



केन्द्रीय इलेक्ट्रॉनिकी अभियान्त्रिकी अनुसंधान संस्थान

Central Electronics Engineering Research Institute

पिलानी (राजस्थान) 333 031

Pilani (Rajasthan)-333 031,INDIA

Fax : 01596 – 242135,242294

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Gram : "ELECTRONIC" Pilani

No. 424/P-50/SNTG/10-Pur/2016/T-143

Registered

Dated: 9.12.2016

OPEN/GLOBAL TENDER DOCUMENTS

M/s. _____

Sub: Supply of X-ray diffraction System for thin film characterization.

Dear Sirs,

The Director, Central Electronics Engineering Research Institute (CSIR-CEERI), Pilani – 333 031, invites you to quote for the stores as per the **SCHEDULE OF REQUIREMENT ANNEXURE-I ON FIXED PRICE BASIS**. Sealed quotation must be submitted on the specified date & time. **THE QUOTATIONS RECEIVED THROUGH FAX/E-MAIL/TELEGRAM/TELEX in open condition will be considered on suppliers risk.**

2. Quotation duly completed in all respects must reach **THE STORES & PURCHASE OFFICER, CEERI, PILANI NOT LATER THAN 2.30 P.M. ON 11.1.2017 AND THE SAME WILL BE OPENED ON 11.1.2017 AT 3.30 PM.** The Due Date & Time and Opening Date & Time will not be extended at all.

YOU ARE ADVISED TO GO THROUGH THIS DOCUMENT CAREFULLY AND TO COMPLY WITH ALL THE REQUIREMENTS OF THIS DOCUMENT.

3. **SUBMITTING OF TENDERS:**

Your offer must be split in TWO parts and must be put in separate envelops and be embossed clearly as follows:

- (a) TECHNO COMMERCIAL BID
- (b) PRICE BID

4. A pictorial representation of the embossment is as follows:

ENVELOPE – I

TECHNO COMMERCIAL BID
Sub.: Supply of X-ray diffraction
System for thin film characterization

CEERI Tender No. 424/P-50/
SNTG/10-Pur/2016/T-143
Last date & Time for receipt of
Tenders 28.11.1.2017 at 2.30 PM
Date of opening 11.1.2017 at
3.30PM
To
The Director
CEERI, Pilani

ENVELOPE – II

PRICE BID
Sub.: Supply of X-ray diffraction
System for thin film characterization

CEERI Tender No. 424/P-50/SNTG/
10-Pur/2016/T-143

Last date & Time for receipt of
tenders 11.1.2017 at 2.30 PM
To
The Director
CEERI, Pilani.

5. Envelope – I and Envelope – II are then to be put together in another envelope as outer cover. The outer cover should be addressed to THE STORES & PURCHASE OFFICER, CEERI, PILANI – 3333031 (RAJASTHAN) mentioning the details given below.

TECHNO ECONOMIC BID ENVELOPE - I	Tender No.424/P-50/SNTG/10- Pur/2016/T- 143 Last date & Time for receipt of Tenders 11.1.2017 at 2.30 PM Date of Opening 11.1.2017 at 3.30PM THE STORES & PURCHASE OFFICER, C.E.E.R.I., PIALNI – 333 031	O U T E R C O V E R
PRICE BID ENVELOPE - II		

NOTE: BOTH TEHNO COMMERCIAL AND PRICE BID SHALL BE CLOSED WITH SEALED WAX.

6. Director, CSIR-CEERI reserves the right to accept any or all tenders either in part or in full without assigning any reasons thereof.

7. One cover should contain only one Tender.

8. The time, date and place of opening of Price bid will be intimated to the bidders in advance and all bidders or their authorized representative are at liberty to be present during opening of the tenders.

TO SUMMARISE THE CONTENTS OF ENVELOPE-I AND ENVELOPE-II WOULD BE AS FOLLOWS:

Envelope – I (Techno Commercial Bid) must contain

Techno Commercial bid. It must contain the following :-

INSTRUCTIONS :-

1. Commercial Terms and Conditions without any indication of price.
2. The tender documents can either be downloaded from CSIR-CEERI's website www.ceeri.res.in free of cost or may be obtained from the office of Stores & Purchase Officer, CEERI, Pilani – 333 031 (Rajasthan) on payment of Rs. 300/- (NON REFUNDABLE) through a Demand Draft in favour of Director, CSIR-CEERI, Pilani.
3. **Quotation should be submitted directly by the manufacturer/supplier. In case any sole authorized distributor, dealer or authorized Indian Agent should submit the quotation on behalf of their principal, sole authorized distributor, dealer or authorized Indian Agent must be enlisted with DGS&D. The relaxation given by CSIR, New Delhi vide their letter No. 14-4(04)/15-16/S&P/Policy/Cir dated 7.10.2016 will be expired on 31.12.2016. As such those bidders who fails to submit enlistment with DGS&D along with their quotation after 31. 12. 2016 will only be considered on receipt of CSIR, New Delhi order in this regard. Please also enclose the manufacturer authorization along with bid as per Annexure – “G”.**
4. In case a bidder is not doing business within India, it shall furnish the certificate to the effect that the bidder is or will be represented by an agent in India equipped and able to carry out the supply, maintenance, repair obligations etc. during the warranty and post-warranty and post-warranty period.
5. The bidder shall bear all costs associated with the preparation and submission of its bid irrespective of the conduct or outcome of the bidding process.
6. The bidder should not indulge in any corrupt, fraudulent, collusive, coercive practices during the entire process of procurement and execution of contract/order.
7. Before the deadline for submission of the bid, CSIR-CEERI reserves the right to modify the bidding document and to extend or not to extend the date of submission. Such amendment/modification will be notified to bidders receiving the bidding document in writing or by cable/fax/email and will also be hosted on CSIR-CEERI website.
8. Conditional tender will be summarily rejected.

