

**INDIAN INSTITUTE OF ASTROPHYSICS**

**2<sup>nd</sup> BLOCK, KORAMANGALA,  
BENGALURU – 560034.**

**TENDER DOCUMENT**

***Name of Work:* Renovation of 2nd floor of UPS building for I-TMT project office at IIA, Koramangala Bengaluru.**

**Tender Notice No.: 30/IIA/CIVIL/BANG/2019-20 Dated 10.07.2019**

**INDIAN INSTITUTE OF ASTROPHYSICS**

**Ph.080-2554 1200/1259/1359 , Fax: 25534043      Website: [www.iiap.res.in](http://www.iiap.res.in)**



**INDIAN INSTITUTE OF ASTROPHYSICS**

**2ND BLOCK, KORAMANGALA,**

**BENGALURU-560 034**

**Tender Notice No.: 30/IIA/CIVIL/BANG/2019-20 Dated 10.07.2019**

The Director, Indian Institute of Astrophysics invites sealed item rate tenders in the prescribed format for the following work from appropriate registered contractors in state PWD, CPWD, MES, Scientific institutions and private body contractors who have executed works of similar nature.

Sl. No.	Name of the work	Estimated cost in Rs.	Time for completion	EMD Rs.	Cost of tender document Rs.
1.	<b>Renovation of 2nd floor of UPS building for I-TMT project office at IIA, Koramangala Bengaluru.</b>	7,45,000 /- +GST	04 Months	15,000/-	1,000/-

The Tender Document can be viewed and downloaded from our website [www.iiap.res.in/tenders.htm](http://www.iiap.res.in/tenders.htm). The interested tenderers may at their option download the same, as **“NO” hard copies of Tender document shall be provided from this office** and submit their offers along with EMD (refundable) & Tender fee (non-refundable) prescribed therein, only in the form of Demand Draft drawn in favor of **“Indian Institute of Astrophysics”** payable at Bangalore. The DD shall be valid for a period of forty five (45) days beyond the date of opening of bids.

The Offers containing complete tender document duly filled with price (Bill of Quantities) and complete credentials including experience certificates should be submitted in sealed cover superscribing the envelope with **“Renovation of 2nd floor of UPS building for I-TMT project office at IIA, Koramangala Bengaluru”**. Notice No. and due date”, shall be submitted addressed to **The Director, Indian Institute of Astrophysics, 2<sup>nd</sup> Block, Koramangala, Bengaluru– 560 034. The last date of submission of bid is 05.08.2019 on or before 15:00 hrs.** The bids will be **opened at 15:30 hrs on the same day** in the presence of attending tenderers or their authorized representatives.

**ELIGIBILITY CRITERIA**

The firms who fulfill the following requirements shall be eligible to submit their bids. Joint ventures are not acceptable.

- (i) Tendering Company shall be professionally managed and resourceful for taking up similar jobs.
- (ii) The experience of having successfully completed similar work during last 5 years as on 31.03.2019 should be either of the following:

a) Three similar completed works costing not less than the amount equal to 40% of the estimated cost.

OR

b) Two similar completed works costing not less than the amount equal to 50% of the estimated cost.

OR

c) One similar completed work costing not less than the amount equal to 80% of the estimated cost.

(iii) The tenderer should have **executed similar construction of works at Bengaluru Region.**

#### **Documentary Proof for Eligibility**

Self attested/certified copy of work orders and completion certificates issued by the authority concerned to establish work experience shall be attached to the tender document. Copies of the Income Tax Returns along with Financial Statements such Balance Sheet, P&L Account etc for the last 3 Financial Years shall be attached to the tender document.

Valid Contract License issued by the competent authority shall be enclosed.

#### **OTHER CONDITIONS**

1. Technical & price Bids supported by the above information should be submitted in a Sealed envelope duly super scribed with the name of work, tender notice No., Last date of submission. The completed Bids will be received by this office **upto 15:00 Hrs. on 05.08.2019**
2. If any information furnished by the tenderers is found incorrect at a later stage, the firm shall be liable to be debarred from tendering and taking up of work in I.I.A. The Institute reserves the right to verify the particulars furnished by the tenderers.
3. The firms should submit their offers along with EMD/Tender fee of prescribed amount up to **15:00 Hrs. on 05.08.2019.**
4. Incomplete Technical Bids are liable for rejection.
5. Late & / delayed offer will not be considered.
6. IIA is not responsible for any delay / loss of documents in transit.
7. The Tenders will be opened **on 05.08.2019 at 15:30 hours at I.I.A, Bengaluru** in the presence of bidders or their authorized representatives. The representatives of the tenderers should bring authorization letter / identification while attending for opening of the tenders.
8. IIA reserves the right to reject any or all tenders without assigning any reasons.

Administrative Officer

**INDIAN INSTITUTE OF ASTROPHYSICS**  
2<sup>nd</sup> Block, Koramangala, Bengaluru-560 034

**Tender Notice No.: 30/IIA/CIVIL/BANG/2019-20 Dated 10.07.2019**

M/s.

Dear Sir,

The Director, Indian Institute of Astrophysics, Bengaluru invites Sealed Tenders for the work of “**Renovation of 2nd floor of UPS building for I-TMT project office at IIA, Koramangala Bengaluru**”. The Tender Terms enclosed herewith may be noted carefully. If you are in a position to quote for the work in accordance with the requirement, please submit your quotation in the attached Tender Form.

Your Tender must reach this office on or before the date and time indicated in the Tender Schedule.

Thanking you,

Yours faithfully,

Encl: as above.

