly bill (in duplicate) for the amount due towards services rendered during the preceding one month. The monthly bill shall include supporting documents towards receipt of payment by the persons employed. No other charges of any kind shall be payable. No advance payment shall be made to the agency. There would be no increase in rates payable to the agency during the contract period except in case of enhancement of Minimum wages by the central Govt. The income tax as applicable shall be deducted from the bill unless exempted by the Income Tax Department.
- 7.6 The tenderer shall also submit the proof of having deposited the amount on account of salary, ESI, EPF and Bonus towards the persons deployed in their respective names before submitting the bill to the institute. In case, the tenderer fails to do so, the Institute shall recover the same from the dues of the contractor and remit the contribution directly to the concerned authorities in the codes of the contractor. Further necessary action as deemed fit will be taken against the contractor. The tenderer shall obtain ESI card to the employer and shall furnish the same to Institute on demand. The Institute will reimburse the ESI only based on previous month remittance proof.
- 7.7 The provident fund will be claimed by the contractor directly as per The Pradhan Mantri Rojgar Protsahan Yojana (PMRPY) plan scheme.
- 7.8 If the Contractor fails to complete the operation or maintenance work during the period as per the work order, IIITDM Kancheepuram shall without prejudice to its other remedies, deduct as liquidated damages 0.5% of the Contract Value (or) particular item of work value for each and every week of delay (part of the week shall be considered as full week) subject to maximum of 10% of the Contract Value (or) particular work value and the same shall be deducted from the bill(s) or any other payment due to the Contractor. The competent authority will evaluate the incomplete work/delayed work and take appropriate decision for penalty/liquidity damages. In addition to it, Institute shall be at the liberty to terminate the Contract, and/or forfeit the Security Deposit, in case, Contractor fails to complete the assigned work within the 'AMC Period'.
- 7.9 The Contractor shall take at his own cost, necessary insurance cover in respect of staff and other personnel to be employed or engaged by him in connection with the afore mentioned services personnel by services to be rendered. The contractor responsible for the safety of their staff during

the performing duty at site. The copy of insurance cover shall be furnished to the institute for record purpose.

- 7.10 Statuary deductions of taxes at source will be carried out from the payment due at the prevalent rates as prescribed by the government.

8. Other conditions:

- 8.1 The institute reserves the right to reject any or all the bids without assigning any reasons thereof. No tenderer shall have any cause of action or claim against IIITDM Kancheepuram for rejection of his bid.
- 8.2 The Director, IIITDM Kancheepuram reserves right to withdraw / relax any of the terms and conditions mentioned above so as to overcome the problem encountered by the contracting parties.
- 8.3 The Director, IIITDM Kancheepuram reserves the right to terminate the contact at any time without assigning any reasons by giving a **one-month notice** to the contracting agency/firm/company.
- 8.4 The tender document is not transferable and Conditional Tenders / Non-compliance of any of the conditions set in tender document shall render the bid liable for rejection.
- 8.5 IIITDM Kancheepuram reserves the right to seek any clarification from the bidders or waive any minor deviation in the provisions governing the contract at its sole discretion.
- 8.6 IIITDM Kancheepuram reserves the right to suitably increase or reduce the manpower and the consumables mentioned in this tender. The payment will be made correspondingly as per the actual number of persons engaged in the work.

9. Special Conditions:

- 9.1 The effluent from Septic tank, sewage sump shall be treated in Sewage Treatment Plant so that the same can be used for Horticultural and flushing purpose as per condition of Govt. pollution control board norms.
- 9.2 The following standards as prescribed by Ministry of environment shall be followed.