9. A bidder may withdraw, substitute, or modify its bid after it has been submitted by sending a written notice signed by the authorized signatory before the date of submission of the bid. Any re-submission or modification in the bid should be submitted before the date and time of submission of bid as originally conveyed in the invitation of bid.
- 10.No bid may be withdrawn, substituted or modified in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Bid Form or any extension thereof.
- 11.First envelope marked “WITHDRAWAL” shall not be opened, but returned to the Bidder subject to submission of valid authorization to request the withdrawal. In case of substituted and modified bid, only the substituted bids and modified bids will be opened subject to production of authorization from the bidders.
- 12.The Bid shall be prepared by the bidder, as well as all correspondence and documents relating to the bid exchanged by the bidder and CSIR-CEERI shall be written in English language only.
- 13.The vendor must quote the price on DAP (Delivered at Place i.e. CSIR-CEERI, Pilani – 333 031, Rajasthan, India) basis. That is cost of the equipment up-to CSIR-CEERI, Pilani including packing, inland handling / forwarding freight and Insurance charges from suppliers warehouse to CSIR-CEERI, Pilani – 333 03, INDIA warehouse.
- 14.The price quoted by the bidder shall remain un-changed during the contract period and shall not vary on any account.
- 15.The vendor must be quoted all lots and items listed and priced separately in the Price Schedules. If a Price Schedule shows items listed but not priced, their prices shall be assumed to be included in the prices of other items. Lots or items not listed in the Price Schedule shall be assumed to be not included in the bid.**
- 16.**Custom Duty** – We are registered with Department of Scientific and Industrial Research (DSIR) vide TU/VIRG-CDE(39)/2001 dated September 25, 2001 for availing custom duty exemptions under Government Notification No. 51/96 Custom dated 23 July, 1996. We shall pay concessional custom duty.
- 17.**Excise Duty** – We are exempted from the payment of Excise Duty under notification number 10/97. Hence Excise Duty if any, should be shown separately for which excise exemption certificate will be issued.

18. **Sales Tax** – The percentage of Sales Tax as applicable should also be specified clearly in the quotation. However concessional Sales Tax is allowed by states to R&D units against concessional / Sales Tax Certificate which will be issued along with order. We are not eligible to issue Form “C” or “D”.
19. **Indigenous Supplies** – For Indigenous supplies, the prices should be FOR CEERI inclusive of packing, forwarding, installation and commissioning, freight and insurance charges. In case of Ex-Works Prices, The Packing, Forwarding Freight, Insurance, Installation/ Commissioning charges must be clearly quoted in your quotation. No other charges than those mentioned in the quotation will be paid.
20. **Bid Currencies** – The vendor shall be quoted prices in Indian Rupees for offers submitted for supply within India and in freely convertible foreign currency in case of the items offered of foreign countries.
21. The technical details and specifications of the items must be indicated clearly point by point conforming to the description of the item/specifications enclosed to this tender Annexure – I along with Commercial terms & conditions such as payment terms, delivery date applicable packing, forwarding, freight, insurance, taxes and duties, installation and commissioning. As per Annexure – I. **WHERE THERE IS NO MENTION OF THE ABOVE TERMS AND CONDITIONS SUCH QUOTATIONS SHALL BE REJECTED AS INCOMPLETE.**
22. Our tender specifications/drawings and technical documents duly stamped and signed by your authorized signatory on all pages in toke of acceptance of our tender specifications/technical requirement and terms and conditions.
23. Comparative statement of technical offers drawing a comparison between your offered specifications and our tender specifications bringing out clearly the deviations, if any.
24. **THE VENDOR MUST BE OFFERED THE VALIDITY OF QUOTATION AS MENTIONED IN TENDER DOCUMENT. IF THE BID VALIDITY IS SHORTER THAN THE REQUIRED PERIOD, SUCH QUOTATIONS SHALL BE REJECTED AS INCOMPLETE.**
25. **Deadline for Submission of Bids :- Bids must be received by the CSIR-CEERI at the address specified in invitation for bids no later than the time and date specified therein. In the event of the specified date for the submission of Bids being declared a holiday for the CSIR-CEERI, the Bids will be received up-to the appointed time on the next working day.**

26.LATE BIDS :- Any bid received by the CSIR-CEERI after the deadline for submission of bids prescribed by the CSIR-CEERI will be rejected. Such tenders shall be marked as late and not considered for further, evaluation. They shall not be opened at all and be returned to the bidders in their original envelope without opening.

27.The original and all copies of the bid shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized to bind the Bidder to the Contract. All pages of the bid, except for un-amended printed literature, shall be initialed by the person or persons signing the bid.