Administrative Officer

### 3. INSTRUCTIONS TO THE TENDERERS

1. The tenderers should submit the entire tender document with duly filled with price and technical details of the firm. All the pages of document shall be duly signed.
2. **The rates quoted by the tenderer in the schedule shall be inclusive of all taxes and levies. Such rates should provide the break-up of the cost and applicable taxes, levies etc.**
3. The Offers should be submitted in sealed envelope superscribed with “Tender for “**Renovation of 2nd floor of UPS building for I-TMT project office at IIA, Koramangala Bengaluru**”, Notice No. and due date”.
4. If any clarification is required should be obtained before filling Tender Document.
5. If any discrepancy is there between figures and words for quoted rates, the lower of the two will be considered for the purpose of evaluation.
6. The tenderers who do not fulfill all or any of the tender conditions or if the tender is Incomplete in any respect, will be summarily rejected.
7. The Institute is not bound to accept the lowest tender.
8. Even though the Tenderers meet the above criteria, they are subject to be disqualified if they have (The Institute reserves the right to verify the particulars furnished by the tenderers.)
  - Made misleading or false representations in the forms, statements and attachments submitted in proof of the qualification requirement, Conditional bid / proposal: and / or
  - Record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc.
9. Any effort by the contractor to influence the client in the bid evaluation, bid comparison or contract award decision results in rejection of the contractors bid.
10. Financial offer will be considered if the bidders fulfill all the technical and financial eligibility criteria as per tender.
11. Late & / delayed offer will not be considered at all.
12. IIA is not responsible for any delay / loss of documents in transit.
13. No bids will be considered if prescribed Tender Fee and EMD are not found with the bid.
14. All overwriting and corrections shall be duly attested with stamp & signature.
15. Corrigendum's / modifications / corrections, if any, will be published in the website only.
16. The Director, Indian Institute of Astrophysics reserves the right to accept or reject the tenders in full or part without assigning any reason thereof.

17. Performance certificates of the completed works issued by the clients to be enclosed in the technical bid.
18. The committee constituted by the Director may inspect the previously completed or the ongoing works of the bidders to assess their technical suitability for the tendered work.
19. All the pages of the tender document to be signed by the contractor and submit them in the respective sealed covers.
20. The successful contractor will have to execute an Agreement with the Institute within 21 days of receipt of Letter of Intent / Work Order.
21. **All the bidders are requested to visit the site before quoting the rates. The complete document shall be read and understood in all respect. If any clarification is required, the same may got cleared before submitting their offers in writing by contacting the following persons:**

Mr. M.V.Ramaswamy

Ph. No. 080-2254 1207

E-mail.: [mramaswamy@iiap.res.in](mailto:mramaswamy@iiap.res.in)

\*\*\*\*\*

**INDIAN INSTITUTE OF ASTROPHYSICS**  
**2ND BLOCK, KORAMANGALA,**  
**BENGALURU – 560034.**

*Name of Work:* **“Renovation of 2nd floor of UPS building  
for I-TMT project office at IIA,  
Koramangala Bengaluru”**

**Tender Notice No.: 30/IIA/CIVIL/BANG/2019-20 Dated 10.07.2019**

Name of

The Firm:

\_\_\_\_\_

Address:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Phone No:

\_\_\_\_\_

**Last date for submission: 05.08.2019 up to 15:00 hrs**

**FORMAT FOR SUBMISSION OF TECHNICAL & ORGANISATIONAL DETAILS.**

**NAME OF THE FIRM :**

**1. OFFICE SET UP OF THE FIRM**

1.1 Office Address:

.....  
.....

1.2 Year of Establishment:

1.3 Contact Person Shri.....

With Designation .....

Ph No.....

Fax No.....

E-mail.....

1.4 Details of registration if any: .....

.....

1.5 Organizational setup of the firm

Total staff strength both technical

And Administration with their name, age

qualification and experience : .....

1.6 PAN (photocopy to be enclosed) .....

GSTIN No (photocopy to be enclosed) .....



1.7 Details of the staff as per the following format.

<b>Sl. No</b>	<b>Profession/discipline</b>	<b>Name</b>	<b>Age</b>	<b>Qualification</b>	<b>Experience (total years)</b>	<b>Field of experience</b>
	<b>Civil</b>					

## **2 TENDERER'S EXPERIENCE**

Details of Works carried out and on hand during last five years with details such as name of work, year of completion, client name and address, cost of work, time period of construction, nature of work, etc., (It shall enclose a certificate from the owner that the service rendered by the firm has been satisfactory)

Sl. No.	Name & description of work	Value of work and date.	Period of construction and date.	Client persons to whom reference may be made.

**3.**

**TOOLS AND EQUIPMENT LIST**

The tenderer shall indicate herein below the equipment he has in possession and the equipment he proposes to bring to the site, in case the work is awarded to him.

Sl. No	Type and Description of the equipment.	Numbers the bidder has in possession	Numbers he proposes to bring on to site

Tenderers hereby confirms that the quantity and type of tools he will employ for construction will not be less than those listed above and agree to bring more equipment if so warranted in the opinion of the Engineer-in-charge.

**4. FINANCIAL**

Bank Name: \_\_\_\_\_

Branch: \_\_\_\_\_

Account No.: \_\_\_\_\_

Average Annual Turnover for last 5 Years: \_\_\_\_\_

**5. INSURANCE**

Accident Insurance

Insured with: \_\_\_\_\_

Policy No.: \_\_\_\_\_

6. Details of Arbitration cases : .....

7. Any other detail you would like to intimate in support of your technical bid for appointment : .....

Signature of the authorized  
Person with seal of the firm

(Note: Attach separate sheet for furnishing information in case the space in the format is insufficient)

**INDIAN INSTITUTE OF ASTROPHYSICS  
2ND BLOCK, KORAMANGALA,  
BENGALURU – 560034.**

**PRICE BID**

***Name of Work:* “Renovation of 2nd floor of UPS building for I-TMT project office at IIA, Koramangala Bengaluru”**

**Tender Notice No.: 30/IIA/CIVIL/BANG/2019-20 Dated 10.07.2019**

Name of

The Firm:

---

Address:

---

---

---

Phone No:

---

**Last date for submission: 05.08.2019 at 15:00 hrs**

## **Tender for the “Renovation of 2nd floor of UPS building for I-TMT project office at IIA, Koramangala Bengaluru”**

### **Conditions of contract.**

Sealed item rate tenders are invited by Indian institute of Astrophysics for the above mentioned work

Estimated cost : **Rs 7,45,000.00 (Seven lakhs forty five thousand only) + GST.**

Time of completion : **Four (04) Months.**

Period of commencement : 7 days from the date of receipt of work order

Retention money/Security Deposit : 5% to be deducted from each RA bill and final bill, shall be released after one year of completion of work, if any towards the cost of defects rectified by employer due to lack of response of the contractor on completion of defects liability period and on certification by the engineer –in charge.

