



**Indian Institute of Technology Kharagpur  
Sponsored Research and Industrial Consultancy**

**Tender Document for Purchase of Multi-target R.F. Sputtering Unit**

**Indian Institute of Technology Kharagpur  
Sponsored Research and Industrial Consultancy (SRIC)  
Kharagpur- 721302  
Email: Email: [debraj@phy.iitkgp.ac.in](mailto:debraj@phy.iitkgp.ac.in)**



# Indian Institute of Technology Kharagpur Sponsored Research and Industrial Consultancy

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# Indian Institute of Technology Kharagpur Sponsored Research and Industrial Consultancy

SECTION –I

No. IIT/SRIC/PHY/FTT/DC/20-21/EQ-01

Date: 17/08/2020

## Invitation for Bids / Notice Inviting Tender

Indian Institute of Technology is set up by the Act of parliament called The Institute of Technology Act 1961 and it is declared as Institutions of National Importance and Institutions of Eminence. Sponsored Research and Industrial Consultancy (SRIC) is a Research and Industrial Consultancy unit of Indian Institute of Technology Kharagpur. On behalf of Sponsored Research and Industrial Consultancy, INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR (IIT KGP) sealed bids are invited from all entities registered in India, who fulfil the criteria mentioned in the tender documents for Supply of **Multi-target R.F. Sputtering Unit** The list of equipment and their specifications are given in Section V.

Intending bidders may obtain copy of the tender document containing commercial conditions along with relevant specifications by downloading from the [www.iitkgp.ac.in](http://www.iitkgp.ac.in) / CPP Portal.

The technical bids, price bids & EMD should be submitted in separate sealed envelopes superscribed as "Technical Bid" / "Price Bid", / EMD as stated. Sealed envelopes containing the Technical Bid and the Price Bid shall again be put in another envelop duly sealed and superscribed with the tender number, due date of opening of the tender and The bid shall be submitted on or before **14.09.2020** by **(15:00 HRS)** at the following address:

**DR. DEBRAJ CHOUDHURY  
DEPARTMENT OF PHYSICS  
INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR  
PO: KHARAGPUR, DIST: MEDINIPUR (WEST)  
WEST BENGAL, INDIA - 721302**

Bid securities of the unsuccessful bidders should be returned to them at the earliest after expiry of the final bid validity and latest on or before the 30th day after the award of the contract.

The Bids submitted by fax / e-mail etc shall not be considered. IIT KGP-SRIC shall not be responsible for any postal delay or non-receipt / non-delivery of the documents. No further correspondence on the subject will be entertained.

The bidders must enclose the tender documents duly signed with seal in all pages.

IITKGP-SRIC reserves the right to accept either in full or in part any tender and to reject any or all offers without assigning any reason thereof

Dated: **14.08.2020**

Dean (SRIC)



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## SECTION-IA

### Critical Information

Submission of a proposal in response to this notice shall be deemed to have been done after careful study and examination of this document with full understanding of its terms, conditions and implications.

Sl. No.	Information	Details
01	Tender Number and Date	<b>IIT/SRIC/PHY/FTT/DC/20-21/EQ-01</b> <b>Date: 17/08/2020</b>
02	EMD Amount	<b>30,000 INR</b>
03	Last date for submission of written queries for clarifications to the email id:	<b>debraj@phy.iitkgp.ac.in</b>
05	Date of Release of response to clarifications on <a href="http://www.iitkgp.ac.in">www.iitkgp.ac.in</a>	<b>17/08/2020</b>
06	Last date for submission of Tender	<b>14/09/2020 (15:00 HRS)</b>
	Address at which tender to be submitted	<b>DR. DEBRAJ CHOUDHURY</b> <b>DEPARTMENT OF PHYSICS</b> <b>INDIAN INSTITUTE OF</b> <b>TECHNOLOGY KHARAGPUR</b> <b>PO: KHARAGPUR, DIST: MEDINIPUR</b> <b>(WEST)</b> <b>WEST BENGAL, INDIA - 721302</b>
07.	The date and time for opening of Technical Bid	<b>16/09/2020 (16:00 HRS)</b>



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## SECTION II INSTRUCTIONS TO BIDDERS

### A. INTRODUCTION

#### DEFINITIONS

“The Purchaser” means the DEAN (SRIC), (IITKGP-SRIC) INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR, KHARAGPUR, SRIC

“The Bidder” means the individual or firm who participates in the tender and submits bid

“The Agency” means the individual or firm rendering the services under the contract.

“The Services” means all activities related to conduct & performance of contractual obligations under the contract.

“The Advance Purchase Order/ Letter of intent” means the intention of IIT KGP – SRIC to place the Purchase Order on the bidder.