Envelope – II (Price Bid) must contain

1. Complete quotation both TECHNO COMMERCIAL AND PRICE with commercial terms and conditions along with charges of Packing, forwarding, freight, insurance, Taxes/duties and installation and commissioning and payment terms, delivery date and validity of quotation etc. As per enclosed format. **WHERE THERE IS NO MENTION OF THESE TERMS AND CONDITIONS SUCH QUOTATIONS SHALL BE REJECTED AS INCOMPLETE.**
2. The quotes must signify the capacity in which the quotation has been signed i.e. whether as a Sole proprietor, authorized Partner or as authorized signatory of a company.

TERMS AND CONDITIONS

1. **PRICE (A) In case of Import of goods :- The price must be quoted on DAP (Delivered at Place i.e. CSIR-CEERI, Pilani – 333 031, Rajasthan, India) basis. That is cost of the equipment up-to CSIR-CEERI, Pilani including packing, inland handling / forwarding freight and Insurance charges from suppliers warehouse to CSIR-CEERI, Pilani – 333 031, INDIA warehouse.** The Vague terms mentioned in the quotation like “packing, forwarding charges etc. extra” without mentioning the amounts of these charges will not be accepted. Insurance will be arranged by supplier.
- (B) In case of Indigenous Supplies :-** For Indigenous supplies, the prices should be FOR CEERI inclusive of packing, forwarding, installation and commissioning, freight and insurance charges. In case of Ex-Works Prices, The Packing, Forwarding, Freight, Insurance, Installation/Commissioning charges must be clearly quoted in your quotation. No other charges than those mentioned in the quotation will be paid.

2. **PACKING :-** The goods must be packed by standard packing material and standard export / import packing material in case of import failing which supplier will only be responsible for any damages / discrepancies to the consignment due to poor packing of goods.
3. **PERIOD OF DELIVERY :-** The goods must be delivered within 6 months from the date of firm order positively. However if this delivery period is not acceptable to you, please quote your fixed date of delivery.
4. **VALIDITY OF OFFER :-** The prices must be valid for a period of six months from the date of opening of the quotation. No upward changes in prices will be acceptable in any condition after opening of tender.
5. **PRE INSTALLATION REQUIREMENTS –** Pre installation requirements like Space, Power Supply, Water Line or any other essential requirements which are to be kept ready / completed by CSIR-CEERI before supply of equipment, must be quoted by the bidder clearly in their quotation to avoid the delay in Installation & Commissioning of equipment.
6. **INSTALLATION/COMMISSIONING:-**The equipment must be installed/commissioned and demonstrated by the supplier at CSIR-CEERI within 30 days after call letter of CSIR-CEERI for installation/commissioning and the same will be put under operation as per the contract specification. CSIR-CEERI technical expert/scientist will test the performance of the equipment. No separate charges for installation etc. will be paid to the party beyond the quoted prices.
7. **GUARANTEE :-** The equipment must be guaranteed / warranted for a period of **Three Year** (Un-conditional warranty) from the date of its satisfactory installation/commissioning against all manufacturing defects. If the equipment is found defective during this period the whole equipment or part thereof will have to be repaired/replaced by the supplier free of cost at CSIR-CEERI. However, if the items are guaranteed/warranted for a period of more than **Three Year**, it may be specifically mentioned in the quotation. In case the firm fails to rectify the defects and equipment is not put to proper function as per contract specifications, the whole equipment will be returned to the supplier at their cost. Either the supplier will replace the whole equipment as per contract specifications or whole money paid CIF/FOR CSIR-CEERI on the account of purchase of the equipment will be refunded by supplier to CSIR-CEERI.
8. **SPARE PARTS :-** The availability of spare parts must be guaranteed for a period of 10 years. In case of discontinuation of the equipment, you have to intimate us in advance.

9. **AFTER SALE SERVICE :** It must be clearly indicated in the quotation whether the after sales service would be provided. by supplier himself or by their authorized agent after satisfactory installation/commissioning of equipment.
10. **INDIAN AGENTS :-**
- (a) **Indian Agent must be enclosed the DGS&D registration Certificate. The relaxation given by CSIR, New Delhi vide their letter No. 14-4(04)/15-16/S&P/Policy/Cir dated 7.10.2016 will be expired on 31.12.2016. As such those bidders who fails to submit enlistment with DGS&D along with their quotation after 31.12.2016 will only be considered on receipt of CSIR, New Delhi order in this regard.**
- (b) **The Indian Agents Commission must be declared by the Foreign Supplier/ Indian Agent in the quotation which will be paid in Indian Currency After satisfactory installation & commissioning/ functioning of the equipment.**
11. **FOREIGN SUPPLIER :-** Foreign supplier / manufacturer are required to submit their quotation directly to CSIR-CEERI with in due date and time. In case any sole authorized distributor, dealer or authorized Indian Agent should submit the quotation on behalf of their principal, sole authorized distributor, dealer or authorized Indian Agent must be enlisted with DGS&D. The relaxation given by CSIR, New Delhi vide their letter No. 14-4(04)/15-16/S&P/Policy/Cir dated 7.10.2016 will be expired on 31.12.2016. As such those bidders who fails to submit enlistment with DGS&D along with their quotation after 31.12.2016 will only be considered on receipt of CSIR, New Delhi order in this regard. Please also enclose the manufacturer authorization along with bid as per Annexure – “G”.
12. **PAYMENTS :- A. FOR IMPORTS :**
Through Letter of Credit :- L/C will be opened for 100% DAP value after receipt of acceptance of order from the successful tenderer along with performance bank guarantee for 10% amount of order value valid up to expiry of warranty period plus 2 months. The 90% amount (cost of the equipment) of L/C shall be released on presentation of complete shipping documents. Balance 10% of equipment cost and other charges shall be released after satisfactory installation and commissioning of the equipment.
- BANK CHARGES :-** The bank charges out side India will be to the account of Supplier

B. **FOR INDIGENEOUS** : The payment will be made against bill only after supply of goods in good working conditions and satisfactory installation/commissioning and performance of the equipment at CSIR-CEERI and after acceptance certification by our technical expert/scientist. However, supplier will be required to submit performance bank guarantee for 10% amount of the total value of order along with acceptance of our order valid up to expiry of warranty period. In case of non fulfilling the commitments the Bank Guarantee will be forfeited.