Defects liability period : 12 Months.

Amount of liquidated damage : Liquidated Damages will be deducted from the bill amount while making final payment for delay in completion of work if any, as per the extant rules of the CPWD.

Escalation : In view of the short duration of the contract, no escalation will be paid to the contractor on account of changes in the market prices of any items of work or changes in the cost of living indices etc.

Tax deduction at source : Statutory taxes will be deducted while making payment from time to time as applicable.

The Director, Indian institute of Astrophysics reserves the right to reject any or all the tenders without assigning any reason whatsoever.

The tenderer shall be responsible for arranging and maintaining at his own cost all **materials, tools and plants, water, electricity, facilities for workers, safety norms** and all other services required for executing the work.

Timely completion of work and quality of workmanship are of prime importance and the work shall be completed within the stipulated period. Cement consumption must match with standard theoretical calculations. Recovery to be effected in the event of not fulfilling the cement consumption. The waterproofing is the main work for which five year performance guarantee need to be provided by the applicator.

I/ We have read the tender notice, specifications, schedule, drawings, general rules and all other contents of the tender conditions, and understand that you are not bound to accept the lowest or any tender you may receive.

I/ we hereby tender for the execution for the work specified above within the time specified above, at the rates specified in the attached bill of quantities and in all respects with these specifications, design, drawings and instructions.

I/we agree that should I/we fail to commence the work specified in the above memorandum an amount equal to amount of earnest money mentioned in the form of invitation of tender shall be absolutely forfeited to the Director.

**Dated: -----**

**Signature of the contractor with stamp**



## **General conditions of contract.**

### **Item rate tender for works.**

- ❑ The institute reserves the right to alter the scope /or reduce quantum of work before issue of work order and the contractor shall not have any claim what so ever on this account.
- ❑ Rates quoted by the contractor in item rate tender in figures and words shall be accurately filled in so that there is no discrepancy in the rates written in figures and words. However if a discrepancy is found, the rates which correspond with the words worked out by the contractor shall be taken as correct.
- ❑ If the amount of an item is not worked out properly by the contractor or it does not correspond with the rate written either in figures or words, then the rate quoted by the contractor in the words shall be taken as correct.
- ❑ When the **rates quoted by the contractor in figures and in words** tally but the amount is not worked out correctly the rate quoted in words by the contractor will be taken as correct and not the amount.
- ❑ The contractor shall take all precautionary measures to prevent entry of dust, dirt and noise pollution to the adjacent buildings and keep the premises neat and tidy, remove surplus materials and rubbish and shall not cause inconvenience to the staff of IIA. If the contractor or his working people or servants shall break, deface, injure or destroy any part of a building in which they may be working or any buildings, road, kerbs, fence, enclosure, water pipes cables, drains, electric and telephone posts or wire, trees grass or garden. The cost of any such damage and risks arising out of this shall be entirely borne by the contractor.
- ❑ A bill shall be submitted by the contractor each month on or before the date fixed by the Engineer- in charge. All the measurements of the work may be recorded jointly by the Engineer-in charge and the contractor or their respective representatives. The measurements will be taken at site, as per latest IS code of practice for measurements. All measurements shall be taken with steel tapes only.
- ❑ The Engineer- in -Charge shall have full powers to the removal from the premises of all materials and bad workmanship, which in his opinion are not in accordance with the specifications.

- ❑ The Engineer –in- Charge may require the contractor to dismiss or remove from the site of the work any person or persons in the contractors employ upon the work who may be in competent or misconduct himself.
  
- ❑ For working on Sundays, holidays and late hours prior permission will be accorded by the Engineer-in charge on the application made by the contractor.
  
- ❑ All works to be executed under the contract shall be executed under the direction and subject to the approval in all respects of the Engineer-in charge who shall be entitled to direct at what point or points and in what manner they are to be commenced and from time to time carried on.
  
- ❑ The contractor shall treat all materials obtained during dismantling of a structure, excavation of the site for a work etc as institute’s property and such materials shall be disposed off to the best advantage of the institute.
  
- ❑ The contractor shall execute the whole and every part of the work in the most substantial and workman like manner and in strict accordance with the specifications of the CPWD / DOS / Bureau of Indian Standards. In case of any class of work for which there is no such specifications the contractor shall carry out the work in all respects in accordance with the instructions in writing of the Engineer- in charge.
  
- ❑ The Engineer-in charge shall have powers to make any alterations in, omissions from, additions to or substitutions for the original specifications, drawings, designs and instructions that may appear to him necessary or advisable during the progress of the work and the contractor shall carry out the work in accordance. The rates for such additional, altered or substituted items of work shall be worked out in accordance with the standard procedure followed in CPWD / DOS.
  
- ❑ If at any time after the commencement of the work, the Director shall for any reason whatsoever not require the whole thereof as specified in the tender to be carried out, the Engineer- in-Charge shall give notice in writing of the fact to the contractor who shall have no claim to payment of compensation whatsoever on account of any profit or advantage which he might have derived from the execution of the work in full, but which he did not derive in consequence of the full amount of the work not having been carried out, neither shall he have any claim for compensation by reason of any alterations having been made in the original specifications , drawings ,designs and instructions which shall involve any curtailment of the work as originally contemplated.

- The contractor shall obtain a valid license under the Contract Labour (R&A) act 1970 and the contract labour (Regulation & Abolition) central rules, 1971 before the commencement of the work and continue to have a valid license until the completion of the work. No labour below the age of eighteen years shall be employed on the work. The contractor shall pay to labour employed by him either directly or through sub contractors, wages not less than fair wages as defined in the provision of the contract labour (R&A) act 1970 and the contract labour (R&A) central rules 1971 wherever applicable.
  
- The contractor shall at his own expenses arrange for the safety provision as per safety code framed from time to time and shall at his own expenses provide for all facilities in connection therewith.
  
