

INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

Tender Document for "Comprehensive repair & Face lifting for Mine Ventilation laboratory at the Department of Mining Engineering at IIT KGP."



INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR, WEST BENGAL

TENDER DOCUMENT FOR

Comprehensive repair & Face lifting for Mine Ventilation laboratory at the
Department of Mining Engineering at IIT KGP.

NOTICE INVITING TENDER NO. : Sr.EE(C)/IIT/TEN/2018-19/073

DATED : 26.10.2018

October 2018

Cost of Tender Document: ₹1000.00 (Non-Refundable)
Last Date & Time of Submission : 20.11.2018 upto 03:00 PM

CIVIL CONSTRUCTION & MAINTENANCE SECTION
IIT KHARAGPUR, KHARAGPUR,
WEST BENGAL

Sr.Executive Engineer (Civil)
IIT KHARAGPUR

Name of Bidder: M/S.

.....

.....

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Issued on:

CCM Tender Sl. No. _____

Dated _____

INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

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**INDIAN INSTITUTE OF TECHNOLOGY
KHARAGPUR**

No. Sr.EE(C)/IIT/TEN/2018-19/073

Date: 26.10.2018

NOTICE INVITING TENDER

The Sr.Executive Engineer (Civil), IIT Kharagpur, invites sealed **Percentage Rate tenders** under **Single Bid System** from the **Enlisted Class-D Civil Contractors of IIT Kharagpur** or appropriate class of contractors registered with CPWD(ER), Railways (SER), MES, WB PWD, Kharagpur Municipality or PSUs for the following work:

Name of work	Estimated Amount (₹)	Earnest Money Deposit (₹)	Time for Completion	Start Date & Time of Tender Document Download / Bid Submission	End Date & Time of Tender Document Download / Bid Submission	Date & Time of opening of Technical Bid
Comprehensive repair & Face lifting for Mine Ventilation laboratory at the Department of Mining Engineering at IIT KGP.	8,89,667.00	17,800.00	04 (Four) months	26.10.2018 03:30 PM	20.11.2018 upto 03:00 PM	20.11.2018 at 03:30 PM

Cost of Tender Paper ₹1000.00 (Rupees One Thousand only), NON REFUNDABLE, should be deposited in the form of DD only in favour of IIT Kharagpur, payable at Kharagpur. Tender without 'Cost of Tender Document' will be summarily rejected. The Earnest Money (EMD) should be deposited in the form of DD only in favour of IIT Kharagpur, payable at Kharagpur. Tender without requisite EMD will be summarily rejected. Validity of both the DD should be at least 03 months from the date of publication of NIT. The DD for Cost of Tender Paper and DD for EMD should be submitted in a separately sealed envelope kept within the main envelope containing sealed Bid.

Eligibility Criteria-

Bidders must be registered with IIT Kharagpur, CPWD(ER), Railways (SER), MES, WB PWD, Kharagpur Municipality or PSUs as appropriate class of contractors. Bidders have to submit certified copies of Registration/Enlistment certificate along with his tender. The original Registration / Enlistment Certificate will have to be produced when demanded for verification.

The tender document (consisting of specifications, the schedule of quantities of various types of items to be executed, the set of terms and conditions of the contract and other documents / drawings, if any) can be **downloaded** from the **Central Public Procurement Portal** of Government of India <https://eprocure.gov.in/cppp/tendersearch> & **Institute's website** <http://www1.iitkgp.ac.in/topfiles/tenders.php>. Corrigendum, if any, will be published only on Institute Website and Central Public Procurement Portal. The institute shall not be responsible for any delay / difficulties / inaccessibility of downloading facility for any reason whatsoever. In case of any discrepancy between the tender documents downloaded from internet and the master copy available in this office, the letter shall prevail and will be binding on the tender(s). No claim on this account will be entertained.

Tender should be submitted as per the prescribed format within the specified date and time at Office of Civil Construction & Maintenance Section, IIT Kharagpur, failing which the offer shall be summarily rejected.

Bid Validity period is 120 Days from submission of bid. Bid will be opened at Civil Construction & Maintenance Section, IIT Kharagpur. **Rates quoted by the bidders should GST compliant.**

The Institute reserves the right to reject any tender without assigning any reason thereof.

Sr. Executive Engineer (Civil)
On behalf of Indian Institute of Technology
Kharagpur

Copy to

- 1) Registrar
- 2) Chairman (CCM)
- 3) Vice Chairman (CCM)-Civil
- 4) Superintending Engineer (Civil)
- 5) Superintending Engineer (E&M)
- 6) Executive (CCM)
- 7) Concerned Asstt./Jr. Engineer (Civil)
- 8) Notice Board
- 9) Office file

