

**INDIAN INSTITUTE OF ASTROPHYSICS
2nd BLOCK, KORAMANGALA, SARJAPUR ROAD,
BANGALORE – 560034.**

TENDER DOCUMENT

***NAME OF THE WORK: REHABILITATION OF EXISTING POWER
FENCE AT I.I.A, KODAIKANAL, TAMILNADU***

**Tender Notice No: 15/IIA/CIVIL/Kodai/Power fence/KKL/
2013-14 Dated 1.11.2013**



INDIAN INSTITUTE OF ASTROPHYSICS
2nd BLOCK, KORAMANGALA, SARJAPUR ROAD,
BANGALORE-560 034

**PUBLIC Tender Notice No:15 /IIA/CIVIL/Kodai/Power fence/
KKL/2013-14 DATED: 1.11.2013 (TWO BIDS SYSTEM)**

The Indian Institute of Astrophysics invites sealed item rate tenders on behalf of the Director in the prescribed form from appropriate registered agencies/Contractors in state PWD, CPWD, MES, Scientific Institutions and Private Body Competent 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 doc Rs.
1.	“Rehabilitation of existing power fence at I.I.A, Kodaikanal, TAMILNADU.”	12.50 Lakhs	90 days	25000.00	500.00

The Tender Document can be viewed and downloaded from our website www.iiap.res.in/tenders.htm. The interested tenderers may 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 favour of Director, IIA, Bangalore.

The Offers should be submitted in two sealed covers one super scribed “**Technical Bid**” and other “**Price Bid**”. Both covers shall be put in another sealed cover super scribing the envelope with “Tender for “**Rehabilitation of existing power fence at I.I.A, Kodaikanal, TAMILNADU**”, Notice No. and due date”, shall be submitted addressed to The Director, Indian Institute of Astrophysics, Bangalore – 560 034.

The pre bid meeting will be held at Indian Institute of Astrophysics, Kodaikanal Observatory, Kodaikanal, Tamilnadu on 13.11.2013 at 11:00 hours to discuss the technical points on the tender. All the bidders are requested to attend the pre bid meeting to obtain clarification, if any, regarding the specification of work, scope of work, work site etc., No queries will be entertained after the pre bid meeting. **The minutes of the Pre bid meeting will become part of the tender which shall be submitted along with the tender document with due signature and stamp of the tenderer.**

The last date of submission of bid is 22.11.2013 on or before 3:00 pm at I.I.A, Bangalore. The Technical bids will be opened at 3.30 p.m. on the same day in the presence of attending tenderers or their authorized representatives.

After opening of Technical bid, the capability and suitability of the bidders shall be evaluated and Price bid of the qualified bidders shall only be informed and opened in the presence of the attending bidders. The date of opening of Price bid will be informed to the qualified bidders.

Following are the Qualifying Criteria:

1) Should have completed **at least one similar work costing not less than Rs.10.00 lakhs** during previous 3 years for Government / Semi Government/Reputed corporate clients.

Or

Three similar works each costing not less than Rs 5 lakhs during last three years for Government / Semi Government/Reputed corporate clients.

The intending Bidders shall furnish the relevant experience certificates duly signed by the competent Authority not less than the rank of Executive Engineer.

2) The tenderers should submit latest TDS Certificate indicating the Income Tax deducted by the client for the execution of similar works. The tenderer should be an assessee having filed Income Tax return for atleast last two financial years.

The Director, IIA reserves the right to accept or reject any or all tenders without assigning any reason thereof.

**Administrative Officer
For Director**

3. INSTRUCTIONS TO THE TENDERERS

1. The tenderers should submit the entire tender document with all the pages of document duly signed.
2. Both (technical & price bids) the offers should be submitted in sealed cover superscribing the envelope with Tender for , **“Rehabilitation of existing power fence at I.I.A, Kodaikanal, TAMILNADU”**, Notice No. and due date”.