- The contractor shall comply with all the provisions of the payment of wages act 1936, Minimum Wages Act 1948, Employees liability act 1938, Workmen's Compensation act 1923, Industrial Disputes Act 1961 and the Contractors Labour (R&A) Act 1970 or the modifications thereof or any other laws relating thereto and the rules made there under from time to time. The regulations aforesaid shall be deemed to be a part of this contract and any breach thereof shall be deemed to be a breach of this contract. Security deposit will not be refunded till clearance certificate from Labour Officer is obtained by contractor.
  
- The contractor shall make his /their own arrangements for water required for the works and nothing extra will be paid for the same, as the water available from the institute source may not be sufficient to meet the construction.
  
- The contractor shall have all the tools and plants necessary to carry out the work such as concrete mixer, vibrator and hoist. The contractor shall employ one graduate engineer during the execution of the work
  
- Certified plumbers should be employed by the contractor on the plumbing and sanitary work.
  
- The standard sectional weights referred to as standard tables in para 5.3.3 in CPWD specifications for works 1977 vol. 1 to be considered for conversion of length of various sizes of M.S bars and tor steel bars in to weight.

- ❑ The entire work is to be completed within the period stipulated i.e. **four (04) months** from the 7<sup>th</sup> day of issue of Letter of Intent/Work Order. The period includes monsoon period also. Time shall be the essence of the contract. After the work awarded, the contractors shall furnish detailed time schedules for the approval of the Engineer-in charge which after approval shall form part of the contract and are to be strictly adhere to.
- ❑ The maintenance period for the work shall be twelve (12) months and any defects noticed during the period shall have to be rectified by contractor at his cost, failing which the action taken for maintenance Engineer-in charge shall be final over which the contractor will not have any claim.
- ❑ The contractor shall extend all co-operations to the contractors executing works such as electrical, air conditioning etc who might be working at the site and shall permit to use scaffolding etc already put up by him.
- ❑ The Engineer-in charge will have the right to get any item of the work included in this tender or not executed through other agencies. Schedule of probable quantities in respect of the work and specifications are enclosed. The schedules of probable quantities are liable to alterations by emission, deduction or additions at the discretion of the Engineer-in charge.
- ❑ The rates quoted by the tenderer in the schedule shall be inclusive of all taxes and levies. Such rates should provide the break-up of the cost and applicable taxes, levies etc.
- ❑ Samples of all materials to be incorporated in the works shall be submitted to the Engineer-in charge for his approval without claiming any extra cost. Materials not confirming strictly to the samples are liable to be rejected.
- ❑ The employment of any sub-contractors will be subjected to the approval of the Engineer-in-charge. If at any time during the progress of the work the Engineer-in charge determines that any sub-contractor is incompetent or undesirable the contractor shall take steps immediately to cancel such sub-contractor. The contractor shall be entirely responsible for all the work included in the contract whether executed by him or through his sub-contractors. In particular it may be noted that the contractor shall obtain steel doors and windows from a reputed manufacturer and before placing order for these, the contractor shall obtain the concurrence of the department for the agency from whom he proposes to obtain steel doors and windows.
- ❑ The contractor shall prepare a CPM / PERT /BAR chart/ detailed estimate programme within a week's time of issue of Work Order.
- ❑ All materials and articles brought by the contractor to the work site shall have to be declared at the security gate. Similarly no materials shall be taken out from the departmental premises without proper gate pass which will be issued by the Engineer-in charge.
- ❑ Unless otherwise provided in the schedule of quantities the rates tendered by the contractor shall be all inclusive and shall apply to all heights, lifts, leads and depths of the building and nothing extra shall be payable to him on this account.

- ❑ Sample of various materials required for testing shall be provided free of charge by the contractor. Testing charges, if any unless otherwise provided, shall be borne by the department. All other expenditure required to be incurred for taking the samples, conveyance, packing etc. shall be borne by contractor himself. In case of concrete and reinforced concrete work, the contractor shall be required to make arrangement for carrying out compression strength tests at his own cost including preparation of cubes curing etc. complete.
  
- ❑ For the purpose of recording measurements and preparing running account bills, the abbreviated nomenclature shall be accepted along with the item number.
  
- ❑ The contractor shall along the tender submit a schedule of machinery to be used on the work in support of his assurance to adhere to the time schedule specified in the proform given.
  
- ❑ I /We declare that the work will be carried out as per the specifications in tender document and as per the specifications said above. The items of work not covered in the specifications said above will be carried out as per the specifications in the relevant CPWD specifications, and if not covered in CPWD specifications the work will be carried out as in the relevant IS specifications, and if not covered in the any of the above, the work will be carried out as directed in writing by the Engineer- in charge.
  
- ❑ I / We declare that the rates quoted by me/us are on the basis of the above.

**Dated:** -----

**Signature of the contractor with stamp**

# **TENDER FORM**

To,

The Director,  
Indian institute of Astrophysics,  
Koramangala,  
Bengaluru - 560034

Dear Sir,

**Sub: Tender for project: “Renovation of 2nd floor of UPS building for I-TMT project office at IIA, Koramangala Bengaluru”**

With reference to the tender invited by you for the above proposed work, I /we write this after having:

- a). Examined the designs, drawings, detailed specifications to tenders, sample agreement, the general conditions of contract and special conditions of contract annexed there to (here in after called ‘the contract documents’) relating to construction.
- b). Visited and examined the site of the proposed work and acquired the requisite information relating to or affecting the tender. We are agreed to the decisions of the pre bid meeting by signing and stamping the minutes of the meeting which is enclosed along with this tender.

I/We undersigned hereby offer to construct the proposed work in strict accordance with the contract document for the consideration to be calculated in terms of the priced schedule of quantities.

I/We undertake to complete the whole of the works as per the attached schedule from the date of issue of intimation by you that our tender has been accepted and up on being permitted to enter site. I/We further undertake that on failure, subject to the conditions of contract relating to extension of time, I/We shall be agreed ‘Liquidated damages’ for the period during which the work shall remain incomplete.

