



TENDER DOCUMENT

FOR

**DEPLOYMENT OF
SOLAR POWER SYSTEM
AT CENTRAL LIBRARY AND ONLINE
INFORMATION CENTRE**

AT

**MEHRAN UNIVERSITY
OF
ENGINEERING AND TECHNOLOGY
JAMSHORO,
SINDH- PAKISTAN**

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01.	B.O.Q. OF THE ENGINEERING, PROCUREMENT AND COMMISSIONING (EPC) OF SOLAR POWER SYSTEM AT CENTRAL LIBRARY AND ONLINE INFORMATION CENTRE, MUET, JAMSHORO.	PINK
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**MEHRAN UNIVERSITY OF ENGINEERING &
TECHNOLOGY, JAMSHORO**

Phone No. 022-2771311 Fax: 022-2771403



No. DD(Proc.)/MUET/JAM/-123

Dated: 12-06-2015

**N.I.T. FOR DEPLOYMENT OF SOLAR POWER SYSTEM AT CENTRAL
LIBRARY AND ONLINE INFORMATION CENTRE AT MUET, JAMSHORO.**

Sealed tenders are invited on the prescribed form from the contractors / firms / parties dealing with supplying, installation, testing & commissioning and putting in to operation and demonstration of Solar Power System at Central Library and Online Information Centre at MUET, Jamshoro, which meets the following terms and conditions.

The tender documents including instructions to the Tenderers, terms & conditions and schedule of requirements can be had from the office of the Deputy Director (Procurement), Mehran University of Engineering & Technology, Jamshoro, by mail or personally on any working day during office hours from **18-06-2015 to 02-07-2015** on payment of Rs. 5,000.00 & Rs. 5200.00 by mail respectively.

TERMS & CONDITIONS:

1. The firms Registered in General Sales Tax and Income tax are eligible to obtain Tender Document, and the Photostat copies of Income Tax and GST, Registration certificate must be attached.
2. All currency in the proposal shall be quoted in Pakistan Rupees (PKR).
3. The Bidder should be a qualified PV System Integrator. (At least one or more Solar Photovoltaic Power Plant (s) aggregating to a total of 50 KWp capacity should have been installed / commissioned)
4. Cumulative Experience of the Bidder in executing contracts of Solar Photovoltaic Systems/Power plants (Installed & Commissioned) should be at least 50% of the tender value.
5. Value of a "Single Order" of PV Systems / Power Plants executed by the Bidder (A copy of the order indicating its value and certificate indicating its successful execution) valued more than Rs. 2.5 Millions.
6. Bidder must have local presence including Pre-Sales, Sales & Support Staff; the equipment should be supplied through verifiable distribution channel in Pakistan.
7. All equipment for the project will be delivered new, in packed condition directly to the Mehran UET, if equipment delivered is not conforming to the specifications and bill of quantity, the equipment will not be accepted. The equipment will be installed only after inspection.
8. Bidder must be in similar business for at least last THREE (3) years.

9. The Bidder must have professional / Technical Human resources of the Proposed solution, to carry out the project professionally (Bidders are requested to attach the list of their professionals along with their Professional certifications).
10. The maximum amount of sub-contracting must not exceed 30% of the total contract value. The main contractor must have the ability to carry out at least 70% of the contract works by his own means.
11. Principal must have local warehouses Local hardware/parts center, mentioning valid address in Pakistan for sparing, (To support the Hardware Replacement timely)
12. Any query regarding the technical specifications / requirements in RFP may be made before the tender submission, through email To: ag.kandhir@admin.muett.edu.pk
13. Incomplete and ambiguous (not describing the required specifications clearly and completely) solutions may / may not be considered for the bidding process.
14. Data Sheet for all the quoted equipments must be attached.
15. The rates in the quotation should be valid for at least 90 days
16. No increase in the value of items will be accepted on account of either unit price, total price, any or all other charges, duties, taxes, scope of supply.
17. The rates should include Income Tax @ 4.5%, GST 17%, transportation, installation and other charges (if any / applicable).
18. A Pay Order / Bank Challan of earnest money @ 5% of the total amount, in favor of the Deputy Director (Procurement), Mehran University of Engineering & Technology, Jamshoro should be enclosed with the quotations.
19. University reserves the rights to allocate the Tender on Trunk basis or Section wise.
20. Additional cost of per year / Warrantee must be mentioned (for Section-I Items)

The bids should be submitted under “Single Stage Two Envelops Procedure” as under:

- Bid shall comprise a single package containing two separate envelopes. Each envelope shall contain separately the: (i) Technical Proposal (ii) Financial Proposal
- Envelopes shall be marked as “FINANCIAL PROPOSAL” and “TECHNICAL PROPOSAL” in bold and legible letters to avoid confusion;
- Initially, only the envelope marked “TECHNICAL PROPOSAL” shall be opened;
- Envelope marked as “FINANCIAL PROPOSAL” shall be retained in the custody of the procuring agency without being opened;
- Include the BoQ list at the end of document with both (i) Technical Proposal (WITHOUT Price/Cost) (ii) Financial Proposal (WITH Price/Cost)
- Procuring agency shall evaluate the technical proposal in a manner prescribed in tender documents, without reference to the price and reject any proposal which does not conform to the specified requirements.
- Financial proposals of technically qualified bids shall be opened publicly at a time, date and venue announced and communicated to the bidders in advance;

- Financial proposal of bids found technically non-responsive shall be returned unopened to the respective bidders; and
- Bid found to be the lowest evaluated or best evaluated bid shall be accepted.
- Delivery is to be made within the prescribed period from the date of receipt of Purchase/Work Order.
- The tenders reached after the due date or sent to the wrong address shall not be accepted.
- The quotations not matching with the required specifications and /or not fulfilling the terms and conditions mentioned herein shall not be entertained.
- The University reserves the right to accept or reject any or all of the Tenders without assigning any reason.
- The University also reserves the right to increase or decrease the quantity of the items/ material demanded.
- Any condition not mentioned here or left out will be settled according to the discretion of the University.
- Procuring agency shall verify previous working, experience and financial statements made by the bidder.
- No amendments shall be permitted during the evaluation process;
- Quality and Cost Based Selection (QCBS) bid shall be accepted.

Note:

- Vendor / Participants / Bidder must attach the proof of their partnership/ registration with the tender.
- Evidence should be provided wherever applicable.

The tender duly completed in duplicate and addressed to the Deputy Director (Procurement), Mehran University of Engineering & Technology, Jamshoro, Sindh, must reach him, or be dropped in the tender box placed in his office by **12:00 noon** on **03-07-2015**. The tenders will be opened on the same date at **12:30 hrs** in the presence of those Tenderers who so wish to be present.

“The Procuring Agency may reject any or all bids subject to relevant provisions of SPP Rules, 2010 and may cancel the bidding process at any time prior to the acceptance of a bid or proposal under Rule – 25 of SPPRA, Govt. of Sindh”.

**Sd/-
Deputy Director
(Procurement)
Mehran University of
Engineering &
Technology, Jamshoro.**

ARTICLES OF AGREEMENT

This Agreement made this _____ day of _____ 2015, by and between the Vice-Chancellor, Mehran University of Engineering and Technology, located at Jamshoro, Sindh, including his successors in office and Assignees / Agents, acting through the Deputy Director (Procurement), Mehran University of Engineering & Technology, hereinafter called the “**University**”, of the one part.

And _____ of _____ (name and designation of the authorized person), located at _____, hereinafter called the “**Contractor**” which expression shall include their successors, legal representatives of the second part.

Whereas the **University** requires active and passive network equipment for deployment of Solar Power System at Central Library and Online Information Centre at MUET, Jamshoro, and whereas the **Contractor** has agreed to supply, install, put into operation and demonstrate the working of the said System valued at Rs. _____ (in figures and words) in the period of _____ months, subject to the terms and conditions set forth, hereinafter, which have been accepted by the **Contractor**.

(amount in figures and words)

Now this Agreement witnesses as follows:

1. In this agreement words and expressions shall have the same meanings as are respectively assigned to them in the **Conditions of Contract** hereinafter referred to.
2. The following documents which, for the purpose of identification, have been signed by _____ on behalf of the **Contractor**, and by _____ (name and designation of the authorized person) on behalf of the **University**, all of which shall be deemed to form and be read and construed as a part of this **Agreement** viz.:
 - a) Articles of Agreement;
 - b) Instructions to Tenderers;
 - c) Conditions of Contract;
 - d) Contractor’s Offer including the relevant correspondence prior to signing of this Agreement with all Annexures duly filled in;
 - e) The specifications of the equipment; and
 - f) Bill of Quantity with prices.

- 3. In consideration of the payment to be made to the Contractor, the **Contractor** hereby **covenants** with the University to supply, deliver, install, put into operation and demonstrate the working of the Solar Power System in conformity in all respects of the Contract & the order form No. _____.

- 4. The **University** hereby **covenants to pay** the Contractor in consideration of the supply, delivery, installation, putting into operation and demonstration of the working of the Solar Power System the contract price in the manner prescribed by the Contract and approved by the University.

In Witness Whereof the parties have hereunto set their respective hands and seals, the day, month and year first above written.

WITNESSES:

University _____

Contractor _____

Witness No.1:

Witness No.1:

Signature: _____

Signature: _____

Name: _____

Name: _____

Designation: _____

Designation: _____

Witness No.2.

Witness No.2:

Signature: _____

Signature: _____

Name: _____

Name: _____

Designation: _____

Designation: _____

INSTRUCTIONS TO TENDERERS

The Mehran University of Engineering and Technology, Jamshoro, Sindh, intends to deploy Solar Power System at Central Library and Online Information Centre at MUET, Jamshoro under the approved Self Finance Scheme. The purchase will be financed through the cash from own sources. This tender is issued for the supply, installation, putting into operation and demonstration of the working of the Solar Power System as per the Schedule of requirements given in this Tender Document.

PREPARATION OF TENDER.

1. Language of Tender

The **Tender** alongwith any accompanying literature shall be prepared in **English** language only:

2. Submission of Tender

- a) The **Tender** shall be enclosed in a double cover. The outer cover shall bear the address of the **Deputy Director (Procurement)**, Mehran University of Engineering and Technology, Jamshoro, Sindh, without any indication that it encloses a tender. The inner cover shall be marked with the title of the Tender, number of invitation to the Tender and the date of opening of the Tender, and **must be sealed**.
- b) The **Form for Tender**, (Annexure-A) **Tender Particulars (Annexure-B)** and **Forms of Schedule to Tender** (Annexure "C1"&"C2") enclosed herewith, shall be submitted in duplicate. The authorized person signing the tender documents must state his full name and authorized position designation underneath his signature.
- c) The **erasing and/or alterations**, if any, in the Tender shall be authenticated by the authorized person by his full signature.
- d) The **Tender** shall be accompanied with the **original quotations** from the manufacturers (for imported stores), in case the Tender is submitted through their authorized agents or distributors, and shall be supported by credentials establishing the experience and standing of the manufacturers and / or their authorized agents or distributors.
- e) **Ambiguous and incorrect answers** and/or incorrect filling of Tender Documents will render the tender liable to rejection.
- f) **Quotations** through cable, telegraph, telex, fax, or e-mail will not be considered.

- g) The tenders shall not rely on any **interpretation or correction** given by any person except the written **addenda and/or corrigenda** to documents issued by the Deputy Director (Procurement), Mehran University of Engineering and Technology, Jamshoro, Sindh.

3. Bid Bond and Contract Performance Bond

- a) The tenderer shall enclose with his/her tender a **Bid Bond** on requisite stamp paper, as per **Annexure “D”** to this Tender Document, issued by a scheduled/commercial bank doing business in Pakistan, for an amount equivalent to **2% of the total cost** of the Solar Power System offered as per the Tender submitted by him/her, or Rs. 50,000.00 (fifty thousand), whichever is more. The Bid Bond shall be in favour of the Vice Chancellor, Mehran University of Engineering and Technology, Jamshoro, including his successor in office and assignees acting through the Deputy Director (Procurement), Mehran University of Engineering and Technology. The bond so furnished shall remain **valid for a period 28 days beyond the period of validity of the Tender** or till it is revalidated/extended for a period mutually agreed upon by the tenderer and the Deputy Director (Procurement), Mehran University of Engineering and Technology, Jamshoro, Sindh.
- b) As soon as an award is made, the provisions in paragraphs **c), d) and e)**, hereunder, shall **operate**.
- c) If the Tender is **rejected**, the Bid Bond will be returned to the tenderer as soon as possible after rejection.
- d) The **successful bidder** shall have to give a **Contract Performance Bond**, as per **Annexure “E”** to this Tender Document, to the extent of **2% of the total value** of the contract on the same conditions as the Bid Bond. The Performance Bond shall be retained by the Deputy Director (Procurement), Mehran University of Engineering and Technology, till the completion of the guarantee period as per Clause 23 of the Conditions of Contract.

4. Quality of Stores.

- a) The Solar Power System and other relevant materials (hereinafter called **“Stores”**) quoted supplied, installed and commissioned against this **“Invitation to Tender”** shall be strictly in accordance with the **Specifications** attached with this Tender Document. The Stores shall be the product of an established manufacturer and shall conform to internationally acceptable commercial standards, and shall be a system that has been successfully operated over a reasonable period of time in relevant industry.
- b) In Tenderers must also warrant the use of best material in the making of the stores. If the Specifications for any items of the Stores are lacking in details, they may give their own proposals with detailed specifications, preferably three alternate proposals if possible, for such items in Annexure **“F”**.

- c) The Stores offered by the tenders must be of a quality suitable for the purposes and operations for which they are required, and must be capable of rendering the required performance and services at site in the local conditions of extreme tropical climate, air, dust, water, power and fuel at Jamshoro.
- d) The space for operation of the Stores will be made available by the University.
- e) The electric supply for operation of the Stores will be made available at 220 volt single phase, or 380 volt three phase, and 50 cycles.
- f) The Stores offered shall be complete with their standard accessories and must be accompanied by their normal instructions book/manual.
- g) Wherever possible or feasible, each item of Stores offered must have its own protection devices, e.g, overload protection by circuit breakers or fuses, or voltage stabilizer for electric equipment.
- h) Unless stipulated otherwise in the specifications for any item, the Stores conforming to IEC, IEEE, TUV ASA, SAE, will be acceptable.
- i) The successful bidders may be asked to supply list of spares for 5 years satisfactory operation of any item of the Stores, prior to award of the contract.

5. **Literature.**

The tenderers must furnish with their bids catalogues giving full technical details of the Stores to enable the University to check their offers technically against the prescribed specifications failing which the offers will be liable to rejection. The literature MUST be in original: photocopies will not be accepted.

6. **Principals Name, Certificate and Invoice.**

- a) The tenderers are required to mention in their quotations/offers the name and address of their Principals along with a certificate authorizing them (tenderers) to quote on their (Principals) behalf as under:
“This is to certify that M/S. _____ located at _____ have obtained quotations from us against tender inquiry No. _____ dated _____ from Mehran University of Engineering and Technology, at Jamshoro, due for opening on _____ and have agreed to make available the Equipment on the quotations and terms and conditions of the tender”.

The above condition does not apply to the manufacturers bidding directly.

- b) The tenderers must also furnish along with their offers their Principals original Proforma Invoice failing which their offers will be rejected.

7. **Country of Origin.**

The tenderers must state in his Tender the country of origin of the Stores offered.

8. **Alternative Proposal.**

If any tenderer elects to submit alternative proposal(s) complete information on the alternative items including all data relating to technical specifications in Vol. I, II&III shall be given as per Annexure “F”.

9. **Prices.**

- a) **CATEGORY-‘A’ Stores Manufactured/Available in Pakistan without Involving Import.**

The prices quoted must be total per unit in Pakistani Rupees as shown in **Annexure “C-1”** and shall include:

- i. All charges for packing, marking, handling, insurance, inspection, guarantees, freight/transportation, agent’s commission; and all duties, taxes, levies, octrois etc; and.
- ii. The cost of installation, putting into operation and demonstration of the working of the Solar Power System in the premises of the University.

- b) **CATEGORY-“B”. Stores Imported from approved Countries.**

The prices must be quoted for each item of Stores in **Annexure-“C2”** separately for each of the PARTS given below:

PART-1. Payment in Foreign currency.

The C&F prices quoted by the Principals in the currency of the country of origin.

For the purpose of comparison, the prices quoted shall be converted to equivalent prices in Pakistani Rupees on the basis of the official bank rate prevalent on the date of opening of the Tender.

PART-2 Payment in Pakistani Rupees.

- (i) The agent’s/supplier’s commission in Pakistani Rupees.
- (ii) The insurance charges. The insurance will be arranged by the Contractor through the University with EFU General Insurance Company. The University will assist the Contractor in obtaining the insurance at concessional rates, if any, as allowed by the Government.
- (iii) The cost of installation, putting into operation and demonstration of the working of the Solar Power System at Central Library and Online Information Centre at MUET, Jamshoro in Pakistani Rupees.
- (iv) All the charges pertaining to handling and clearance of the Stores at the port including all taxes, levies, octrois etc. but excluding the customs duties for the payment of which the University is exempted by the Government. However, if the customs duties are charged for any items of the Stores for which the Government has the exemption, the University will make the payment.

- (v) The transportation charges for transporting the Stores from the port to the premises of the University including the charges for loading the Stores at the port and unloading the same at the University.

For the purpose of evaluation/comparison of bids, as stated in Clause-15, the total price for the Stores under this Category shall be the sum of the amounts mentioned for Parts 1 & 2 above.

- (c) In addition to what is stated in para a) & b) above, the prices given in Annexure C1 & C2 shall also include the following for the Stores of both the Categories-A & B.
 - (i) Supply, detailing, manufacture, factory testing, export preparation and all costs incidental to shipping/transport up to the stage of installation in the premises of the University.
 - (ii) Responsibility for any loss and/or damage at any stage from manufacture to installation in the premises of the University.
 - (iii) Provision for clean on boards bills of landing.
 - (iv) The cost of export taxes, fees and charges levied and out going incurred on exporting goods in the country of origin.
 - (v) The expenses on account of the certificate of origin, invoices or any other documents issued in the country or origin.

10. Validity of Prices/Tender

- a) The prices quoted shall be valid for a period of at least 120 days from the date of opening of the tender.
- b) Until the final Contract is executed, the successful bidder shall be bound by the terms and conditions of this Tender Document.

11. Acceptance of the Terms

- a) The submission of the tender against this tender inquiry by the tenderer means that the tenderer has read and accepted the terms and conditions relating to all the tender documents and annexures, and that he/she has thoroughly examined the specifications and particulars in the tender inquiry. Further the tender shall be deemed to be fully aware of the nature of the Stores and the purpose for which they are required and shall be bound to accept the Contract if placed with him/her on the basis of the prices and of the delivery schedule as indicated in Clause 12 hereof within the validity of his/her Tender.