The technical bid shall contain required EMD in the form of Demand Draft, Tender document fee in the form of Demand Draft, technical credentials like experience certificates, earlier work orders and work completion certificates, financial details, staff structure of the organisation, planning schedule etc as requested in the tender form. Any missing of the required information may lead to disqualification of the technical bid without assigning any reason whatsoever. The Institute has the right to take decision in this regard.

The Price bid shall contain the schedule of quantities duly filled with the price in words and figures. No corrections shall be made in the quoted rates. If corrections are made, the same shall be strike off with attestation & stamp of the organization. No correction fluid shall be used.

3. If any clarification is required from the Institute regarding the scope of work, site etc., shall be obtained before filling Tender Document. The intending tenderers may also visit the site and get more information from the **Scientist in Charge, Kodaikanal Observatory, Indian Institute of Astrophysics, Kodaikanal, Tamilnadu OR Civil Engineer, IIA, Bangalore on or before 13.11.2013**
4. If any discrepancy between figures and words for quoted rates are found, the rate quoted in words prevails and the same will be considered for the purpose of evaluation.
5. 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.
6. The Institute is not bound to accept the lowest tender whatever the reason so ever.
7. 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.

8. 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.

9. Incomplete Bids are liable for rejection.

10. Delayed offer will not be considered.

11. IIA is not responsible for any delay / loss of documents in transit whatsoever the reason may be.

12. No bids will be considered if prescribed EMD and tender fee is not found with bids.

13. All overwriting and corrections shall be duly attested with stamp and signature of the authorized representative of the firm.

14. Corrigendums / modifications / corrections, if any, will be published in the website only. Hence the bidders are advised to visit the website before the submission of the bids for considering the same for quoting the rates as a final check

15. The Director, Indian Institute of Astrophysics reserves the right to accept or reject any or all the tenders in full or part without assigning any reason thereof.

16. Performance certificates of the completed works issued by the clients to be enclosed with the bid.

17. The committee constituted by the Director may inspect previously completed or ongoing works of the bidders to assess their technical suitability for the tendered work.

18. All the pages of the tender document to be signed and stamped by the authorized representatives of the firm and submit them in the sealed covers.

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**Tender Notice No: 15/IIA/CIVIL/Kodai/Power fence/KKL/
2013-14 Dated 1.11.2013**

Name of
the firm: _____

Address: _____

Phone No: _____

Last Date for Submission of the tender **22.11.2013 2013 up to 3:00 PM.**

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 with Designation Shri.....
 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 :

1.5.1 Details of the staff as per the following format.

Sl. No	Profession/discipline	Name	Age	Qualification	Experience (total years)	Field of experience
	Civil					
	Electrical					
	PHE					
	Others					

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 the firm has in possession and the equipment the firm 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 the firm proposes to bring on to site

Tenderers hereby confirms that the quantity and type of tools the firm 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 DETAILS:**

Name of the Bank: _____

Branch: _____

Account No.: _____

Average Annual Turnover for last 5 Years: _____

5. **INSURANCE**

Accident Insurance

Insured with: _____

Policy No.: _____

6. Details of Arbitration cases, if any :

8. 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)

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PRICE BID

***NAME OF THE WORK: REHABILITATION OF EXISTING
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**Tender Notice No:15/IIA/CIVIL/Kodai/Power fence/KKL/
2013-14 Dated 1.11.2013**

Name of
the firm: _____

Address: _____

Phone No: _____

Last Date for Submission: 22.11.2013 up to 3:00 PM.

**TENDER FOR “REHABILITATION OF EXISTING POWER
FENCE AT I.I.A, KODAIKANAL, TAMILNADU.”**

Conditions of Contract.

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

Estimated cost : **Rs.12.50 Lakhs (Rupees twelve lakhs fifty thousand Only)**

Time of completion : **Ninety Days (90 Days).**

Period of commencement : 7 days from the date of receipt of Work Order

Percentage of retention money : Total 5% which shall be released only after the successful completion of the Defect Liability Period

Defects liability period : 24 Months.

Amount of liquidated damage : 1% (one percent) per week subject to the maximum of 10% of the value of contract.