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INSTRUCTIONS TO THE BIDDER

1. Attention of the tenderer is directed to the conditions of tender and general conditions of contract of IIT Kharagpur. Bidders who are not aware of the "General Conditions of Contract" of IIT Kharagpur are instructed to collect the same from Civil Construction and Maintenance Section, IIT Kharagpur and read the terms & conditions before submission of the tender.
2. The tenderer shall visit and inspect the site and obtain all information on his own responsibility and at own cost, which may be necessary for the purpose of quoting and submitting the tender. No excuse or ignorance as to site conditions and local information shall be accepted after awarding of the contract. All costs, charges & expenses that may be incurred in connection with the preparation of his tender shall be borne by him and the Institute accepts no liability whatsoever therefore. Failure by the tenderer to have done all the things, which in accordance with his condition he is deemed to have done shall not relieve the successful tenderer of the responsibility for satisfactory completion of the work as required. Access to the site will be granted, if necessary, to the tenderer by prior permission of the Engineer-in-charge.
3. The time for completion of work is **04 (Four) months** & will be reckoned from the 7th day from the date of issue of Work Order or handing over of site, whichever is earlier.
4. EMD of requisite amount as mentioned in NIT/Corrigenda in favour of **IITKharagpur** in the form of **Demand Draft** only from any **Nationalized Bank** payable at **Kharagpur** should be enclosed in a separate sealed envelope along with the tender during submission. Validity of DD should be at least 90 days from date of sale of tender. Any tender received without requisite Earnest Money in the form as mentioned above shall be summarily rejected and treated as cancelled. The Earnest Money received shall be refunded to the unsuccessful bidders without any interest, subject to the provisions of Clause 5 of ITB. The Earnest Money Deposit (EMD) of successful tenderer shall be retained and converted as part of Security Deposit.
5. Earnest Money Deposit (EMD) will be forfeited in the following cases -
 - a. If the tenderer withdraws / modifies his tender during the period of Bid Validity.
 - b. If the tenderer does not accept the correction of arithmetical errors of his tender.
 - c. If the tenderer after award of work, does not start the work within the stipulated time period as per Letter of Acceptance / Work Order.
 - d. If two or more bidders forms a curtail or any bidder takes any unfair means and illegal activities during any stage of bidding or during any pre-contract or post-contract stage in order to secure the contract or in furtherance to secure it.

6. **Eligibility Criteria**

Bidders must be registered with IIT Kharagpur, CPWD(ER), Railways(SER), MES, WB PWD, Kharagpur Municipality or PSUs as appropriate class of contractors. Bidders have to submit certified copies of Registration/ Enlistment certificate along with his tender. The original will have to be produced when demanded for verification.

7. **Submission of Bid**

The bid in single bid system shall be submitted in 02 (two) sealed envelopes:

- i. **Envelope-1 : Tender Fee, EMD and Enlistment certificate** will comprise of -
 - i) **Cost of Tender Paper** ₹500.00 (for works upto 2 lakhs) / 1000.00 (for works more than 2 lakh), NON REFUNDABLE in the form of DD in favour of IIT Kharagpur, payable at Kharagpur (validity of DD should be at least 03 months from the date of publication of NIT). Tender without 'Cost of Tender Document' will be treated as cancelled.
 - ii) **EMD** of requisite amount in the form of DD in favour of IIT Kharagpur payable at Kharagpur (validity of DD should be at least 03 months from the date of publication of NIT). Bid without EMD would be summarily rejected.

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iii) Certified copies of **Enlistment / Registration certificate** with IIT Kharagpur, CPWD(ER), Railways (SER), MES, WB PWD, Kharagpur Municipality or PSUs.

II. **Envelope-2 : Bid Documents** will comprise of -

i) Original Tender Document duly Stamped & Signed in all pages.

ii) Duly filled-up Schedule of Quantities and Form of Tender as an acceptance to the terms and conditions set in the tender (stamped & signed in all pages).

Both the envelopes should be duly marked on top with **NIT Number, Name of work and Tender Fee & EMD / Bid Document** as the case may be and the **name of the bidder**. Both the envelopes to be put in another sealed large envelope duly marked on top with **NIT Number and Name of work and name of the bidder**. Tenders must be delivered at the place and time as indicated in NIT / further corrigenda. Bids that are not in the above format will be rejected.

8. Each and every page of the tender documents and correspondences accompanying the tender shall have to be duly signed and stamped by the Bidder / Authorised Signatory before submission. The person / officer signing the tender / bid should be the **Owner / Proprietor / Partner / CEO / MD / Director** of the company or delegated with an appropriate **Power of Attorney (duly endorsed by a Notary Public)** to sign such documents by the **Owner / Proprietor / Partner / CEO / MD / Director** of the company.
9. The bidder shall have to submit valid Trade License, PAN, GST registration details etc. as and when demanded and have to produce the original for verification.
10. All Percentage/ Rates / Prices / Amounts / Sums quoted by the bidder shall be in Indian currency only. The language used throughout shall be English.
11. All Rates / Amounts / Sums / Percentages shall have to be quoted in indelible ink and written both in figures and words. If the rate / percentage quoted in words does not tally with the rate / percentage quoted in figures then the rate / percentage which corresponds to the lesser amount shall be considered.
12. Any overwriting / correction / applying correction fluid shall be avoided and in case any correction is made the same must be initialized and stamped.
13. Tender must be submitted considering the rates for all the items of work involved and any incomplete tender will not be considered. The items / parts for which the rates / percentages are not quoted will be considered as '**Zero**' & the agency shall complete that item / part of work without any claim.
14. No alteration shall be made by the tenderer in the tender and no conditional tender will be entertained. Tender with split rate will not be considered.
15. The bid shall remain valid for a period of **120 days** from the date of opening of the bid. If before expiry of the validity period or issue of work order, whichever is earlier, the bidder amends / modifies / withdraws his bid, making unacceptable to the institute, then the Earnest Money Deposit shall be liable to forfeiture at the option of the Institute.
16. **The rates quoted by the tenderer should be inclusive of GST**, freight, cost for loading & unloading etc. and must hold good till the completion of work and shall not be subjected to escalation due to increase in local market rates of materials and labour. No claim on this account what so ever shall be entertained at any stage including the extended period, if any.