The Desired quality of treated sewage		
Sl. No.	Parameters	Result
1	pH	6.5-9.0
2	Flow	15m ³ /hr. & 5 m ³ /hr.
3	BOD ₃ 27 ^o C	<30 mg/l
4	TSS	<100 mg/l
5	Fecal coliform	<1000 MPN per 100 ml

- 9.3 The treated water shall be pumped in to Hostel overhead tanks (OHT) and horticulture purpose systematically as per the requirement.
- 9.4 The tenderer shall not give sub contract or assign any item of work. The contractor will be responsible for smooth maintenance of the whole O&M of STP work.
- 9.5 The contractor shall ensure the proper functioning of the sewage treatment scheme as specified and as per approved standards and contractor is full responsible for worker's safety and security as per standards.
- 9.6 Sample of treated water shall be collected in the presence of Engineer-in-charge or his authorized representatives and tested at the intervals of two months at a reputed laboratory like King's Institute

Guindy, Chennai or TWAD board, any Govt. laboratory to ensure the satisfactory performance of the plant

9.7 A register shall be maintained for the following details.

9.7.1 Attendance sheet containing name of operators, working hours and shift details.

9.7.2 Copies of test results of the treated water (used for Horticulture & flushing purpose)

9.7.3 Log book with details of Breakdown and remedial measures taken.

9.7.4 Stock entry of consumption of chemicals.

9.8 Restrictions may be imposed by the security staff or department etc., on the working and for movement of labour, materials etc. The contractor shall be bound to follow all such restrictions/instructions and nothing extra shall be payable on this account.

9.9 The contractor or their employees shall in no case use sewage Treatment Plants as housing/accommodations. Use of stoves (Electrical/Gas) in STP premises is strictly prohibited.

9.10 This work involves the following jobs:

9.10.1 Operation of plant 24x7 including operation & maintenance of all connected pumps, valves, etc., cleaning of all chambers, collection of cake from sludge chamber beds, stacking, etc., complete as required.

9.10.2 Required chemicals for day to day operations, shall be arranged by the successful tenderer as per the relevant item of work. The successful tenderer is responsible for conducting various tests, maintaining necessary registers for obtaining certificate for the treated water in conformity to the standards, etc.

9.10.3 The contractor is responsible for safe custody of material and equipment under this contract till handing over back to institute.

9.10.4 Contractor shall adopt a preventive maintenance schedule for avoiding break-downs.

9.10.5 The job of operation and maintenance shall include all the items prescribed in the tender documents. The Operation & maintenance of the plant shall be performed round the clock, the contractor has to make the arrangements accordingly, if required the duties/timings will be changed as the direction of the Engineer in charge. The cost of repairs/modifications necessary due to negligence of worker shall be recovered from the contractor as per assessment of Engineer in charge. If the contractor fails to repair within the period given to him the same will be got repaired departmentally or through other agency at his risk and cost.

9.10.6 At the work site, necessary first aid arrangements shall be available.

9.10.7 If any worker is absent on any day, the contractor shall arrange a substitute worker in his/her place without fail by making appropriate arrangements and shall be able to keep the prescribed number of labour present on any given time/day.

10. Civil structure of STP tanks, surrounding area drains, sludge drying beds etc., should also be maintained properly. Contractor shall keep the surrounding area neat & clean.
11. Further, refer & comply with the in detail **“Tender general terms and conditions”** available at IIITDM > FORMS > ENGINEERING SECTION > TENDER GENERAL TERMS AND CONDITIONS” enclosed in the mentioned web link. These conditions are part and parcel of contract agreement. http://www.iiitdm.ac.in/img/intranet_forms/ENGINEERING_SECTION/tnc.pdf

Sd/-
Registrar
IIITDM Kancheepuram

BID SUBMISSION, BID DECLARATION & SELF DECLARATION PROFORMA

Name of the Work/AMC: Operation & Maintenance of Sewage Treatment Plant of 950 KLD capacity with MBBR/FBBR system by engaging manpower, supplying of chemicals, electrical repair and maintenance at IIITDM, Kancheepuram

Tender No.: IIITDM/2022-23/STP/002; DT: 13th June 2022

The Registrar,
IIITDM Kancheepuram,
Chennai 600127.