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.

materials, mode of carriage, lead involved for carriage of construction materials, availability of water, electricity etc., to meet general and technical conditions of contract. **Bidders will be shown the site on pre bid meeting day prior to the meeting and all the clarifications will be provided to the bidders to enable them to understand the work in all respect and quote accordingly.**

2. Technical Specifications

All the works shall be done strictly as per drawings and specifications enclosed. No deviation shall be permitted except under written orders of the Engineer-in-Charge. Drawing, specifications and all other documents, which form part of the agreement to be entered into should be carefully studied. IIA shall not accept any claims at a future date for any eventuality arising during the execution of work.

All works should be executed as per relevant IS specifications that are current at the time of execution of work.

The bidder is expected to have good experience in the work detailed under this tender and be sure of :

- a. Completing the work as per schedule given.
- b. Provide adequate labour and other resources to do the work with requisite equality, speed and efficiency.
- c. Provide adequate supervision for works by qualified persons.
- d. Provide adequate plant and machinery.

The bidder shall have to satisfy the Authorized Signatory of his ability to provide the above through out the progress of the work.

3. Schedule of Completion

Period of Completion: The work must be completed within a period of **Ninety days** (90) from the date of issue of Order. Time is the essence of contract. The work programme for the works must be planned and executed in proper sequence.

Bidder shall submit a schedule of execution of works listing date of commencement and completion for all major activities starting from mobilisation of material, machinery and labour, site clearance to the completion of all works.

4. Inspection

Supplier shall satisfy the purchaser or his designated representative, Engineer-in-Charge, for the execution of works to the specifications and the drawings.

All the materials covered in the work shall be subjected to inspection and testing by Engineer-in-Charge. The Engineer-in-Charge will have over all authority during

execution of work and will exercise control on quality of material, management of site and execution of works as per specifications and drawings.

No sub standard and in fructuous work will be accepted and paid.

The construction materials shall be of good quality and the necessary tests, if required shall be tested at reputed and approved laboratories at the cost of the contractor.

5. Payment

Payment to the contractor for work done by him shall be paid based on measurements duly certified by Engineer-in-Charge. The final bill should be invariably accompanying the No claim – No due certificate from the contractor/agencies and Certificate of handing over and taking over of the completed work from the Contractor and the Engineer-in-Charge.

Free Maintenance period is reckoned for a period of 24 months from the date the work is handed over by the contractor to the Institute.

All payments of bills will be made to contractor through crossed cheque marked “A/c payee only”.

No extra cost shall be payable to the contractor on account of escalation of price in respect of raw materials or labour charges whatsoever, during the execution of contract.

No compensation for idle period either for labour or equipments shall be payable by IIA on any account.

6. Rates

Rates quoted in the schedule shall be inclusive of all freights, taxes such as excise, sales tax, General sales tax, Octroi, Royalties etc., and also transport of materials, plants, machineries, labour accommodation, sanitation etc., and all sundries so as to execute the contract as per rules and regulation of local bodies, state government and the Government of India.

7. Changes

The Authorized Signatory shall have the power to make any alteration in or substitutions for original specifications, drawings, design and instructions that may appear to him to be necessary during the progress of the work and such alteration, omission, additions and substitutions shall not invalidate the contract.

8. Material and Supply

The contractor at his own expense shall supply all stores and materials as specified and required for the work of the contract. The contractor at his own expense shall

provide all necessary tools, plant and equipment required for the execution of the work. The contractor, shall not without the prior written approval of the Authorized Signatory assign or transfer the contract or any part thereof or any share or interest therein to any other person.

9. Validity

The tender shall remain valid for three (3) months from the date of opening of tenders for acceptance, within which period the bidder cannot withdraw his offer. The period may extend further if required by mutual agreement from time to time.

10. Liquidated Damages

In the event of failure to complete the work within the specified period, the contractor is liable to pay LD at the rate of 1% per week of delay subjected to a maximum of 10% of the value of contract work. In the unlikely event of any delay from IIA, suitable extension of delivery period will be granted based on the request of the contractor/agencies.