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17. The Intending bidders will have to produce documentary evidence in original in support of their eligibility before the competent authority whenever demanded for verification. If any information furnished by the bidder is found as false / fabricated then his bid will be rejected and treated as cancelled, even if the same is detected at any stage after signing of the contract and would lead to termination of the contract besides forfeiture of Earnest Money Deposit (EMD) and liabilities towards prosecution under appropriate law. In such cases the bidder / contractor will be debarred from participation in future tendering process for next 03 (Three) years..
18. The sealed Bids shall be received by the Institute at Civil Construction and Maintenance Section not later than the time and date stipulated in the Notice Inviting Tender or Corrigenda otherwise. Tenders that are received after the date and time specified will not be considered.
19. The tender will be opened on the specified date and time of opening at the Civil Construction & Maintenance Section, IIT Kharagpur in the presence of bidders / tenderers or their Authorised representatives (with proper authorization letter from Owner/Proprietor/Partner/CEO/MD/Director of the company mentioning Name, Address and designation of the person being authorised). *During bid opening, Envelope-1 containing Tender Fee, EMD and copy of Enlistment certificate will be opened first. If, Envelope-1 does not contain proper Tender Fee / EMD or valid Enlistment / Registration Certificate, bid will be considered as non-responsive and Envelope-2 containing Bid Document will not be opened and the bid will be summarily rejected. However, in such cases, EMD will be refunded to the non-responsive bidder as per Clause No. 4 of ITB.*
20. The Institute reserves the right to accept or reject any or all the offer including the lowest without assigning any reason. The Institute does not bind itself to accept the lowest offer.
21. The successful tenderer, shall deposit an amount equal to 5% of the tendered and accepted value of the work as performance guarantee in the form of Demand Draft of a Scheduled Bank in favour of IIT Kharagpur payable at Kharagpur. The time allowed for submission of the performance guarantee shall be 15 days of receiving "Letter of Acceptance" (LOA). This period can be further extended as the written request of the contractor by the Engineer-in-charge for a maximum period ranging from 1 to 15 days with a late fee @ 1.00% per day of Performance Guarantee Amount. If the bidder still fails to deposit the performance guarantee within the extended time period, i.e. within 16th day to 30th day from the issue of letter of acceptance (LOA), his bid will be rejected and treated as cancelled and the entire Earnest Money Deposit shall be forfeited. After recording of the completion certificate for the work by the competent authority, the performance guarantee shall be returned to the Contractor, without any interest.
22. Standard Institute payment procedure shall be followed. A sum @ 5% of the gross amount of the bill shall be deducted as Security Deposit from the bill of the contractor. However, Earnest Money shall be adjusted first in the Security Deposit and the rest amount to complete a sum of 5% of gross bill value will be deducted from the contractor's bill. The security deposit of the Contractor shall not be refunded before the expiry of defect liability period after the issue of the certificate final or otherwise, of completion of work, or till the final bill has been prepared and passed whichever is later.

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ADDITIONAL CONDITIONS OF CONTRACT

1. The quantities indicated are approximate and may vary at the time of execution. The Institute will exercise absolute discretion for operating all or some items of the schedule.
2. Contractor has to remove all the debris from the site of execution and dispose them at suitable places shown by the Engineer or his authorised representative at site.
3. Cement used for the work should not be older than two months from the date of manufacture. The contractor should purchase the cement from authorised dealer and submit the test certificates/vouchers prior to execution of the work.
4. All temporary arrangements, staging, working platforms etc. is to be provided by the tenderer at his own expense to the satisfaction of the Engineer-in-Charge. The Institute will not however, be liable to pay any compensation due to accident, injury to the contractor's work men or any account what-so-ever.
5. Steel to be supplied and used should be from approved manufacturers. Steel from manufacturers other than approved make / re-rolled steel will not be acceptable. The consumption of steel will be regulated as per bar bending schedule and drawing to the contractor and/or as directed by Engineer-in-charge. Payment of reinforcement rod, will be made as per actual use including overlaps, crank, bending etc., as needed at work site, if any, as per approved drawing. Quantity will be calculated using standard weight per running metre. No wastage on any account is payable. Test certificate of steel should be submitted by the contractor. The contractor must submit vouchers for the steel purchased to the Engineer. All reinforcement used should be free from loose mill scale, loose rust, paint and oil coating etc.
6. All concreting works instructed shall be Machine mixed and Machine vibrated and will have required levels of strength at the time of testing. Poorly executed concrete have to be demolished and repair will not be allowed.
7. The Institute will be at liberty to take samples during the course execution of work and get the same tested at Institute's laboratory to ascertain the quality conforming to relevant specification. The cost of sample and the charges for the testing will have to be borne by the contractor.
8. The contractor shall have to maintain the work for **TWELVE (12)** calendar months from the certified date of its completion.
9. The job is to be done as per CPWD specifications Volume I and II, as applicable and provisions made in relevant IS codes must be followed. Wherever these are silent, the construction and completion of works shall conform to sound engineering practice as approved by the Engineer-In-Charge. In case of any dispute arises out of the interpretation of the above, the decision of the Engineer-In-Charge shall be final and binding to the contractor.
10. The bituminous road work shall be carried out by using bitumen of grade VG30 preferably from IOCL wherever applicable.
11. **Roof treatment work / water proofing treatment work should be guaranteed by the contractor for 10 years after successful completion of work, wherever applicable.**
12. The splashes of paints over doors, windows and floor shall be cleaned thoroughly after execution of the work.

