

INDIAN INSTITUTE OF TECHNOLOGY GUWAHATI

GUWAHATI – 781039, ASSAM

Phone : (0361) 2582064, 2582074 : : Fax : (0361) 2692771



TENDER DOCUMENT

NIT No. IITG/IPM/NIT/FY22-23/27, Dated 02.09.2022

NAME OF WORK

“Repairing and rectification of underground HVAC chilled water pipeline and insulation near new HVAC Plant in IITG”



INDIAN INSTITUTE OF TECHNOLOGY GUWAHATI

Guwahati – 781039, Assam

Phone: (0361) 2582064, 2692074 :: Fax : (0361) 2692771 , 2690762

Date:.....

Detailed NOTICE INVITING TENDER for the work “**Repairing and rectification of underground HVAC chilled water pipeline and insulation near new HVAC Plant in IITG**”
vide NIT No. **IITG/IPM/NIT/FY22-23/27, Dated 02.09.2022** issued to:

Shri / M/s

Address.

.....

.....

HOS, Maintenance



INDIAN INSTITUTE OF TECHNOLOGY GUWAHATI

Guwahati – 781039, Assam

Phone: (0361) 2582064, 2692074 : : Fax : (0361) 2692771 , 2690762

NOTICE INVITING TENDER

NIT No: IITG/IPM/NIT/FY22-23/27, Dated 02.09.2022

Sealed tenders in single-bid system are invited from experienced & competent contractors for the following works at IIT Guwahati campus:

1	Name of works	Repairing and rectification of underground HVAC chilled water pipeline and insulation near new HVAC Plant in IITG
2	Earnest Money	Rs. 4,500.00
3	Date of availability of tender paper in IITG website	From 09.09.2022 to 23.09.2022
4	Last Date & time of submission of tender	Upto 2.30 P.M on 23.09.2022
5	Time of Completion	30 (Thirty) Days
6	Cost of Tender Paper	Rs. 500.00
7	Date & Time for Opening	At 3.30 P.M on 23.09.2022

8. Qualifying criteria for issue of Tender Document :

1. The bidders should be registered in any Govt./ Semi Govt. Department/ Govt. Autonomous Body
2. Should have experience of successful completion of any one of similar works (indoor stadium lighting works)- (i) One work value not less than Rs.1.82 lakhs (ii) two works value not less than Rs. 1.36 lakhs (iii) Three works value not less than Rs.0.91 lakhs during preceding 5 (five) years in any Govt./ Semi Govt. Department / Govt. Autonomous Body (Work order and completion certificate to be submitted along with the tender)
3. Copy of PAN card & GST Registration certificate.
4. Annual turn-over in any one year of the last 3 years should be at least Rs.1.5 lakhs.

9. Download of Tender Document:

- Tender document shall be downloaded from IITG website (www.iitg.ac.in) only from 09.09.2022 to 23.09.2022.
- Any further clarification including corrigendum, addendum, amendments, time extension etc. to the above tender will be posted in the website only. Bidders should therefore regularly visit the website www.iitg.ac.in

10. Submission of Completed Tender:

The Original tender copy duly completed and signed on each page should be submitted in the office of the IPM Section, Estate building, IIT Guwahati along with the offer along with the following documents:

- Self-attested copies of all the qualifying documents as state above along with Pan No. (Income Tax) and GST.
- Cost of tender paper** (non-refundable) of amount **Rs. 500.00** (Rupees five hundred rupees only) in the form of **Demand draft/ Banker's cheque** in favour of "IIT Guwahati" payable at 'Guwahati'.
- Earnest money** of amount **Rs. 4,500.00** (Rupees Four thousand and Five hundred only) in the form of **Demand draft / Banker's cheque** in favour of 'IIT Guwahati' payable at 'Guwahati OR through online i.e. Debit Card/ Credit Card/ Net Banking/ NEFT.

- (iv) MSME certificate for only such service sector will be considered for relaxation of submission of EMD and cost of Tender paper. However, as the contracts can't be split, price preference of 15% will not be applicable
- (v) Any Tender without **Cost of tender paper and EMD (except MSME registered contractors)** and the above relevant documents shall be considered incomplete and shall be rejected without any further communication.