I/We hereby deposit with you as earnest money **Rs..... (RUPEES**  
**.....ONLY) [Carrying no interest]**  
and I/We fail to take up the contract when called up on to do so.

Our Bankers are

1.

2.

Place:

Date:

Signature of the tenderer

Name of the partners of the firm

Or

Name of the person having power of attorney to sign the contract

## **SPECIAL CONDITIONS**

### **GENERAL:**

**SPECIAL CONDITIONS OF CONTRACT shall be read in conjunction with GENERAL CONDITIONS OF CONTRACT and both form an integral part of contract. Where the two are at variance, the conditions stipulated in this as SPECIAL CONDITIONS shall supersede relevant GENERAL CONDITIONS.**

### **1. SPECIAL CONDITIONS:**

#### **HELMETS :**

As a measure of safety, persons employed on the site, Engineers and Supervisors shall wear a helmet of approved make at all times when they are at the site. No visitors shall be allowed on work site without wearing helmet.

Contractors shall make arrangements to provide safety helmets to all the persons employed on the site, Engineers and Supervisors at his cost.

Contractors shall display safety and warning signs at strategic locations at the site.

#### **CHILD LABOUR:**

Contractor or his Sub-contractor shall not employ any child labourers on the work site, either permanently or temporarily. It shall be the responsibility of the main Contractor to make sure that no child labour is employed at the site. Contractor shall indemnify the Employer against any consequences statutory or otherwise, that may arise out of employing child labour on the site.

#### **TEMPORARY ELECTRICAL WIRING:**

It shall be the responsibility of the main Contractor to make sure that the temporary wiring for construction activity shall adhere to minimum safety precautions as per Electricity Act. All wires / cables shall be drawn on wooden poles properly fixed and shall be drawn overhead.

### **2. LABOUR SHEDS:**

Labour sheds shall be constructed with non-combustible materials like GI sheets or Asbestos sheets. Contractor will not be permitted to use combustible materials such as palm leaves etc., for the construction of the labour sheds.

### **3. MATERIALS SUPPLY / PROCUREMENT:**

No materials will be supplied by the owner. If any increase on the material procurement cost/ labour, P&M will not be entertained for any kind of escalation till completion of the project.

### **4. BILLING. CERTIFICATION & PAYMENT OF BILLS:**

#### **BILLING:**

The contractor shall prepare measured bills after completing the quantum of work as per the standard format and submit the same to the Institute for checking and issue of Certificates for Payment. A proper tax invoice (with breakup of the cost and taxes) shall be submitted and bill shall be settled within 30 days of receipt at IIA. Running account bills shall be prepared and submitted and payment is subject to consideration of the engineer in Charge/IIA.



**PAYMENT OF BILLS:**

The contractor shall be paid by the Employer from time to time based on the certificate for payment

**5. REPAIR OF WORKS DONE BY OTHER AGENCIES:**

The civil contractor shall make up any deficiency in the finishing of the areas damaged by other agencies in a workmanlike manner to achieve uniform finishing of the building at no extra cost.

**6. MATERIAL TESTS:**

The contractor shall provide such assistance, instruments, machines, labour and materials as are normally required for examining, measuring and testing.

The contractor shall install a compression testing machine at site to test concrete cubes and solid blocks.

The contractor shall maintain a record of all the test results in an approved format and periodically submit the same for Architect's/Employer's scrutiny.

**7. PLANT & MACHINERY:**

The contractor is obliged to furnish to the Employer detailed list of equipment, plant, machinery & personnel proposed to be deployed in this project.

**8. CLIENT'S & ARCHITECT'S OFFICES & FACILITIES:**

The contractor shall supply, erect and satisfactorily maintain in good repair until final completion of works, a well lighted temporary site office.

The contractor shall provide at all times for the duration of the contract survey instruments for the exclusive use of consultants as directed by consultants for carrying out of his duties in connection with the contract.

Such instruments which must be approved by the Architect, shall include but not limited to the following:

- One theodolite & tripod capable of reading to 20 seconds
- One level with horizontal circle and tripod.
- Two metric leveling staffs not less than 3.5mtr high.
- One 100 metre rustless steel band, one 30 metre rustless steel tape and two 30 metre linen tapes.
  
- An adequate number of ranging rods drop arrows, wooden setting-out pegs, etc.

The contractor shall be solely responsible for all such instruments and equipment's and shall ensure that they are at all times in good repair and adjustment.

**9. SANITATION & DRAINAGE DURING CONSTRUCTION:**

The contractor shall provide sanitation and drainage facilities on the site as stated subsequently.

The contractor shall strictly control the labour so that the site is not polluted, made dirty or littered with debris, wastes or the likes. Any person found creating mess or litter or pollution shall be removed from the site immediately at contractor's cost.

The contractor shall provide sanitation facilities at convenient locations on site to preserve the cleanliness of the site. The effluent shall be directed as follows:

- Waste water : Collection and pumping out and disposal off the site in approved manner.
- Sewage : Septic tank provision - sludge to be collected and disposed off at intervals as directed.

The location of the above provisions shall be as marked on the site mobilization scheme drawing.

**10. DISCREPANCIES:**

The contractor shall bring to the notice of the Architect any discrepancies within or between contract drawings and/or the other contract documents prior to preparation of working drawings and commencement of work and shall not proceed with work until the Architect gives clarifications and instructions to proceed.

**11. REPORTS BY CONTRACTOR:**

- 11.1 The contractor shall file daily category-wise labour return. The report shall indicate scheduled requirement against actual strength.
- 11.2 The contractor shall prepare weekly reports of planned and actual progress of work and subsequent week's scheduled work. These will also include material procurement status. These reports shall be submitted to Architect and shall be reviewed during weekly co-ordination meeting.
- 11.3 The contractor shall submit monthly report along with monthly bills.
- 11.4 Further progress charts and schedules shall be prepared by the contractor as directed by the Architect.
- 11.5 The contractor shall submit re-conciliation statement of all the materials supplied by the Client, if any, along with every running & final bill.