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13. Irrespective of rates quoted by the bidder, the contractor shall be solely responsible for payment of *Minimum Wages* as stipulated by the Government from time to time.
14. For painting works-
 - i. Volume of paint required is to be procured & stored at site during starting of work to avoid mismatch of shade and Challan / Tax invoice of procured paint, certified by the Manufacturers, should be submitted to the department.
 - ii. Sampling of paint should be done in presence of the manufacturers' representative and the quality of application to be certified by the manufacturer and the same to be submitted to the department.
 - iii. Surface preparation and procedure of paint application as suggested by the paint manufacturers to be followed properly and Checklist of paint (pro-forma will be provided by EIC during execution) to be jointly signed by the contractor, paint manufacturer.
 - iv. External Painting works to be guaranteed by the paint manufacturer for a period of 03 years for Normal Acrylic Emulsion, 05 years for 100% Acrylic Emulsion and 07 years for super protective Acrylic Emulsion Paint. The warranty should cover replacing of paint to the extent of defect including cost of labour for re-application of coating as may be necessary to set right the paint failure, at the contractor's own risk and cost.
Paint failure shall mean –
 - a) flaking / peeling / cracking or chalking of paint film
 - or, b) growth of micro-organism like algae/fungus on the painted surface
 - or, c) fading of colour shade of painted surface
 - v. For a particular area, primer and paint to be used should of same make approved by IIT Kharagpur.
15. Containing original priced offer in the prescribed format as detailed in Schedule of Quantities of the tender document duly signed and stamped. No condition/stipulation shall be provided in the priced offer. In case of any deviation/stipulation found in the priced offer, the same shall be considered null and void and the offer is liable to be rejected.
16. The right to reject all offer(s) or split up the total requirement and award the contract to one or more than one party if considered necessary or to cancel the Tender rests with IIT Kharagpur.
17. Since the site is an operational department/hall, special arrangements to be made for working without disturbing students/faculty. Working hours may have to be rescheduled accordingly.

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SCOPE OF WORK & TECHNICAL SPECIFICATION

The scope of work includes “Comprehensive repair & Face lifting for the Mine Ventilation laboratory at the Department of Mining Engineering at IIT KGP”

APPROVED MAKE LIST OF MATERIALS TO BE USED IN CIVIL, SANITARY & WATER WORKS

SL. NO.	Description of Materials	List of Manufacturers
1	OPC/PPC/PSC	ACC, Birla, Ultratech, , Ambuja
2	White Cement	J.K. Cement, & Birla White
3	Wall Putty	JK / Birla / Sika
4	Lime	Janatacem, Asian Paint
5	Neeru	More (Peacock), Kamal
6	HYSD Bars (TMT Bars)	TISCO, SAIL, RINL
7	Structural Plates and Steel Sections	TISCO, SAIL, RINL, JINDAL
8	Steel light Sections (for grill railing, door, window frame etc)	SRMB, Shyamsteel, Elegant
9	Pressed steel doors & fire resistant steel doors	Godrej, Windoors, Navair, Shakti, Strategic Building Systems & Kutty Flush Doors
10	Aluminium Extruded Sections	Jindal, Indal, Hindalco & Bhoruka
11	Hardware Fittings & fixtures	Garnish, Diamond, Hardwyn, Godrej, Hettich, Dorma,
12	Anodized Aluminium fittings	Allen / Metco / N.L.C.O.
13	SS Railing Sections	Ozone / D-Line / Jindal
14	Stainless steel D-handles	Godrej, Hettich, D-line, Dorma, Dorset, Ozone
15	Door Locks	Godrej, Dorma
16	Door Closer/Floor spring	Godrej, Ozone, Hettich, Dorma, Hardwyn
17	False Ceiling	Gyprock / Armstrong/SainGobain
18	Aluminium Cladding sheets	Alstrong, Alpolic, Alucobond, Alstone International, Aludecor Lamination
19	Colour Coated Steel / Zinc-alu alloy roofing sheets	TATA Bluescope, Jindal, Kirby,
20	Ceramic Tiles	H.R. Johnson (I) Ltd., Somany, Kajaria, Nitco
21	Vitrified Tiles	M/s H.R. Johnson, , Somany, Kajaria, Nitco
22	Cement Based Paint	M/s Snowcem India Ltd. (Super snowcem, Sandex Matt), NITCO (Nitcom) Paints, Hindustan Colour Chemical, Jayantcolour, Surfacoat, Terraco, Berger-Rabiace, Apporva Buildcare & Decocem
23	Distemper & Paints	Asian Paints, ICI Paints, , Berger Paints India Ltd.
24	Anti-corrosive water proofing paint with Aluminium finish	SIKA, Shalimar
25	Waterproofing Compound, Sealants	Sunanda Chemicals, Mc-Bauchemie, FOSROC, Pidilite, Roffe, BASF, Sika
26	Adhesive for wood	Fevicol, Vamicol, Dunlop, Araldite
27	Water stops	M/s Omai Plastics, BaseconPask, Asian Engineering Products, Caprihans India Ltd., R.C. Enterprises, Kanta Polymers (Kanta flex) & Fixopan
28	APP Membrane	SIKA / PIDILITE / FOSROC / TIKIDAN
29	Expansion Joint Boards & Tar felts	M/s Shalitek, S.T.P. Ltd., Lloyd Insulation, Tiki Tar Industries
30	Expansion Joint Filters	M/s Shalitek, S.T.P. Ltd., Lloyd Insulation & BASF Chemicals
31	Concrete Admixtures	Sunanda Chemicals, Mc-Bauchemie, FOSROC, Pidilite, Roffe, BASF