- b) If the Tender is awarded in favour of Proprietor/Principals who has no authorized agent or distributor in Pakistan, he/she shall have to appoint a distributor or nominee for the purpose of successful completion of the contract and to provide after-sales service.

12. Delivery Period.

i. Shipment of Imported Items.

- a) The shipment of the items of Stores which are to be imported shall be started as early as possible, the shipment schedule shall be submitted to the Deputy Director (Procurement), Mehran University, and shall be negotiable and subject to approval by the University.
- b) The tenderer must indicate in his/her offer the port from where the Stores will be shipped.

ii. Delivery Period.

- a) The entire Stores must be delivered, installed and put into operation at the Central Library and Online Information Centre at MUET, Jamshoro as early as possible after receiving the letter of award of the Contract.
- b) The Tenderer shall give in the offer his/her own schedule for the delivery and installation of various items of the Stores which shall be negotiable and subject to approval of the University.

iii. Delay in the Delivery of the Stores.

- a) For the Stores delayed beyond the delivery period, as specified in the Contract, or as approved by the University as stated in Clause 12 ii b) above, there shall be levied liquidated damages as specified in Clause 22 of the Conditions of Contract given in this Tender Document.
- b) The liquidated damages may be waived fully or partially by the Deputy Director (Procurement), with the approval of the Vice Chancellor of the University, if there are reasonable grounds for such a delay.

13. Negotiations.

Under no circumstances will the negotiations take place with any tenderer with regard to Specifications and Prices quoted and read out at the public opening of the tenders and with regard to the substance of the offer. The tenderers cannot revise their prices after the public opening of the tenders.

14. Rights of the University

(a) The University reserves the right to reject any or all bids without any reason whatsoever, or not waive minor irregularities or errors in any offer. If it appears to the University that such irregularities or errors must be corrected in the offer in which they occur, the same will be corrected prior to issue of the letter of intent which may be awarded thereupon.

- (b) The University is neither bound to accept the lowest or any other offer nor is it bound to assign reason for rejection of any offer.
- c) The University reserves the right to award the contract to one bidder or divide it among several bidders.
- d) The University reserves the right to increase or decrease the quantity of the Stores at its discretion without assigning any reason whatsoever.
- e) The University reserves the right to cancel the offer of the tenderer whose bid has been found / evaluated to be the lowest if it is revealed to the University that the tenderer does not have the capability or financial resources or facilities to carry out the Contract in accordance with the terms and conditions of this Tender Document.

15. Evaluation of Bids.

- a) In comparing bids the University will consider, besides the prices quoted, such other factors as compliance with specifications, relative quality of Stores, past experience of the tenderer, after-sales services facilities available in Pakistan and the tenderer's capacity to perform.
- b) The evaluation criteria specifically mentioned in the specifications will also be considered for evaluation of the bids.
- c) For the purpose of evaluation, the prices to be compared shall be the total prices inclusive of all duties, taxes, freight charges etc. as stated in clause 9 titled "Prices" above.
 - (i) For the items quoted in Annexure-C-1, the total prices as mentioned in Clause-9(b) shall be compared.
 - (ii) For comparison of the items quoted in Annexure C-1 with those quoted in Annexure C-2, the total prices as mentioned in Clause-9(a) including the charges/cost packing, making, handling, insurance, inspection guarantees, clearance, freight/transportation upto the University's premises duties, taxes, levies, octrois etc.

16. Errors in the Bids.

- (i) Any arithmetic errors found during evaluation of bids will be rectified on the following basis:
 - a) If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected by the University.
 - b) If there is a discrepancy between the words and figures, the amount in figures shall prevail.

- c) If there is any discrepancy between the total tender price entered in the Articles of Agreement and the total shown in the Schedule of Prices, the amount stated in the Articles of Agreement shall be corrected by the University in accordance with the corrected schedule of Prices.
- (ii) If the tenderer does not accept the corrected amount of tender, his/her Tender will be rejected and the Bid Bond submitted with the tender shall be forfeited.

17. **Foreign Exchange for Items of Stores to be imported.**

For the items of Stores which are to be imported and for which the prices have been quoted on C&F basis in Annexure C-2, the University will arrange payment in the foreign currency, to the extent of the C&F amount, as stated in Clause 9(b), through its bank in Pakistan in accordance with the prevailing foreign exchange control rules/regulations of the Government of Pakistan.

CONDITIONS OF CONTRACT

1. **Scope of the Contract**

- a) The **Scope of the Contract** shall be the supply, delivery, installation, putting into operation and demonstration of the working of the Stores in the premises of the University at Jamshoro, Sindh, in accordance with the technical Specifications and Bill of Quantities enclosed in this Tender Document.
- b) The Contractor shall within a period of one month of the execution of the agreement furnish to the University a **detailed program** for supply and delivery of various items of the Stores for necessary approval by the University.

2. **Definition of Terms**

In writing these Conditions of Contract, Specifications and Bill of Quantities, the following words shall have the meanings hereby indicated, unless there is some thing in the subject matter or Contract inconsistent with such constructions:

- i. **The University** shall mean the Mehran University of Engineering and Technology, Jamshoro, Sindh.
- ii. **The Vice Chancellor** shall mean the Vice Chancellor of Mehran University of Engineering and Technology, Jamshoro, Sindh, including his successor in office and assignees, empowered to act in all matters pertaining to the University either directly or through the Deputy Director (Procurement), Mehran University of Engineering and Technology, Jamshoro.
- iii. **The Contractor or Supplier** shall mean the Tenderer (Bidder) whose Bid has been accepted by the University and shall include the Bidder's executors, administrators, successors and permitted assignees.
- iv. **The Stores** shall mean and include the deployment of all the Solar Power System at Central Library and Online Information Centre at MUET, Jamshoro, literature, materials and articles to be provided by the Contractor under the Contract.
- v. **The Contract** shall mean the agreement signed by the Contractor for the supply, delivery, installation, putting into operation and demonstration for the working of the Stores, as stated under the Scope of the Contract above.
- vi. **The Contract Price** shall mean the sum mentioned in or calculated in accordance with the provisions of the Contract, which is to be paid to the Contractor for satisfactory execution of the Contract in accordance with these Conditions of Contract.

- vii. **The Specifications** shall mean the specifications annexed to or issued, herewith, and shall include the schedule and drawings attached hereto as well as the samples and patterns if any.
- viii. **Month** shall mean the Calendar month.
- ix. **Writing** shall include any manuscript, type-written, printed or other statement reproduced in any visible form and whether under seal or under hand.

3. **Contract Documents.**

- a) The term **Contract Document** shall mean the following documents which shall be deemed to form an integral part of the Contract:
 - i. Articles of Agreement;
 - ii. Instructions to Tenderers;
 - iii. Conditions of Contract;
 - iv. Contractor's Proposal / Offer including the relevant correspondences prior to signing of the agreement with all Annexures duly filled in;
 - v. The Specifications of the Stores; and
 - vi. Bill of Quantities with prices.
- b) In the event of any **conflict** between the above mentioned documents, the present Articles of Agreement and Conditions of Contract shall prevail.

4. **Signing of the Contract Agreement**

Within 30 days of the issue of the letter of intent, the successful bidder (bidders) will be required to **sign an agreement** with the University for the supply of such quantity, in whole or in part, of the tendered Stores as will be communicated to him / her (them) in the letter of intent.

5. **Packing, Marking and Handling**

- a) All the Stores, whether imported or locally manufactured / available, shall be delivered to the University at Jamshoro in **safe and secure condition** at the risk and cost of the Contractor.
- b) The packing, marking and handling shall be so arranged by the Contractor as to **prevent any loss of or damage** to the Stores.

- c) In case any of the items of the Stores are to be imported by the Contractor, the **import** shall be **arranged by the Contractor** himself / herself with such packing and marking and through such means as deemed fit by him / her for safe and secure delivery at Jamshoro. The packing of the equipment shall be the usual export packing to ensure safe journey by air, sea, rail and road, as the case may be, of the Stores to destination. Each packing shall be clearly marked in English with the following:

- i. Port of Destination: KARACHI.
 ii. Name of the Ship: _____
 iii. Name of the Consignee: Deputy Director (Procurement),
 MEHRAN UNIVERSITY OF
 ENGINEERING & TECHNOLOGY
 JAMSHORO, SINDH, PAKISTAN

- i. Name of the Contractor: CONTRACTOR'S NAME & ADDRESS
 ii. Case Number & Contents: _____
 iii. Net Weight & Dimensions: (length, Breadth & Height)
 iv. Gross Weight: (Kg.)
 v. Number & Date of Contract: _____
 vi. Marking: **MUET** in a 6 in. x 4 in. rectangle

MUET

6. Transportation and Shipment

a. For Stores to be Imported

- i. All those items of Stores which are to be imported by the Contractor shall be **shipped** by whatever means the Contractor deems fit **at his / her risk and cost**. The Contractor must keep the University informed of the shipping arrangements, schedule of shipping, arrival at the port, clearance from the port, and transportation from the port to the University at Jamshoro.
- ii. **All costs** of loading of the Stores from the wharves at port of shipment and also the cost of ship wharf age / berthing, demurrage charges, stevedoring, handling charges and other port and river dues in respect of shipment companies' vessels at the port of shipment and all other expenditure up to the stage of placing the Stores at rest on board the ship and the freight charges shall be **borne by the Contractor**.
- iii. Similarly all costs of unloading the Stores at the wharves, wharf age / berthing, demurrage, stevedoring, handling charges and other port dues at the port of arrival in Pakistan and transportation from the port up to the stage of placing the Stores position in the premises of the University shall be borne by the **Contractor**. In order to facilitate the clearance of the Stores at the port of arrival, a clearing agent will be engaged by the University, in consultation with the Contractor, who will get the Stores cleared with the assistance of the University and the Contractor, and the clearing agent's charges shall be **borne by the Contractor**.

- iv. All things being equal, **Pakistan flag ships** should be used, as far as possible, for shipment of the Stores. If no such ship is available, such other ships may be used consistent with the execution of this Contract with economy and efficiency.
- v. The Stores must be shipped **under deck**
- vi. The Contractor shall send by air mail / courier service or personally deliver 4(four) sets of non-negotiable shipping documents direct to the Deputy Director (Procurement), Mehran University of Engineering and Technology, Jamshoro, Sindh, so as to reach him at least 8 (eight) days before arrival of the ship at the port in Pakistan.

b. For Stores Manufactured / Available in Pakistan

- i. All those items of the Stores which are to be manufactured in Pakistan, or are to be supplied from the locally available stocks (whether imported or manufactured in Pakistan), may be transported from the place of manufacture or availability to Jamshoro by **any mode of transportation** as deemed convenient and suitable by the Contractor at his / her risk and cost.
- ii. **All costs** of handling, loading, transportation, unloading and placing the Stores in position in the premises of the University shall be **borne by the Contractor**.

7. Pre-shipment and After-fabrication Inspection

- a) The **pre-shipment inspection** and / or the inspection of the Stores Principals/Proprietor at the premises, if desired by the Contractor, shall be arranged by the Contractor at his / her own cost. The responsibility for the quality, quantity, correctness and adherence to the Specifications etc. of the Stores shall lie solely and squarely on the Contractor.
- b) The University may, at its discretion, waive pre-shipment inspection and hence issue the waiver in writing so that the Stores could be shipped under manufacturer's test certificate. This waiver shall be deemed as authorization to ship for the purpose of negotiating the letter of credit under Clause 13(b) ii.
- c) The pre-shipment inspection and/or the waiver thereof shall in no any above the Contractor of any of his obligations under this Contract.

8. Insurance

The **Contractor shall arrange** the insurance for the Stores in whatever way he / she deems fit at his / her risk and cost. The prices quoted in the offer of the Contractor shall include the cost of insurance. The Contractor shall have to inform the University of the Insurance Arrangements made by him / her for the Stores.

9. On-arrival Inspection

There shall be inspection of the Stores by the representatives of the University after arrival in the premises of the University in presence of the Contractor or his authorized representatives and the representatives of the insurance company. The **inspection report**, which, inter-alia, should indicate the condition in which each item of the Stores has been received, shall be signed by the above representatives. The Contractor shall coordinate with the Deputy Director (Procurement), Mehran University, and the insurance company for arranging the inspection at such date and time as is convenient to the above representatives.

10. Taking Over

Upon receipt of the network equipment in the premises of the University and after inspection, as stated in Clause 9 above, the University will issue a **taking-over certificate** in respect of those items of Stores which are received in acceptable condition. The taking-over of the damaged items will be with-held until the same are repaired / replaced and are re-inspected and found in acceptable condition.

11. Installation and Demonstration of Stores

a). Installation

- i) After inspection and taking over of the Stores, as stated in Clauses 9 and 10 above, the **Contractor shall install** those items of Stores which are to be permanently positioned in place in the premises of the University. For this purpose, the Contractor shall co-ordinate with the Deputy Director (Procurement), Mehran University, for making arrangements for the infrastructure needed for the installation.
- ii) The cost of infrastructure **for installation** shall be borne by the University. The Contractor shall provide, alongwith his offer, the details of the infrastructure needed for each item of the Stores separately. The technical and other personnel needed for installation of the Stores shall be provided by the Contractor at his cost. The entire cost of installation, configuration, application except that of the needed infrastructure, shall be borne by the Contractor.
- iii) The Contractor shall provide provision for the training of University staff as designated by the University for installation, operations and maintenance of the Solar Power System at Central Library and Online Information Centre at MUET, Jamshoro.

b) Demonstration

- i) After installation of the Stores, as stated in Clause **11 a)** above, the complete **working of each item** of Stores for the purpose of performing the intended power generation, storage, system synchronization and data logging etc., shall be demonstrated fully to the designated staff of the University by the Contractor or his technical personnel.
- ii) The entire **cost**, including the T.A. / D.A. of the Contractor personnel involved in the demonstration, shall be **borne by the Contractor**.

12. Completion Certificate

After completion of the installation and demonstration, as stated in Clause **11** above, a certificate is to be obtained by the Contractor from a person designated by the University stating that the Stores (item-wise) have been satisfactorily installed and demonstrated by the Contractor.

13. Terms of Payment

The Contractor shall be paid for Stores in the following manner:

- a) **CATEGORY A: Stores Manufactured/Available in Pakistan without involving import.**
 - i. For all those items of Stores for which the completion certificate has been issued by the University, as stated in Clause **12** above, the University will pay to the Contractor total price of the items quoted by the Contractor.
 - ii. The payment for those items of Stores for which the completion certificate has not been issued by the University, as stated in Clause **12** above, will be withheld and released only after the damaged items are replaced / repaired, re-inspected and found in satisfactory condition with consequent issuance of the completion certificate. The payment will be made in the same manner as stated in Clause **13 a) i** above
- b) **CATEGORY-B: Stores Imported from Approved Countries.**

The payment for this category of Stores will be made in two parts as under:-

PART-I. Payment in Foreign currency

- i. An irrevocable **letter of credit** of one hundred percent (**100%**) of the C&F price, in the currency quoted by the Principals, will be opened in a bank in the country of origin in favor of the Principals/Contractor within 30 days after signing the Contract.

- ii. One hundred percent (**100%**) of the letter of credit amount will be paid against presentation of the shipping documents to the bank through the above letter of credit. The required shipping documents include:
- Clean on board bill of lading;
 - Contractor's detailed invoice showing description of the Stores, specifications, quantity, unit price and total price;
 - Detailed packing list;
 - Certificate of origin of the Stores' and
 - Certificate of pre-shipment/after-fabrication inspection or authorization to ship the Stores as per Clause-7.

PART-2. Payment in Pakistani Rupees

The Rupee component of the price of the Stores, as stated in Clause **9b)** of “**Instructions to Tenderers**” will be paid to the Contractor in the following manner:

- i. For all those items of Stores for which the taking over certificate has been issued by the University, as stated in Clause **10** above, the University will pay to the Contractor seventy percent (70%) of the total price of the items quoted by the Contractor, the remaining thirty percent (30%) will be paid after presentation of the completion certificate, as stated in Clause 12 above.
- ii. The payment for those items of Stores for which the completion certificate has not been issued by the University, as stated in Clause **10** above, will be withheld and released only after the damaged items are replaced/repared, re-inspected and found in satisfactory condition with consequent issuance of the completion certificate. The payment will be made in the same manner as stated in Clause **13 a)i** above

14. Warranty / Guaranty

- a) The Contractor shall **warranty** that the Stores shall be fit for the purposes and operation mentioned in the relevant clauses of the “Instructions to the Tenderers” and “Conditions of Contract”, notwithstanding the fact that the entire Stores, or any item or part of the Stores, bear or are found to bear a patent or trade mark.
- b) The Contractor shall guarantee supply of good quality Stores in accordance with the Specifications and as stated in Clauses 4 and 5 of the “Instructions to the Tenderers”. Further, the Stores shall be brand new and absolutely free from all defects in material, quality and workmanship. In case of defects, the defective Stores, or the defective parts / components of the Stores thereof, shall be replaced by the Contractor free of cost to the University within reasonable time.

15. Breach of Contract

In case of breach of warranty /guarantee or Contract, the **damages** suffered by the University shall be **recovered from the Contractor** out of any payment due to the Contractor and / or in accordance with the terms and conditions of the Contract Performance Bond given at Annexure “E” enclosed with this Tender Document, without notice to the Contractor.

16. Contractor’s Default Liability

a) The University may upon written notice of default to the Contractor **terminate the Contract** in the circumstances detailed hereunder:

- i. If in the judgment of the University, the Contractor fails to make delivery of the Stores within the time specified in the Contract Agreement or within the period for which extension has been granted by the University; and
- ii. If, in the judgment of the University, the Contractor fails to comply with any of the other provisions of the Contract.

b) In the event the University terminates the Contract, in whole or in part, as provided in Clause **16 a)** above, the University reserves the right to **purchase**, on such terms and conditions as it may deem appropriate, Stores similar to the one terminated, and the Contractor will be liable to the University for any additional costs for such **similar Stores**, and / or for liquidated damages for delay, as defined in Clause **22** of the Conditions of Contract until such reasonable time as may be required for the final supply of the Stores.

c) If the Contract is terminated, as provided in Clause **16 a)** above, the University, in addition to any other rights provided in this Clause, may require the Contractor to **transfer title** and deliver to the University under any of the following cases in the manner and as directed by the University:

- i) Any **completed Stores**; and
- ii) Such **partially completed Stores**, drawings, information and contract right (hereinafter called manufacturing material) as the Contractor has specifically produced or acquired for the performance of such parts of the Contract as has been terminated.

d) The University will **pay to the Contractor** the Contract Price for the completed Stores delivered to and accepted by the University and also for the manufacturing materials delivered and accepted.

e) In the event the University does not terminate the Contract, as provided in Clause **16 a)** above, the Contractor shall continue with the performance of his / her Contract, in which case the Contractor shall be liable to the University for **liquidated damages for delay** as set out in Clause 22 until the Stores are accepted.