Dear Sir,

- 1.1 I / We do hereby declare that our Firm has not been blacklisted/ debarred by any Govt. Department/Public sector undertaking/Autonomous Body etc., at anywhere in the country.
- 1.2 I/We hereby bid for the tender and agree that if we withdraw or modify our Bids either during the period of validity of bid or fail to execute the contract in line with the purchase order/contract, our firm will be debarred for the period of one year for further bidding of any tender of your institute. Further, we agree that your institute is at liberty to intimate this debarment to all Institutes/ organizations of government and governmental organizations.
- 1.3 I/We hereby offer to quote for work as defined in 'TECHNICAL BID' and the relevant Annexures at the quoted price given in the 'FINANCIAL BID' Proforma as per Annexure-4 and agree to hold this offer open till 03 months from the due date.
- 1.4 I/We have read, understood and comply with all Terms and Conditions stipulated in the Tender document necessary for submission of this bid.
- 1.5 It is further stated that I/We have fully read and understood the 'TECHNICAL BID' and Terms and Conditions in the Tender Document governing this contract and shall abide by them in toto, if awarded the Contract.

Date:

Digital Signature

Note: This form duly typed on the letterhead of the bidder and duly signed should be uploaded forming Annexure-1 of this Bid document.

QUALIFICATION PROFORMA

Name of the bidder (Firm):	
Contact details of the bidder: Address: Land line: Mobile: Email Id:	
Specialized authorized/Registration/Service Certificate: (Please enclose the copy of certificate)	
GST No.: (Please enclose the copy of GST)	
PAN No.:	
ESI No.: (Please enclose the copy of ESI)	
EPF No.: (Please enclose the copy of EPF)	
Bid Submission, Bid & Self declaration Proforma: (Please enclose the annexure-1)	
Experience: Details of similar operation should not be less than 950 KLD and maintenance works executed especially with Govt./PSU /PWD/ CPWD/ MES/ BSNL/ RAILWAYS/ State Govt. Org./ Autonomous / Corporate institutions organizations/ residential complexes for a value not less than Rs. 21.29 lakhs (Excl. GST) for a single work order (or) Rs. 13.31 lakhs (Excl. GST) each for two work orders should be awarded and executed on or after 01.01.2018. (Please enclose the copy of valid work completion certificate or work orders along with satisfactory performance report from customer)	
Copy of one live work order value in Rs. (Please enclose the valid proof of work order)	
Details of Manpower availability: (Number with their qualification & experience): (Add separate sheet if required)	

Declaration:

I/We hereby declare and affirm that I/We have read and understood the terms and conditions of the contract as stipulated in NIT.

Digital Signature

TECHNICAL BID**A) Manpower & consumables:**

Operation & Maintenance of Sewage Treatment Plant of 950 KLD capacity with MBBR/FBBR system by engaging manpower, supplying of chemicals, repair and maintenance of electro-mechanical installations at IITDM, Kancheepuram.

(i) Manpower requirement & qualification details

Description	Manpower	Qualification / Experience
STP Technician (Highly Skilled)	1	Minimum 6 years of relevant practical experience in the Sewage Treatment Plant
STP Operator (Skilled)	6	Minimum 3 years of practical experience.

(ii) Requirement of Manpower & Wages as per act

Sl. No.	Work Description	Per day Minimum wages (Effective from Apr-2022)	Wages for the month (30 Days)	Qty	Total Amount per Month	Total Amount per Annum
1	STP Technician (Highly skilled)	876	₹ 26,280.00	1	₹ 26,280.00	₹ 3,15,360.00
2	STP Operator (Skilled)	806	₹ 24,180.00	6	₹ 1,45,080.00	₹ 17,40,960.00
Sub Total - 1 in Rs. (Excl. GST)						₹ 20,56,320.00

(iii) Supplying following chemicals for STP and depositing with the institute for a requirement of two months in advance and getting it issued at site on monthly basis and mixing the chemicals at required intervals for routine maintenance.