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32	Bitumen (grade VG30)	IOCL
33	P.V.C. Shutters	Sintex / Raunaq / Duroplast
34	P.V.C. Pipes	Oriplast / Supreme / Finolex
35	P.V.C. Cistern	Parryware / Hindware / Cera
36	P.V.C. Closet Seat Cover	Parryware / Hindware / Cera / Prayag
37	P.V.C. Connector Pipe	Prayag
38	P.V.C. Ball Cock	Prayag
39	P.V.C. Bib Cock / Stop Cock/ Angular Stop Cock / Pillar Cock	Prayag
40	P.V.C. Waste & Sanitary Fittings	Prayag
41	Polycarbonate Sheets	GE / Macrolux / Polytechno / Danpalon
42	UPVC Doors / Windows	Fenesta, Aluplast, Lingel, Shuco, Winpro, Rehau
43	Ply Wood	Kitply, Greenply, Century Plywood
44	Flush Door	Green Ply, Century Ply, Kitply
45	Pre Laminated & Plain Particle Boards	NOVAPAN, Anchor
46	Glass for Doors / Windows	Modi Guard, Saint Gobain, Asahi
47	Plain Glass Mirror	M/s Modi Float Glass, , Saint Gobain, Asahi, Jaquar
48	Sanitary Wares	M/s Parryware, Hindware, Cera,
49	C. P. Brass Fittings & Fixtures	GEM, Techno, Lalsons KINGSTON, JAGUAR, Metro, ESSCO, MARC
50	C. P. Brass Coupling and Bottle Trap	ESSCO, GEM, Kingston, Jaguar, Metro, Marc
51	C. I. Flushing Cistern	Mis A-1 (J.S.), HJN, JAMCO, Neco, HIF
52	C. I. Pipe & Fittings	NECO / BIC / D.N.Sinha / AMC / ALC
53	Gun Metal Wheel Valve	Zoloto / Alto / Leader
54	C. P. BRASS Urinal Waste & Flush pipes	Orient, PARKO, Elite, Jaguar & Metro
55	Plastic Sheet & Cover	M/s Commander, Diplomat, Admiral, Patel, Champion, Parryware & Hindware
56	S.S. Sink	Diamond, Nirai, Parryware / Cera
57	G.I. Pipes	TATA, Jindal
58	G.I. Fittings	HB / R
59	G.M. Gate / Globe Valves	Nets, SANT, M/s Leader Valves, Zoloto
60	CPVC, UPVC, SWR Pipes	Finolex, Prince & Supreme
Electrical items:		
1	FRLS wire 1.1 KV	Finolex/Havells/ RR KABEL
2	PVC pipe (MMS)	Precesion/POLYCAB
3	3-pole ceiling rose/ holder/ Call bell	Anchor/ SSK
4	Brass Compression Gland	ARUN Make
5	Al Lug	Dow ell's
6	Cable	Finolex/Havells/POLYCAB/ KE/RR KABEL ,
7	Luminaries (LED):	Philips/Havells/Wipro/Bajaj
8	GI Pipe	TATA/JINDAL
9	MCB & MCBDB(10ka)	Legrand/Hager/Siemens/L&T
10	ACB and MCCB	L&T/ Legrand/ Siemens/ ABB
11	LT panels(only TTA	L&T/ Legrand/ Siemens/ ABB
12	Cable Trey (only hot dip galvanised)	OBO / Legrand/ MK-Honeygw ell
13	Pump Sets	Crompton/Kirloskar/ GRUNDFOS
14	Modular Sw itch & Socked	MK wraparound plus / Legrand-Mynis / Crabtree Verona

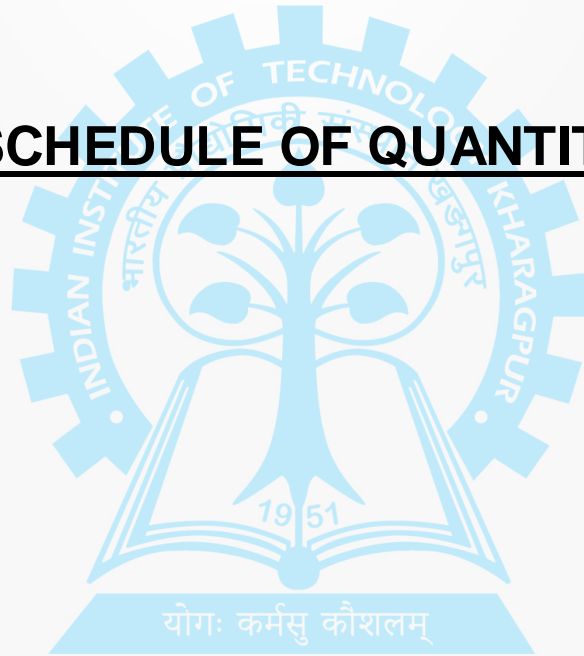
Note: For items not covered in the above list or in case of non-availability of preferred make of any item listed above, the make / brand to be used in the work, should have prior approval from the Engineer-In-Charge.