11. IIT Guwahati reserves the right to not issuing tender papers to any contractor engaged in one or more ongoing works in the IITG Campus, if in the opinion of the Institute, the progress of the ongoing works of the contractor has not been found satisfactory and they will not be able to handle a new work till the completion of their ongoing work(s). IITG also reserves the right to accept or reject any or all applications for issue of tender document without assigning any reason thereof.

12. The download and submission of tender paper by a contractor does not automatically mean the tenderer is considered qualified for the price part of the bid. Price bid of only those bidders who fulfill all the requirements given here in above shall be considered.

13. The acceptance of tender will rest with the authority of IIT Guwahati who does not bind itself to accept the lowest tender and reserves in itself the right to reject any or all the tenders received without assigning any reason thereof. The work may be allotted in part or whole at the discretion of competent authority of the Institute.

14. For all clarifications regarding site conditions, items of works or any other related matters to the tender, HOS (IPM) may be contacted during office hours on all working days.

15. In case, the day of submission of the tender happens to be a holiday on account of Govt. notification and tender cannot be received or opened; the tender shall be received and opened on the next working day at the same times.

16. The tender document shall be submitted at the designated place before the last date and time as per NIT. IIT Guwahati is not responsible for any delay on the part of postal department or Shipping agencies.

17. Only one authorized person(s) shall be permitted to attend tender opening. All the bidders shall send their representative(s) to attend tender opening with proper authorization during opening of the tender.

HOS, Maintenance

Special Terms & Conditions

NIT No: IITG/IPM/NIT/FY22-23/27, Dated 02.09.2022

1. Only the firms or a contractor, who downloads the tender document from IITG website (www.iitg.ac.in) from 09.09.2022 to 23.09.2022, are eligible to participate in the tender. The tender submitted by other firm on behalf of any such firm shall not be accepted.
2. All benefits provided to the MSME registered contractors as per the Govt. notification from time to time shall be extended
3. Rates shall be quoted in the Bill of Quantity (BOQ) furnished in **Annexure-A** in figure and words. If there is any variation between the rate of figure and word, the rate quoted in word will be considered.
4. The rate shall be firm up to the completion of work. No price escalation will be paid on any account.
5. The work shall be completed within **30 (Thirty) Days** from the date of issue of the formal work order.
6. The rate shall be inclusive of all taxes, GST, Royalty, loading, unloading and transportation etc. of all the materials to work site at IITG campus, Guwahati-39.
7. All the pages of the tender document shall be signed and dated at the lower right hand corner by the tenderer or by a person holding power of attorney authorizing him to sign on behalf of the tenderer before submission of the of the tender.
8. The documents submitted along with the application for tender in respect of Experience, registration will be verified by the Institute with respect to that stated in the NIT for qualifying for the tender. If after verification any such data/ information are not found true or has attempted to conceal any unfavourable data/ information, his/her tender shall be summarily rejected.
9. The owner reserves the right to take inputs regarding performance of a bidder on any similar work (on-going or completed) from a client whether disclosed in the tender or not. If any such report from the client is found to be unsatisfactory, the tender is liable to be rejected.
10. Any tender submitted without the documents mentioned above will be considered as incomplete tender and the tender will be rejected for which no communication will be made.
11. The contractor shall arrange all the plants, equipments, machineries etc. required for the works for which no extra charges will be paid.
12. The contractor will arrange for water and electricity at his own. However, the institute may provide electricity on the request of the contractor and under the terms and conditions fixed by the institute.
13. Any abnormal rate quoted in the tender will summarily be rejected for which no communication will be made.
14. Care shall be taken by the contractor to avoid damage to any part of the building or its finishing. He/they shall be responsible for repairing all damages and resorting the same to their original finish at his own cost. He / they shall also remove at his own cost all unwanted wastage and materials arising out of his work from the site.
15. The **Earnest Money shall be paid in the form of Demand Draft/ Banker's cheque** drawn in favour of "IIT Guwahati" payable at 'Guwahati' OR through online i.e. Debit Card/ Credit Card/ Net Banking/ NEFT. EMD submitted in the form of Bank Guarantee or any other form except as stated above will NOT be accepted and tender will be summarily rejected. No interest shall be paid by the Institute on the Earnest Money deposited by the tenderer. The Earnest Money of the unsuccessful tenderer will be refunded.
16. **Payment of Bills:** The successful bidder if desire may submit their Running Account Bill as per progress of work and actual execution. Site Engineer will prepare RA Bill for release of payment subject to his satisfaction in progress of work.