Sl. No.	Description of Chemicals	Qty	Unit	Rate in Rs.	Total amount for two months
1	Bio culture 1st quality 90% bio growth	20	kg	₹ 900.00	₹ 18,000.00
2	Poly electrolyte (Settling chemicals)	30	kg	₹ 250.00	₹ 7,500.00
3	Sodium hypochlorite (10-11%)	1400	Litres	₹ 18.00	₹ 25,200.00
4	Caustic soda	5	kg	₹ 95.00	₹ 475.00
5	Hydro choloric acid 33%	40	kg	₹ 19.00	₹ 760.00
6	Air blower oil- Gear oil 320	2	Litres	₹ 420.00	₹ 840.00
7	Grease (SKF)	1	kg	₹ 450.00	₹ 450.00
8	Cow dung	80	kg	₹ 10.00	₹ 800.00
9	The treated samples shall be collected on request basis and report duly analysed by the King Institute/ any govt. laboratory and to be submitted to IITDM	1	job	₹ 5,000.00	₹ 5,000.00
Total Amount for two months					₹ 59,025.00
Sub Total - 2 for chemicals per annum (Rs. 59,025 * 6)					₹ 3,54,150.00

(iv) Cleaning of various capacity STP sumps, STP storage tanks and sewage wells.

S. No.	Details	Qty	Unit	Rate in Rs.	Amount in Rs.
1	Cleaning of STP storage tanks	3	No's	₹ 10,000.00	₹ 30,000.00
2	Cleaning of sewage wet wells(4 meter dia. and depth 5 meter)	2	No's	₹ 42,000.00	₹ 84,000.00
Sub Total - 3 per Annum					₹ 1,14,000.00

(v) Repair and maintenance work includes replacing of the following STP electromechanical items from its existing location and reinstallation of the same after completing the repair, replacement of the worn out items, rewinding the motor coils whenever required including transportations charges from STP site to workshop and back etc., as per the manufacturer specification and including providing coupling etc., complete as directed by the engineer in charge (This item will be got executed when any of the following items are required to be repaired as per actual requirement during the maintenance period)

S. NO.	Description of work as per tender	Qty	Unit	Rate in Rs.	Amount in Rs.
1	Submersible pump of capacity 0.5 HP to 2.0 HP (Incl.)				
1.1	Motor re winding	1	Each	₹ 2,500.00	₹ 2,500.00
1.2	Replacement of oil seal/Mechanical seal and refilling of new oil	1	Each set	₹ 2,000.00	₹ 2,000.00
1.3	Service and repair of pump impeller	1	Each	₹ 1,000.00	₹ 1,000.00
1.4	Replacement of Pump impeller	1	Each	₹ 3,500.00	₹ 3,500.00
1.5	Replacement of Bearings and bushes	1	Each set	₹ 1,000.00	₹ 1,000.00
1.6	Repair/Replacement of shaft	1	Each	₹ 2,500.00	₹ 2,500.00
2	Submersible pump of capacity above 2.0 HP to 5.0 HP (Incl)				
2.1	Motor re winding	1	Each	₹ 3,500.00	₹ 3,500.00
2.2	Oil seal/Mechanical seal and refilling of new oil	1	Each set	₹ 2,500.00	₹ 2,500.00
2.3	Service and repair of pump impeller	1	Each	₹ 1,500.00	₹ 1,500.00
2.4	Replacement of Pump impeller	1	Each	₹ 4,000.00	₹ 4,000.00
2.5	Replacement of Bearings and bushes	1	Each set	₹ 1,200.00	₹ 1,200.00
2.6	Repair/Replacement of shaft	1	Each	₹ 3,000.00	₹ 3,000.00
3	Submersible pump of capacity above 5.0 HP to 10.0 HP (Incl)				
3.1	Motor re winding	1	Each	₹ 4,800.00	₹ 4,800.00
3.2	Oil seal/Mechanical seal and refilling of new oil	1	Each set	₹ 3,000.00	₹ 3,000.00
3.3	Service and repair of pump impeller	1	Each	₹ 1,500.00	₹ 1,500.00
3.4	Replacement of Pump impeller	1	Each	₹ 4,500.00	₹ 4,500.00
3.5	Replacement of Bearings and bushes	1	Each set	₹ 1,500.00	₹ 1,500.00
3.6	Repair/Replacement of shaft	1	Each	₹ 3,500.00	₹ 3,500.00
4	Submersible pump of capacity above 10.0 HP to 15.0 HP (Incl)				
4.1	Motor re winding	1	Each	₹ 6,500.00	₹ 6,500.00
4.2	Oil seal/Mechanical seal and refilling of new oil	1	Each set	₹ 3,500.00	₹ 3,500.00
4.3	Service and repair of pump impeller	1	Each	₹ 1,500.00	₹ 1,500.00
4.4	Replacement of Pump impeller	1	Each	₹ 5,000.00	₹ 5,000.00
4.5	Replacement of Bearings and bushes	1	Each set	₹ 1,800.00	₹ 1,800.00
4.6	Repair/Replacement of shaft	1	Each	₹ 4,500.00	₹ 4,500.00
5	Centrifugal mono block above 2.0 HP to 5.0 HP (Incl)				
5.1	Motor re winding	1	Each	₹ 3,500.00	₹ 3,500.00
5.2	Oil seal/Mechanical seal and refilling of new oil	1	Each set	₹ 1,400.00	₹ 1,400.00
5.3	Service and repair of pump impeller	1	Each	₹ 500.00	₹ 500.00
5.4	Replacement of Pump impeller	1	Each	₹ 1,500.00	₹ 1,500.00
5.5	Replacement of Bearings and bushes	1	Each set	₹ 1,800.00	₹ 1,800.00
5.6	Repair/Replacement of shaft	1	Each	₹ 2,500.00	₹ 2,500.00
6	Centrifugal mono block above 5.0 HP to 10.0 HP (Incl)				