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SCHEDULE OF QUANTITIES



**CIVIL CONSTRUCTION AND MAINTENANCE SECTION
I.I.T KHARAGPUR**

Name of work : **Comprehensive repair & Face lifting for Mine Ventilation laboratory at the Department of Mining Engineering at IIT Kharagpur.**

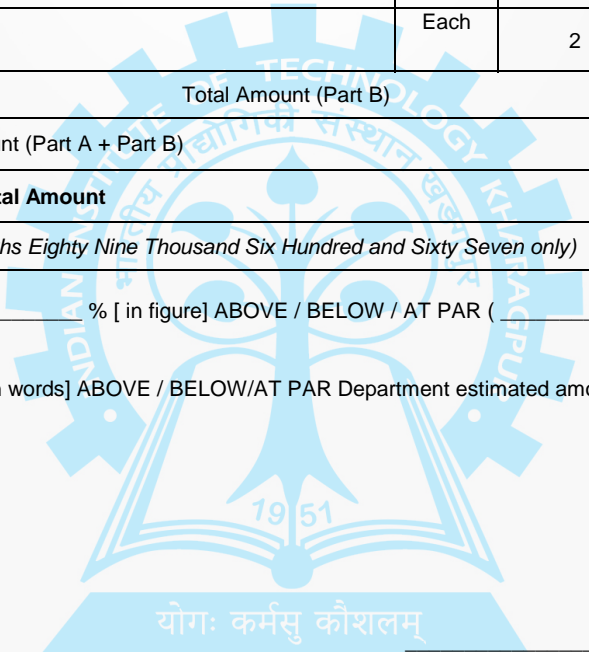
Schedule of Quantities

SI. No.	Description of Items	Unit	Quantity	Rate (Rs)	Amount (Rs.)
Part A - Civil Works					
1	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead.	Sq.M	450.00	27.01	12155.47
2	Applying 2 coats of bonding agent with synthetic multi functional rubber emulsion having adhesive and water proofing properties by mixing with water in proportion (1 bonding agent : 4 water : 6 cement) as per Manufacturer's specification .	Sq.M	450.00	104.88	47196.00
3	Applying epoxy based reactive joining agent for joining the old concrete with fresh concrete to be applied within manufacturer's specified time as per manufacturers specification. (0.4 Kg / m ² of concrete surface).	Sq.M	12.00	368.27	4419.24
4	Repair to plaster of thickness 12mm to 20 mm in patches of area 2.5 sqm and under, including cutting the patch in proper shape, raking out joints and preparing plastering the wall surface with white cement based polymer modified self curing mortar, including disposal of rubbish, all complete as per the direction of Engineer-In- Charge.	Sq.M	40.00	444.86	17794.26
5	Cleaning the exposed reinforcement preferably upto full diameter by wire brush, applying two coats of polymer based rust removing compound left for 24 hours, removing the coating and then applying two (2) coats of polymer modified anti corrosive protective coating formulated to inhibit the corrosion of reinforcement as per manufacturer's specification] [Mode of measurement:The affected surface area of reinforcement shall be considered for payment]	Sqm	16.00	926.30	14820.80
6	Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets, sunken floor etc., up to floor five level, excluding the cost of centering, shuttering and finishing :1:2:4 (1 Cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size).	Cu.M	20.00	7895.87	157917.43
7	15 mm cement plaster on the rough side of single or half brick wall of mix :1:6 (1 cement: 6 fine sand)	Sq.M	130.00	223.33	29033.25
8	20 mm cement plaster of mix :1:6 (1 cement: 6 sand)	Sq.M	320.00	266.02	85126.89
9	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level.	Kg	50.00	68.25	3412.70

Sl. No.	Description of Items	Unit	Quantity	Rate (Rs)	Amount (Rs.)
10	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. above plinth level up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement :1:1.5:3 (1 cement : 1.5 coarse sand(zone-III) : 3 graded stone aggregate 20 mm nominal size).	Cu.M	0.50	8617.12	4308.56
11	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement, including cement slurry, but excluding the cost of nosing of steps etc. complete.40 mm thick with 20 mm nominal size stone aggregate	Cu.M	20.00	437.26	8745.19
12	Acrylic Distemper to interior wall, ceiling without a coat of water based interior grade acrylic primer (as per manufacturer's specification) including cleaning and smoothing of surface. Two Coats	Sq.M	780.00	46.72	36441.60
13	Applying Interior grade Acrylic Primer of approved quality and brand on plastered or concrete surface old or new surface to receive Distemper/ Acrylic emulsion paint including scraping and preparing the surface thoroughly, complete as per manufacturer's specification and as per direction of the EIC. (In any floor), One Coat, Water based interior grade Acrylic Primer.	Sq.M	780.00	36.71	28633.80
14	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade : One or more coats on old work	Sq.M	140.00	61.86	8660.77
15	Applying priming coat:With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanised iron/steel works	Sq.M	140.00	35.09	4912.84
16	Finishing walls with Acrylic Smooth exterior paint of required shade :New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied@ 2.20 kg/10 sqm)	Sq.M	815.00	115.83	94398.76
17	Centering and shuttering including strutting, propping etc. and removal of form for :Weather shade, Chajjas, corbels etc., including edges	Sq.M	6.00	629.18	3775.07
18	Easing door and windows.	Each	42.00	20.26	850.92
19	Providing and fixing on wall face unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion, (i) Single socketed pipes.r				
	a) UPVC Pipes:: 110 mm Dia.	Mtr.	92.00	285.01	26221.33
20	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion.				
	Single tee with door 110x110x110 mm	Each	15.00	202.11	3031.63
	Bend 87.5° 110 mm bend	Each	15.00	136.39	2045.81
	110 mm Shoe	Each	15.00	118.18	1772.67
21	Providing & fixing glass panes with putty and glazing clips in steel doors, windows, clerestory windows, all complete with :4.0 mm thick glass panes	Sq.M	7.00	830.93	5816.48