# **SPECIAL NOTE TO THE BIDDER**

1. The bidders are requested to visit the site and to get complete knowledge about the site conditions before quoting the rates
2. The availability of materials, transportation of materials etc. to be ascertained before quoting the rate
3. No labour will be allowed to work/stay beyond working hours and during institute holidays. If need to work/stay beyond working hours/on holidays, prior permission from the Engineer in Charge/Scientist in Charge should be obtained in writing.
4. No water and electricity will be supplied by IIA and separate arrangement has to be made by the contractor.
5. Quality and time for completion are the main essence of the contractor and contractor has to keep in mind while quoting the rates.
6. Since the area under renovation is scientific activity area and hence proper care to be taken to avoid disturbance to the working personnel.
7. Bidder shall take the cost of shifting and reshifting of furniture in the office area during painting, covering of the equipments, furniture with necessary plastic etc. in the quoted rates for which no extra claim will be allowed for whatsoever the reason.
8. All the debris shall be kept in one place as directed by the Engineer in Charge and disposed off outside the campus on working days. Working area/surrounding area shall be kept neat and clean every day after the work is completed.
9. The indicative drawing is provided for purpose of tendering/pricing. The detailed approved drawing will be provided along with the work order.

**LIST OF APPROVED MATERIALS**

**CIVIL WORKS**

<b>Sl. No.</b>	<b>Material</b>	<b>Make</b>
1	Steel	SAIL – TMT, VIZAG STEEL
2	Cement	ACC/Birla/L&T
3	Acrylic Exterior Emulsion	Asian Paints
4	Plastic Emulsion Paint	Asian Paints
5	Enamel Paint	Asian Paints
6	Aluminium	Jindal, Indal, Hindalco
7	Glass	Saint Gobain, Modi
8	Flush Door	Kutty's Bond Wood, Hunsur Board
9	Vitrified tiles	Nitco/RAK
10	Ceramic tiles	NITCO
11	Mineral/Gypsum False ceiling	Armstrong, Saint Gobain (Gyproc)
12	Veneer/laminate/ply	Century/greenlam/merino

**WATER SUPPLY AND SANITARY WORKS**

<b>Sl.No.</b>	<b>Material</b>	<b>Make</b>
1	PVC	Astral/Ashirvad/Kisan/Supreme
2	CPVC	Astral/Ashirvad/Supreme/Prince
3	Ball valves	Astral/Ashirvad/Hawa /R.B.
4	G.M. non-return valves	Kirloskar/Zoloto
5	C.P. Fittings	Jaquar/approved equivalent
6	Bathroom accessories	Jaquar/approved equivalent
7	SFRC manhole frame and Covers	Southern Concrete Industries/approved equivalent
8	Kitchen sink	Nirali/ Approved Equivalent
9	Anchor bolts/pipe support system	Hilti / approved equivalent
10	CI Grating & MH frame & cover	NECO/ Approved equivalent

# **BILL OF QUANTITIES**

**Bill of Quantities for the work of “Renovation for TMT engineers working space in UPS block 2nd floor at IIA, Bengaluru campus”**

**(NOTE: Rates shall be quoted after reading the complete specifications and understanding site conditions)**

Sl. No.	Description	Quantity	Unit	Rate (Rs.)		Amount (Rs.)
				In figures	In words	
<b>A) CIVIL WORKS</b>						
1	<b>Partition work:</b> providing and fixing partition frame work consisting of 50mmx50mm sal wood frame work at spacing not exceeding 600mm c/c fixed to the bottom and ceiling, the partition shall be skinned on both sides using 12mm ply + 3.5mm thick commercial plywood with 4mm groove up to ceiling height of approved brand termite and water resistance, and top covered with 1mm thick laminate of approved quality, complete including cost and conveyance of all materials, labour for all items of work, HOM of equipment as per specification. Note Edges at the working station should be finished with melamine polish.	19.50	Sqm			
2	<b>Wall cladding</b> shall be skinned by using 12mm thick commercial plywood with 4mm groove up to 4 feet height of approved brand termite and water resistance, and top covered with 1mm thick laminate of approved quality, complete including cost and conveyance of all materials, labour for all items of work, HOM of equipment as per specification.	25.50	Sqm			
3	<b>Work station:</b> Providing and fabricating work station for the height up to 750 mm height and 600mm wide using 25 mm thick pre-laminated board with necessary edge banding. The provision shall be made for wire manager, CPU, key board tray, etc. Complete in all respect as per the direction of the Engineer in Charge. Note edges should be finished with melamine polish.	23.00	Rm			

Sl. No.	Description	Quantity	Unit	Rate (Rs.)		Amount (Rs.)
				In figures	In words	
4	Providing and fixing <b>Pin up board / glass writing board</b> for Work stations with 12mm soft board with fabric (BR Rs 200/mtr)	8.00	Sqm			
5	<b>supply of pedestal unit with drawers:</b> providing and fixing 450mm x 450mm x 685mm ht mobile pedestal unit-WOODEN with 18mm thick PLPB with edge bonded for body, two equal drawer and one filling drawer with centralized locking system, telescopic channels, castors, handles and lock, including providing necessary cushion for seating on the top etc., complete as per specifications , and as directed by engineer in charge.	11.00	Each			
6	<b>Pantry counter</b> with storage below with openable shutters made out of 19mm commercial ply with 1.5 mm laminate finish on outside and ,1 mm laminate in the inside. Top to have 20mm Granite with bullnosing. The storage will have 450mm depth with necessary fittings for locking arrangements.	1.50	Sqm			
7	Providing and fixing in position <b>flush door shutter</b> made out of 35 mm commercial board with 1 mm laminate on either side with vision panel (9" x 9") with 6 mm glass. Hardware Make Dorma: Mortice lock with SS handles, SS Hinges and door closer TS 63 (door size is about 3'-3" x 7'-0")	1.00	Nos			
8	Supply & installation of manually operated <b>roller blinds</b> with 5% openness factor fabric including PVC tape for sides of screen.	12.00	Sqm			