17. Bankruptcy

If the **Contractor** shall become **bankrupt** or have a receiving order made against him / her or compound with his / her creditors, or being a corporation commence to be wound up, not being a voluntary winding up for the purpose of amalgamation or reconstruction, or carry on its business under a receiver for the benefit of its creditors or any of them, **the University shall** be at liberty to:

- a) **terminate the Contract** forthwith by a notice in writing to the Contractor or to the liquidator or receiver or to any person in whom the Contract may become vested, and to act in the manner provided in Clause 16 above as though the last mentioned notice has been the notice referred in such Clause and the Stores have been taken out of the Contractor's hand; and / or
- b) give such liquidator, receiver, or other person the **option of carrying out the Contract** subject to his / her providing a guarantee for the due and faithful performance of the Contract upto an amount to be determined by the University.

18. Termination of Contract

- a) If, for any cause as set forth in Clause **19** hereafter, the Contractor finds it impracticable to continue operation or, if owing to force majeure or to any cause beyond its control, the University finds it impossible to continue operation, then **prompt notification** in writing shall be given by the party affected to the other.
- b) If the delay or difficulties so caused cannot be expected to cease or become avoidable, or if operation cannot be resumed within six months, then either party shall have the right to terminate the Contract by giving ten **(10) days written notice** to the other.
- c) In the event of termination of the Contract under this Clause, **payment** will be made to the Contractor as follows:
 - i) The Contractor shall be paid for all the Stores for which the completion certificate has been issued, as stated in Clause 12, and for all the reimbursable expenses due and unpaid.
 - ii) The Contractor shall also be paid reasonably for any work done during the said six months period as well as for settlement of any financial commitment made in connection with proper performance of the Contract and which are not reasonably defrayed by payments under i) above.
 - iii) On termination of the contract for any cause, the Contractor shall see to the orderly suspension and termination of operations with due consideration to the interests of the University with respect to completion, safeguarding or storing of the Stores produced for the performance of the Contract and the salvage and resale thereof

19. Force Majeure.

The Contractor shall not be liable for any additional cost or for liquidated damages for delay or any failure to perform the Contract arising out of force majeure or cause beyond his / her control including acts of God, or of the public enemy, or of the Government, fires, floods, epidemic quarantine restrictions, strikes, freight embargoes and default of subcontractors due to any such cause (unless the University shall determine that the Stores to be furnished by the Contractor might reasonably have been obtained from other sources in sufficient time to allow the Contractor to meet the required time schedule), provided that the Contractor shall within ten (10) days from the beginning of such delay notify the University in writing of the **causes of the delay**. The University shall ascertain the facts and the extent of the delay and **extend the time** for completing the supplies as in its judgment the findings justify.

20. Rejection

- a) In the event any portion of the Stores supplied by the Contractor is found before taking over to be **defective in material or workmanship**, or otherwise not in conformity with the requirements of the Contract, the University shall have the right to either reject or require, in writing, rectification of the Stores. In the later case, the Contractor shall with utmost diligence, and at his own expense, make good the defects so specified or replace the defective Stores. If the Contractor fails to rectify or replace the rejected Stores, the University may adopt any of the following options:
- i) **replace or rectify**, at its option, such defective Stores and charge to the Contractor the excess cost occasioned to the University plus (15%) fifteen percent; or
 - ii) acquire the said Stores **at a reduced price** considered equitable under the circumstances; or
 - iii) **terminate the Contract** as provided in Clause **18** of these Conditions of Contract.
- b) Nothing in this Clause shall affect any claim by the University under Clause **22** hereafter.

21. Extension of Time

If the completion of the Contract is delayed due to reason beyond the control of the Contractor, the Contractor shall without delay request the University, in writing, of his **claim** for an extension of time. The University on receipt of such request may agree to **extend the completion date** as may be reasonable in the circumstances of the case but without prejudice to other terms and conditions of the Contract.

22. Delay in Delivery - Liquidated Damages

- a) Should the **progress** of the Contract at any time be **lagging behind** the program agreed between the University and the Contractor, the University will notify the Contractor in writing and the Contractor shall there upon take such steps as he / she may deem fit to **expedite the progress** of the Contract. Non-issuance of this notice by the University shall not in any way absolve the Contractor of the liquidated damages as stated in Clause **22 b)** below.
- b) If the Contractor **fails to complete the Contract**, in full or part, within the time laid down in the Contract Agreement or any extension thereof, there shall be deducted from the Contract Price, as **liquidated damages**, a sum of one half of one percent (**0.5%**) of **the Contract price** of each unit of the delayed Stores for each calendar week of delay subject to the maximum of five percent (5%) of the Contract Price of the unit or units so delayed, and such deduction shall be in full satisfaction of the Contractor's liability for the said failure.

23. Period of Guarantee

- a) The term **period of guarantee** shall mean the period of twelve (**12**) **months** from the date on which the Stores have been put into operation and demonstrated to University staff. In any case this period shall not exceed eighteen (18) months from the date of taking-over certificate.
- b) During the period of guarantee, the Contractor shall **remedy**, at his / her expense, **all defects** in design, materials, and workmanship that may develop or are revealed under normal use of the said Stores upon receiving written notice from the University; the notice shall indicate in what respect the Stores are faulty.
- c) The provisions of this Clause include all the **expenses** that the Contractor may have to incur for delivery and installation of such replacement parts, material, and equipment as are needed for satisfactory operation of the Stores at the University premises.

24. Non-assignment

The Contractor shall **not have the right to assign or transfer** without the prior approval of the University the benefit and obligations of the Contract or any part thereof.

25. Expenditure under Contract

The Contractor shall not make any expenditure for the purpose of this Contract in any **country not authorized** by the Government of Pakistan

26. Certificate Not to Affect the Rights of the University or the Contractor

No certificate of the University on account nor any sum paid on account by the University nor any extension of time for the delivery of the Stores pursuant to Clause 19 shall affect or **prejudice the rights of the University** against the Contractor nor relieve the Contractor of his obligation for due performance of the Contract or be interpreted as approval of the Stores supplied, and no certificate shall create liability of the University to pay for the alterations, amendments, variations etc. not ordered in writing by the University or discharge the Contractor for the payment of damages or of any sum against the payment of which he / she is bound to indemnify the University nor shall such certificate nor the acceptance by him / her of any sum paid affect or **prejudice the rights of the Contractor** against the University.

27. Payments Due from the Contractor

All costs, ascertained damages or expenses for which under the Contract the Contractor is liable to the University may be deducted by the University from any money due or may become due to the Contractor under the Contract or may be recovered by action of law or other wise from the Contractor.

28. Legal Proceedings

The Contract and the Tender Documents are governed by the **laws of Pakistan** and no proceedings to or arising out of any of them shall be instituted in any courts other than those situated at Hyderabad and Karachi, Sindh Pakistan..

29. Dispute

Should any question or dispute arise as to the material, design, construction or delay in the supply of the Stores or the purpose or the performance for which they are required or are warranted, the University shall nominate an independent **certifier / expert** having knowledge of Solar Power System, etc., who will, after affording the parties to the dispute an opportunity to present their contention, and after having tests made as the certifier deems fit, certify whether there has been any breach of Contract or warranty and, if so, what sum shall be paid to the University in diminution or extinction of price, and such certificates shall be final and binding and shall not be questioned and shall be acted upon in arbitral or other legal proceedings. The award of the costs of the certifier will be within his / her own discretion and shall be recoverable from the party against which the costs are awarded.

30. Arbitration

All disputes and matters of difference whatsoever (other than those relating to the certificate of expert certifier) between the University and the Contractor relating to and arising out of the Contract and Tender Documents shall be referred to arbitration under the arbitration act 1940 with amendments and re-amendments thereof, each party nominating its own arbitrator. The umpire will be nominated by the arbitrators within the first three arbitral hearings. The **award of the arbitrators or of the umpire shall be final and binding** upon the parties. The arbitral proceedings shall be held at Jamshoro, Sindh Pakistan.

FORM OF TENDER
(LETTER OF OFFER)

Tender Reference No. _____ Dated _____

Name of Contract: **Engineering, Procurement, Construction (EPC) of Solar Power System at Central Library and Online Information Centre at MUET, Jamshoro.**

Deputy Director (Procurement)
Mehran University of Engineering & Technology
JAMSHORO, SINDH

Dear Sir,

1. Having examined the Tender Documents including Instructions to Tenderers, Conditions of Contract, Specifications, Drawings, Schedule of Prices and Addenda Nos. _____ for the execution of the above-named Contract, we, the undersigned, being a company doing business under the name and address _____ and being duly incorporated under the laws of Pakistan hereby offer to execute and complete such Contract and remedy any defects therein in conformity with the said Documents including Addenda thereto for the Total Tender Price of Rs. _____ (in figures and words) or such other sum as may be ascertained in accordance with the said Documents.
2. We understand that all the Schedules attached hereto form part of this Tender.
3. As security for due performance of the undertakings and obligations of this Tender, we submit herewith a Bid Bond referred to in Clause 3 of the Instructions Tenderers and as per Annexure "D", in the amount of Rs. _____ (in words and figures) drawn in favor of or made payable to Mehran University of Engineering and Technology, Jamshoro, and valid for a period of 28 days beyond the period of validity of this Tender.
4. We undertake, if our Tender is accepted, to complete the whole of the work comprised in the above-named Contact within the time stated in Clause 12 of the Instructions to Tenderers.
5. We agree to abide by this Tender for the period of 120 days beyond the date of opening of the Tender, and it shall remain binding upon us and may be accepted at any time before the expiration of this period.
6. Unless and until a formal Contract Agreement is signed, this Tender, together with your acceptance thereof, shall constitute a binding contract between us.
7. We undertake, if our Tender is accepted, to execute the Contract Performance Bond referred to in Clause 3 of the Instructions to Tenderers and as per Annexure "E" for the due performance of the Contract.

8. We understand that you are not bound to accept the lowest or any Tender you may receive.
9. We do hereby declare that this Tender is made without any collusion, comparison of figures or arrangement with any other person or persons making a Tender for the above-named Contract.
10. We confirm, if our Tender is accepted, that all partners of the joint venture shall be liable jointly and severally for the execution of the Contract and the composition or the constitution of the joint venture shall not be altered without the prior consent of the Vice Chancellor, Mehran University of Engineering and Technology, Jamshoro. (Please delete this clause in case of Tender from a single firm).

Dated this _____ day of _____ 2015

Signature _____ in the capacity of _____ duly authorized

to sign Tender for and on behalf of _____
(Name of Tenderer in Block Capitals)

Address: _____

Witness:

Name: _____

Address: _____

Occupation: _____

TENDER PARTICULARS

THE TENDERERS MUST SUPPLY THE FOLLOWING SPECIFIC INFORMATION FOR EACH ITEM OR GROUP OF ITEMS OF THE STORES:

1. Conformation of Stores:

Whether the Stores offered conform to the particulars specified in the Schedules; if not, details of deviations must be stated in Annexure "F".

2. Manufacturing Details:

- (i) Brand of Equipment.
- (ii) Name and address of Manufacturer; and
- (iii) Country of origin of Stores.

3. Delivery Schedule: `

- (i) Earliest date by which delivery can be effected;
- (ii) Complete schedule of delivery; and
- (iii) If the delivery period is different for different items, it must be indicated item wise.

4. Packing Specification:

Whether the specifications for packing given in the Tender Documents will be adhered to.

FORM OF SCHEDULE TO TENDER FOR STORES
MANUFACTURED/AVAILABLE IN PAKISTAN WITHOUT INVOLVING IMPORT

Due by _____ hours on _____
 (time) (date) (month) (year)

SCHEDULE TO TENDER NO. _____ DATED _____

The Tender will be opened at _____ hours on _____
 (time) (date) (month) (year)

Delivery on or before _____
 (date) (month) (year)

Rates and amount to be quoted in Pakistani Rupees

S.No.	Code/ Item No.	Description Of Stores	Detailed Specifications Of Stores with Model No.	Quantity Of Stores.	Unit	Rate Per Unit	Total Price.
1	2	3	4	5	6	7	8

It is certifies that:

- i) The Stores offered above conform in all respects with the particulars/specifications given in the Tender Documents' and
- ii) All the terms and conditions of the Tender Documents are acceptable to us.

 (signature of the authorized person)

SEAL

 (name of the authorized person)

 (name of the Tenderer)

FORM OF SCHEDULE TO TENDER FOR STORES
IMPORTED FROM APPROVED COUNTRIES.

Due by _____ hours on _____
 (time) (date) (month) (year)

SCHEDULE TO TENDER NO. _____ DATED _____

The Tender will be opened at _____ hours on _____
 (time) (date) (month) (year)

Delivery on or before _____
 (date) (month) (year)

PART 1. The rates quoted in the Table below must be on C&F basis.

S. No.	Code/ Item No.	Description Of Stores	Detailed Specifications Of Stores with Model No.	Quantity Of Stores.	Unit	Rate Per Unit	Currency	Total C&F Price	Country of Origin
1	2	3	4	5	6	7	8	9	10

PART 2. The rates quoted in the Table below must be in Pakistani Rupees

S.No.	Code/ Item No.	Description of Stores	Quantity Of Stores.	Unit	Rate Per Unit	Total Price.
1	2	3	5	6	7	8

(Continued on the next page)

ANNEXURE “C2”

NOTE:

In the Table below, the columns 1 to 5 and 8 are to be filled in by the Tenderer before submitting the Tender, while the columns 6,7 and 9 are to be filled in jointly by the Deputy Director (Procurement), Mehran University of Engineering and Technology, or his representative, and the Tenderer, or his representative, after opening of the Tender.

S. No.	Code/Item No.	Description of Stores	Total C&F Price for Part 1	Currency	Exchange Rate	Total Price for Part 1 (Rs.)	Total Price for Part II (Rs.)	Total Cost (Rs.)
1	2	3	4	5	6	7	8	9

It is certified that:

- i) The Stores offered above conform in all respects with the particulars/specifications given in the Tender Documents; and
- ii) All the terms and conditions of the Tender Documents are acceptable to us.

(name of the Tenderer)

(signature of the authorized person)

(name of the authorized person)

SEAL

BID BOND
(Bank Guarantee)

Guarantee No _____
Executed on _____
Expiry date _____

Letter by the Guarantor (Bank) to the Employer (University)

Name of Guarantor (Bank) with address: _____

Name of Principal (Tenderer) with address: _____

Penal sum of Security (Bond),(in figures and words): _____

Tender Reference No. _____ Date of Tender _____

KNOW ALL MEN BY THESE PRESENTS, that in pursuance of the terms of the Tender and at the request of the said Principal (Tenderer), we the Guarantor above-named are held and firmly bound unto the Vice Chancellor, Mehran University of Engineering and Technology, Jamshoro, acting through the Deputy Director (Procurement), Mehran University of Engineering and Technology, {hereinafter called The “Employer” (“University”)} in the sum stated above, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal (Tenderer) has submitted the accompanying Tender numbered and dated as above for supply, installation, putting into operation and demonstration of Solar Power System at Central Library and Online Information Centre at MUET, Jamshoro, to the said Employer (University); and

WHEREAS, the Employer (University) has required as a condition for considering the said Tender that the Principal (Tenderer) furnish a Bid Bond in the above said sum to the Employer (University), conditioned as under:

- 1) that the Bid Bond shall remain valid for a period of 28 days beyond the period of validity of the Tender;

2) that in the event of;

- a) the Principal (Tenderer) withdraws his Tender during the period of validity of the Tender;
- b) the Principal (Tenderer) does not accept the correction of his Tender Price, pursuant to Clause 16 of “Instructions to Tenderers”; or
- c) failure of the successful Tenderer to:
 - i) furnish the required Contract Performance Bond, in accordance with Clause 3 of “Instructions to Tenderers”; or
 - ii) sign the proposed Contract Agreement, in accordance with Clause 4 of the “Conditions of Contract”;

then the entire sum be paid immediately to the said Employer (University) as liquidated damages and not as penalty for the successful Tenderer’s failure to perform.

NOW THEREFORE, if the successful tenderer shall, within the period specified therefore, on the prescribed form presented to him for signature enter into a formal Contract with the said Employer (University) in accordance with his Tender as accepted and furnish within twenty eight (28) days of his being required to do so, a Contract Performance Bond with good and sufficient surety, as may be required, upon the form prescribed by the said Employer (University) for the faithful performance and proper fulfillment of the said Contract or in the event of rejection of the said Tender by the Employer (University) within the time specified then this obligation shall be void and of no effect, but otherwise to remain in full force and effect.

PROVIDED THAT, the Guarantor shall forthwith pay to the Employer (University) the said sum stated above upon first written demand of the Employer (University) without cavil or argument and without requiring the Employer (University) to prove or to show grounds or reasons for such demand notice of which shall be sent by the Employer (University) by registered post duly addressed to the Guarantor at its address given above.

PROVIDED ALSO THAT, the Employer (University) shall be the sole and final judge for deciding whether the Principal (Tenderer) has duly performed his / her obligations to sign the Contract Agreement and to furnish the required Contract Performance Bond within the time stated above, or has defaulted in fulfilling the said requirements and the Guarantor shall pay without objection the sum stated above upon first written demand from the Employer (University) forthwith and without reference to the Principal (Tenderer) or any other person.

IN WITNESS WHEREOF, the above bounden Guarantor has executed the instrument under its seal on the date indicated above, the name and seal of the Guarantor being hereto affixed and these presents duly signed by its undersigned representative pursuant to the authority of its governing body.

Guarantor (Bank)

Witness:

1. _____
(Signature)

(Signature)

(Name, Title, Address and Seal)

(Name)

2. _____
(Signature)

(Title)

(Name, Title, Address and Seal)

(Corporate Guarantor Seal)

CONTRACT PERFORMANCE BOND
(Bank Guarantee)

Guarantee No. _____

Executed on _____

Expiry Date _____

Letter by the Guarantor (Bank) to the Employer (University)

Name of Guarantor (Bank) with Address: _____

Name of Principal (Contractor) with address: _____

Penal Sum of Security (Bond), (in words and figures) _____

Letter of Acceptance No. _____ Dated _____

KNOW ALL MEN BY THESE PRESENTS, that in pursuance of the Tender Documents and above said Letter of Acceptance (hereinafter called the Documents) and at the request of the said Principal (Contractor) we, the Guarantor above named, are held and firmly bound unto the Vice Chancellor, Mehran University of Engineering and Technology, Jamshoro, Sindh, acting through the Deputy Director (Procurement), Mehran University of Engineering and Technology {hereinafter called the Employer (University)} in the penal sum of amount stated above for the payment of which sum well and truly to be made to the said Employer (University), we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal (Contractor) has accepted the Employer's (University's) above said Letter of Acceptance for the supply, installation, putting into operation and demonstration of deployment of Solar Power System at Central Library and Online Information Centre at MUET, Jamshoro, Sindh.