C. **No advance payment will be made to any supplier**

13 TRAINING :- The supplier shall arrange extensive operation and maintenance training to CSIR-CEERI officials at the time of Installation of the equipment, FREE OF COST at CSIR-CEERI, Pilani.

14 INSPECTION :- The consignment shall be opened in the presence of firm's representative and inspection of the system will be done by our technical expert /scientist in the presence of firms representative at CSIR-CEERI. In case firms representative is not available, the inspection will be done by CSIR-CEERI. The discrepancies will be intimated to supplier accordingly. All short supplies will be arranged by supplier on FOR/CIF CSIR-CEERI basis. In case of receipt of the material in damaged or defective condition the supplier will have to arrange the replacement of goods free of cost pending the settlement of the insurance case wherever applicable, as the insurance is to be arranged by the vendor from their warehouse to CSIR-CEERI, Pilani warehouse.

16 EMD :- EMD of Rs. 1,00,000/- OR equivalent in respective Foreign Currency TOWARDS EARNEST MONEY IN THE FORM OF BANK GUARANTEE valid for Six months plus 45 days from the date of opening of the tender must be submitted along with quotation (techno-commercial quotation in case of two bid system), otherwise quotation will not be considered. The firms, if registered with DGS&D, NSIC, Govt. Public Undertakings, Central Autonomous Bodies and with CSIR Labs. / Institutes as manufacturer for supply of the same item for which the party is submitting the quotation, will be exempted from submission of EMD. These parties will have to submit registration certificate along with their quotations. EMD of the un-successful bidders shall be refunded at the earliest after finalizing the purchase of the concerned item. The parties must, therefore, submit a pre-receipted Receipt along with quotation to enable us to refund their EMD. In case the tender is failed to accept our order or failed to execute our order the EMD will be forfeited. BID(S) NOT ACCOMPANIED WITH AN EMD IS /ARE LIABLE TO BE REJECTED.

17. PENALTY :- In case the delivery of goods is not made on or before the prescribed date of delivery or the installation and commissioning is not completed within stipulated period by the supplier a penalty @ 0.5% per week of order value will be charged to a maximum of 5% from the successful tenderer.

18. PERFORMANCE SECURITY :- An unconditional performance bank guarantee from scheduled bank for 10% amount of order value has to be furnished by successful tenderer along with acceptance of our order towards the performance security within 21 days of the placement of order failing which the order shall be deemed as terminated. The bank guarantee must be valid up to delivery period and installation & commissioning period warranty period plus 2 months. In case of any breach of contract the bank guarantee will be forfeited.

19. DELETION OF NAMES OF DEFAULTING PARTIES:- Names of parties backing out/defaulting after opening of tenders will be recommended for deletion from the list of suppliers in addition to forfeiture of EMD submitted by the party. Those firms have already been Black listed by CSIR / Govt. of India, need not apply /quote.

20. UNSOLICITED QUOTATION/LATE QUOTATION:- Unsolicited quotation/incomplete quotations / late or delayed tenders shall not be considered at all. Post tender revision/corrections shall also render their tender liable for rejection. It is the responsibility of the bidder to ensure that the bid complete in all respect is received in CEERI before the last date of receipt of tenders. CEERI will not be responsible for the loss/delay in transit of any bid.

20 COMPLIANCE STATEMENT :- Tenderers are required to furnish a compliance statement of each and every specification of our tender supported by the technical literature/leaflet in the following format, preferably giving the price of each of the specification or part/accessories of the equipment required to be quoted. The deviations, if any from the tendered specifications should be clearly brought out in the statement. Similarly, the compliance of each of the required terms and conditions of the tender may also be stated in the form of a separate compliance statement along with quotation (with techno commercial bid in case of two bid system). Deviations may be given in separate column.

The firms are advised to submit both the compliance statements essentially along with their quotation failing which their offer will be treated incomplete and can be ignored. It must be certified that the quoted equipment is of latest technology.

FORMAT OF COMPLIANCE STATEMENT OF SPECIFICATIONS

S. No.	Name of Specifications/ part/ Accessories of tender enquiry	Specifications of quoted Model / Item	Compliance Whether "YES" OR "NOT"	Deviation, if any to be indicated in un-ambiguous terms
1	2	3	4	5

FORMAT OF COMPLIANCE STATEMENT OF TERMS & CONDITIONS

Tender Terms and Conditions	Whether acceptable or not	Deviation from Tender Terms, if any
1	2	3

21 FORCE MAJEURE:- Neither of the Parties hereto shall be liable for damage or have the right cancel for any delay or default in performing it's control including but not limited to Fire, Storm, Floods, Earthquakes, acts of God, Government restriction, continuing domestic or international problems (such as wars, rebellion, insurrections, strikes, riots, work stoppages, labour dispute) or delay as to ancillary materials, which affect the dates of fulfillment of any obligations as per the Purchase Order. Such dates will be respectively postponed for the period of continuance of such force majeure circumstances and the other party can suspend the performance of it's obligations correlated to the postponed obligation of the effected party.