11. Earnest Money

Every tender shall be accompanied by a demand draft or bank guarantee for the value of Earnest Money Deposit drawn on any scheduled bank in favour of **Director, Indian Institute of Astrophysics payable at Bangalore.**

This earnest money will be refunded to the unsuccessful bidder after the award of work is finalized. In the case of successful bidder, the earnest money will be retained as part of the security deposit and will be refunded only after completion of the work and on expiry of the maintenance period which will be reckoned as twenty four months, from the date of officially handing over of the work by the contractor.

The earnest money is liable to be forfeited in case the Authorized Signatory feels that the tender is not bonafied or the bidder modifies or revokes the tender during the period the tenders are kept open. The decision of the Authorized Signatory as to whether a tender is a bonafied or not shall be final, conclusive and binding on the bidder.

The earnest money deposit paid by the bidder at the time of tendering shall be forfeited by IIA without prejudice to any other right or remedy available to the IIA under this tender under the following cases:

- a. If the bidder withdraws his offer after submission of his tender and before acceptance / rejection of his tender by IIA
- b. If the bidder after the communication of acceptance of his tender fails to start the work within a reasonable time in accordance with the instructions of the Engineer-in-charge.
- c. If the bidder fails to execute the agreement within a reasonable time.

12. Security Deposit

The person / persons whose tender may be accepted (hereinafter) called the contractor shall have to pay a total security deposit of 5% (Five percent) of the value of the contract which shall be payable by the contractor(s) as under:

The security deposit of amount equal to 5% (Five percent) of the value of the contract before signing of the agreement. The EMD submitted will be refunded after successful completion of the work.

The contractor may be required to pay full amount of security deposit at the time of signing the agreement if so desired by the Authorized Signatory and advised to the contractor to this effect in writing before signing the agreement.

IJA will consider acceptance of Bank Guarantee towards the Security Deposit. The bank guarantee shall be for the full value of the security deposit (5% of the total value of the contract) and shall be valid for a minimum period of 24 months from the date of signing the contract by the contractor. The Bank Guarantee shall be in the approved form and shall be issued by any nationalized bank.

All compensation and liquidated damages or other sums of money payable by the contractor under the terms of this contract may be deducted by IJA from the Security Deposit or any sum, which may be due to or may become due to the contractor, or from any account whatsoever and in the event of his Security Deposit being reduced by reason of any such deductions as aforesaid, the contractor shall within 10 days make good in cash or guarantee bonds executed in favour of IJA or Fixed Deposit receipts tendered by the any Scheduled Banks (in the case of guarantee offered by scheduled banks the amount shall be within the financial limits prescribed by the Reserve Bank of India) or by Government Securities (if deposited for more than 12 months) endorsed in favour of IJA. The amount of Security Deposit will remain with the IJA till the work is satisfactorily completed and maintained. IJA will not be liable to pay any interest on amount of Security Deposit thus held.

13. Disputes

Any dispute and difference of any kind whatsoever arising out of the contract will be subjected to exclusive jurisdiction of court at Bangalore.

15. Rates and Quantities

Bidder must quote self-supporting composite rate for every item. Quantities shown in schedule are only approximate and are liable for variation. IJA reserves the right to increase or decrease the quantities in any / all items in any proportion and no claims shall be entertained for escalation in rate for any / all items on the grounds of increase or decrease in the schedule of quantities given in schedule.

Bidder shall obtain clear-cut clarification if in doubt about any specification or item or any details not understood before tendering. In case any clarification is sought at a later date by bidder, decision given by Authorized Signatory on the subject shall be final, binding and conclusive.

Unit rate / composite rate(s) should be quoted in figures as well as in words against each item or for all items as shown in the schedule of work and rates. These rates shall be for the finished work at site.

Any error in description, quantity or rates in schedule or any omission there from shall not vitiate the contractor or release the contractor from the execution of the whole or any part of the works comprised therein according to the drawings and specifications or from any of his obligations under the contract. Any error in quantity and or amount in schedule shall be adjusted in accordance with the following rules.