After successful completion of work, as per specification and requirement, the

contractor must submit their Final Bill including detail measurement along with Forest Department or other department clearance if necessary within one month from the date of completion of work. On submission, the site engineer will prepare the bill subject to his satisfaction and put up for payment within fifteen days.

17. **Performance Guarantee Period:** 06 (six) months from the date of completion of the work. Any damage or defect in the work during this period shall be made good by the contractor at their own expenses. Otherwise the same will be made good by engaging other workmen and the expenses incurred will be deducted from their security deposit.
18. **Security Deposit:** 3% of the Bill Value will be deducted as Security Deposit from the bill and shall be refunded after the successful completion of Performance Guarantee period. No interest will be paid on security deposit.
19. All other terms & conditions shall be as per provision of General Conditions of Contract followed by the institute.
20. Where any portion of the General Conditions of Contract is repugnant to or at variance with any provisions of the Special Conditions of Contract then, unless a different intention appears the provisions of the Special Conditions of Contract shall be deemed to over-ride the provisions of the General Conditions of Contract and shall to the extent of such repugnancy, or variations prevail
21. All Specification of the work will be followed as per CPWD manuals.
22. Reasonability of the rates quoted by the contractors shall be determined by comparing to the justified estimated rates. If the lowest bid is too low and the tender evaluation committee feels that it is not possible to do the work as per specification, the tender shall be cancelled.
23. Any abnormal rate quoted in the tender will summarily be rejected for which no communication will be made.
24. Care shall be taken by the contractor to avoid damage to any part of the building or its finishing. He/they shall be responsible for repairing all damages and resorting the same to their original finish at his own cost. He / they shall also remove at his own cost all unwanted wastage and materials arising out of his work from the site.
25. IIT Guwahati does not bind himself to accept the lowest tender and reserves itself the right to reject any or all the tenders received without assigning any reason thereof. The work may be allotted in part for whole at the discretion of competent authority of the institute.
26. All legal disputes will be subjected to jurisdiction of Guwahati High Court only.

HOS, Maintenance

PROFORMA FOR SUBMISSION LETTER OF BIDDING DOCUMENT
(TO BE SUBMITTED IN BIDDER'S OWN LETTER HEAD)

Ref no.

Date:

To,
The HOS, Maintenance
Indian Institute of Technology Guwahati
Guwahati – 39

Sub: Submission of tender for the “**Repairing and rectification of underground HVAC chilled water pipeline and insulation near new HVAC Plant in IITG**”.

Dear Sir,

I/we do hereby submit our tender for “**Repairing and rectification of underground HVAC chilled water pipeline and insulation near new HVAC Plant in IITG**” as per Notice Inviting Tender No. IITG/IPM/NIT/FY22-23/27, Dated 02.09.2022. The rates quoted by me / us are for the whole supply work in accordance with Notice Inviting Tender and Terms & Conditions.

Name of the dealer/distributor:

Address for correspondence:

Signature of bidder with seal:

Date:

Contact Phone No –

Email ID:

Enclosure:

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.

Seal & Signature of Bidder

TECHNICAL SPECIFICATIONS

1. Thermal Insulation & Treatment of Chilled, Hot & Drain Water Piping Systems

1.1 Procedure (Thermal Insulation & Treatment of insulated Buried Piping with Expanded Polystyrene):

1. Insulation shall be carried out only after the piping system has been successfully pressure tested.
2. Brush & clean the surfaces of the pipes to be insulated so as to remove any dust, oil, grease etc.
3. Apply two coats of red oxide primer on all the surfaces of the pipes
4. Apply a layer of adhesive each on the pipe surface and on the back of the insulation material.
5. Pre-moulded two halves of pipe sections of the insulation material shall be placed and fixed on the pipes with joints tightly butted together. For pipe sizes, for which the pipe sections are normally not available, insulation slabs may be used for forming the gussets with adequate precautions of sealing the joints.
6. Seal all longitudinal and transverse joints with the adhesive.
7. The insulation shall be continuous over the entire run of the piping including fittings and valves.
8. Cover the insulation with 2 layers of heavy grade polyethylene vapour barrier
9. Cover with 0.63 mm GI chicken wire mesh held in position with 24G GI lace wire Cover the surfaces with 2 layers of 7 mm thick each sand cement plaster.
10. Cover with one layer of waterproof tar felt stuck with R85/40 or R80/25 bitumen, binding wires etc. The tar felt shall be provided with sufficient overlaps