The obligation thus postponed shall be resumed after the force majeure circumstances have ceased. At the beginning, during and at the pre-visible end of the force majeure circumstances the parties shall promptly consult with each other about appropriate counter measures to be taken. If the performance of obligations of any party should be delayed more than six (06) months by reasons of force majeure circumstances mentioned above, the parties shall mutually consult about subsequent performance of obligations.

22 CANCELLATION OF ORDER :- In the event of vendor's failure to execute the order as per terms and conditions mentioned therein. CSIR-CEERI reserves the right to cancel the Purchase Order without any obligation. The Bidder may also specify obligations if CSIR-CEERI decides to cancel the Purchase Order for reasons attributable to CSIR-CEERI.

23 EVALUATION OF TENDER :- Before submission of bid, the bidder is expected to examine all the instructions, forms, terms and specifications in the bidding document and should ensure that the following conditions are fulfilled :

- (a) The price schedule should be enclosed and must be signed.
- (b) The bid validity should not be shorter than required.
- (c) The manufacturer's authorization should be enclosed in case the bidder is authorized dealer/distributor.
- (d) The bidders should agree to provide the Performance Security
- (e) The quoted goods should be as per required specifications.
- (f) In case the bid is substantially responsive, the purchase may request that bidder may submit the necessary information, documentations, within a reasonable period of time, to rectify, non-material, non-conformities or omission in the bid related to documentation requirements. Failure of the bidders to comply with request may result in the rejection of its bids. But in case of the material deviation/reservation or omission which limits or is inconsistent with the bidding documents and the purchaser's rights or bidders obligations under the contract or which is rectified, would unfairly affect the other bidders, the bid will be rejected.
- (g) The purchaser shall correct arithmetical errors on the following basis
 - (i) If there is a discrepancy between the unit price and the line item total i.e. obtained by multiplying the unit price by the quantity, the unit price shall prevail and the line item total shall be corrected, unless in the opinion of the purchaser there is an obvious misplacement of the decimal point in the unit price, in which case the line item total as quoted shall govern and the unit price shall be corrected.
 - (ii) If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotal shall prevail and the total shall be corrected, and
 - (iii) If there is discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (i) and (ii) above.
- (h) Sealing exchange rate/equivalent to Indian currency will be as on the date of bid opening in the case of single bidding and the rate on the date of opening on the priced bids in the case of two parts bidding.
- (i) The bids shall be evaluated on the basis of final landing cost as per Annexure "E" in case of import and Annexure "F" in case of indigenous item.
- (j) The comparison between the indigenous and the foreign offers shall be made on FOR destination basis and CIF/CIP basis respectively. However the CIF/CIP prices quoted by any foreign bidders shall be loaded further as under.
 - (a) Towards customs duty and other statutory levies as per applicable.
 - (b) Towards custom clearance, inland transportation etc. – 2% of the CIF/CIP value.

- (l) The Purchaser reserves the right at the time of Contract award to increase or decrease the quantity of goods and services originally specified in the tender document without any change in unit price or other terms and conditions. Further, at the discretion of the purchaser, the quantities in the contract may be enhanced by 10% within the delivery period.

24. TECHNICAL EVALUATION OF TENDERS

- (a) On the due date the Technical bids will be opened and referred to the Technical Committee which is duly constituted by the Director, CSIR-CEERI.
 - (b) The information received and the bids already submitted together will be examined with reference to the tendered specifications and evaluation is made by the Technical Committee.
 - (c) After the technical evaluation is completed and approved, CSIR-CEERI shall inform to the bidders whose tenders have been rejected technically with the reasons for rejection.
25. The successful bidders will be informed regarding the date and time of commercial bid opening.
26. The purpose of obtaining two bids (technical and commercial) is to evaluate all the firms on technical basis with reference to the tendered specifications, performance of similar Solutions/Applications elsewhere, obtaining user's views with reference to the earlier supplies. This will enable the technical committee to arrive at a fair recommendation in the interest of the organization.
27. **ARBITRATION:-** All disputes or differences arising under and out of, or in connection with the contract, if concluded, shall be referred to the sole arbitration by an arbitrator appointed under the provisions of Indian Arbitration Act. 1940 by CSIR-CEERI. The same shall be binding on both the parties.
28. **ACCEPTANCE OF OFFER :-** The Director, CSIR-CEERI reserves the right to accept or reject any quotation / tender in part or full without assigning any reason thereof. No interim inquiries will be attended to.
- 29 **FALL CLAUSE :-** The supplier shall certify that if the prices go downwards before execution of our order than the quoted prices, the benefit in this situation shall be allowed to CEERI-CSIR by the supplier. The supplier shall certify that the equipment material shall not be supplied to anyone less than the contract price during the period of execution of CEERI-CSIR order.