In case the rates in words and figures differ, the rates quoted in words will prevail and the same will be considered for evaluation. In case the amount of an item is not worked out by the bidder, then the amount will be calculated considering the rate quoted in words.

All errors in totaling in the amount column and in carrying forward totals shall be corrected. Any omission to include in the total or to carry forward the prime cost sums and / or provisional sums shall be corrected.

The totals of various items of schedule if any as amended above shall be carried over to the general summary and the bidder sum amended accordingly. The tendered sum so altered shall for the purpose of the tender be substituted for the sum originally tendered and considered for acceptance instead of the original sum quoted by the bidder.

In quoting rates, the bidders are advised to take into account all factors including any fluctuations in the market rates, insurance against all risks etc. No claims will be entertained on this account after acceptance of the tender or during the currency of the contract.

Conditional and tenders containing freak rates and amounts, tenders that are incomplete or otherwise considered defective and tenders not in accordance with the tender conditions laid down by Authorized Signatory are liable to be rejected.

The IIA reserves the right to reject any or all tenders received or accept any tender or part thereof without assigning any reason whatsoever. In case of acceptance of part of the tender, the time for completion may also be reduced to the extent considered appropriate by the Authorized Signatory.

The scope of the work and explanatory notes given below are neither complete nor exhaustive but are added to assist the contractor to understand the scope of the work.

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.

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

I/ we hereby tender for the execution for the Director for the work specified above within the time specified above, at the rates specified in the attached schedule 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 by the Director, IIA.

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 or during the execution of work 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 rate quoted in words prevails and the same will be considered for evaluation.

- ❑ If the amount of an item is not worked out 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 by the contractor in words 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 IIA. All the measurements of the work may be recorded jointly by IIA 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 IIA shall have full powers to the removal from the premises of all materials and bad workmanship, which in its opinion are not in accordance with the specifications.

- ❑ The IIA 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 incompetent 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 IIA.

- ❑ The IIA 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 IIA 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, IIA shall for any reason whatsoever not require the whole thereof as specified in the tender to be carried out, the institute 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 expense arrange for the safety provision as per safety code framed from time to time and shall at his own expense 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 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.

Size (diameter MM) Weight Kg/M

6	0.222
8	0.395
10	0.617
12	0.888
16	1.579
18	1.999
20	2.467
22	2.985
25	3.855
28	4.836
32	6.316

- The entire work is to be completed within the period stipulated i.e. Forty Five days from the 7th 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 IIA, which after approval shall form part of the contract and are to be strictly adhered to.
- The formation of concrete road shall be executed as per the specifications of the Indian Road Congress (IRC) and the Manual of Highway Engineering.
- The maintenance period for the work shall be twelve 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 IIA shall be final over which the contractor will not have any claim.
- The contractor shall extend all co-operation 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 IIA 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 IIA.

- ❑ The rates quoted by the tenderer in the schedule shall be inclusive of all taxes and levies payable under respective statues, inclusive of all sales taxes, sales tax on components/ materials/ consumables and also sales tax on works contract in pursuant to constitution (forty sixth amendment) act 1982, control duty and /or any other duty levied by the government or other public bodies. The rates shall be firm and shall not be subject to exchange variations, labour conditions or any condition.

- ❑ Sales tax will be deducted from the amount payable to the contractor as per the relevant sales tax act, applicable for the contracted work as amended from time to time, at the rates specified from time to time.

- ❑ Samples of all materials to be incorporated in the works shall be submitted to the IIA for necessary 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 IIA. If at any time during the progress of the work the IIA 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 /Aluminium 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 / Aluminium doors and windows.

- ❑ The contractor shall prepare a CPM / PERT /BAR chart/ Detailed estimate programme within a weeks 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 IIA.