NOW THEREFORE, if the Principal (Contractor) shall well and truly perform and fulfill all the undertakings, covenants, terms and conditions of the said Documents during the original terms of the said Documents and any extensions thereof that may be granted by the Employer (University), with or without notice to the Guarantor, which notice is hereby waived and shall also well and truly perform and fulfill all the undertakings, covenants, terms and conditions of the Contract and of any and all modifications of the said Documents that may hereafter be made, notice of which modifications to the Guarantor being hereby waived, then, this obligation to be void; otherwise to remain in full force and virtue till the expiry of the guaranty period as per Clause 23 of the Conditions of Contract.

Our total liability under this Guarantee is limited to the sum stated above and it is a condition of any liability attaching to us under this Guarantee that the claim for payment in writing shall be received by us within the validity period of this Guarantee, failing which we shall be discharged of our liability, if any, under this Guarantee.

We, _____ (the Guarantor), waiving all objections and defenses under the Contract, do hereby irrevocably and independently guarantee to pay to the Employer (University) without delay upon the Employer's (University's) first written demand without cavil or arguments and without requiring the Employer (University) to prove or to show grounds or reasons for such demand any sum or sums up to the amount stated above, against the Employer's (University's) written declaration that the Principal (Contractor) has refused or failed to perform the obligations under the Contract which payment will be effected by the Guarantor to the Employer's (University's) designated Bank and Account Number.

PROVIDED ALSO THAT the Employer (University) shall be the sole and final judge for deciding whether the Principal (Contractor) has duly performed his obligations under the Contract or has defaulted in fulfilling the said obligations, and the Guarantor shall pay without objection any sum or sums up to the amount stated above upon first written demand from the Employer (University) forthwith and without any reference to the Principal (Contractor) or any other person.

IN WITNESS WHEREOF, the above bounden Guarantor has executed this Instrument under its seal on the date indicated above, the name and corporate seal of the Guarantor being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body

	Guarantor (Bank)
Witness:	
1. _____	_____
(Signature)	(Signature)
_____	_____
Name, Title and Address (Seal)	(Name)
2. _____	_____
(Signature)	(Title)
_____	_____
Name, Title and Address (Seal)	Corporate Guarantor (Seal)

ANNEXURE "F"

Statement Describing Deviation from Specifications.

S.No.	Code No.	Description of Stores	Statement of Variation from Specifications	Reasons for Variations.
1	2	3	4	5

(signature of the authorized person)

(name of the authorized person)

SEAL

On behalf of

(name and address of the Tenderer)

**ENGINEERING, PROCUREMENT AND
COMMISSIONING (EPC) OF
SOLAR POWER SYSTEM AT CENTRAL
LIBRARY AND ONLINE INFORMATION
CENTRE AT MUET, JAMSHORO.**

ITEM CODE

CLOIC

INTRODUCTION

Central Library and Online Information Centre (CLOIC) of the University contains more than 80,000 books related to engineering, technology and science. Many journals on various subjects related to engineering and technology are currently being subscribed from Pakistan, U.S.A, U.K and many other countries, Library has subscription to Sciences & Technology database of over 400 Journals many articles on database are available in full text image format. Due to current sudden breakdowns of electricity the users / students are suffering a lot and there are chances of loss of valuable data available in the data bank.

This Solar Power System shall pave way for other University campuses across Sindh to move towards economically feasible Green Energy. In the near future, Mehran UET shall become a Center of Excellence in Renewable Energy Systems. In this regard CLOIC has prepared this tender document to communicate the requirements for tender to the participants.

System Specifications

The system is being proposed to comprise of a minimum of 200 in number 250Wp Photovoltaic (PV) modules (minimum wattage), connected in series into a number of strings, to form a 50 kWp PV System. The strings shall be connected to one 50kW inverter (One 50 kW inverter backup optional) and the battery bank which controls the optimum power point of operation with the output power to be transferred to the Central Library load.

- Components and parts used in solar PV systems should conform to the IEC, IEEE, TUV or other international specifications, wherever such specifications are available and applicable.

- Solar PV modules are designed to last 25 years or more. It is therefore essential that all system components and parts, including the mounting structures, cables, junction boxes, distribution boxes and other parts also have a life cycle of at least 25 years. Therefore all works shall be undertaken with the highest levels of quality and workmanship. Non-compliant works will have to be redone at the cost of the Contractor.

- A lightning protection system complemented by surge protection devices is required, to mitigate the risk of damage to the system by direct and indirect lightning strikes, and other power surges.

- The Contractor shall ensure that all services are properly fixed to the building structure such as bricks, concrete, dry wall or other masonry material, by means of correctly sized screws fitted into plastic or metal expanding plugs located in correctly sized holes drilled in the structure.

- The Contractor shall include for the integration of the output of the inverter into the electricity load of the Central Library premise and shall include for all builder's work, cables, conduit, trunking, metering, safety and switching devices and isolation for a complete and tested installation.

- The Contractor shall allow for the design and implementation of a data logging system connecting the inverters to a dedicated unit which is to be provided by the contractor. The data logging system shall have the ability to provide direct monitoring of the PV System.

- All installations shall be inspected and tested in sections as the work proceeds and on completion as complete systems become available. The University or duly delegated person has the right to inspect or test any equipment or parts of the work during installation and up to acceptance and the Contractor shall provide test certificates to the University or duly delegated person.

- The contractor shall have the responsibility to label all equipment installed in the project being undertaken. Labels shall be installed on all equipment installed and shall bear such information as is considered necessary by the University or by a duly delegated person in line with the Regulations.

- Personnel nominated by the University shall be instructed in the operation and maintenance of the PV system installation, particularly to the inverter operation and data monitoring / logging, by qualified personnel nominated by the Contractor who shall be fully conversant with the operations and maintenance procedures required for all systems.

Photovoltaic Modules

- Photovoltaic modules shall either be of the Monocrystalline or Polycrystalline types in compliance with IEC61215 (latest version) and design qualification as per IEC61646 or equivalent.
- Crystalline Silicon Photovoltaic modules shall be approved as per IEC 61730-1-2 for product safety. Photovoltaic modules shall also be tested for salt-mist corrosion as per IEC61701 or equivalent.
- The manufacturer of the Photovoltaic modules shall hold the ISO9001 & ISO14001 certification.
- Moreover, the PV modules manufacturer must have been producing PV modules for the last five (5) years.
- The PV modules shall have a minimum of 15% module efficiency at 25C/1000W/m². This 15% shall be assumed to be the minimum acceptable PV Panel modules efficiency. Such efficiency shall be clearly stated on the submitted manufacturer's technical literature.
- Glass cover shall be non-reflective and of the tempered type and shall be all weather proof including hail resistance which shall be specified by the manufacturer.
- Plug connectors shall be built-in the module and shall be watertight and UV stabilized. These shall be positioned under the panel for protection against the elements. The photovoltaic modules shall also be complete with by-pass diodes which shall be housed within the electrical junction box.
- The photovoltaic modules shall be fully guaranteed for the first FIVE (5) years against any product defect.
- On the other hand, the modules shall be guaranteed by the manufacturer for not less than 90% of the original energy conversion efficiency up to the first TEN (10) years of operation and not less than 80% of the original energy conversion efficiency for the following fifteen (15) years, all at Standard Test Conditions.
- PV panels shall be 'Grade A' of Chinese Origin.

Inverter

- Inverter shall be constructed to IP21 rating. The inverter shall have a minimum 95% conversion efficiency. The inverter shall have all safety features and other protections including:

Overload protection; Surge protection; DC over-voltage protection; The inverter shall be programmed to have output AC voltage in accordance with local (HESCO) standards; All switching controls shall be by means of solid state devices; The inverters shall operate on the MPP Tracking principle.

- Hybrid Inverter shall be of 3-way input able to work independently of the grid with following power priority: 1) Solar 2) Grid 3) Generator.

- Warranty of the inverter shall be ONE (1) years minimum with separate price for extended warranty of another FOUR (4) years.

- The inverter shall be equipped for data logging and the modification of system settings from a dedicated networked personal computer (PC) connected to the system while also providing monitoring features over Ethernet through a web based portal. The parameters that need to be displayed on this dedicated PC shall include current power generation and power generation (on a daily basis and over a period of time) with saving and print facility enabled for Mehran UET.

- The inverter shall be supplied complete with the adequate PC software and connectivity via inbuilt Ethernet technology to upload system data on a dedicated web-portal system.

- The inverter shall have electromagnetic compatibility and emissions compliant with relevant European Standard (such as EN61000-3-2 Class A or equivalent) and shall satisfy safety requirements of EN50178 or equivalent.

- In case of any faults, the inverter shall be repaired or replaced by the contractor within two (2) weeks following the fault registration.

- Inverters shall be 'Grade A' of USA/EU/Japan Origin.

Battery Bank

- The batteries shall be solar photovoltaic batteries of type: deep-cycle, sealed Lead-Acid.
- The batteries shall use 2V cells and Battery interconnecting links shall be provided for interconnecting the cells in series and in parallel as needed.
- The battery bank capacity is to be designed at more than 30,000 Watt hours.
- The battery bank shall be designed for extreme temperatures prevailing at site.
- Charging instructions shall be provided along with the batteries.
- A suitable battery rack with interconnections & end connector shall be provided to suitably house the batteries in the bank. The features and dimensions of the battery rack shall be provided along with the bid document.
- The batteries shall be suitable for recharging by means of solar charge controller.
- The Bidder shall mention the design cycle life of batteries at 80%, 40% and 20% depth of discharge at 25 C.
- Life Cycle times ≥ 1000 at 80% Depth of Discharge.
- The self discharge of batteries shall be less than 3 % per month.
- The charge efficiency shall be more than 90% up to 70% state of charge.
- The battery bank shall have a design life ≥ 9 years.
- The batteries shall consist of individual cells, which can be carried separately with ease while transporting.
- Connectors for inter cell connection (series / parallel) shall be maintenance free screws. Insulated terminal covers shall be provided.

The Supporting Structures

- The supporting structure shall be manufactured of anodized Aluminum or galvanized steel sections specially designed for PV panels and approved by the manufacturer of the PV panels and shall conform to applicable standards such as TUV TZE/257210 or equivalent.
- The structure shall be guaranteed to have a lifetime of a minimum of twenty five years and shall be certified to be maintenance free.
- The structure shall be capable of withstanding the static and wind loads (wind gusts of at least 150km/h) and shall be securely placed on the roof and secured to the parapet walls structure where applicable.
- The structure shall be secured to concrete ballasts with distributed load on the roofs.
- Structures shall be designed to achieve perfect alignment of the module-arrays installed on them.
- The PV modules shall be fixed to the supporting structure using stainless steel screws. Screws shall be tightened with an adequate torque. It shall be the responsibility of the tenderer to ensure that the existing roof structure will support both the static and dynamic loading of the photovoltaic panels being proposed.

Cabling and Accessories

- DC Combiner Box

A DC Combiner Box shall be used to combine the DC cables of the solar module arrays with DC fuse protection for the outgoing DC cable(s) to the DC Distribution Box.

- DC Distribution Box

A DC distribution box shall be mounted close to the solar hybrid inverter. The DC distribution box shall be of the thermo-plastic IP65 DIN-rail mounting type and shall comprise the following components and cable terminations:

Incoming positive and negative DC cables from the DC Combiner Box; DC circuit breaker, 2 pole (the cables from the DC Combiner Box will be connected to this circuit breaker on the incoming side); DC surge protection device (SPD), class 2 as per IEC 60364-5-53; Outgoing positive and negative DC cables to the solar hybrid inverter. Connection between Inverter and the battery bank. As an alternative to the DC circuit breaker a DC isolator may be used inside the DC Distribution Box or in a separate external thermoplastic/metal enclosure (unless built in the Inverter) adjacent to the DC Distribution Box. If a DC isolator is used instead of a DC circuit breaker, a DC fuse shall be installed inside the DC Distribution Box to protect the DC cable that runs from the DC Distribution Box to the Solar Hybrid Inverter.

- AC Distribution Box

An AC distribution box shall be mounted close to the solar hybrid inverter. The AC distribution box (unless built in the Inverter) shall be of the thermoplastic/metal DIN rail mounting type and shall comprise the following components and cable terminations:

Incoming 3-core / 5-core (single-phase/three-phase) cable from the solar hybrid inverter , AC circuit breaker, 4-pole, AC surge protection device (SPD), class 2 as per IEC 60364-5-53, Outgoing cable to the building electrical distribution board.

- Connection to the Building Electrical System

The AC output of the solar hybrid inverter shall be connected to the Central Library distribution boards. The solar hybrid inverter output shall be connected to a dedicated module in the Main Distribution Board (MDB) of the building. It shall not be connected to a nearby load or socket point of the building.

- Cables

All cables shall be supplied conforming to IEC 60227 & IEC 60502. Voltage rating: 1,100V AC, 1,500V DC. For the DC cabling, XLPE or XLPO insulated and sheathed, UV stabilized single core flexible copper cables shall be used. Multi-core cables shall not be used. For the AC cabling, PVC or XLPE insulated and PVC sheathed single or multi-core flexible copper cables shall be used. Outdoor AC cables shall have a UV-stabilized outer sheath.

- The total voltage drop on the cable segments from the solar PV modules to the solar hybrid inverter shall not exceed 2.0%. The total voltage drop on the cable segments from the solar hybrid inverter to the building distribution board shall not exceed 2.0%

- The DC cables from the SPV module array shall run through a UV-stabilized PVC conduit pipe of adequate diameter with a minimum wall thickness of 1.5mm. Cables and wires used for the interconnection of solar PV modules shall be provided with solar PV connectors (MC4) and couplers. All cables and conduit pipes shall be clamped to the rooftop, walls and ceilings with thermo-plastic clamps at intervals not exceeding 50 cm. The minimum DC cable size shall be 4.0 mm² copper. The minimum AC cable size shall be 10.0 mm² copper. In three phase systems, the size of the neutral wire size shall be equal to the size of the phase wires. The following color coding shall be used for cable wires: DC positive: red (the outer PVC sheath can be black with a red line marking), - DC negative: black, - AC single phase: Phase: red; neutral: black, -AC three phase: Phases: red, yellow, blue; neutral: black, - Earth wires: green

- Cables and conduits that have to pass through walls or ceilings shall be taken through a PVC pipe sleeve. Cable conductors shall be terminated with tinned copper end-ferrules to prevent fraying and breaking of individual wire strands. The termination of the DC and AC cables at the Solar Hybrid Inverter shall be done as per instructions of the manufacturer, which in most cases will include the use of special connectors.

- Earthing

A new Earthing system is required (if the existing one does not satisfy the criteria) as follows: Earthing shall be done in accordance with established standards, provided that earthing conductors shall have a minimum size of 6.0 mm² copper, 10 mm² aluminum or 70 mm² hot dip galvanized steel. Unprotected aluminum or copper-clad aluminum conductors shall not be used for final underground connections to earth electrodes. A minimum of two separate dedicated and interconnected earth electrodes must be used for the earthing of the solar PV system support structure with a total earth resistance not exceeding 5 Ohm. The earth electrodes shall have a precast concrete enclosure with a removable lid for inspection and maintenance. The entire earthing system shall comprise non-corrosive components.

- Surge Protection

Surge protection shall be provided on the DC side and the AC side of the solar system. The DC surge protection devices (SPDs) shall be installed in the DC distribution box adjacent to the solar hybrid inverter. The AC SPDs shall be installed in the AC distribution box adjacent to the solar hybrid inverter. The SPDs earthing terminal shall be connected to earth through the above mentioned dedicated earthing system. The SPDs shall be of type 2 as per IEC 60364-5-53

- Junction Boxes

Junction boxes and solar panel terminal boxes shall be of the thermoplastic/metal type with IP 65 protection for outdoor use and IP 54 protection for indoor use. Cable terminations shall be taken through thermo-plastic cable glands. Cable ferrules shall be fitted at the cable termination points for identification.

LED Lights

- The existing florescent lights, consisting of 4 florescent tubes per fixture, are to be Replaced/Modified to work using LED based system.
- The existing light fixtures are in false ceiling, the shape and size of the light fixture location is not to be changed or modified.
- The Power consumption of new lights per fixture should not be more than 40 Watts.
- Luminous flux of new lights per fixture should be ≥ 3000 Lumens.
- The LED light color should be Soft-white/Cool-white/Daylight (not yellow).
- The life of the LEDs should be ≥ 20 years.
- The warranty of the LEDs should not be less than 5 years.
- Total number of light fixtures to be changed is 600 fixtures.

SECTION-I

Item Code	Specification Details	Qty	Unit Rate	Amount
CLOIC - 01	Solar Photovoltaic Panels	Wp		
	<p>Type: Crystalline silicon</p> <p>PV panels shall be 'Grade A' of Chinese Origin.</p> <p>Efficiency: $\geq 15\%$</p> <p>Fill factor: $\geq 72\%$</p> <p>Module frame: Non-corrosive and electrolytically Compatible with the mounting structure material.</p> <p>Termination box: Thermo-plastic, IP 65, UV resistant.</p> <p>Blocking diodes: Schottky type</p> <p>Module minimum rated power: The nominal power of a single PV module shall not be less than 250Wp.</p> <p>Certificate: Relevant information on traceability of solar cells and module as per ISO9000 Standard.</p> <p>Power output rating: To be given for standard test conditions (STC). I-V curve of the sample module shall be submitted.</p> <p>Compliance with standards and codes: IEC 61215 IEC 61730 Part 1 and 2 TUV</p> <p>Salt Mist Corrosion Testing: As per IEC 61701</p>			
	1.5 Warrantee			
	<p>Panel output (Wp) capacity to be $\geq 90\%$ of design nominal power after 10 years and $\geq 80\%$ of design nominal power after 25 years.</p>			

SECTION-II

Item Code	Specification Details	Qty	Unit Rate	Amount
CLOIC - 02	Hybrid Inverter – Charge-controller With Solar priority	kW (50)		
	Maximum power point (MPPT) tracking: Shall be incorporated. Number of independent MPPT: 1 or more inputs. Operation AC voltage: Single phase 230V or Three phase 400V (+ 12.5%, -20%). Operating Frequency range: 47.5 – 52.5 Hz. Nominal frequency: 50 Hz. Power factor of the inverter: >0.98 at nominal power. Total harmonic distortion: Less than 3% Operating ambient temp. range: -10 °C - +60 °C Humidity: 0 – 95% Rh Inverter efficiency: >=95% Inverter weighted efficiency: >=94% Protection degree: IP 21 for indoor mounting. Built-in Protection: Isolation transformer. Communication interface: RS 485 / RS 232 / RJ45 Safety-compliance: IEC 62109-1, IEC 62109-2 Environmental Testing: IEC 60068-2 (1,2,14,30) Efficiency Measurement: IEC 61683 Cooling: Convection Display type: LCD for data display. LCD / LED for status display. Display parameters to include: Output power (W), cumulative energy (Wh), DC voltage (V), DC current (A), AC voltage (V), AC frequency (Hz), AC current (A), cumulative hours of operation (h). Inverters shall be ‘Grade A’ of USA/EU/Japan Origin.			
	Warranty			
	Warranty of the inverter shall be ONE (1) years minimum – With separate price for extended warranty of another FOUR (4) years.			