STORES & PURCHAE OFFICER

SCHEDULE OF REQUIREMENT

Tender No. 424/P-50/SNTG/10-Pur/2016/T-143

Date : 9.12.2016

Last Date & Time for receipt of Tenders 11.1.2017 at 2.30 PM

Date & Time of Opening 11.1.2017 at 3.30 PM

S. No.	Description of Items	Qty.
1.	X-RAY DIFFRACTION SYSTEM FOR THIN FILM CHARACTERIZATION AS PER ATTACHED SPECIFICATION SHEET	1 No.

STORES & PURCHASE OFFICER

Technical Specifications for X-ray Diffractometer (XRD)

CSIR-CEERI Pilani requires an automatic XRD system with manual loading and unloading of samples. Grazing Incidence Diffraction (GID) geometry is required for advance thin film characterization and analysis. Typical films consist of polycrystalline-Si, Zinc Oxide (ZnO), Aluminum Nitride (AlN) and Tin Oxide (SnO₂) deposited on device grade polished substrates such as Silicon/Sapphire/Silicon carbide/Glass etc. The system must be capable for phase identification and quantitative analysis of films of thickness ranging from sub-10 nm to 1 μ m.

An integrated system inclusive of X-ray source, incident and receiving optics components with mountings, goniometer with substrate/wafer holding stage, diffraction optics with mountings and detector appropriately assembled in suitable radiation shielded cabinet. The system should be equipped with proper adjustable mounting legs and wheels. The machine must be interfaced with computer. The system should be brand new from all respects and clean room compatible (class 1000).

The detailed specifications of individual modules shall comply with following requirements.

1. X-ray source:

- 1.1. Power output: 3kW or better
- 1.2. Maximum high voltage 50 kV or better (Voltage increment in steps of 1kV)
- 1.3. Maximum current 60 mA or better (Current increment in steps of 1mA)
- 1.4. X-ray tube must be of standard insulation, with Cu as Anode material
- 1.5. Provision of long fine line focus and necessary filter for K β should be provided
- 1.6. The X-ray tube should give drift free performance of minimum 10,000 hrs or more with supportive documents
- 1.7. The power rating (range) of X-ray tube has to be specified
- 1.8. Stability $\pm 0.01\%$ or better for 10% input voltage variation
- 1.9. Appropriate water cooling arrangement should be provided
- 1.10. The Generator should automatically come to standby mode, when there is no measurement/analysis of sample.
- 1.11. Safety measures for overheating/overloading X-ray tube should be provided.
- 1.12. The X-ray machine must meet international standard of radiation safety, provide supporting documents.

2. Goniometer:

- 2.1. High precision vertical goniometer with θ - θ / θ -2 θ / ω -2 θ scans configurations with approx. 500 mm diameter.
- 2.2. The goniometer radius must be variable with easy alignment procedure for better resolution.
- 2.3. Goniometer angle positioning must be done with help of stepper motors with optical encoders for optimum scanning speed and positioning precision.
- 2.4. 2 θ measurement range must be 0 $^\circ$ to 160 $^\circ$ or better. θ -2 θ grazing incidence diffraction (GID) geometry must be offered. The scan speed should be 0.01 to 50 deg/min or better
- 2.5. The minimum step size: 0.0001 $^\circ$ or better
- 2.6. Angular reproducibility: $\pm 0.001^\circ$ or better
- 2.7. Angular accuracy: $\pm 0.005^\circ$ or better
- 2.8. Peak position accuracy should be $\pm 0.01^\circ$ for 2 θ on NIST standard sample over whole scan range
- 2.9. Machine must have easy changeover from Bragg-Brentano geometry to high intensity parallel beam geometry and vice-versa

3. Optics: standard with necessary automation and following features

- 3.1. The optics must have all computer controlled optics components such as divergence slits, anti-scatter slits, receiving slits, soller slits and monochromator.
- 3.2. The optics must provide high peak to background ratio.
- 3.3. X-ray beam alignment for parallel beam geometry (GID).
- 3.4. Fully automatic alignment including source height and angle, incident beam optics, slit height, sample surface and detector

4. Detector:

- 4.1. Point detector scintillation / solid state detector
- 4.2. Maximum counts $> 5 \times 10^6$ counts per second (cps) or better
- 4.3. Capture angle should be ~ 3.0 deg or better.

5. Sample stage:

- 5.1. Sample stage for GID measurement with computer controlled stepper motor
- 5.2. Mounting of multiple samples on the platform should be possible
- 5.3. The stage should be capable to handle samples of various size and thickness
Sample size (including substrate): 5mm, 25.4mm, 50.8mm, 76.2mm and 101.6 mm diameter wafers
Sample thickness (including substrate): 0.3mm to 2.0 mm
- 5.4. Suitable sample holding mechanism provided.
- 5.5. Standard sample holders for calibration and alignment of the X-ray source.
- 5.6. Zero background sample holders (4 numbers) with cavity for low sample volume should be offered.
- 5.7. NIST standards related to intensity, 2θ and quantitative phase analysis (QPA) standards must be supplied with the system.

6. **Power:** The complete instrument should be operational as per Indian electrical power standards i.e., in single phase $230V \pm 10\%$, 50Hz and three phase $400V \pm 10\%$, 50Hz supply.

7. Computer:

- 7.1. A desktop computer should be provided for all operations of the XRD with minimum Core i5 or higher processor, 8x DVD-RW drive facility, >500 GB HDD, >4 GB DDR RAM, 21" LCD monitor, minimum 9 USB ports and windows operating system.
- 7.2. The computer should have preloaded software with standard interface with machine.