6.1	Motor re winding	1	Each	₹ 4,200.00	₹ 4,200.00
6.2	Oil seal/Mechanical seal and refilling of new oil	1	Each set	₹ 1,600.00	₹ 1,600.00
6.3	Service and repair of pump impeller	1	Each	₹ 500.00	₹ 500.00
6.4	Replacement of Pump impeller	1	Each	₹ 2,000.00	₹ 2,000.00
6.5	Replacement of Bearings and bushes	1	Each set	₹ 2,000.00	₹ 2,000.00
6.6	Repair/Replacement of shaft	1	Each	₹ 3,000.00	₹ 3,000.00
7	Centrifugal mono block above 10.0 HP to 15.0 HP (Incl)				
7.1	Motor re winding	1	Each	₹ 6,500.00	₹ 6,500.00
7.2	Oil seal/Mechanical seal and refilling of new oil	1	Each set	₹ 1,800.00	₹ 1,800.00
7.3	Service and repair of pump impeller	1	Each	₹ 500.00	₹ 500.00
	Replacement of Pump impeller	1	Each	₹ 2,300.00	₹ 2,300.00
7.4	Replacement of Bearings and bushes	1	Each set	₹ 2,400.00	₹ 2,400.00
7.5	Repair/Replacement of shaft	1	Each	₹ 4,000.00	₹ 4,000.00
8	Air Blower -10.0 HP (Twin Lobe Rotary)				
8.1	Motor re winding	1	Each	₹ 6,000.00	₹ 6,000.00
8.2	Mechanical seal replacement	1	Each set	₹ 3,800.00	₹ 3,800.00
8.3	Replacement of Bearings and bushes	1	Each set	₹ 2,200.00	₹ 2,200.00
8.4	Repair/Replacement of shaft	1	Each	₹ 4,000.00	₹ 4,000.00
9	Screw pump - 3.0 HP (Single stage & single screw)				
9.1	Motor re winding	1	Each	₹ 3,500.00	₹ 3,500.00
9.2	Mechanical seal replacement	1	Each set	₹ 1,500.00	₹ 1,500.00
9.3	Replacement of Bearings and bushes	1	Each set	₹ 450.00	₹ 450.00
9.4	Repair/Replacement of shaft	1	Each	₹ 2,500.00	₹ 2,500.00
Sub Total - 4 in Rs.					₹ 1,35,750.00

Note:

- GST & Taxes extra as applicable for Govt. educational institutions.
- The wages at A(ii) will be as per central minimum wages act and will be paid accordingly.
- ESI will be paid on submission of remittance of proof.
- The provident fund will be claimed by the contractor directly as per The Pradhan Mantri Rojgar Protsahan Yojana (PMRPY) plan scheme.
- A bonus amount of Rs. 7,000 /- per Annum applicable as per Govt. norms and its amendments time to time per person will be reimbursed by the institute on production of bills and vouchers for having paid the bonus.