SECTION III

Item Code	Specification Details	Qty	Unit Rate	Amount
CLOIC – 03	<p>Supporting Structure</p> <p>Wind velocity withstanding capacity: 150 km / hour</p> <p>Structure material: Hot-dip galvanized steel with a minimum galvanization thickness of 120 microns or aluminum alloy.</p> <p>Bolts, nuts, panel mounting clamps: Stainless steel SS 304</p> <p>Mounting arrangement for RCC-flat roofs: With removable concrete ballast made of pre-fabricated PCC (1:2:4), M15.</p> <p>Mounting arrangement for elevated structures: The elevated structure has to be securely anchored to the supporting surface. Concrete foundations of appropriate weight and depth for elevated structures mounted directly on the ground; Bolted With anchor bolts of appropriate strength for elevated structures mounted on RCC surfaces.</p> <p>Mounting arrangement for ground installations: With removable concrete ballast made of pre-fabricated PCC (1:2:4), M15; assuring enough ground clearance to prevent damage of the module through water, animals and other Environmental factors.</p> <p>Installation: The structures shall be designed for Simple mechanical on-site installation. There shall be no requirement of welding or complex machinery at the installation site.</p> <p>Minimum distance between roof edge and mounting Structure: 0.6m</p> <p>Access for panel cleaning and maintenance: All solar panels must be accessible from the top for cleaning and from the bottom for access to the module-junction box.</p> <p>Warranty</p> <p>As per Life of PV panels: twenty-five (25) years (Vendor).</p>			

SECTION - IV

Item Code	Specification Details	Qty	Unit Rate	Amount
CLOIC – 04	<p>Battery Storage</p> <p>Deep-cycle, sealed Lead-Acid</p> <p>2V cells and Battery interconnecting links shall be provided.</p> <p>- The battery bank capacity is to be designed at more than 30,000 Watt hours.</p> <p>The battery bank shall be designed for extreme temperatures prevailing at site.</p> <p>A suitable battery rack with interconnections & end connector shall be provided.</p> <p>Life Cycle times \geq 1000 at 80% Depth of Discharge.</p> <p>The self discharge of batteries shall be less than 3 % per month.</p> <p>The charge efficiency shall be more than 90% up to 70% state of charge.</p> <p>The battery bank shall have a design life \geq 9 years.</p>			
	<p>Warranty</p> <p>One (1) year Vendor warranty.</p>			

SECTION – V

Item Code	Specification Details	Qty	Unit Rate	Amount
CLOIC – 05	LED Light Fixtures	600		
	Shape and size of the light fixture location is not to be changed or modified.			
	The Power consumption of new lights per fixture should not be more than 40 Watts.			
	The luminous flux of new lights per fixture should be ≥ 3000 Lumens.			
	The LED light color should be Soft-white/Cool-white/Daylight (not yellow).			
	The design life of the LED bulb should be ≥ 20 years.			
	- - Total number of light fixtures to be changed is 600 fixtures			
	Warranty			
	The warranty of the LED bulb should not be less than 5 years.			
CLOIC – 06	Cabling and Accessories			
	According to requirement and as per specifications given in the document.			
CLOIC - 07	Installation			
	As per requirement.			
	TOTAL COST [CLOIC (1+2+3+4+5+6+7)]			



TENDER DOCUMENT

FOR

**INSTALLATION OF IP BASED SURVEILLANCE
CAM SYSTEM FOR NEW ADMINISTRATION
BLOCK, SPORTS COMPLEX (GYMNASIUM),
STUDENT – TEACHER CENTRE, AND VARIOUS
HOSTELS (TEACHERS, BOYS & GIRLS)**

AT

MEHRAN UNIVERSITY

OF

ENGINEERING AND TECHNOLOGY

JAMSHORO,

SINDH- PAKISTAN

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01.	B.O.Q. OF THE INSTALLATION OF IP BASED SURVEILLANCE CAM SYSTEM FOR NEW ADMINISTRATION BLOCK, SPORTS COMPLEX (GYMNASIUM), STUDENT – TEACHER CENTRE, AND VARIOUS HOSTELS (TEACHERS, BOYS & GIRLS) OF MUET JAMSHORO.	BLUE
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**MEHRAN UNIVERSITY OF ENGINEERING &
TECHNOLOGY, JAMSHORO**

Phone No. 022-2771311 Fax: 022-2771403



No. DD(Proc.)/MUET/JAM/-123

Dated: 12-06-2015

**N.I.T. FOR INSTALLATION OF IP BASED SURVEILLANCE CAM SYSTEM FOR
NEW ADMINISTRATION BLOCK, SPORTS COMPLEX (GYMNASIUM), STUDENT
– TEACHER CENTRE, AND VARIOUS HOSTELS (TEACHERS, BOYS & GIRLS)
OF MUET JAMSHORO.**

Sealed tenders are invited on the prescribed form from the contractors / firms / parties dealing with supplying, installation, testing & commissioning and putting in to operation and demonstration of Installation of IP based Surveillance Cam System for New Administration Block, Sports Complex (Gymnasium), Student – Teacher Centre, and various Hostels (Teachers, Boys & Girls) of MUET Jamshoro, which meets the following terms and conditions.

The tender documents including instructions to the Tenderers, terms & conditions and schedule of requirements can be had from the office of the Deputy Director (Procurement), Mehran University of Engineering & Technology, Jamshoro, by mail or personally on any working day during office hours from **18-06-2015 to 02-07-2015** on payment of Rs. 5,000.00 & Rs. 5200.00 by mail respectively.

TERMS & CONDITIONS:

1. The firms Registered in General Sales Tax and Income tax are eligible to obtain Tender Document, and the Photostat copies of Income Tax and GST, Registration certificate must be attached.
2. All currency in the proposal shall be quoted in Pakistan Rupees (PKR).
3. Cumulative Experience of the Bidder in executing contracts of IP based Surveillance Cam System (Installed & Commissioned) should be at least 50% of the tender value.
4. Value of a “Single Order” of IP based Surveillance Cam System executed by the Bidder (A copy of the order indicating its value and certificate indicating its successful execution) valued more than Rs. 1.000 Million.
5. Bidder must have local presence including Pre-Sales, Sales & Support Staff; the equipment should be supplied through verifiable distribution channel in Pakistan.
6. All equipment for the project will be delivered new, in packed condition directly to the Mehran UET, if equipment delivered is not conforming to the specifications and bill of quantity, the equipment will not be accepted. The equipment will be installed only after inspection.
7. Bidder must be in similar business for at least last THREE (3) years.

8. The Bidder must have professional / Technical Human resources of the Proposed solution, to carry out the project professionally (Bidders are requested to attach the list of their professionals along with their Professional certifications).
9. The maximum amount of sub-contracting must not exceed 30% of the total contract value. The main contractor must have the ability to carry out at least 70% of the contract works by his own means.
10. Principal must have local warehouses Local hardware/parts center, mentioning valid address in Pakistan for sparring, (To support the Hardware Replacement timely)
11. Any query regarding the technical specifications / requirements in RFP may be made before the tender submission, through email To: ag.kandhir@admin.muett.edu.pk
12. Incomplete and ambiguous (not describing the required specifications clearly and completely) solutions may / may not be considered for the bidding process.
13. Data Sheet for all the quoted equipments must be attached.
14. The rates in the quotation should be valid for at least 90 days
15. No increase in the value of items will be accepted on account of either unit price, total price, any or all other charges, duties, taxes, scope of supply.
16. The rates should include Income Tax @ 4.5%, GST 17%, transportation, installation and other charges (if any / applicable).
17. A Pay Order / Bank Challan of earnest money @ 5% of the total amount, in favor of the Deputy Director (Procurement), Mehran University of Engineering & Technology, Jamshoro should be enclosed with the quotations.
18. University reserves the rights to allocate the Tender on Trunkwise basis or Section wise.

The bids should be submitted under “Single Stage Two Envelopes Procedure” as under:

- Bid shall comprise a single package containing two separate envelopes. Each envelope shall contain separately the: (i) Technical Proposal (ii) Financial Proposal
- Envelopes shall be marked as “FINANCIAL PROPOSAL” and “TECHNICAL PROPOSAL” in bold and legible letters to avoid confusion;
- Initially, only the envelope marked “TECHNICAL PROPOSAL” shall be opened;
- Envelope marked as “FINANCIAL PROPOSAL” shall be retained in the custody of the procuring agency without being opened;
- Include the BoQ list at the end of document with both (i) Technical Proposal (WITHOUT Price/Cost) (ii) Financial Proposal (WITH Price/Cost)
- Procuring agency shall evaluate the technical proposal in a manner prescribed in tender documents, without reference to the price and reject any proposal which does not conform to the specified requirements.
 - Financial proposals of technically qualified bids shall be opened publicly at a time, date and venue announced and communicated to the bidders in advance;
 - Financial proposal of bids found technically non-responsive shall be returned unopened to the respective bidders; and
 - Bid found to be the lowest evaluated or best evaluated bid shall be accepted.

- Delivery is to be made within the prescribed period from the date of receipt of Purchase/Work Order.
- The tenders reached after the due date or sent to the wrong address shall not be accepted.
- The quotations not matching with the required specifications and /or not fulfilling the terms and conditions mentioned herein shall not be entertained.
- The University reserves the right to accept or reject any or all of the Tenders without assigning any reason.
- The University also reserves the right to increase or decrease the quantity of the items/ material demanded.
- Any condition not mentioned here or left out will be settled according to the discretion of the University.
- Procuring agency shall verify previous working, experience and financial statements made by the bidder.
- No amendments shall be permitted during the evaluation process;
- Quality and Cost Based Selection (QCBS) bid shall be accepted.

Note:

- Vendor / Participants / Bidder must attach the proof of their partnership/ registration with the tender.
- Evidence should be provided wherever applicable.

The tender duly completed in duplicate and addressed to the Deputy Director (Procurement), Mehran University of Engineering & Technology, Jamshoro, Sindh, must reach him, or be dropped in the tender box placed in his office by **12:00 noon** on **03-07-2015**. The tenders will be opened on the same date at **12:30 hrs** in the presence of those Tenderers who so wish to be present.

“The Procuring Agency may reject any or all bids subject to relevant provisions of SPP Rules, 2010 and may cancel the bidding process at any time prior to the acceptance of a bid or proposal under Rule – 25 of SPPRA, Govt. of Sindh”.

Sd/-
Deputy Director
(Procurement)
Mehran University of
Engineering &
Technology, Jamshoro.

ARTICLES OF AGREEMENT

This Agreement made this _____ day of _____ 2015, by and between the Vice-Chancellor, Mehran University of Engineering and Technology, located at Jamshoro, Sindh, including his successors in office and Assignees / Agents, acting through the Deputy Director (Procurement), Mehran University of Engineering & Technology, hereinafter called the “**University**”, of the one part.

And _____ of _____ (name and designation of the authorized person), located at _____, hereinafter called the “**Contractor**” which expression shall include their successors, legal representatives of the second part.

Whereas the **University** requires active and passive network equipment for IP based Surveillance Cam System for various buildings & hostels at MUET, Jamshoro, and whereas the **Contractor** has agreed to supply, install, put into operation and demonstrate the working of the said System valued at Rs. _____ (in figures and words) in the period of _____ months, subject to the terms and conditions set forth, hereinafter, which have been accepted by the **Contractor**.

(amount in figures and words)

Now this Agreement witnesses as follows:

1. In this agreement words and expressions shall have the same meanings as are respectively assigned to them in the **Conditions of Contract** hereinafter referred to.
2. The following documents which, for the purpose of identification, have been signed by _____ on behalf of the **Contractor**, and by _____ (name and designation of the authorized person) on behalf of the **University**, all of which shall be deemed to form and be read and construed as a part of this **Agreement** viz.:
 - a) Articles of Agreement;
 - b) Instructions to Tenderers;
 - c) Conditions of Contract;
 - d) Contractor’s Offer including the relevant correspondence prior to signing of this Agreement with all Annexures duly filled in;
 - e) The specifications of the equipment; and
 - f) Bill of Quantity with prices.

- 3. In consideration of the payment to be made to the Contractor, the **Contractor** hereby **covenants** with the University to supply, deliver, install, put into operation and demonstrate the working of the IP based Surveillance Cam System for various buildings & hostels in conformity in all respects of the Contract & the order form No. _____.
- 4. The **University** hereby **covenants to pay** the Contractor in consideration of the supply, delivery, installation, putting into operation and demonstration of the working of the IP based Surveillance Cam System the contact price in the manner prescribed by the Contract and approved by the University.

In Witness Thereof the parties have hereunto set their respective hands and seals, the day, month and year first above written.

WITNESSES:

University _____

Contractor _____

Witness No.1:

Witness No.1:

Signature: _____

Signature: _____

Name: _____

Name: _____

Designation: _____

Designation: _____

Witness No.2:

Witness No.2:

Signature: _____

Signature: _____

Name: _____

Name: _____

Designation: _____

Designation: _____

INSTRUCTIONS TO TENDERERS

The Mehran University of Engineering and Technology, Jamshoro, Sindh, intends to Install IP based Surveillance Cam System for various buildings and hostels at MUET, Jamshoro under the approved Self Finance Scheme. The purchase will be financed through the cash from own sources. This tender is issued for the supply, installation, putting into operation and demonstration of the working of the IP based Surveillance Cam System as per the Schedule of requirements given in this Tender Document.

PREPARATION OF TENDER.

1. Language of Tender

The **Tender** alongwith any accompanying literature shall be prepared in **English** language only:

2. Submission of Tender

- a) The **Tender** shall be enclosed in a double cover. The outer cover shall bear the address of the **Deputy Director (Procurement)**, Mehran University of Engineering and Technology, Jamshoro, Sindh, without any indication that it encloses a tender. The inner cover shall be marked with the title of the Tender, number of invitation to the Tender and the date of opening of the Tender, and **must be sealed**.
- b) The **Form for Tender**, (Annexure-A) **Tender Particulars (Annexure-B)** and **Forms of Schedule to Tender** (Annexure "C1"&"C2") enclosed herewith, shall be submitted in duplicate. The authorized person signing the tender documents must state his full name and authorized position designation underneath his signature.
- c) The **erasing and/or alterations**, if any, in the Tender shall be authenticated by the authorized person by his full signature.
- d) The **Tender** shall be accompanied with the **original quotations** from the manufacturers (for imported stores), in case the Tender is submitted through their authorized agents or distributors, and shall be supported by credentials establishing the experience and standing of the manufacturers and / or their authorized agents or distributors.
- e) **Ambiguous and incorrect answers** and/or incorrect filling of Tender Documents will render the tender liable to rejection.
- f) **Quotations** through cable, telegraph, telex, fax, or e-mail will not be considered.

- g) The tenders shall not rely on any **interpretation or correction** given by any person except the written **addenda and/or corrigenda** to documents issued by the Deputy Director (Procurement), Mehran University of Engineering and Technology, Jamshoro, Sindh.

3. Bid Bond and Contract Performance Bond

- a) The tenderer shall enclose with his/her tender a **Bid Bond** on requisite stamp paper, as per **Annexure “D”** to this Tender Document, issued by a scheduled/commercial bank doing business in Pakistan, for an amount equivalent to **2% of the total cost** of the IP based Surveillance Cam System offered as per the Tender submitted by him/her, or Rs. 50,000.00 (fifty thousand), whichever is more. The Bid Bond shall be in favour of the Vice Chancellor, Mehran University of Engineering and Technology, Jamshoro, including his successor in office and assignees acting through the Deputy Director (Procurement), Mehran University of Engineering and Technology. The bond so furnished shall remain **valid for a period 28 days beyond the period of validity of the Tender** or till it is revalidated/extended for a period mutually agreed upon by the tenderer and the Deputy Director (Procurement), Mehran University of Engineering and Technology, Jamshoro, Sindh.
- b) As soon as an award is made, the provisions in paragraphs **c), d) and e)**, hereunder, shall **operate**.
- c) If the Tender is **rejected**, the Bid Bond will be returned to the tenderer as soon as possible after rejection.
- d) The **successful bidder** shall have to give a **Contract Performance Bond**, as per **Annexure “E”** to this Tender Document, to the extent of **2% of the total value** of the contract on the same conditions as the Bid Bond. The Performance Bond shall be retained by the Deputy Director (Procurement), Mehran University of Engineering and Technology, till the completion of the guarantee period as per Clause 23 of the Conditions of Contract.

4. Quality of Stores.

- a) The IP based Surveillance Cam System and other relevant materials (hereinafter called **“Stores”**) quoted supplied, installed and commissioned against this “Invitation to Tender” shall be strictly in accordance with the **Specifications** attached with this Tender Document. The Stores shall be the product of an established manufacturer and shall conform to internationally acceptable commercial standards, and shall be a system that has been successfully operated over a reasonable period of time in relevant industry.
- b) In Tenderers must also warrant the use of best material in the making of the stores. If the Specifications for any items of the Stores are lacking in details, they may give their own proposals with detailed specifications, preferably three alternate proposals if possible, for such items in Annexure “F”.

- c) The Stores offered by the tenders must be of a quality suitable for the purposes and operations for which they are required, and must be capable of rendering the required performance and services at site in the local conditions of extreme tropical climate, air, dust, water, power and fuel at Jamshoro.
- d) The space for operation of the Stores will be made available by the University.
- e) The electric supply for operation of the Stores will be made available at 220 volt single phase, or 380 volt three phase, and 50 cycles.
- f) The Stores offered shall be complete with their standard accessories and must be accompanied by their normal instructions book/manual.
- g) Wherever possible or feasible, each item of Stores offered must have its own protection devices, e.g, overload protection by circuit breakers or fuses, or voltage stabilizer for electric equipment.
- h) Unless stipulated otherwise in the specifications for any item, the Stores conforming to IEC, IEEE, TUV ASA, SAE, will be acceptable.
- i) The successful bidders may be asked to supply list of spares for 5 years satisfactory operation of any item of the Stores, prior to award of the contract.

5. **Literature.**

The tenderers must furnish with their bids catalogues giving full technical details of the Stores to enable the University to check their offers technically against the prescribed specifications failing which the offers will be liable to rejection. The literature MUST be in original: photocopies will not be accepted.

6. **Principals Name, Certificate and Invoice.**

- a) The tenderers are required to mention in their quotations/offers the name and address of their Principals along with a certificate authorizing them (tenderers) to quote on their (Principals) behalf as under:
“This is to certify that M/S. _____ located at _____ have obtained quotations from us against tender inquiry No. _____ dated _____ from Mehran University of Engineering and Technology, at Jamshoro, due for opening on _____ and have agreed to make available the Equipment on the quotations and terms and conditions of the tender”.

The above condition does not apply to the manufacturers bidding directly.

- b) The tenderers must also furnish along with their offers their Principals original Proforma Invoice failing which their offers will be rejected.

7. **Country of Origin.**

The tenderers must state in his Tender the country of origin of the Stores offered.