8. Software:

- 8.1. PC based software packages to control all instrument parameters and should provide best algorithms for solving analytical tasks. The software should enable both qualitative and semi quantitative analysis. Easy simulation and automatic refinement / smoothening of measured data, Peak search, FWHM etc. should be possible with the software.

9. Documentation

- 10.1 Vendor should provide complete documentation manuals, sub-manuals in hard copy and soft copy.
- 10.2 Installation, operation and maintenance manuals hard copy and their soft copy should be provided.

10. Installation and training:

- 10.1. Machine has to be installed at CSIR-CEERI Pilani site.

- 10.2. Machine will be accepted only after successful installation and demonstration for thin film samples with given machine specifications at CSIR-CEERI Pilani.
- 10.3. Vendor has to provide training to two CEERI staff by authorized engineers of Original Equipment Manufacturers (OEM), at the time of installation at CSIR-CEERI Pilani.
- 10.4. Two years warranty for all parts from the date of installation of machine.
- 10.5. Vendor should guarantee the availability of the spares and accessories for the system for minimum of 10 years with supporting documents.
- 10.6. The vendor should provide 'Original Equipment Manufacturers (OEM)' certificate of complete XRD system, according to international standards with supporting documents.
- 10.7. The list of the R&D users of international repute in last five years, in India and abroad with their contact details should be provided.

11. Terms & Conditions:

- 11.1. Pre-installation requirements such as power, space, water chiller, compressed gas etc.) with full instructions has to be provided in two month advance before installation.
- 11.2. All other expenditures like installation, training etc. will be at no additional cost.

Optional items

12. Compatible 20 KVA on-line UPS with 30 minute backup (with minimum one year warranty).
13. Compatible close loop water chiller for X-ray source cooling.
14. One dimensional (1 D) fast detector with accessories for upgrade.
15. Critical spares for three years operation and maintenance. Detailed part no and quantity for smooth functioning of the equipment should be quoted.
16. Set of consumables with detailed part number and quantity for minimum three years for trouble free operation of the instrument to be quoted.
17. The machine model must be upgradable in future for other measurements like X-ray reflectometry (XRR), small angle/wide angle X-ray scattering (SAXS/WAXS), residual stress, high resolution mode etc.
18. Accessories required for rocking curve measurement upgrade to be quoted.
19. Accessories required for residual stress measurement upgrade to be quoted.
20. Accessories required for high resolution mode upgrade to be quoted.
21. Suitable sample holders for powder samples to be quoted.
22. Multi-user (2 user) ICDD database PDF2 & ICSD database license should be offered as integrated with the XRD data processing software.
23. Professional tool kit for the XRD system maintenance.

FORMAT/QUESTIONNAIR FOR COMPLIANCE OF TERMS AND CONDITIONS

Tender No. :

Date :

NOTE

1. **Quotation will not be considered without submission of the format.**
2. If a particular question is not at all applicable please write NA in compliance part in Col. No. 3 below.
3. Kindly see the relevant terms & conditions of the tender document.

S. No.	Terms & conditions of Tender documents	Whether acceptable (say YES or NO (preferably use different colour ink for NO)	Deviation from tender terms, if any, with reasons for noncompliance or alternative conditions quoted for
	2	3	4
1.	a) Whether quotation is direct from Principal supplier/manufacturer or their own office in India (Please specify)		
	b) Whether quotation is being submitted by Indian Agent along with DGS&D registration Certificate.		
	c) Whether the agent is registered with DGS&D/NSIC/ Govt. Public Undertakings/ Central Autonomous Bodies and with CSIR Labs. / Institutes		
2.	a) Whether the Techno-commercial and price bids (for two bid tender system only) have been kept in separate envelopes duly marked with Techno-commercial Bid and Price Bids respectively.		
	b) Whether the tender Number, Due date and Opening dates have been written outside all the envelopes.		
3	Whether techno-commercial Bid contains EMD, technical literature/ leaflets, detailed specifications and commercial terms and conditions etc. as applicable.		
4.	a) Whether the required EMD is being submitted with the quotation		

	b) Please specify the form of EMD whether in the form of DD/Bank guarantee or Bankers cheque (Please mention No. date & amount of EMD documents) or Bid Security .		
5	a) Please quote the prices on DAP basis, Cost of the equipment up-to CEERI, Pilani including all charges from supplier's warehouse to CSIR-CEERI warehouse at Pilani – 333 031, INDIA		
	Whether specific amounts of expenses like packing forwarding, Inland handling documentation, freight, Insurance etc. up- to CEERI, Pilani have been mentioned in quotation separately in clear terms.		
6.	Whether prevailing rates of Sales Tax, Excise Duty and other Govt. levies (for indigenous supplies) have been given in quotation.		
7	Have you mentioned the validity period of the quotation as per our requirement.		
8	a) Whether the Price reasonability Certificate is submitted with quotation.		
	b) Whether copies of last two supply orders of the same item from other customers have been attached with quotation.		
	c) If there is any difference in price of last two orders & those quoted to us. If yes please give reasons for the same.		
	d) Whether supplied in CSIR Labs.		
9.	Have you gone through the specification Clause and complied with the same.		
10.	Whether the Make/Brand, Model number and name of manufacturer has been mentioned in the quotation and Printed technical literature/leaflets of quoted items have been submitted.		
11	Whether compliance statement of specifications has been attached with the quotation.		
12	a) Whether the delivery period for supply of the items has been mentioned		