1.2 Materials (Thermal Insulation & Treatment of Insulated Buried Piping with Expanded Polystyrene):

Insulation:

1. Expanded Polystyrene
2. Density 20 Kg/cum. (minimum) Thermal conductivity, not exceeding 0.034 Kcal/(Hr-Sqm - Deg C/m) at 20 Deg. C mean temperature
3. Quality: Treated for Fire retardant (TF)
4. Thickness: 25 mm for pipe sizes 10 mm to 40 mm, 50 mm for pipe sizes 50 mm to 100 mm, 75 mm for pipe sizes 125 mm to 400 mm & 100 mm for pipe sizes above 400 mm

Adhesive:

1. Shalimar CPRX Cold Setting adhesive or Approved equal

ANNEXURE - I

Acknowledgement letter to NIT no. IITG/IPM/NIT/FY22-23/27, Dated 02.09.2022

To,

HOS, Maintenance
Indian Institute of Technology Guwahati
Guwahati –781039.

Sub: “Repairing and rectification of underground HVAC chilled water pipeline and insulation near new HVAC Plant in IITG”

Dear Sir,

We acknowledge receipt of your invitation to Tender which was received on and understand that the documents received remain the property of Indian Institute of Technology Guwahati. We indicate below our intentions with respect to the letter Inviting Tender.

A) We intend to tender as requested and furnish following details with respect to our quoting office:

- i) Postal address :
- ii) Telephone no. :
- iii) Fax no. :
- iv) Contact person :

B) We are unable to tender for the reasons given below and hereby return the Tender Documents.

Reasons for non-submission of tender:

- Company's name :
- Signature :
- Name :
- Designation :

Seal & Signature of Bidder

ANNEXURE – II

PROPOSAL PARTICULARS

1. Tenderer's complete company name & address :

2. Tenderer's proposal no. :

3. Tenderer's proposal date :

4. Tenderer's proposal validity period :

5. Whether Earnest Money Deposited?
 - a) Is so, give the amount and details :

6. Name and designation of the officer of the tenderer to whom all reference shall be made for expedition technical co-ordination. :

7. Photocopy of PAN Card furnished? :

Date:

(Signature of the tenderer)

ANNEXURE – III

Particulars of Contractor:

1. Name & Address of Contractor / Firm :
Telephone No. :
Fax No. :
2. Whether the Firm is private or public limited :
(Attested copies of deed for articles of Association to be enclosed)
3. Name of person holding the Power of Attorney :
(Attested copy of Power of Attorney to be enclosed)
State his present nationality and liabilities :
4. Name of partners, their present nationalities :
with their liabilities :
(Attested copy of partnership deed to be enclosed)
5. Name & Address of Bankers :

I/We authorize IIT Guwahati to make any investigation to verify the correctness of the statements and documents submitted with this application and obtain clarifications or information on the technical and financial aspects of the applicant.

Seal of the Company

Signature of Company / Contractor

Date:.....

ANNEXURE-IV

List of works executed by the firm during last 5 (five) years

Sl. No.	Full Postal Address of client & Name of Officer-in-Charge	Description of the Work	Value of Contract	Date of Commencement of Work	Date of Completion	Remarks

Note: Original or attested copies of work order, SOR and completion certificates from the client should be attached by the applicant without which information furnished shall be considered null and void.

Seal

(Signature of tenderer)

ANNEXURE-V

Compliance to requirement of tender documents

We confirm that our tender complies with the total techno-commercial requirements of bidding document without any deviation.