8. **Alternative Proposal.**

If any tenderer elects to submit alternative proposal(s) complete information on the alternative items including all data relating to technical specifications in Vol. I, II&III shall be given as per Annexure “F”.

9. **Prices.**

- a) **CATEGORY-‘A’ Stores Manufactured/Available in Pakistan without Involving Import.**

The prices quoted must be total per unit in Pakistani Rupees as shown in **Annexure “C-1”** and shall include:

- i. All charges for packing, marking, handling, insurance, inspection, guarantees, freight/transportation, agent’s commission; and all duties, taxes, levies, octrois etc; and.
- ii. The cost of installation, putting into operation and demonstration of the working of the IP based Surveillance Cam System in the premises of the University.

- b) **CATEGORY-“B”. Stores Imported from approved Countries.**

The prices must be quoted for each item of Stores in **Annexure-“C2”** separately for each of the PARTS given below:

PART-1. Payment in Foreign currency.

The C&F prices quoted by the Principals in the currency of the country of origin.

For the purpose of comparison, the prices quoted shall be converted to equivalent prices in Pakistani Rupees on the basis of the official bank rate prevalent on the date of opening of the Tender.

PART-2 Payment in Pakistani Rupees.

- (i) The agent’s/supplier’s commission in Pakistani Rupees.
- (ii) The insurance charges. The insurance will be arranged by the Contractor through the University with EFU General Insurance Company. The University will assist the Contractor in obtaining the insurance at concessional rates, if any, as allowed by the Government.
- (iii) The cost of installation, putting into operation and demonstration of the working of the IP based Surveillance Cam System at MUET, Jamshoro in Pakistani Rupees.
- (iv) All the charges pertaining to handling and clearance of the Stores at the port including all taxes, levies, octrois etc. but excluding the customs duties for the payment of which the University is exempted by the Government. However, if the customs duties are charged for any items of the Stores for which the Government has the exemption, the University will make the payment.

- (v) The transportation charges for transporting the Stores from the port to the premises of the University including the charges for loading the Stores at the port and unloading the same at the University.

For the purpose of evaluation/comparison of bids, as stated in Clause-15, the total price for the Stores under this Category shall be the sum of the amounts mentioned for Parts 1 & 2 above.

- (c) In addition to what is stated in para a) & b) above, the prices given in Annexure C1 & C2 shall also include the following for the Stores of both the Categories-A & B.
 - (i) Supply, detailing, manufacture, factory testing, export preparation and all costs incidental to shipping/transport up to the stage of installation in the premises of the University.
 - (ii) Responsibility for any loss and/or damage at any stage from manufacture to installation in the premises of the University.
 - (iii) Provision for clean on boards bills of landing.
 - (iv) The cost of export taxes, fees and charges levied and out going incurred on exporting goods in the country of origin.
 - (v) The expenses on account of the certificate of origin, invoices or any other documents issued in the country or origin.

10. Validity of Prices/Tender

- a) The prices quoted shall be valid for a period of at least 120 days from the date of opening of the tender.
- b) Until the final Contract is executed, the successful bidder shall be bound by the terms and conditions of this Tender Document.

11. Acceptance of the Terms

- a) The submission of the tender against this tender inquiry by the tenderer means that the tenderer has read and accepted the terms and conditions relating to all the tender documents and annexures, and that he/she has thoroughly examined the specifications and particulars in the tender inquiry. Further the tender shall be deemed to be fully aware of the nature of the Stores and the purpose for which they are required and shall be bound to accept the Contract if placed with him/her on the basis of the prices and of the delivery schedule as indicated in Clause 12 hereof within the validity of his/her Tender.

- b) If the Tender is awarded in favour of Proprietor/Principals who has no authorized agent or distributor in Pakistan, he/she shall have to appoint a distributor or nominee for the purpose of successful completion of the contract and to provide after-sales service.

12. Delivery Period.

i. Shipment of Imported Items.

- a) The shipment of the items of Stores which are to be imported shall be started as early as possible, the shipment schedule shall be submitted to the Deputy Director (Procurement), Mehran University, and shall be negotiable and subject to approval by the University.
- b) The tenderer must indicate in his/her offer the port from where the Stores will be shipped.

ii. Delivery Period.

- a) The entire Stores must be delivered, installed and put into operation at the Central Library and Online Information Centre at MUET, Jamshoro as early as possible after receiving the letter of award of the Contract.
- b) The Tenderer shall give in the offer his/her own schedule for the delivery and installation of various items of the Stores which shall be negotiable and subject to approval of the University.

iii. Delay in the Delivery of the Stores.

- a) For the Stores delayed beyond the delivery period, as specified in the Contract, or as approved by the University as stated in Clause 12 ii b) above, there shall be levied liquidated damages as specified in Clause 22 of the Conditions of Contract given in this Tender Document.
- b) The liquidated damages may be waived fully or partially by the Deputy Director (Procurement), with the approval of the Vice Chancellor of the University, if there are reasonable grounds for such a delay.

13. Negotiations.

Under no circumstances will the negotiations take place with any tenderer with regard to Specifications and Prices quoted and read out at the public opening of the tenders and with regard to the substance of the offer. The tenderers cannot revise their prices after the public opening of the tenders.

14. Rights of the University

(a) The University reserves the right to reject any or all bids without any reason whatsoever, or not waive minor irregularities or errors in any offer. If it appears to the University that such irregularities or errors must be corrected in the offer in which they occur, the same will be corrected prior to issue of the letter of intent which may be awarded thereupon.

- (b) The University is neither bound to accept the lowest or any other offer nor is it bound to assign reason for rejection of any offer.
- c) The University reserves the right to award the contract to one bidder or divide it among several bidders.
- d) The University reserves the right to increase or decrease the quantity of the Stores at its discretion without assigning any reason whatsoever.
- e) The University reserves the right to cancel the offer of the tenderer whose bid has been found / evaluated to be the lowest if it is revealed to the University that the tenderer does not have the capability or financial resources or facilities to carry out the Contract in accordance with the terms and conditions of this Tender Document.

15. Evaluation of Bids.

- a) In comparing bids the University will consider, besides the prices quoted, such other factors as compliance with specifications, relative quality of Stores, past experience of the tenderer, after-sales services facilities available in Pakistan and the tenderer's capacity to perform.
- b) The evaluation criteria specifically mentioned in the specifications will also be considered for evaluation of the bids.
- c) For the purpose of evaluation, the prices to be compared shall be the total prices inclusive of all duties, taxes, freight charges etc. as stated in clause 9 titled "Prices" above.
 - (i) For the items quoted in Annexure-C-1, the total prices as mentioned in Clause-9(b) shall be compared.
 - (ii) For comparison of the items quoted in Annexure C-1 with those quoted in Annexure C-2, the total prices as mentioned in Clause-9(a) including the charges/cost packing, making, handling, insurance, inspection guarantees, clearance, freight/transportation upto the University's premises duties, taxes, levies, octrois etc.

16. Errors in the Bids.

- (i) Any arithmetic errors found during evaluation of bids will be rectified on the following basis:
 - a) If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected by the University.
 - b) If there is a discrepancy between the words and figures, the amount in figures shall prevail.

- c) If there is any discrepancy between the total tender price entered in the Articles of Agreement and the total shown in the Schedule of Prices, the amount stated in the Articles of Agreement shall be corrected by the University in accordance with the corrected schedule of Prices.
- (ii) If the tenderer does not accept the corrected amount of tender, his/her Tender will be rejected and the Bid Bond submitted with the tender shall be forfeited.

17. **Foreign Exchange for Items of Stores to be imported.**

For the items of Stores which are to be imported and for which the prices have been quoted on C&F basis in Annexure C-2, the University will arrange payment in the foreign currency, to the extent of the C&F amount, as stated in Clause 9(b), through its bank in Pakistan in accordance with the prevailing foreign exchange control rules/regulations of the Government of Pakistan.

CONDITIONS OF CONTRACT

1. **Scope of the Contract**

- a) The **Scope of the Contract** shall be the supply, delivery, installation, putting into operation and demonstration of the working of the Stores in the premises of the University at Jamshoro, Sindh, in accordance with the technical Specifications and Bill of Quantities enclosed in this Tender Document.
- b) The Contractor shall within a period of one month of the execution of the agreement furnish to the University a **detailed program** for supply and delivery of various items of the Stores for necessary approval by the University.

2. **Definition of Terms**

In writing these Conditions of Contract, Specifications and Bill of Quantities, the following words shall have the meanings hereby indicated, unless there is some thing in the subject matter or Contract inconsistent with such constructions:

- i. **The University** shall mean the Mehran University of Engineering and Technology, Jamshoro, Sindh.
- ii. **The Vice Chancellor** shall mean the Vice Chancellor of Mehran University of Engineering and Technology, Jamshoro, Sindh, including his successor in office and assignees, empowered to act in all matters pertaining to the University either directly or through the Deputy Director (Procurement), Mehran University of Engineering and Technology, Jamshoro.
- iii. **The Contractor or Supplier** shall mean the Tenderer (Bidder) whose Bid has been accepted by the University and shall include the Bidder's executors, administrators, successors and permitted assignees.
- iv. **The Stores** shall mean and include the deployment of all the IP based Surveillance Cam System at Central Library and Online Information Centre at MUET, Jamshoro, literature, materials and articles to be provided by the Contractor under the Contract.
- v. **The Contract** shall mean the agreement signed by the Contractor for the supply, delivery, installation, putting into operation and demonstration for the working of the Stores, as stated under the Scope of the Contract above.
- vi. **The Contract Price** shall mean the sum mentioned in or calculated in accordance with the provisions of the Contract, which is to be paid to the Contractor for satisfactory execution of the Contract in accordance with these Conditions of Contract.

- vii. **The Specifications** shall mean the specifications annexed to or issued, herewith, and shall include the schedule and drawings attached hereto as well as the samples and patterns if any.
- viii. **Month** shall mean the Calendar month.
- ix. **Writing** shall include any manuscript, type-written, printed or other statement reproduced in any visible form and whether under seal or under hand.

3. **Contract Documents.**

- a) The term **Contract Document** shall mean the following documents which shall be deemed to form an integral part of the Contract:
 - i. Articles of Agreement;
 - ii. Instructions to Tenderers;
 - iii. Conditions of Contract;
 - iv. Contractor's Proposal / Offer including the relevant correspondences prior to signing of the agreement with all Annexures duly filled in;
 - v. The Specifications of the Stores; and
 - vi. Bill of Quantities with prices.
- b) In the event of any **conflict** between the above mentioned documents, the present Articles of Agreement and Conditions of Contract shall prevail.

4. **Signing of the Contract Agreement**

Within 30 days of the issue of the letter of intent, the successful bidder (bidders) will be required to **sign an agreement** with the University for the supply of such quantity, in whole or in part, of the tendered Stores as will be communicated to him / her (them) in the letter of intent.

5. **Packing, Marking and Handling**

- a) All the Stores, whether imported or locally manufactured / available, shall be delivered to the University at Jamshoro in **safe and secure condition** at the risk and cost of the Contractor.
- b) The packing, marking and handling shall be so arranged by the Contractor as to **prevent any loss of or damage** to the Stores.

- c) In case any of the items of the Stores are to be imported by the Contractor, the **import** shall be **arranged by the Contractor** himself / herself with such packing and marking and through such means as deemed fit by him / her for safe and secure delivery at Jamshoro. The packing of the equipment shall be the usual export packing to ensure safe journey by air, sea, rail and road, as the case may be, of the Stores to destination. Each packing shall be clearly marked in English with the following:

- i. Port of Destination: KARACHI.
- ii. Name of the Ship: _____
- iii. Name of the Consignee: Deputy Director (Procurement),
MEHRAN UNIVERSITY OF
ENGINEERING & TECHNOLOGY
JAMSHORO, SINDH, PAKISTAN
- i. Name of the Contractor: CONTRACTOR'S NAME & ADDRESS
- ii. Case Number & Contents: _____
- iii. Net Weight & Dimensions: (length, Breadth & Height)
- iv. Gross Weight: (Kg.)
- v. Number & Date of Contract: _____
- vi. Marking: **MUET** in a 6 in. x 4 in. rectangle

MUET

6. Transportation and Shipment

a. For Stores to be Imported

- i. All those items of Stores which are to be imported by the Contractor shall be **shipped** by whatever means the Contractor deems fit **at his / her risk and cost**. The Contractor must keep the University informed of the shipping arrangements, schedule of shipping, arrival at the port, clearance from the port, and transportation from the port to the University at Jamshoro.
- ii. **All costs** of loading of the Stores from the wharves at port of shipment and also the cost of ship wharf age / berthing, demurrage charges, stevedoring, handling charges and other port and river dues in respect of shipment companies' vessels at the port of shipment and all other expenditure up to the stage of placing the Stores at rest on board the ship and the freight charges shall be **borne by the Contractor**.
- iii. Similarly all costs of unloading the Stores at the wharves, wharf age / berthing, demurrage, stevedoring, handling charges and other port dues at the port of arrival in Pakistan and transportation from the port up to the stage of placing the Stores position in the premises of the University shall be borne by the **Contractor**. In order to facilitate the clearance of the Stores at the port of arrival, a clearing agent will be engaged by the University, in consultation with the Contractor, who will get the Stores cleared with the assistance of the University and the Contractor, and the clearing agent's charges shall be **borne by the Contractor**.

- iv. All things being equal, **Pakistan flag ships** should be used, as far as possible, for shipment of the Stores. If no such ship is available, such other ships may be used consistent with the execution of this Contract with economy and efficiency.
- v. The Stores must be shipped **under deck**
- vi. The Contractor shall send by air mail / courier service or personally deliver 4(four) sets of non-negotiable shipping documents direct to the Deputy Director (Procurement), Mehran University of Engineering and Technology, Jamshoro, Sindh, so as to reach him at least 8 (eight) days before arrival of the ship at the port in Pakistan.

b. For Stores Manufactured / Available in Pakistan

- i. All those items of the Stores which are to be manufactured in Pakistan, or are to be supplied from the locally available stocks (whether imported or manufactured in Pakistan), may be transported from the place of manufacture or availability to Jamshoro by **any mode of transportation** as deemed convenient and suitable by the Contractor at his / her risk and cost.
- ii. **All costs** of handling, loading, transportation, unloading and placing the Stores in position in the premises of the University shall be **borne by the Contractor**.

7. Pre-shipment and After-fabrication Inspection

- a) The **pre-shipment inspection** and / or the inspection of the Stores Principals/Proprietor at the premises, if desired by the Contractor, shall be arranged by the Contractor at his / her own cost. The responsibility for the quality, quantity, correctness and adherence to the Specifications etc. of the Stores shall lie solely and squarely on the Contractor.
- b) The University may, at its discretion, waive pre-shipment inspection and hence issue the waiver in writing so that the Stores could be shipped under manufacturer's test certificate. This waiver shall be deemed as authorization to ship for the purpose of negotiating the letter of credit under Clause 13(b) ii.
- c) The pre-shipment inspection and/or the waiver thereof shall in no any above the Contractor of any of his obligations under this Contract.

8. Insurance

The **Contractor shall arrange** the insurance for the Stores in whatever way he / she deems fit at his / her risk and cost. The prices quoted in the offer of the Contractor shall include the cost of insurance. The Contractor shall have to inform the University of the Insurance Arrangements made by him / her for the Stores.

9. On-arrival Inspection

There shall be inspection of the Stores by the representatives of the University after arrival in the premises of the University in presence of the Contractor or his authorized representatives and the representatives of the insurance company. The **inspection report**, which, inter-alia, should indicate the condition in which each item of the Stores has been received, shall be signed by the above representatives. The Contractor shall coordinate with the Deputy Director (Procurement), Mehran University, and the insurance company for arranging the inspection at such date and time as is convenient to the above representatives.

10. Taking Over

Upon receipt of the network equipment in the premises of the University and after inspection, as stated in Clause 9 above, the University will issue a **taking-over certificate** in respect of those items of Stores which are received in acceptable condition. The taking-over of the damaged items will be with-held until the same are repaired / replaced and are re-inspected and found in acceptable condition.

11. Installation and Demonstration of Stores

a). Installation

- i) After inspection and taking over of the Stores, as stated in Clauses 9 and 10 above, the **Contractor shall install** those items of Stores which are to be permanently positioned in place in the premises of the University. For this purpose, the Contractor shall co-ordinate with the Deputy Director (Procurement), Mehran University, for making arrangements for the infrastructure needed for the installation.
- ii) The cost of infrastructure **for installation** shall be borne by the University. The Contractor shall provide, alongwith his offer, the details of the infrastructure needed for each item of the Stores separately. The technical and other personnel needed for installation of the Stores shall be provided by the Contractor at his cost. The entire cost of installation, configuration, application except that of the needed infrastructure, shall be borne by the Contractor.
- iii) The Contractor shall provide provision for the training of University staff as designated by the University for installation, operations and maintenance of the IP based Surveillance Cam System at Central Library and Online Information Centre at MUET, Jamshoro.

b) Demonstration

- i) After installation of the Stores, as stated in Clause **11 a)** above, the complete **working of each item** of Stores for the purpose of performing the intended power generation, storage, system synchronization and data logging etc., shall be demonstrated fully to the designated staff of the University by the Contractor or his technical personnel.
- ii) The entire **cost**, including the T.A. / D.A. of the Contractor personnel involved in the demonstration, shall be **borne by the Contractor**.

12. Completion Certificate

After completion of the installation and demonstration, as stated in Clause **11** above, a certificate is to be obtained by the Contractor from a person designated by the University stating that the Stores (item-wise) have been satisfactorily installed and demonstrated by the Contractor.

13. Terms of Payment

The Contractor shall be paid for Stores in the following manner:

- a) **CATEGORY A: Stores Manufactured/Available in Pakistan without involving import.**
 - i. For all those items of Stores for which the completion certificate has been issued by the University, as stated in Clause **12** above, the University will pay to the Contractor total price of the items quoted by the Contractor.
 - ii. The payment for those items of Stores for which the completion certificate has not been issued by the University, as stated in Clause **12** above, will be withheld and released only after the damaged items are replaced / repaired, re-inspected and found in satisfactory condition with consequent issuance of the completion certificate. The payment will be made in the same manner as stated in Clause **13 a) i** above
- b) **CATEGORY-B: Stores Imported from Approved Countries.**

The payment for this category of Stores will be made in two parts as under:-

PART-I. Payment in Foreign currency

- i. An irrevocable **letter of credit** of one hundred percent (**100%**) of the C&F price, in the currency quoted by the Principals, will be opened in a bank in the country of origin in favor of the Principals/Contractor within 30 days after signing the Contract.

- ii. One hundred percent (**100%**) of the letter of credit amount will be paid against presentation of the shipping documents to the bank through the above letter of credit. The required shipping documents include:
- Clean on board bill of lading;
 - Contractor's detailed invoice showing description of the Stores, specifications, quantity, unit price and total price;
 - Detailed packing list;
 - Certificate of origin of the Stores' and
 - Certificate of pre-shipment/after-fabrication inspection or authorization to ship the Stores as per Clause-7.