- ❑ 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 arrangements 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 proforma 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 any of the above, the work will be carried out as directed in writing by the-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**

SPECIAL CONDITIONS OF CONTRACT

1. The work shall be executed as per the specification of the tender. For detail study of specification, the CPWD Works manual/specification of works has to be referred. The IS code of practice shall be used wherever necessary. The materials shall be of Indian/International Standards duly approved by the Institute.
2. Time is the essence of work. The work shall be completed in all respect within the stipulated completion date without assigning any reason whatsoever.
3. The contractor shall use all the modern equipment and methodology for execution of work so get the required strength and quality. Planning should be made in such a way that no time is lost considering the site condition and weather condition.
4. **The tenderer shall visit the site and understand the site conditions, availability of material and quote the rates accordingly. For any clarification on site or tender document, you may please contact the Scientist in Charge, IIA, Kodaikanal Observatory OR Civil Engineer, IIA, Bangalore on or before the submission of the tender.**
5. The work shall be executed in phases since the quarters are occupied and should not be disturbed during rainy season. The work shall be executed in close coordination with the occupants and the IIA staff for early and satisfactory completion of the work.
6. No tender will be received after the scheduled date and time for submission of bids. IIA is not responsible for any delay whatsoever.
7. **The quoted rates shall be inclusive of taxes, duties etc. as applicable. Transportation of materials to the site shall be at the cost of the contractor and shall be inclusive of the rate quoted. NO EXTRA TOWARDS THE SAME WILL BE PAID BY THE INSTITTUE FOR THE REASON WHATSOEVER**
8. **ALL THE BIDDERS ARE REQUESTED TO PRESENT DURING THE PRE BID MEETING AND SITE VISIT FOR BETTER UNDERSTANDING OF THE SITE, WORK, SPECIFICATION ETC. AND TO QUOTE THE RATES ACCORDINGLY.**
9. **ANY INSUFFICIENT INFORMATION OF THE MATERIALS, SPECIFICATION ETC. IN THE TENDER MAY PLEASE BE BROUGHT TO THE KNOWLEDGE PRIOR TO THE PRE BID MEETING TO CORRECT AND INCORPORATE IN THE MINUTES OF THE MEETING WHICH SHALL BECOME PART OF THE TENDER DOCUMENT.**

TECHNICAL SPECIFICATION OF MATERIALS

- **The materials specification shall be read and referred together with the corresponding items specified in the Bill of Quantities.**
- **All the rates shall be inclusive of taxes, duties as applicable and transportation of materials to the site.**

General Requirements:

2-Part tender is proposed to be held for refurbishing of the existing solar fences around the IIAP campus and Staff Quarters at Kodaikanal, measuring approx. 2600m and 900 m respectively for Bison / Gaur control.

The main campus fence should be powered by 2 energizers, to serve as back-up, in case of failure.

2 more lines are to be provided in addition to the existing 2m high, 8- line fence.

The fence posts should be capable of surviving large impacts from bison contact, without shorting the fence and without needing replacements.

The existing fence may be inspected to ascertain the field conditions and present state of the old fence, to ascertain the need for replacement and for the addition of 2 more lines.

The fence line has to be cleared of vegetation growth and a walkway of 1m should be formed, to give access for inspection and maintenance of the fence.

Specific Requirements:

The energizer should not be rated more than 5 Joules and should carry safety certification markings, BIS-302-76-2 or international equivalents, IEC/ EN 60335. The energizer should be capable of tolerating vegetation growth up to 2 feet. (item 1)

The energizer should be housed in a powder coated console box, to prevent rain water ingress.(item 2)

The lightning Divertor should be sensitive and adjustable, to prevent damage to the energizer in the event of thunderstorms. (item 3)

Earth Kits with stainless steel core, encased with electrolytes should be deployed in sufficient numbers to protect energizer from lightning strikes and to ensure uniform shock, along the entire length of the fence. (Item 4)

Fence Flasher should be provided to indicate the strength of pulse energy on the fence. (item 5)

Digital Voltmeter should be provided to monitor the voltage on the fence. (item 6)

Low maintenance battery of 100 Ah should be provided, to support uninterrupted fence operation through continuous monsoon weather of 2 months. (item 7)