	b) Whether mode of delivery and tentative size and weight of the consignment has also been indicated.		
13	Do you agree to the submission of Performance Bank Guarantee along with order acceptance and have you mentioned in your quotation about this.		
14	a) Do you agree with the payment terms for indigenous supplies?		
	b) Do you agree with the payment terms for imports supplies?		
15	Do you agree about the date of commencement of warranty period and its extension is necessary.		
16.	a) Who will install/commission and demonstrate the equipment at CSIR-CEERI FREE OF COST.		
	b) Will you be able to do it within a month		
17.	Have you mentioned the guarantee/ warrantee period in your quotation and do you agree with guarantee clause?		
18	Spare Parts		
19	After Sales services		
20	a) Do you agree that on receipt of material in damaged condition or short supply you will replace the same on FOR CEERI, Pilani basis, free of cost pending the settlement of the Insurance claim?		
	b) Do you agree with the clause of physical inspection?		
21	Whether list of specific user's for the same item and model as quoted along with performance certificates from the users is submitted with offer.		
22.	Whether you agree to the penalty clause for late delivery & installation?		
23	Whether training to our Scientist/ Technical person will be given free of cost after completion of Installation for a period of three working days at CSIR-CEERI, Pilani		
24.	a) Whether all the pages have been page numbered?		
	b) Whether quotation has been signed and designation & name of signatory mentioned.		
25	Do you agree to settle the issue through the sole arbitration of the DG, CSIR or his nominee?		

Signatures of the authorized signatory

Name and designation of the signatory

(TECHNO-COMMERCIAL BID)

1. Schedule to Tender No. :
2. Name of the Tenderer :
3. Time & Date of Receipt of Tender :
4. Opening of the Techno Commercial Bid. :
5. The tender shall remain valid for acceptance for 180 days from the date of opening of the tender

S. No.	Description of stores	Qty.	Place & Date by which delivery is to be made

TERMS & CONDITIONS :

1	EMD in the form of Bank Guarantee for Rs _____ in favour of Director, CEERI, Pilani (Raj.)	
2.	Packing	
3.	Forwarding	
4.	Sales Tax	
5.	Excise Duty	
6.	Installation & Commissioning	
7.	Freight	
8.	Insurance	
9.	Validity of quotation	
10.	Delivery Period	
11.	Mode of Delivery/Shipment	
12.	Guarantee/Warranty	
13.	Spare Parts	
14.	After Sale Service	
15.	Indian Agent's Commission	
16.	Payment	
17.	Inspection	
18.	Training	
19.	Penalty	
20.	Performance Security	
21.	Compliance Statement	
22.	User's List.	

STATION:

DATE:

(Signature of the Supplier with Office Stamp).

Address:
Tel. Address

MANUFACTURER' S AUTHORIZATION FORM

(The Bidder shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer.

Date: (insert date (as day, month and year) of Bid Submission)

Tender No.: (insert number from Invitation for Bids)

To : (insert complete name and address of Purchaser)

WHEREAS

We (insert complete name of Manufacturer), who are official manufacturers of (insert type of goods manufactured), having factories at (insert full address of Manufacturer's factories), do hereby authorize (insert complete name of Bidder) to submit a bid the purpose of which is to provide the following Goods, manufactured by us (insert name and or brief description of the Goods), and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with warranty clause of the conditions of the contract with respect to the goods offered by the above firm.

Signed : (insert signature(s) of authorized representative(s) of the Manufacturer)

Name: (insert complete name(s) of authorized representative(s) of the Manufacturer)

Title: (insert title)

Duly authorized to sign this Authorization on behalf of : (insert complete name of Bidder)

Dated on _____ day of _____(insert date of signing)

MODEL BANK GUARANTEE FORMAT FOR FURNISHING BID SECURITY EMD)

Whereas(hereinafter called the “tenders”) has submitted their offer dated for the supply of (hereinafter called the “tender”) against the Purchaser’s tender enquiry No. KNOW ALL MEN by these presents that WEofhaving our registered office at are bound unto(hereinafter called the “Purchaser) in the sum of for which payment will and truly to be made to the said Purchaser, the Bank binds itself, its successors and assigns by these presents. Sealed with the Common Seal of the said Bank thisday of20.....

THE CONDITIONS OF THIS OBLIGATION ARE :

- (1) If the tenderer withdraws or amends, impairs or derogates from the tender in any respect within the period of validity of this tender.
- (2) If the tenderer having been notified of the acceptance of his tender by the Purchaser during the period of its validity :-
 - (a) If the tenderer fails to furnish the performance security for the due performance of the contract.
 - (b) (b) Fails or refuses to accept/execute the contract.

We undertake to pay the Purchaser up to the above amount upon receipt of its first written demand, without the purchaser (CSIR/CEERI) having to substantiate its demand, provided that in its demand the purchaser will note that the amount claimed by it is due to it owing the occurrence of one or both the two conditions, specifying the occurred condition or conditions. This guarantee will remain in force up-to and including 45 days after t he period of tender validity and any demand in respect thereof should reach the bank not later than the above date.

Signature of the authorized officer of the bank

Name and designation of the officer

Seal, name and address of the Bank and address of the Branch.