Sl. No.	Description	Quantity	Unit	Rate (Rs.)		Amount (Rs.)
				In figures	In words	
9	<p><b>False ceiling suspension system:</b> False ceiling (Tiles, Panels) shall be suspended with the frame work and Accessories complete from roof slabs, beams etc., by means of 4 mm dia. Galvanized rods, spring steel clips, hanger, Tee Runner, Ultra Look Tee Runner and edge trim etc., The Suspension system consists of Grip bolt of size 50mm in length and dia. of 9.5mm with 16mm long treads for fixing 9.2mm dia. Nut, the thickness of the nut is 5.2mm, this is also fixed with washer of 18.50 mm in dia. and the thickness of the washer is 0.8mm, this grip bolt in fixed on to the RCC slab, by making holes with special hammering machine and with the help of nut and washer, dip Galvanized Iron Rod of 4mm dia. is rounded, then it is been twisted, so that it with-rest above the washer and later on the nut is been tightened and the grip bolt expands inside the RCC slab and holds the G.I Rod 4mm thick straight, this G.I supporting rod of 4mm thick is also twisted on the other side of fixed "j" bolt, this "j" bolt consists of 3mm thick with a length of 133mm, this "j" bolt is later on twisted by 26mm, this "j" bolt has a treated portion of 47mm and this is provided with a nut of 3.63mm thick and the dia. of the nut is 6.9mm, this nut has a washer and this washer has a dia.of 19 mm and the thickness of 0.6mm and all this components are chromodised, later on G.I supporting rod of 4mm thick dia. is twisted and fixed inside the nut and washer, then to maintain a good, straight level of the false ceiling, the nut in "j" bolt is then moved up or down for proper level. The Galvanized Iron 4mm dia. been cut to size of length required as per site requirement</p>					
9.1	<p>Providing and fixing <b>mineral fibre false ceiling</b> of approved size and patter of reputed make. The panels shall be non combustible, fire proof with excellent aesthetic look.</p>	32.50	Sqm			

Sl. No.	Description	Quantity	Unit	Rate (Rs.)		Amount (Rs.)
				In figures	In words	
9.2	12.5 mm thick tapered edge <b>gypsum moisture resistant board</b> including finishing the surfaces by 2 coats of putty, one coat of primer after sanding and two coat colour etc, complete.	36.50	Sqm			
10	Painting internal plastered surfaces with two or more coats of super acrylic <b>emulsion paint</b> of approved brand and colour (Asian) to give an even shade with required finish over a coat of water thinnable cement primer including cleaning the surfaces, filling the crevices with approved filler, scaffolding, etc., complete all as per specification.	58.00	Sqm			
11	Painting steel and wood work with two or more coats of <b>SYNTHETIC ENAMEL PAINT</b> of first quality and approved colour to give an even shade over a coat of red oxide zinc chromate primer including cleaning the surfaces, applying a coat of approved putty on whole surface and rubbing the surface to achieve desired smooth surface, scaffolding, etc ; complete all as per specifications ( rate to include cost of zinc chromate primer, putty also ).	1.00	Sqm			
12	Providing and fixing of <b>granite sink</b> of size 600 x 450 mm with drain hole and necessary fixtures for fixing such as angles, anchore bolts, etc. Complete as per specification and directed by Engineer-in-charge.	1.00	Each			
13	Providing and fixing of <b>CP sink cock</b> with necessary assories, etc complete. Brand: Jaquar, Model No.: CON-CHR-347KNM.	1.00	Each			
14	Providing and fixing of <b>CP waste coupling</b> for sink with necessary assories, etc complete.	1.00	Each			

Sl. No.	Description	Quantity	Unit	Rate (Rs.)		Amount (Rs.)
				In figures	In words	
15	Providing, laying and jointing unplasticized <b>PVC pipes</b> and specials of working pressure as mentioned below conforming to IS:4985 including cost of necessary jointing materials such as coupling, elbow, reducers, solution, wall clamps, etc & labour for excavation of trenches, testing, refilling etc., complete all as per specification and directed by Engineer-in-charge. External exposed on wall & Internal concealed work Note: Rate is inclusive of making the hole in wall, chamber and finishing the same.					
15.1	6Kg/Sq.cm and 50 mm (1.5")	24.00	Rm			
16	Providing and fixing chlorinated polyvinyl chloride ( <b>CPVC</b> ) <b>pipe</b> conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain & brass threaded fittings including fixing the pipe with clamps at 1 m spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer-in-charge etc, for <b>external works</b> with					
16.1	CPVC pipes, 25mm outer dia	3.50	Rm			
17	Providing and fixing chlorinated polyvinyl chloride ( <b>CPVC</b> ) <b>pipe</b> conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain & brass threaded fittings including fixing the pipe with clamps at 1 m spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement and cost of cutting chases and making good the same with CM 1:3, including testing of joints complete as per direction of Engineer-in-charge etc, for <b>Concealed works</b> with					
17.1	CPVC pipes, 20mm outer dia	1.50	Rm			

Sl. No.	Description	Quantity	Unit	Rate (Rs.)		Amount (Rs.)
				In figures	In words	
18	Providing and fixing of <b>CPVC ball valve/ gate valve</b> of size 1" with necessary fitting for fixing etc complete.	1.00	Each			
19	Providing and fixing aluminium extruded sections in balcony of 50mm x 50 mm x 2mm at 600mm c/c and shall be skinned with side by using polycarbonate sheet of 5mm thick of approved brand & colour, etc complete as per direction of Engineer-in-charge.	9.00	Sqm			
20	Providing and fixing of polycarbonate sheet of 5-6mm thick as ceiling/wall for balcony including fixtures for fixing of approved brand, etc complete as per direction of Engineer-in-charge.	8.00	Sqm			
21	Providing and laying <b>Polished Granite stone flooring</b> in required design and patterns, in linear as well as curvilinear portions of the building, all complete as per the architectural drawings, with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand), laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade, including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge.					
21.1	Polished Granite stone slab jet Black, Cherry Red, Elite Brown, Cat Eye or equivalent	1.50	Sqm			
22	Making <b>groove cutting</b> in walls & Floor for laying of conduits for electrical & networking and making the surface good by using CM 1:3 with GI mesh.	35.00	Sqm			
23	<b>Dismantling of Mild steel</b> sections of handrail in balcony and stacking the same with a lead of 50m etc complete all as per specification and directed by Engineer-in-charge.	1.00	LS			
<b>CIVIL SUB TOTAL (A)</b>						