The battery should be housed separately in a powder coated, water proof, lockable box. (item 8)

Double insulated cable of galvanized steel core, capable of withstanding 15 KV should be provided to prevent bimetal salt formation at connections. (item 9)

Audio alarm should be provided, to notify drop in fence voltage below a threshold of 4 Kv (item 10)

Solar photo voltaic panels of sufficient capacity may be provided to charge the battery, in order to support 24x7 hours operation of the energizer and alarm circuits. (item 11)

The required solar panel should be mounted on a hot dip galvanized stand, atop a 3m solar mounting pipe of at least 50 NB. (item 12)

The load bearing corner posts should be 50 NB GI pipes of sufficient length, with necessary 25NB , GI support pipes along with galvanized support post clamps.(items 13)

The intermediate posts should be maintenance free and should be able to flex, to survive large impacts, without shorting the fence and without needing frequent replacement. (Item 14)

The end strain insulators should be made of necessary engineering plastics to prevent failure and be shatter- proof, during large impacts from Bison/ Gaur attack and falling branches of trees.(item 16)

The non-load bearing reel insulators should be rated for 15 KV and should not fail during impact and self-short the fence against the post. (item 17)

The fence wire should be 12 gauge high tensile steel and should be hot dip galvanized to at least 250 Gsm, to ensure rust-free performance of 10 years. (Item-18)

The 14 Gauge wire used to tie the reel insulators to the posts should be at hot dip galvanized to prevent rusting. (item 19)

The wire tightener should be of aluminum alloy, to ensure the wire does not break during large impacts from bison contact or falling branches. (item 20)

The Tool Kit used for tightening fence wires should be hot dip galvanized. (Item 21)

The joint clamps should be hot dip galvanized and should have a positive lock mechanism to prevent loose contacts. (item 22)

Permanent Wire Tension springs should be hot dip galvanized and should be capable of preventing collapse of the fence during impacts from Bison and falling tree branches.(Item 23)

Warning Sign Boards in Tamil and English should be UV stabilized at appropriate places (Item 24)

**SCHEDULE OF QUANTITIES
CIVIL**

**NAME OF WORK: “REHABILITATION OF EXISTING POWER
FENCE AT I.I.A,KODAIKANAL, TAMILNADU”**

Item No	Materials on Fence	Unit	Total	Unit Rate (Rs.) in words and figures	Amount Rs.
1	Energizer 4.2 Joules	Nos.	3		
2	Console Box	Nos.	3		
3	Lightning Diverter Kit	Nos.	3		
4	Earth Kit	Nos.	44		
5	Fence Flasher	Nos.	3		
6	Digital Volt Meter	Nos.	1		
7	Battery 100 AH	Nos.	3		
8	Battery Box	Nos.	3		
9	Double Insulated Cable	Metres	200		

Item No	Materials on Fence	Unit	Total	Unit Rate (Rs.) in words and figures	Amount Rs.
10	Audio Alarm	Nos.	2		
11	Solar Panel (75 w)	Nos.	2		
12	Solar Panel Pipe & Stand	Nos.	2		
13	Corner Posts Assembly 2" GI	Nos.	21		
14	Intermediate Insulated Posts	Nos.	589		
15	Hot dip galvanized Support post clamp, Bolt & nut	Nos.	164		
16	End Strain Insulators	Nos.	1710		
17	PP Reel Insulators	Nos.	7175		
18	12 G Wire	metres	20181		
19	14 G Wire	Kgs	74		

Item No	Materials on Fence	Unit	Total	Unit Rate (Rs.) in words and figures	Amount Rs.
20	Wire Tighteners	Nos.	740		
21	Tool Kit	Nos.	2		
22	Joint Clamps	Nos.	300		
23	Tension Springs	Nos.	296		
24	Warning Sign board	Nos.	70		
25	Installation & Commissioning Charges	metres	35000		
26	Civil Work		Lump sum		
GRAND TOTAL AMOUNT Rs.					

(Grand Total Amount in words Rupees.....
.....)

Date:
Place:

Signature of the bidder with stamp