Declaration: I/We hereby declare and affirm that I/We have read and understood the terms and conditions of the contract as stipulated in NIT.

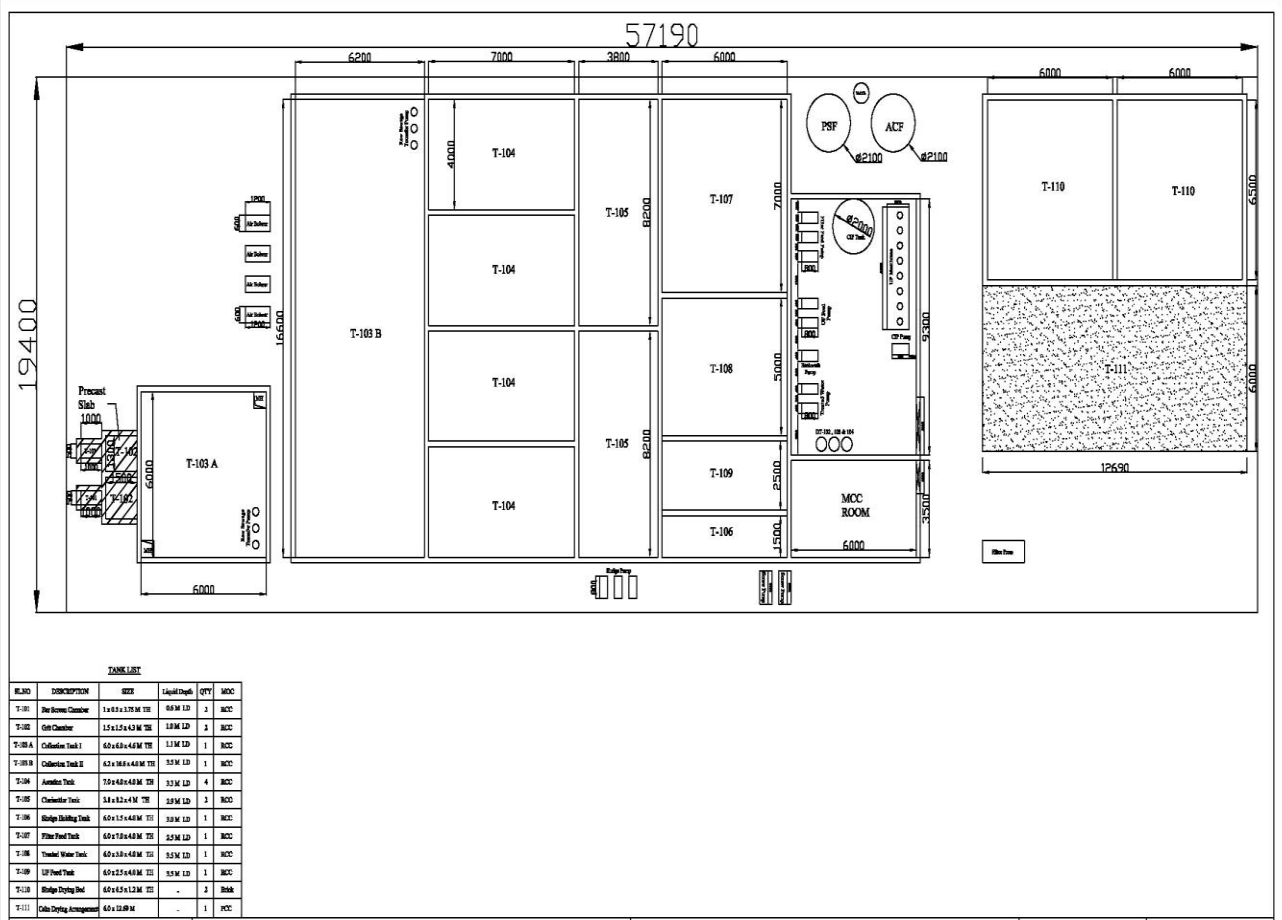
Date:

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B) Schedule of Maintenance:

Sl. No.	Daily (Indicative only)
1	Lifting the sewage as per standards from the sump and Check all the pumps working condition and recorded in the log book in all the shifts
2	Check all the tanks water level and recorded in the log book in all the shifts
3	Analyse & add required chemicals/bio culture in the aeration tank during night time/day time or whenever required and required MLSS has to be maintained as per TNPCB standards.
4	Check and add chemical level of HYPO/HCL/Caustic soda etc., and record in the log book in all the shifts.
5	Back wash to be done in all the shifts for sand filter, carbon filter and UF filter and its connected maintenance works etc.,
6	Sludge tank to be checked for sludge level and it shall be removed through screw pump
7	All the shift log book shall be recorded for all the pumps, Electrical readings/meter readings, water supply, working hours and repair works.
8	Ensure that the treated water should be within the permissible limit as per standards.
9	Fill & ensure that Ashwatha hostel STP storage treated water tank is filled with treated water 24x7 with systematically (Automation system sim card based to be installed and working condition 24x7)
10	Pump & ensure that garden water to be pumped whenever required.
11	Ensure that STP area neat and clean and green
12	The noise level of pumps and motors shall be within the standards specified by TNCPB residential area. Suitable maintenance shall have to be carried out for the pumps and motors to ensure this condition daily
13	Daily they have to cleaning the required bar screen area, oil and grease tank area, removal and cleaning of overflow material etc., if any in STP area.
Sl. No.	Monthly (Indicative only)
1	All the pumps rope and grease to be applied.
2	Electrical panel board/ MCB/terminals/pumps working conditions to be checked.
3	Water testing every 2 month and report to be submitted along with the bills
4	All the reading meters and automatic systems to be checked including hostel STP delivery pump etc.
Sl. No.	Quarterly (Indicative only)
1	Drain bed to be cleaned
2	UF chemical wash to be done and efficiency to be checked
3	All the pumps, Blowers and Air compressor oil change/grease to be applied.
Sl. No.	Half-Yearly (Indicative only)
1	Compulsory Settling tank, filter Tank and sewage wells to be cleaned as per relevant item.
2	All electrical motors, pumps, air blowers, diffused air membrane, sluice valves, Motorized control centre, chlorinating device and all other electrical and mechanical equipment's, fixtures and fittings should to checked and preventive maintenance to be carried out.

C) 950 KLD Sewage Treatment Plant (STP) block diagram:



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FINANCIAL BID

Name of the Work/AMC: Operation & Maintenance of Sewage Treatment Plant of 950 KLD capacity with MBBR/FBBR system by engaging manpower, supplying of chemicals, electrical repair and maintenance at IIITDM, Kancheepuram			
Tender No.: IIITDM/2022-23/STP/002; DT: 13 th June 2022			
Total Estimated Amount per Annum in Rs.	Excess	Percentage	₹ 26,60,220.00
Percentage rate to the total estimated amount 1st Year Aug 2022 to July 2023	+	%	
Percentage rate to the total estimated amount 2nd Year Aug 2023 to July 2024	+	%	
Percentage rate to the total estimated amount 3rd Year Aug 2024 to July 2025	+	%	
Grand total in Rs.			
Grand total amount in words (Rupees			/-)

Note:

1. Grand total amount will be taken into consideration for arriving at L-1.
2. Quoting negative percentages to the estimated amount will not be considered.

Declaration: I/We hereby declare and affirm that I/We have read and understood the terms and conditions of the contract as stipulated in NIT.

Date:

Digital Signature