PART-2. Payment in Pakistani Rupees

The Rupee component of the price of the Stores, as stated in Clause **9b)** of "**Instructions to Tenderers**" will be paid to the Contractor in the following manner:

- i. For all those items of Stores for which the taking over certificate has been issued by the University, as stated in Clause **10** above, the University will pay to the Contractor seventy percent (70%) of the total price of the items quoted by the Contractor, the remaining thirty percent (30%) will be paid after presentation of the completion certificate, as stated in Clause 12 above.
- ii. The payment for those items of Stores for which the completion certificate has not been issued by the University, as stated in Clause **10** above, will be withheld and released only after the damaged items are replaced/repared, re-inspected and found in satisfactory condition with consequent issuance of the completion certificate. The payment will be made in the same manner as stated in Clause **13 a)i** above

14. Warranty / Guaranty

- a) The Contractor shall **warranty** that the Stores shall be fit for the purposes and operation mentioned in the relevant clauses of the "Instructions to the Tenderers" and "Conditions of Contract", notwithstanding the fact that the entire Stores, or any item or part of the Stores, bear or are found to bear a patent or trade mark.
- b) The Contractor shall guarantee supply of good quality Stores in accordance with the Specifications and as stated in Clauses 4 and 5 of the "Instructions to the Tenderers". Further, the Stores shall be brand new and absolutely free from all defects in material, quality and workmanship. In case of defects, the defective Stores, or the defective parts / components of the Stores thereof, shall be replaced by the Contractor free of cost to the University within reasonable time.

15. Breach of Contract

In case of breach of warranty /guarantee or Contract, the **damages** suffered by the University shall be **recovered from the Contractor** out of any payment due to the Contractor and / or in accordance with the terms and conditions of the Contract Performance Bond given at Annexure “E” enclosed with this Tender Document, without notice to the Contractor.

16. Contractor’s Default Liability

- a) The University may upon written notice of default to the Contractor **terminate the Contract** in the circumstances detailed hereunder:
- i. If in the judgment of the University, the Contractor fails to make delivery of the Stores within the time specified in the Contract Agreement or within the period for which extension has been granted by the University; and
 - ii. If, in the judgment of the University, the Contractor fails to comply with any of the other provisions of the Contract.
- b) In the event the University terminates the Contract, in whole or in part, as provided in Clause **16 a)** above, the University reserves the right to **purchase**, on such terms and conditions as it may deem appropriate, Stores similar to the one terminated, and the Contractor will be liable to the University for any additional costs for such **similar Stores**, and / or for liquidated damages for delay, as defined in Clause **22** of the Conditions of Contract until such reasonable time as may be required for the final supply of the Stores.
- c) If the Contract is terminated, as provided in Clause **16 a)** above, the University, in addition to any other rights provided in this Clause, may require the Contractor to **transfer title** and deliver to the University under any of the following cases in the manner and as directed by the University:
- i) Any **completed Stores**; and
 - ii) Such **partially completed Stores**, drawings, information and contract right (hereinafter called manufacturing material) as the Contractor has specifically produced or acquired for the performance of such parts of the Contract as has been terminated.
- d) The University will **pay to the Contractor** the Contract Price for the completed Stores delivered to and accepted by the University and also for the manufacturing materials delivered and accepted.
- e) In the event the University does not terminate the Contract, as provided in Clause **16 a)** above, the Contractor shall continue with the performance of his / her Contract, in which case the Contractor shall be liable to the University for **liquidated damages for delay** as set out in Clause 22 until the Stores are accepted.

17. Bankruptcy

If the **Contractor** shall become **bankrupt** or have a receiving order made against him / her or compound with his / her creditors, or being a corporation commence to be wound up, not being a voluntary winding up for the purpose of amalgamation or reconstruction, or carry on its business under a receiver for the benefit of its creditors or any of them, **the University shall** be at liberty to:

- a) **terminate the Contract** forthwith by a notice in writing to the Contractor or to the liquidator or receiver or to any person in whom the Contract may become vested, and to act in the manner provided in Clause 16 above as though the last mentioned notice has been the notice referred in such Clause and the Stores have been taken out of the Contractor's hand; and / or
- b) give such liquidator, receiver, or other person the **option of carrying out the Contract** subject to his / her providing a guarantee for the due and faithful performance of the Contract upto an amount to be determined by the University.

18. Termination of Contract

- a) If, for any cause as set forth in Clause **19** hereafter, the Contractor finds it impracticable to continue operation or, if owing to force majeure or to any cause beyond its control, the University finds it impossible to continue operation, then **prompt notification** in writing shall be given by the party affected to the other.
- b) If the delay or difficulties so caused cannot be expected to cease or become avoidable, or if operation cannot be resumed within six months, then either party shall have the right to terminate the Contract by giving ten **(10) days written notice** to the other.
- c) In the event of termination of the Contract under this Clause, **payment** will be made to the Contractor as follows:
 - i) The Contractor shall be paid for all the Stores for which the completion certificate has been issued, as stated in Clause 12, and for all the reimbursable expenses due and unpaid.
 - ii) The Contractor shall also be paid reasonably for any work done during the said six months period as well as for settlement of any financial commitment made in connection with proper performance of the Contract and which are not reasonably defrayed by payments under i) above.
 - iii) On termination of the contract for any cause, the Contractor shall see to the orderly suspension and termination of operations with due consideration to the interests of the University with respect to completion, safeguarding or storing of the Stores produced for the performance of the Contract and the salvage and resale thereof

19. Force Majeure.

The Contractor shall not be liable for any additional cost or for liquidated damages for delay or any failure to perform the Contract arising out of force majeure or cause beyond his / her control including acts of God, or of the public enemy, or of the Government, fires, floods, epidemic quarantine restrictions, strikes, freight embargoes and default of subcontractors due to any such cause (unless the University shall determine that the Stores to be furnished by the Contractor might reasonably have been obtained from other sources in sufficient time to allow the Contractor to meet the required time schedule), provided that the Contractor shall within ten (10) days from the beginning of such delay notify the University in writing of the **causes of the delay**. The University shall ascertain the facts and the extent of the delay and **extend the time** for completing the supplies as in its judgment the findings justify.

20. Rejection

- a) In the event any portion of the Stores supplied by the Contractor is found before taking over to be **defective in material or workmanship**, or otherwise not in conformity with the requirements of the Contract, the University shall have the right to either reject or require, in writing, rectification of the Stores. In the later case, the Contractor shall with utmost diligence, and at his own expense, make good the defects so specified or replace the defective Stores. If the Contractor fails to rectify or replace the rejected Stores, the University may adopt any of the following options:
- i) **replace or rectify**, at its option, such defective Stores and charge to the Contractor the excess cost occasioned to the University plus (15%) fifteen percent; or
 - ii) acquire the said Stores **at a reduced price** considered equitable under the circumstances; or
 - iii) **terminate the Contract** as provided in Clause **18** of these Conditions of Contract.
- b) Nothing in this Clause shall affect any claim by the University under Clause **22** hereafter.

21. Extension of Time

If the completion of the Contract is delayed due to reason beyond the control of the Contractor, the Contractor shall without delay request the University, in writing, of his **claim** for an extension of time. The University on receipt of such request may agree to **extend the completion date** as may be reasonable in the circumstances of the case but without prejudice to other terms and conditions of the Contract.

22. Delay in Delivery - Liquidated Damages

- a) Should the **progress** of the Contract at any time be **lagging behind** the program agreed between the University and the Contractor, the University will notify the Contractor in writing and the Contractor shall there upon take such steps as he / she may deem fit to **expedite the progress** of the Contract. Non-issuance of this notice by the University shall not in any way absolve the Contractor of the liquidated damages as stated in Clause **22 b)** below.
- b) If the Contractor **fails to complete the Contract**, in full or part, within the time laid down in the Contract Agreement or any extension thereof, there shall be deducted from the Contract Price, as **liquidated damages**, a sum of one half of one percent (**0.5%**) of **the Contract price** of each unit of the delayed Stores for each calendar week of delay subject to the maximum of five percent (5%) of the Contract Price of the unit or units so delayed, and such deduction shall be in full satisfaction of the Contractor's liability for the said failure.

23. Period of Guarantee

- a) The term **period of guarantee** shall mean the period of twelve (**12**) **months** from the date on which the Stores have been put into operation and demonstrated to University staff. In any case this period shall not exceed eighteen (18) months from the date of taking-over certificate.
- b) During the period of guarantee, the Contractor shall **remedy**, at his / her expense, **all defects** in design, materials, and workmanship that may develop or are revealed under normal use of the said Stores upon receiving written notice from the University; the notice shall indicate in what respect the Stores are faulty.
- c) The provisions of this Clause include all the **expenses** that the Contractor may have to incur for delivery and installation of such replacement parts, material, and equipment as are needed for satisfactory operation of the Stores at the University premises.

24. Non-assignment

The Contractor shall **not have the right to assign or transfer** without the prior approval of the University the benefit and obligations of the Contract or any part thereof.

25. Expenditure under Contract

The Contractor shall not make any expenditure for the purpose of this Contract in any **country not authorized** by the Government of Pakistan

26. Certificate Not to Affect the Rights of the University or the Contractor

No certificate of the University on account nor any sum paid on account by the University nor any extension of time for the delivery of the Stores pursuant to Clause 19 shall affect or **prejudice the rights of the University** against the Contractor nor relieve the Contractor of his obligation for due performance of the Contract or be interpreted as approval of the Stores supplied, and no certificate shall create liability of the University to pay for the alterations, amendments, variations etc. not ordered in writing by the University or discharge the Contractor for the payment of damages or of any sum against the payment of which he / she is bound to indemnify the University nor shall such certificate nor the acceptance by him / her of any sum paid affect or **prejudice the rights of the Contractor** against the University.

27. Payments Due from the Contractor

All costs, ascertained damages or expenses for which under the Contract the Contractor is liable to the University may be deducted by the University from any money due or may become due to the Contractor under the Contract or may be recovered by action of law or other wise from the Contractor.

28. Legal Proceedings

The Contract and the Tender Documents are governed by the **laws of Pakistan** and no proceedings to or arising out of any of them shall be instituted in any courts other than those situated at Hyderabad and Karachi, Sindh Pakistan..

29. Dispute

Should any question or dispute arise as to the material, design, construction or delay in the supply of the Stores or the purpose or the performance for which they are required or are warranted, the University shall nominate an independent **certifier / expert** having knowledge of IP based Surveillance Cam System , etc., who will, after affording the parties to the dispute an opportunity to present their contention, and after having tests made as the certifier deems fit, certify whether there has been any breach of Contract or warranty and, if so, what sum shall be paid to the University in diminution or extinction of price, and such certificates shall be final and binding and shall not be questioned and shall be acted upon in arbitral or other legal proceedings. The award of the costs of the certifier will be within his / her own discretion and shall be recoverable from the party against which the costs are awarded.

30. Arbitration

All disputes and matters of difference whatsoever (other than those relating to the certificate of expert certifier) between the University and the Contractor relating to and arising out of the Contract and Tender Documents shall be referred to arbitration under the arbitration act 1940 with amendments and re-amendments thereof, each party nominating its own arbitrator. The umpire will be nominated by the arbitrators within the first three arbitral hearings. The **award of the arbitrators or of the umpire shall be final and binding** upon the parties. The arbitral proceedings shall be held at Jamshoro, Sindh Pakistan.

FORM OF TENDER
(LETTER OF OFFER)

Tender Reference No. _____ Dated _____

Name of Contract: **Engineering, Procurement, Construction (EPC) of IP based Surveillance Cam System at Central Library and Online Information Centre at MUET, Jamshoro.**

Deputy Director (Procurement)
Mehran University of Engineering & Technology
JAMSHORO, SINDH

Dear Sir,

1. Having examined the Tender Documents including Instructions to Tenderers, Conditions of Contract, Specifications, Drawings, Schedule of Prices and Addenda Nos. _____ for the execution of the above-named Contract, we, the undersigned, being a company doing business under the name and address _____ and being duly incorporated under the laws of Pakistan hereby offer to execute and complete such Contract and remedy any defects therein in conformity with the said Documents including Addenda thereto for the Total Tender Price of Rs. _____ (in figures and words) or such other sum as may be ascertained in accordance with the said Documents.
2. We understand that all the Schedules attached hereto form part of this Tender.
3. As security for due performance of the undertakings and obligations of this Tender, we submit herewith a Bid Bond referred to in Clause 3 of the Instructions Tenderers and as per Annexure "D", in the amount of Rs. _____ (in words and figures) drawn in favor of or made payable to Mehran University of Engineering and Technology, Jamshoro, and valid for a period of 28 days beyond the period of validity of this Tender.
4. We undertake, if our Tender is accepted, to complete the whole of the work comprised in the above-named Contact within the time stated in Clause 12 of the Instructions to Tenderers.
5. We agree to abide by this Tender for the period of 120 days beyond the date of opening of the Tender, and it shall remain binding upon us and may be accepted at any time before the expiration of this period.
6. Unless and until a formal Contract Agreement is signed, this Tender, together with your acceptance thereof, shall constitute a binding contract between us.
7. We undertake, if our Tender is accepted, to execute the Contract Performance Bond referred to in Clause 3 of the Instructions to Tenderers and as per Annexure "E" for the due performance of the Contract.

8. We understand that you are not bound to accept the lowest or any Tender you may receive.
9. We do hereby declare that this Tender is made without any collusion, comparison of figures or arrangement with any other person or persons making a Tender for the above-named Contract.
10. We confirm, if our Tender is accepted, that all partners of the joint venture shall be liable jointly and severally for the execution of the Contract and the composition or the constitution of the joint venture shall not be altered without the prior consent of the Vice Chancellor, Mehran University of Engineering and Technology, Jamshoro. (Please delete this clause in case of Tender from a single firm).

Dated this _____ day of _____ 2015

Signature _____ in the capacity of _____ duly authorized

to sign Tender for and on behalf of _____
(Name of Tenderer in Block Capitals)

Address: _____

Witness:

Name: _____

Address: _____

Occupation: _____

TENDER PARTICULARS

THE TENDERERS MUST SUPPLY THE FOLLOWING SPECIFIC INFORMATION FOR EACH ITEM OR GROUP OF ITEMS OF THE STORES:

1. Conformation of Stores:

Whether the Stores offered conform to the particulars specified in the Schedules; if not, details of deviations must be stated in Annexure "F".

2. Manufacturing Details:

- (i) Brand of Equipment.
- (ii) Name and address of Manufacturer; and
- (iii) Country of origin of Stores.

3. Delivery Schedule: `

- (i) Earliest date by which delivery can be effected;
- (ii) Complete schedule of delivery; and
- (iii) If the delivery period is different for different items, it must be indicated item wise.

4. Packing Specification:

Whether the specifications for packing given in the Tender Documents will be adhered to.

FORM OF SCHEDULE TO TENDER FOR STORES
MANUFACTURED/AVAILABLE IN PAKISTAN WITHOUT INVOLVING IMPORT

Due by _____ hours on _____
 (time) (date) (month) (year)

SCHEDULE TO TENDER NO. _____ DATED _____

The Tender will be opened at _____ hours on _____
 (time) (date) (month) (year)

Delivery on or before _____
 (date) (month) (year)

Rates and amount to be quoted in Pakistani Rupees

S.No.	Code/ Item No.	Description Of Stores	Detailed Specifications Of Stores with Model No.	Quantity Of Stores.	Unit	Rate Per Unit	Total Price.
1	2	3	4	5	6	7	8

It is certifies that:

- i) The Stores offered above conform in all respects with the particulars/specifications given in the Tender Documents' and
- ii) All the terms and conditions of the Tender Documents are acceptable to us.

 (signature of the authorized person)

 (name of the authorized person)

SEAL

 (name of the Tenderer)

**FORM OF SCHEDULE TO TENDER FOR STORES
IMPORTED FROM APPROVED COUNTRIES.**

Due by _____ hours on _____ _____ _____
(time) (date) (month) (year)

SCHEDULE TO TENDER NO. _____ DATED _____

The Tender will be opened at _____ hours on _____ _____ _____
(time) (date) (month) (year)

Delivery on or before _____ _____ _____
(date) (month) (year)

PART 1. The rates quoted in the Table below must be on C&F basis.

S. No.	Code/ Item No.	Description Of Stores	Detailed Specifications Of Stores with Model No.	Quantity Of Stores.	Unit	Rate Per Unit	Currency	Total C&F Price	Country of Origin
1	2	3	4	5	6	7	8	9	10

PART 2. The rates quoted in the Table below must be in Pakistani Rupees

S.No.	Code/ Item No.	Description of Stores	Quantity Of Stores.	Unit	Rate Per Unit	Total Price.
1	2	3	5	6	7	8

(Continued on the next page)

ANNEXURE “C2”

NOTE:

In the Table below, the columns 1 to 5 and 8 are to be filled in by the Tenderer before submitting the Tender, while the columns 6,7 and 9 are to be filled in jointly by the Deputy Director (Procurement), Mehran University of Engineering and Technology, or his representative, and the Tenderer, or his representative, after opening of the Tender.

S. No.	Code/Item No.	Description of Stores	Total C&F Price for Part 1	Currency	Exchange Rate	Total Price for Part 1 (Rs.)	Total Price for Part II (Rs.)	Total Cost (Rs.)
1	2	3	4	5	6	7	8	9

It is certified that:

- i) The Stores offered above conform in all respects with the particulars/specifications given in the Tender Documents; and
- ii) All the terms and conditions of the Tender Documents are acceptable to us.

(name of the Tenderer)

(signature of the authorized person)

(name of the authorized person)

SEAL

BID BOND
(Bank Guarantee)

Guarantee No _____
Executed on _____
Expiry date _____

Letter by the Guarantor (Bank) to the Employer (University)

Name of Guarantor (Bank) with address: _____

Name of Principal (Tenderer) with address: _____

Penal sum of Security (Bond),(in figures and words): _____

Tender Reference No. _____ Date of Tender _____

KNOW ALL MEN BY THESE PRESENTS, that in pursuance of the terms of the Tender and at the request of the said Principal (Tenderer), we the Guarantor above-named are held and firmly bound unto the Vice Chancellor, Mehran University of Engineering and Technology, Jamshoro, acting through the Deputy Director (Procurement), Mehran University of Engineering and Technology, {hereinafter called The “Employer” (“University”)} in the sum stated above, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal (Tenderer) has submitted the accompanying Tender numbered and dated as above for supply, installation, putting into operation and demonstration of IP based Surveillance Cam System at Central Library and Online Information Centre at MUET, Jamshoro, to the said Employer (University); and

WHEREAS, the Employer (University) has required as a condition for considering the said Tender that the Principal (Tenderer) furnish a Bid Bond in the above said sum to the Employer (University), conditioned as under:

- 1) that the Bid Bond shall remain valid for a period of 28 days beyond the period of validity of the Tender;

2) that in the event of;

- a) the Principal (Tenderer) withdraws his Tender during the period of validity of the Tender;
- b) the Principal (Tenderer) does not accept the correction of his Tender Price, pursuant to Clause 16 of “Instructions to Tenderers”; or
- c) failure of the successful Tenderer to:
 - i) furnish the required Contract Performance Bond, in accordance with Clause 3 of “Instructions to Tenderers”; or
 - ii) sign the proposed Contract Agreement, in accordance with Clause 4 of the “Conditions of Contract”;

then the entire sum be paid immediately to the said Employer (University) as liquidated damages and not as penalty for the successful Tenderer’s failure to perform.