Sl. No.	Description	Quantity	Unit	Rate (Rs.)		Amount (Rs.)
				In figures	In words	
<b>B) ELECTRICAL WORKS</b>						
1	<b>Conduit/trunking:</b> Supplying and fixing of PVC 25 mm conduit along with the accessories in surface / recess or cutting the wall/floor and making surface UPVC trunking wherever required (floor cutting, if required, any may be included in the civil work)	30.00	Rm			
2	<b>Spot lighting:</b> Supply and installation of Philips AstraPrime 10 Watts Recessed LED Panel Ceiling Light (Cool Day Light, Round) or equivalent. Wiring for light fixtures from the existing lights points/controls and extension wiring wherever required. Flexible hose industrial grade to be used for the wiring above ceiling.	16.00	Nos			
3	<b>Office Lighting:</b> Supply and installation of Philips 2ft x 2ft, 36 Watts cold white, complete LED luminaire (Light Fitting type RC370B) or equivalent, suitable for grid ceiling. Wiring for light fixtures from the existing lights points/controls and extension wiring wherever required. Flexible hose industrial grade to be used for the wiring above ceiling.	8.00	Nos			
4	<b>RAW power outlet:</b> Supply and fixing of distribution boxes/switch plates suitable for cutouts made in the work stations each consisting of one number of 16A modular switch and 1 no.of 16 amps modular sockets. Make: Roma modular	4.00	set			
5	<b>UPS outlet:</b> Supply and fixing of distribution boxes/switch plates suitable for cutouts made in the work stations each consisting of one number of 16A modular switch and 3 nos of 6/16 amps modular sockets. Make: Roma modular	10.00	set			

Sl. No.	Description	Quantity	Unit	Rate (Rs.)		Amount (Rs.)
				In figures	In words	
6	<b>Raw power wiring:</b> Wiring using 3x4 Sqmm and FRLS insulated copper conductor single core cable in surface / recessed steel conduit, drawing power from the respective MCB/DB. Make: Finolex FRLS	20.00	Rm			
7	<b>HVAC Circuit 3 phase :</b> Wiring using 5 x 4.0 sqmm PVC insulated FRLS wire drawn in 20mm dia 2mm thick PVC FRLS conduit/ PVC from the distribution board HVAC socket, drawing power from the respective MCB with independent phase and neutral from TP MCB from main DB. Additional extension of wiring from ground floor DB, for providing 3 phase. Make: Finolex FRLS for wire & Roma modular for other materials	40.00	Rm			
8	<b>HVAC Circuit single phase :</b> Wiring using 3 x 4.0 sqmm PVC insulated FRLS wire drawn in 20mm dia 2mm thick PVC FRLS conduit/ PVC from the distribution board HVAC socket, drawing power from the respective MCB with independent phase and neutral from DP MCB from main DB. Make: Finolex FRLS for wire & Roma modular for other materials	5.00	Rm			
9	<b>HVAC outlet1:</b> Supplying and fixing 30 A, 415 V, TPN Industrial type socket outlet, with 4 pole and earth, metal enclosed plug top alongwith 30 A "C" curve, TPMCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket outlet and complete with connections, testing and commissioning etc. as required. Make: Finolex FRLS for wire & Roma modular for other materials	1.00	Nos			

Sl. No.	Description	Quantity	Unit	Rate (Rs.)		Amount (Rs.)
				In figures	In words	
10	<b>HVAC outlet2:</b> Supplying and fixing 20 A, 240 V, SPN Industrial type socket outlet, with 2 pole and earth, metal enclosed plug top alongwith 20 A "C" curve, SP MCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket outlet and complete with connections, testing and commissioning etc. as required. Make: Finolex FRLS for wire & Roma modular for other materials	1.00	Set			
11	<b>UPS wiring:</b> wiring for 6/16A switch socket using FRLS insulated copper conductor single core cable (with 2x4.0Sqmm and 1x 2.5 sqmm for earthing) in surface / flexible hose/recessed PVC conduit. Drawing power supply from the respective MCB/DB and distribution all the outlets. Make: Finolex FRLS for wire & Roma modular for other materials	30.00	Rm			
12	<b>Telephone:</b> Supply and drawing of 2 pair Telephone cable through suitable cable trunking from the existing junction box and providing modular type outlet.	6.00	point			
<b>ELECTRICAL SUB TOTAL (B)</b>						
<b>C) NETWORKING WORKS</b>						
1	Supplying and laying of <b>IO Box with front and back plate</b> with IO connectors (for Cat 6A) Make: AMP	11.00	Nos			
2	Supplying and laying of <b>Cat 6A Cable</b> roll 300 m, Make: AMP	2.00	Nos			
3	Supplying and laying of <b>Cat 6A Connectors</b> , Make: AMP	24.00	Nos			
4	Supply and installation of <b>Cat 6A patchpanel with loaded connectors</b> , Make: AMP	1.00	Nos			
5	Supply of <b>Cat 6A Patchcables</b> 3m, Make: AMP	25.00	Nos			

Sl. No.	Description	Quantity	Unit	Rate (Rs.)		Amount (Rs.)
				In figures	In words	
6	Supply of Cat 6A Patchcables 1feet, Make: AMP	25.00	Nos			
7	Supply, installation and Configuration of <b>HPE aruba IAP Access point 305</b> with poe injector, Make: Aruba	1.00	Nos			
<b>NETWORK SUB TOTAL (C)</b>						
<b>Total (A)+(B)+(C)=(D)</b>						

SL.NO	DESCRIPTION	AMOUNT
1	CIVIL WORKS (A)	
2	ELECTRICAL WORKS (B)	
3	NETWORKING WORKS (C)	
4	TOTAL (A)+(B)+(C) = (D)	
5	GST ON (D).....% (E)	
	GRAND TOTAL (D+E)	

(Grand Total amount in words Rs.....  
..... )

Date:

Place:

Signature of the contractor with seal