Signature of Company/ Contractor

ANNEXURE-VI

TENDER VALIDITY

Tender shall remain valid for acceptance for a period of 120 (One hundred twenty) days from the date of opening of the tender. The tenderer shall not be entitled during the said period to revoke or cancel his tender or to vary the tender given or any term thereof. In case of tenderer revoking or cancelling his tender or varying any term in regard thereof, the OWNER shall forfeit the earnest money paid by him along with the tender. Tender shall be revalidated for extended period as required by Owner in writing.

Signature with date & Seal

Signature of Company/ Contractor

ANNEXURE VII

Financial Turnover during the last three years :

Year 2021-2020 =

Year 2020-2019 =

Year 2019-2018 =

Seal of Company

Signature of Company/ Contractor

Date:

Note: Attested copies of audited balance sheet in support of the above turn over shall be enclosed.

ANNEXURE-IX

DETAILS OF COST OF THE TENDER PAPER AND EMD SUBMITTED BY THE TENDERER:

- a)** We have enclosed cost of tender paper amount of Rs.500.00 (Rupees five hundred only) in the form of Demand Draft/Banker's cheque drawn in favour of I.I.T GUWAHATI

DD/BC No. is..... dtd.
Drawn/issued by.....payable at Guwahati.

- b)** We have enclosed E.M.D. amount of Rs. 4,500.00 (Rupees Four thousand and five hundred only) in the form of D.D/ Bankers Cheque No.....
Dtd.....issued by drawn in favour of I.I.T GUWAHATI payable at Guwahati OR through online i.e. Debit Card/ Credit Card/ Net Banking/ NEFT.

Seal of the Company

Signature of Company/
Contractor

Date :

APPROVED MAKES

LIST OF APPROVED MANUFACTURERS / BRAND NAMES OF VARIOUS TYPES OF ELECTRICAL MATERIALS / EQUIPMENT / APPLIANCES: -

B : AC Works

Sl. No	Name of Materials	Manufactures / Brand names
1	Air-handling Units & FCU	Saiver/ Edgetech/ Ravi-aircon/ Waves aircon/Zeco
2	GSS Sheet	Sail / Tata/Jindal
3	Double Skin Plenum Chamber	Edgetech/ Saiver / Ravi-aircon/ Waves aircon
4	Fire & Smoke Damper Spring Type	Dynacraft / Ravi-Star /Caryaire
5	Fire Damper Actuator	Belimo / Siemens/Honeywell
6	Extruded aluminum grills / Diffusers	Dynacraft / Ravi-Star /Caryaire
7	Pre / Microvee Filters	Thermodyne / Klenzoid / Purolator/Anfilco
8	Fiber Glass Insulation	U.P.Twiga / Owen Corning
9	Expanded Polystyrene	Beadsell / Calcutta Insulation/Pioneer
10	Paints	ICI / Asian/Burger
11	Three phase motors	C. G / Siemens / Kirloskar / ABB / Bharat Bijlee
12	Electrical Panel, Control Console Panel & AHU Sub-panels. (CPRI approved panel manufacturer subject to approved from Engineering section.)	EAP / Legrand / Essar Universal
13	M.C.C.B.	L&T / Legrand / Siemens / Schinder
14	MCB	L&T / Legrand / Siemens / Schinder
15	Starters, Contactors, Push Buttons, Overload Relay	L&T / Legrand / Siemens / Schinder
16	Single Phase Preventer	L&T / Minilec / Siemens
17	MS/ GI pipe	Tata / Jindal-star
18	Butterfly Valve	Crawly &Ray /Advance / C&R / CIM / Danfoss / Balimo/ Zoloto/ Sant/Audco
19	Check Valve	Crawly & Ray /Advance / C&R /Econostas/ Zoloto/ Sant/Audco
20	Motorised Butterfly valve	Crawly &Ray /Siemens / Belimo/ Danfoss/ Zoloto/ Sant/Audco
21	2/3 way motorized/mixing/Diverting Proportionate Valve	Crawly &Ray Siemens / Honeywall / Belimo / Anergy/ Zoloto/ Sant/Audco
22	3 speed switch with thermostat/ Proportional Thermostat	Honeywell / Siemens / Anergy/Jhonson