Sl. No.	Description of Items	Unit	Quantity	Rate (Rs)	Amount (Rs.)
22	Providing and fixing factory made ISI marked steel glazed doors, windows and ventilators, side /top /centre hung, with beading and all members such as F7D, F4B, K11 B and K12 B etc. complete of standard rolled steel sections, joints mitred and flash butt welded and sash bars tenoned and riveted, including providing and fixing of hinges, pivots, including priming coat of approved steel primer, but excluding the cost of other fittings, complete all as per approved design, (sectional weight of only steel members shall be measured for payment).Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	Sqm	10.00	136.99	1369.90
23	Taking out doors, windows and clerestory window shutters (steel or wood) including stacking within 50 metres lead :				
	Of area beyond 3 sq. metres	Sq.M	10.00	97.68	976.78
24	Renewing worn out putty of glass panes :Panes not exceeding 0.2 Sq.m	Mtr.	670.00	30.69	20562.40
25	Refixing old glass panes with putty and nails	Sq.M	20.00	398.85	7977.03
26	Wear cement punning.	Sq.M	40.00	51.37	2054.85
27	Removal of existing treatment such as old terfelt etc. Thoroughly the surface using blower etc. And Providing and laying APP (Atactic Polypropylene Polymer) modified prefabricated five layer 3 mm thick water proofing membrane, black finished reinforced with non-woven polyester matt consisting of a coat of bitumen primer for bitumen membrane @ 0.40 litre/sqm by the same membrane manufacture of density at 25°C, 0.87-0.89 kg/ litre and viscosity 70-160 cps. Over the primer coat the layer of membrane shall be laid using Butane Torch and sealing all joints etc, and preparing the surface complete. The vital physical and chemical parameters of the membrane shall be as under : Joint strength in longitudinal and transverse direction at 23°C as 650/ 450N/5cm. Tear strength in longitudinal and transverse direction as 300/250N. Softening point of membrane not less than 150°C. Cold flexibility shall be upto -2°C when tested in accordance with ASTM, D - 5147. The laying of membrane shall be got done through the authorised applicator of the manufacturer of membrane :3 mm thick	Sq.M	400.00	502.98	201192.36
28	Painting with aluminium paint of approved brand and manufacture to give an even shade .Two or more coats on new work	Sq.M	400.00	82.42	32969.31
29	Repairing steel window by welding including supplying all materials like hinges, legs, handle plates etc. whatever required for repairing with hire welding set different floor including scaffolding necessary for the work (including the cost of serviers connection charge for the welding) .	Sq.M	16.00	262.20	4195.20
				Total=	872789.30
	Part A			Say	872789.00

Sl. No.	Description of Items	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
Part B : Electrical Works					
Sl. No.	Description	Unit	Qty.	Rate (Rs.)	Amount (RS)
1	Wiring for light point / fan point / call bell point / exhaust fan point with 1.5 sq mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable size GI box and earthing the point with 1.5 sq mm FRLS PVCinsulated copper conductor single core cable etc as required . Make: FRLS Wire, 1.1 KV grade :- Finolex/Havells/R R KABEL, PVC pipe (MMS) :- Polycab/Precision /AKG/Presto Plaste, 3 Pole Ceilling Rose/ Holder :- Anchor / SSK, Switch/Socket/Modular Board :- Crabtree Thames (Sapphire & Platinum range)/ Wipro(Nowa)/ legrand (Myrius range)/ MK-Wraparound plus.				
a	Upto 6 metres.	Each	2	548	1096
b	Above 6 metres .	Each	3	615	1845
2	Wiring for circuit / submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor , single core cable in surface / recessed medium class PVC conduit as required . , with modular switch, modular plate, suitable size GI box and earthing the point with 1.5 sq mm FRLS PVCinsulated copper conductor single core cable etc as required . Make: FRLS Wire, 1.1 KV grade :- Finolex/Havells/R R KABEL, PVC pipe (MMS) :- Precision /AKG/Presto Plaste/Polycab.				
a	2 X2.5 sq mm +1X2.5 sq mm for E.C.C	Meter	20	137	2740
b	2 X4 sq mm +1X4 sq mm for E.C.C	Meter	20	168	3360
3	Supply of 4 ft. Pre wired ,1x18 Watt LED T8 6000K,1800 -2100 lumen per tubelight ,Diffused CRCA powder coated body,white batten type luminaire with Supply of 1 No. Tubelight with extruded aluminium heat sink for efficient heat dissipation along with intregated electronic driver with all accessories. including connection with 3X1.5 sq mm FRLS PVC insulated copper conductor single core cable and earthing etc as required. Make - Havells , Equivalent to LHFYBYPNIA1W022 & LHLDCNXNUL8X018 / Philips /Bajaj.	Each	3	688	2064
4	Installation , testing and commissioning of ceiling fan including wiring the down rods of standard length (upto 30 cm) with 3 X1.5 sq mm FRLS PVC insulated copper conductor single core cable etc as required.	Each	5	105	525
5	Installation , testing and commissioning of pre- wired, fluorescent fitting /compact fluorescent fitting/LED fittings of all types complete with all accessories and tube/lamp etc. directly on false ceiling / wall, including connection with 3 X1.5 sq mm FRLS PVC insulated copper conductor single core cable and earthing etc as required.	Each	10	100	1000
6	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on wall surface as required incl. S+F of 1X10 SWG GI wire for E.C.C making holes and manding good the damages to original finish incl painting.(Cable Dept supply),(Special Note: Screws should be guranteed for rust proof for one year.)				
a	Upto 35 sq mm (clamped with 1 mm thick saddle)	Meter	10	25	250
b	Above 35 sq mm and upto 95 sq mm (clamped with 25X3 mm MS flat clamp)	Meter	5	72	360