NOW THEREFORE, if the successful tenderer shall, within the period specified therefore, on the prescribed form presented to him for signature enter into a formal Contract with the said Employer (University) in accordance with his Tender as accepted and furnish within twenty eight (28) days of his being required to do so, a Contract Performance Bond with good and sufficient surety, as may be required, upon the form prescribed by the said Employer (University) for the faithful performance and proper fulfillment of the said Contract or in the event of rejection of the said Tender by the Employer (University) within the time specified then this obligation shall be void and of no effect, but otherwise to remain in full force and effect.

PROVIDED THAT, the Guarantor shall forthwith pay to the Employer (University) the said sum stated above upon first written demand of the Employer (University) without cavil or argument and without requiring the Employer (University) to prove or to show grounds or reasons for such demand notice of which shall be sent by the Employer (University) by registered post duly addressed to the Guarantor at its address given above.

PROVIDED ALSO THAT, the Employer (University) shall be the sole and final judge for deciding whether the Principal (Tenderer) has duly performed his / her obligations to sign the Contract Agreement and to furnish the required Contract Performance Bond within the time stated above, or has defaulted in fulfilling the said requirements and the Guarantor shall pay without objection the sum stated above upon first written demand from the Employer (University) forthwith and without reference to the Principal (Tenderer) or any other person.

IN WITNESS WHEREOF, the above bounden Guarantor has executed the instrument under its seal on the date indicated above, the name and seal of the Guarantor being hereto affixed and these presents duly signed by its undersigned representative pursuant to the authority of its governing body.

Guarantor (Bank)

Witness:

1. _____
(Signature)

(Signature)

(Name, Title, Address and Seal)

(Name)

2. _____
(Signature)

(Title)

(Name, Title, Address and Seal)

(Corporate Guarantor Seal)

CONTRACT PERFORMANCE BOND
(Bank Guarantee)

Guarantee No. _____

Executed on _____

Expiry Date _____

Letter by the Guarantor (Bank) to the Employer (University)

Name of Guarantor (Bank) with Address: _____

Name of Principal (Contractor) with address: _____

Penal Sum of Security (Bond), (in words and figures) _____

Letter of Acceptance No. _____ Dated _____

KNOW ALL MEN BY THESE PRESENTS, that in pursuance of the Tender Documents and above said Letter of Acceptance (hereinafter called the Documents) and at the request of the said Principal (Contractor) we, the Guarantor above named, are held and firmly bound unto the Vice Chancellor, Mehran University of Engineering and Technology, Jamshoro, Sindh, acting through the Deputy Director (Procurement), Mehran University of Engineering and Technology {hereinafter called the Employer (University)} in the penal sum of amount stated above for the payment of which sum well and truly to be made to the said Employer (University), we bind ourselves, our heirs, executors, administrators and successors, jointly and severely, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal (Contractor) has accepted the Employer's (University's) above said Letter of Acceptance for the supply, installation, putting into operation and demonstration of deployment of IP based Surveillance Cam System at Central Library and Online Information Centre at MUET, Jamshoro, Sindh.

NOW THEREFORE, if the Principal (Contractor) shall well and truly perform and fulfill all the undertakings, covenants, terms and conditions of the said Documents during the original terms of the said Documents and any extensions thereof that may be granted by the Employer (University), with or without notice to the Guarantor, which notice is hereby waived and shall also well and truly perform and fulfill all the undertakings, covenants, terms and conditions of the Contract and of any and all modifications of the said Documents that may hereafter be made, notice of which modifications to the Guarantor being hereby waived, then, this obligation to be void; otherwise to remain in full force and virtue till the expiry of the guaranty period as per Clause 23 of the Conditions of Contract.

Our total liability under this Guarantee is limited to the sum stated above and it is a condition of any liability attaching to us under this Guarantee that the claim for payment in writing shall be received by us within the validity period of this Guarantee, failing which we shall be discharged of our liability, if any, under this Guarantee.

We, _____ (the Guarantor), waiving all objections and defenses under the Contract, do hereby irrevocably and independently guarantee to pay to the Employer (University) without delay upon the Employer's (University's) first written demand without cavil or arguments and without requiring the Employer (University) to prove or to show grounds or reasons for such demand any sum or sums up to the amount stated above, against the Employer's (University's) written declaration that the Principal (Contractor) has refused or failed to perform the obligations under the Contract which payment will be effected by the Guarantor to the Employer's (University's) designated Bank and Account Number.

PROVIDED ALSO THAT the Employer (University) shall be the sole and final judge for deciding whether the Principal (Contractor) has duly performed his obligations under the Contract or has defaulted in fulfilling the said obligations, and the Guarantor shall pay without objection any sum or sums up to the amount stated above upon first written demand from the Employer (University) forthwith and without any reference to the Principal (Contractor) or any other person.

IN WITNESS WHEREOF, the above bounden Guarantor has executed this Instrument under its seal on the date indicated above, the name and corporate seal of the Guarantor being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body

	Guarantor (Bank)
Witness:	
1. _____	_____
(Signature)	(Signature)
_____	_____
Name, Title and Address (Seal)	(Name)
2. _____	_____
(Signature)	(Title)
_____	_____
Name, Title and Address (Seal)	Corporate Guarantor (Seal)

ANNEXURE "F"

Statement Describing Deviation from Specifications.

S.No.	Code No.	Description of Stores	Statement of Variation from Specifications	Reasons for Variations.
1	2	3	4	5

(signature of the authorized person)

(name of the authorized person)

SEAL

On behalf of

(name and address of the Tenderer)

**INSTALLATION OF IP BASED SURVEILLANCE
CAM SYSTEM FOR NEW ADMINISTRATION
BLOCK, SPORTS COMPLEX (GYMNASIUM),
STUDENT – TEACHER CENTRE, AND VARIOUS
HOSTELS (TEACHERS, BOYS & GIRLS) OF
MUET JAMSHORO.**

ITEM CODE

IPSCS

SECTION-I:
VARIOUS HOSTELS
(TEACHERS, BOYS & GIRLS)

Item Code	Description of Items	Qty	Unit Rate	Amount
IPSCS-01	Providing/ fixing/ installation/ putting in operation/ commissioning of NVR 16-Channel for IP camera 19" Rack-Mount Brand: Samsung / LG OR equivalent Features Required <ul style="list-style-type: none"> • Supports Gigabit Ethernet port • Supports VGA / HDMI dual local display • Supports 3.5" SATA x 4 HDD • Video resolution up to 5 mega-pixel (2560 x 1920) • Supports minimum 60fps @ 1080p (H.264) • Simultaneous recording and live video streams • Exports recorded video file to AVI format to USB device or local storage • NMS Support • E-Map interface in web and utility configuration • Supports USB keyboard, mouse, IR remote control and joystick (PTZ) 	01 No		
IPSCS-02	Providing/ fixing/ installation/ putting in operation/ commissioning SATA Hard Disk 2TB BRAND: Western digital OR equivalent.	02 Nos		
IPSCS-03	Providing/ fixing/ installation/ putting in operation/ commissioning LED display screen 48 inch Brand: Panasonic/ Samsung OR Equivalent	01 No		

Item Code	Description of Items	Qty	Unit Rate	Amount
IPSCS-04	Providing, fixing, installation 9 U Wall mount rack with adjustable rails and removable/lockable side panels	01 No		
IPSCS-05	Providing/ fixing/ installation/ putting in operation/ commissioning IP Camera (Dome shaped) Brand: Samsung/LG OR Equivalent Features Required <ul style="list-style-type: none"> • Fixed Dome shaped • 1.3 MP • Auto focus • 60fps @all resolutions • Day & Night (ICR), WDR (130dB) • IR LED (8ea) LOCATIONS: <ul style="list-style-type: none"> • 02 Cameras for Elsa Kazi Girls Hostel 	2 Nos		
IPSCS-06	Providing/ fixing/ installation/ putting in operation/ commissioning IP Camera (Bullet shaped) Brand: Samsung/LG OR Equivalent Features Required <ul style="list-style-type: none"> • Fixed Bullet shaped • 1.3 MP • Auto focus • 60fps @all resolutions • Day & Night (ICR), WDR (130dB) • IR LED (8ea) LOCATIONS: <ul style="list-style-type: none"> • 02 Cameras for Sachal & Shah Latif Hostels • 03 Cameras for New Teachers & Postgraduate Hostels • 03 Cameras for Block Hostels • 02 Cameras for Shaheed Benazir Girls Hostel • 01 Camera for Elsa Kazi Girls Hostel • 02 Cameras for Bakhtawar Girls Hostel 	13 Nos		

Item Code	Description of Items	Qty	Unit Rate	Amount
IPSCS-07	Providing/ fixing/ installation/ putting in operation/ commissioning UTP CAT-06 Cable Brand: 3M/Schneider OR Equivalent	2500 Ft		
IPSCS-08	Providing/ fixing/ installation/ putting in operation/ commissioning Camera Security Cage (Camera Housing)	15 Nos		
IPSCS-09	Providing/ fixing/ installation/ putting in operation/ commissioning Camera Shade <u>LOCATIONS:</u> <ul style="list-style-type: none"> • 01 at Postgraduate Hostel • 02 at Shaheed Benazir Bhutto Girls Hostel • 02 at Elsa Kazi Girls Hostel 	5 Nos		
IPSCS-10	Providing/ fixing/ installation/ putting in operation/ commissioning Power cable 3/29 Brand: Pakistan cables OR Equivalent	1100 Ft		
IPSCS-11	Providing/ fixing/ installation/ putting in operation/ commissioning Power Socket with back box	20 Nos		
IPSCS-12	Providing/fixing/ installation/ putting in operation/commissioning LAN Switch 8 Ports Brand: BayLan OR Equivalent	05 Nos		

Item Code	Description of Items	Qty	Unit Rate	Amount
IPSCS-13	Providing/ fixing/ installation/ putting in operation/ commissioning Safety Box for LAN Switch	05 Nos		
IPSCS-14	Providing/fixing/ installation/ putting in operation/commissioning PPR Pipe 1” inch with accessories Brand: Master OR Equivalent	1200 Ft		
IPSCS-15	Civil Work for Outdoor UTP Cable (Digging, Burying, Refilling) Digging 3ft deep PPR Pipe laying with UTP Cable Sand Bricks, Warning Tape Standard Route Locators	1050 Ft		
IPSCS-16	Providing/ fixing/ installation/ putting in operation/ commissioning 15 Ft Iron Mount Pole for Camera <u>Location:</u> Between New Teacher’s & Postgraduate Hostels	1 No		
IPSCS-17	Providing/ fixing/ installation/ putting in operation/ commissioning Duct Patti 16*25mm Brand: Adamjee OR Equivalent	550 Ft		
IPSCS-18	Providing/ fixing/ installation/ putting in operation/ commissioning Iron Flexible Pipe	240 Ft		

Item Code	Description of Items	Qty	Unit Rate	Amount
IPSCS-19	Providing/ fixing/ installation/ putting in operation/ commissioning UPS 2KV Brand: Emerson/APC/Chloride OR Equivalent Features Required <ul style="list-style-type: none"> • True online double conversion • Backup time minimum 20 minutes @ 60% load • VRLA Built-in batteries, batteries must be fresh, with warrantee cares • LCD display 	01 No		

SECTION-II:

NEW ADMINISTRATION BLOCK

Item Code	Description of Items	Qty	Unit Rate	Amount
IPSCS-20	Providing/fixing/ installation/ putting in operation/commissioning NVR 16-Channel for IP camera 19" Rack-Mount Brand: Samsung/LG OR Equivalent Features Required <ul style="list-style-type: none">• Supports Gigabit Ethernet port• Supports VGA / HDMI dual local display• Supports 3.5" SATA x 4 HDD• Video resolution up to 5 mega-pixel (2560 x 1920)• Supports minimum 60fps @ 1080p (H.264)• Simultaneous recording and live video streams• Exports recorded video file to AVI format to USB device or local storage• NMS Support• E-Map interface in web and utility configuration• Supports USB keyboard, mouse, IR remote control and joystick (PTZ)	01 No		
IPSCS-21	Providing/ fixing/ installation/ putting in operation/commissioning SATA Hard Disk 2TB BRAND: Western digital OR Equivalent	01 No		
IPSCS-22	Providing, fixing, installation 9 U Wall mount rack with adjustable rails and removable/ lockable side panels	01 No		

Item Code	Description of Items	Qty	Unit Rate	Amount
IPSCS-23	Providing/ fixing/ installation/ putting in operation/ commissioning IP Camera (Dome shaped) Brand: Samsung/LG OR Equivalent Features Required <ul style="list-style-type: none"> • Fixed Dome shaped • 1.3 MP • Auto focus • 60fps @all resolutions • Day & Night (ICR), WDR (130dB) • IR LED (8ea) 	4 Nos		
IPSCS-24	Providing/ fixing/ installation/ putting in operation/ commissioning IP Camera (Bullet shaped) Brand: Samsung/LG OR Equivalent Features Required <ul style="list-style-type: none"> • Fixed Bullet shaped • 1.3 MP • Auto focus • 60fps @all resolutions • Day & Night (ICR), WDR (130dB) • IR LED (8ea) 	8 Nos		
IPSCS-25	Providing/ fixing/ installation/ putting in operation/ commissioning UTP CAT-06 Cable with Duct line Brand: 3M/Schneider OR Equivalent	1800 Ft		

Item Code	Description of Items	Qty	Unit Rate	Amount
IPSCS-26	Providing/ fixing/ installation/ putting in operation/ commissioning Power cable 3/29 Brand: Pakistan cables OR Equivalent	6 Coils		
IPSCS-27	Providing/ fixing/ installation/ putting in operation/ commissioning Power Socket with back box	13 Nos		
IPSCS-28	Providing/ fixing/ installation/ putting in operation/ commissioning Iron Flexible Pipe	75 Ft		

SECTION-III:
STUDENT – TEACHER CENTER

Item Code	Description of Items	Qty	Unit Rate	Amount
IPSCS-29	Providing/ fixing/ installation/ putting in operation/ commissioning IP Camera (Dome shaped) Brand: Samsung/LG OR equivalent Features Required <ul style="list-style-type: none"> • Fixed Bullet shaped • 1.3 MP • Auto focus • 60fps @all resolutions • Day & Night (ICR), WDR (130dB) • IR LED (8ea) 	02 Nos		
IPSCS-30	Providing/ fixing/ installation/ putting in operation/ commissioning IP Camera (Bullet shaped) Brand: Samsung/LG OR Equivalent Features Required <ul style="list-style-type: none"> • Fixed Bullet shaped • 1.3 MP • Auto focus • 60fps @all resolutions • Day & Night (ICR), WDR (130dB) • IR LED (8ea) 	03 Nos		
IPSCS-31	Providing/ fixing/ installation/ putting in operation/ commissioning UPS 2KV Brand: Emerson/APC/Chloride OR Equivalent Features Required <ul style="list-style-type: none"> • True online double conversion • Backup time minimum 20 minutes @ 60% load • VRLA Built-in batteries, batteries must be fresh, with warrantee cares • LCD display 	01		

Item Code	Description of Items	Qty	Unit Rate	Amount
IPSCS-32	Providing/ fixing/ installation/ putting in operation/ commissioning UTP CAT-06 Cable with Duct line Brand: 3M/Schneider OR Equivalent	500 Ft		
IPSCS-33	Providing/ fixing/ installation/ putting in operation/ commissioning Power cable 3/29 Brand: Pakistan cables OR Equivalent	2 Coils		
IPSCS-34	Providing/ fixing/ installation/ putting in operation/ commissioning Power Socket with back box	05 Nos		

SECTION-IV:

CENTRAL LIBRARY & ONLINE INFORMATION CENTRE

Item Code	Description of Items	Qty	Unit Rate	Amount
IPSCS-35	Providing/ fixing/ installation/ putting in operation/ commissioning DVR 16 Channel Brand: Samsung/LG OR Equivalent Features Required <ul style="list-style-type: none">• 16CH Full HD 1080p real-time recording• Max. 4 internal HDDs slots• Supports 3.5" SATA x 4 HDD• 60fps per channel• Installed DVD-RW• PTZ Control via Coaxial Cable• Up to 64Mbps network bandwidth	02 No		
IPSCS-36	Providing/ fixing/ installation/ putting in operation/ commissioning SATA Hard Disk 2TB BRAND: Western digital OR Equivalent	02 No		
IPSCS-37	Providing/ fixing/ installation/ putting in operation/ commissioning 9 U Wall mount rack with adjustable rails and removable/ lockable side panels	02 No		
IPSCS-38	Providing/ fixing/ installation/ putting in operation/ commissioning Dome Shaped CCTV Camera (with Adapter and Wall Mount Bracket/ wall mounting kit) Brand: Samsung/LG OR Equivalent Features Required <ul style="list-style-type: none">• Fixed Dome shaped• 1.3 MP• True Day & Night IR vision	10 Nos		

Item Code	Description of Items	Qty	Unit Rate	Amount
IPSCS-39	Providing/ fixing/ installation/ putting in operation/ commissioning Bullet Shaped CCTV Camera (with Adapter and Wall Mount Bracket/ wall mounting kit) Brand: Samsung/LG OR Equivalent Features Required <ul style="list-style-type: none"> • Fixed Bullet shaped • 1.3 MP • True Day & Night IR vision 	20 Nos		
IPSCS-40	Providing/ fixing/ installation/ putting in operation/ commissioning ProLine CCTV Cable (2 pair power wires, single RG6) with Duct line	4500 Ft		
IPSCS-41	Providing/ fixing/ installation/ putting in operation/ commissioning Power Socket with back box	32 Nos		

SECTION-V:

Sports Complex (Gymnasium Hall)

Item Code	Description of Items	Qty	Unit Rate	Amount
IPSCS-42	Providing/ fixing/ installation/ putting in operation/ commissioning Bullet Shaped CCTV Camera (with Adapter and Wall Mount Bracket/ wall mounting kit) Brand: Samsung/LG OR Equivalent Features Required <ul style="list-style-type: none">• Fixed Bullet shaped• 1.3 MP• True Day & Night IR vision	05 Nos		
IPSCS-43	Providing/ fixing/ installation/ putting in operation/ commissioning ProLine CCTV Cable (2 pair power wires, single RG6) with Duct line	600 Ft		
IPSCS-44	Providing/fixing/ installation/ putting in operation/commissioning Power Socket with back box	5 Nos		