23	Flow switch	Honeywell / Siemens/Danfoss
24	Y Strainer	Crawly&Ray/ Sant/ Rapid Control/ Emerald/ Zoloto/ Sant/Audco
25	Ball valve / Gate Valve	Audco / Leader/CIM/ Zoloto/ Sant/Audco
26	VFD with sensor	Danfoss / ABB/Anergy
27	Balancing Valve	Advance/ Belimo/ Danfoss/ Zoloto/ Sant/Audco
28	Flexible Pipe connections	Resistoflex/ Kanwal/ Dunlope
29	Pressure Gauges	H.Guru/Taylor/ Emerald
30	Thermometers	H.Guru/Taylor/ Emerald/ Jaspin
31	Air Vent	Rapidcontrol/ Anergy/ CIM
32	Inline Fans /Propeller fans	Systemaire/ Greenheck/ Caryaire
33	Chilled water pipe insulation	Beardsell/ Styrene packagin/ Llyods
34	Adhesives for insulations	Fevicol/ Superlon/ Pidilite
35	Preinsulated Pipes	Seven star/ Zeco
36	Vibration Isolator	Resistoflex/ Dunlope/ Kanwel
37	Gaskets for Ducts	Neoprene Rubber/ Primacool
38	Adhesives	Superlo/ Sr-998-FEVICOL / Pidilite
39	Nitrile/XLPE Insulation	Aerolam/ Armacell/ Thermobreak/Trocelle
40	Thermel layer on chilled water pipeline	Supreme/ Paramount polytreat/ Fevicol/ Pidilite
41	Flexible Duct Connection	Airflow/ Pyroguard
42	PID balancing cum motorized valve for AHUs and FCUs	Danfoss/ Frese/ Oventrop/ CIM/ Pettinaroli
43	Centrifugal/Plug fans for AHUs & Fan sections	Nicotra/ Compheri/ Krugar
44	Anchor Fasteneres	Hilti/ Fischer
45	V- Belts	Fenner India/ Dunlop
46	Fire Retardent Duct connection	Airflow/Navaire/Mahajan
47	Cooling Coil	Coli co/VTS
48	PUF	Malanpur/Lloyed/Best Opuf
49	Cable trays	Steel Ways/Slotco
50	Stick pins	Primaseal/Airflow
51	Humidistat	Honnywell/Danfoss/Penn
52	Suction Guide	Anergy/Johnson
53	Duct (factory fabricated.)	Rolta star/Techno Fabriduct
54	Split type AC	Voltas/Bluestar/LG/Samsung/O' General

NOTE: i) ALL MAKES SHALL CONFIRM TO STANDARD SPECIFICATIONS OF EACH ITEMS AS ENCLOSED WITH THE TENDER DOCUMENTS. THE APPROVED MAKE SHALL BE SELECTED WITH APPROVAL FROM MAINTENANCE SECTION.

BILL OF QUANTITIES

NIT No: IITG/IPM/NIT/FY22-23/27, Dated 02.09.2022

BILL OF QUANTITY**Name of Work: Repairing and rectification of underground HVAC chilled water pipeline and insulation near new HVAC Plant in IITG**

SI No	Description	Unit	Qty	Rate (₹)	Rate in figure	Amount (₹)
1	Providing and fixing Chilled water pipe insulation with 75 mm/50 mm thick TF quality expanded polystyrene of 20 kg/ m3 density and finally covered with chicken wire mesh and 7 mm thick sand cement plaster in two layer covered with one layer of tarfelt bitumen on the pipes etc. complete as required -					
a	450 mm dia	Rmt	36.0			
b	200 mm dia	Rmt	20.0			
2	Repairing of chilled water pipeline in different location including welding and fixing of damaged chilled water pipe line including all accessories and consumables complete as required					
a	450 mm dia	Job	2.0			
3	Supply of excavator inclusive of driver & diesel etc. in the campus for shifting bolders and uprotting of plants etc. complete as required	hour	8.0			
4	Earth work excavation by mechanical means (Hydraulic excavator) in foundation trenches or drains (not exceeding 1.5m in width or 10sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m					

a	All kinds of soil	cum	85.0			
5	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	cum	85.0			
					Total Amount =	
					Discount@.....%, if any =	
					Net Quoted Amount =	
					Say =	
(Rupees.....only)						

N.B: Quoted rates shall be inclusive of all taxes & GST.

Place:

Date:

Seal & Signature of Quotationer