Sl. No.	Description of Items	Unit	Quantity	Rate (Rs)	Amount (Rs.)
7	Dismantling of following items with good condition and shifting to site store etc. including mending good the damages to original finish.				
a	Light Fittings/Ceiling Fan/Wall Fan/Exhaust Fan/Industrial plug & socket DB/Metal Enclosure etc. including accessories & old wiring/cable.	Each	20	20	400
b	TPN DB/SPN DB/Main switch etc. including accessories & old cable/wiring.	Each	10	50	500
c	Medium Size main supply Panel etc. including accessories & old cable/wiring.	Each	1	498	498
8	Fixing of followings directly on surface / recessed /flat Iron frame or Angle Iron Frame on wall including necessary connection etc. as required. (DB/Enclosure/Main switch : Department supply).				
a	SPN MCB DB (4 to 16 way)	Each	10	178	1780
b	TPN MCB DB (4 to 12 way)	Each	2	230	460
Total Amount (Part B)				Rs	16878
Total Amount (Part A + Part B)				Rs	889667.00
Total Amount				Rs	8,89,667.00
<i>(Rupees Eight Lakhs Eighty Nine Thousand Six Hundred and Sixty Seven only)</i>					
I agree to execute the work at _____ % [in figure] ABOVE / BELOW / AT PAR (_____					
_____percent) [in words] ABOVE / BELOW/AT PAR Department estimated amount/item rates.					
					
Signature of the Contractor with Date & Seal					

INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

Tender Document for "Comprehensive repair & Face lifting for Mine Ventilation Laboratory at the Department of Mining Engineering at IIT KGP."

FORM OF TENDER

(To be filled by the Tenderer with sign & stamp)

To
The Sr.Executive Engineer (Civil)
Civil Construction & Maintenance Section
Indian Institute of Technology
Kharagpur, West Bengal

I/We, _____ Son/Daughter of Sri _____
Proprietor/Partner/CEO/MD/Director of M/s. _____ of
(Address) _____

having examined the site of works, carefully read and understood the Specifications, General Conditions of Contract and Conditions of the Tender, hereby tender and undertake to execute and complete all the works required to be performed in accordance with the Specifications, Bill of Quantities, General Conditions of Contract, the rates and prices set out in the annexed Bill of Quantities within _____ days / weeks / months from the seventh day of the date of receiving work order.

I agree to execute the work at _____ % (in figure) (_____ percent) (in words) **ABOVE / BELOW / AT PER** the Departmental Estimated Rates.

I/We have submitted Account Payee Demand Draft No. _____ dated _____ in favour of IIT **Kharagpur** payable at **Kharagpur** for Rs. _____ (Rupees _____) with the tender as **Cost of Tender Document**.

I/We have submitted Account Payee Demand Draft No. _____ dated _____ in favour of IIT **Kharagpur** payable at **Kharagpur** for Rs. _____ (Rupees _____) with the tender as **Earnest Money Deposit**.

I also declare that the information / documents furnished along with the application and tender are true and authentic to the best of my knowledge and belief. I am well aware of the fact that furnishing of any false information / fabricated document would lead to rejection of my tender / termination of contract at any stage besides liabilities towards prosecution under appropriate law. Each page of the tender document and papers submitted by my Company are authenticated, sealed and signed, and I take full responsibility for the entire documents submitted with this tender.

I/We agree that the period for which the tender shall remain open for acceptance shall not be less than **90 Days** from date of opening of tender.

Signature of the Tenderer / Authorised person

(Seal of the Tenderer)

Name of the tenderer _____

(in _____ Block _____ letters)

Address: _____

INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

Tender Document for "Comprehensive repair & Face lifting for Mine Ventilation laboratory at the Department of Mining Engineering at IIT KGP."

CHECKLIST FOR TENDER SUBMISSION (SINGLE BID)

(To be filled by the Tenderer by putting "√" and to be signed & stamped)

SI No.	Description	Yes	No
1	Submitted requisite Tender fee		
2	Submitted requisite EMD		
3	Submitted proper Enlistment certificate		
4	Tender fee EMD & Enlistment certificate submitted in separately sealed envelope and duly marked on top with "NIT Number.", "Name of work:", and "Tender Fee & EMD"		
5	Each page of tender document is signed and stamped		
6	Form of Tender properly signed & stamped.		
7	Original Tender document with filled up quoted prices (% above/ below/ at par) submitted in separately sealed Envelope duly marked on top "NIT Number:", "Name of Work:" and "Bid Document"		
8	Both the Envelopes put in another Envelope duly marked on top "NIT Number:" and "Name of Work:"		

Name of the Bidder: _____

(In Block letters)

Signature: _____

Address: _____