“The Purchase Order” means the order placed by IIT KGP-SRIC on the Supplier/ Agency signed by IIT KGP-SRIC including all attachments and appendices thereto and all documents incorporated by reference therein. The purchase order shall be deemed as “Contract” appearing in the document.

“The Contract Price” means the price payable to the Supplier/ Agency under the purchase order for the full and satisfactory performance of its contractual obligations.

“Acceptance “is a process of accepting satisfactory services rendered by “Supplier/ Agency” by IIT KGP- SRIC.

### 1. ELIGIBILITY CRITERIA

- (I) Copy of Certificate of Incorporation issued by Registrar of firms/companies is to be submitted in support of this criterion.
- (II) Minimum TEN years’ experience in the field of supply of laboratory equipment
- (III) Annual Turnover for supply of laboratory equipment at least **5,00,000 INR** in each of the last three years i.e. from 2017-18, 2018-19 and 2019-20 as per P&L audited statement of account. Acknowledgement of IT Return of last preceding three years.
- (IV) Must have supplied similar equipment to laboratories of State or Central Government Institutions or reputed Educational or Research Institution and proof of such supplies should be produced
- (V) Registration Certificate/Certificate of incorporation, if any, including the certificate of MSME
- (VI) Authorized dealer Certificate from Manufacturer if the agency is a dealer.



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- (VII) Bidders should not be associated, or have been associated in the past, directly or indirectly, with a firm or any of its affiliates which have been engaged by the Purchaser to provide consulting services for the preparation of the design, specifications, and other documents to be used for the procurement of the goods to be purchased under this Invitation of Bids.

### 2. COST OF BIDDING

The bidder shall bear all costs associated with the preparation and submission of the bid. The Purchaser will, in no case, be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

### 3. BID DOCUMENTS

3.1 The services required to be rendered, bidding procedures and contract terms and conditions are prescribed in the Bid Documents. The Bid documents include:

- a) Notice Inviting Tender & List of Equipment-Section - I
- b) Instructions to Bidders -Section II
- c) General (Commercial) Conditions of Contract-Section III
- d) Special Conditions of the Contract-Section IV
- e) Schedule of Requirements -Section V
- f) Technical Bid-Section VI
- g) Price Bid Proforma-Section VII
- h) Bid Form-Section VIII
- i) Performance Security Guarantee Bond-Section IX
- j) Check List-Section X

3.2 The Bidder is expected to examine all instructions, forms, terms and specifications in the Bid Documents. Failure to furnish all information required as per the Bid Documents or submission of the bids not substantially responsive to the Bid Documents in every respect will be at the bidder's risk and shall result in rejection of the bid.

### B. PREPARATION OF BIDS

#### 4. DOCUMENTS COMPRISING THE BID

The bid prepared by the bidder shall comprise the following components (these will also be used for determining the eligibility criteria)

4.1 Documentary evidence established in accordance with the eligibility criteria explained above that the bidder is eligible to bid and is qualified to perform the contract if the bid is accepted.

4.2 Bid Security furnished



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- 4.3 A bid form and price schedule completed in accordance with the guideline
- 4.4 Bidder shall furnish a clause-by-clause compliance to the requirements and commercial conditions demonstrating responsiveness to terms and conditions. In case of deviations, a statement of deviations and exceptions of provisions of the contract and commercial conditions shall be given by the bidder. A bid without clause-by-clause compliance of terms and conditions shall not be considered.
- 4.5 Audited Financial Statements for the preceding three years
- 4.6 Registration Certificate/Certificate of incorporation, if any.
- 4.7 GST Registration Certificate
- 4.8 Copy of PAN/CIN No. of the Company
- 4.9 Lists of clients with reference in minimum five firms with name, designation and contact details
- 4.10 Self certification of full fledged office infrastructure
- 4.11 Brief on supply of laboratory equipment handled during last five years.
- 4.12 List of offices/branches in India/ West Bengal, with address and contact details
- 4.13 Email id and phone number of the contact person of the firm

### 5. BID FORM

The bidder shall submit the bid form in their own Stationery and by using only prescribed format. Use of any other format, the bid may be liable for rejection.

### 6. BID PRICES

- 6.1 The bidder shall give FOR destination price, inclusive of all Levies & Taxes for **laboratory equipment for IIT KGP-SRIC**. The basic unit price and all other components of the price need to be individually indicated against the services it proposed to supply under the contract as per price schedule given in **Section VIII**.
- 6.2 Prices indicated in the Price Schedule shall be entered in the following manner:
  - i. The Basic Unit price Excise duty, GST, Freight, Forwarding, Packing, Insurance, Commission to Indian Agents and any other Levies/Charges already paid or payable by the Agency shall be quoted separately item wise.
  - ii. The supplier shall quote as per price schedule given in **Section VIII** for all the items given in schedule of requirement.



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- 6.3 A bid submitted with an adjustable price quotation will be treated as non-responsive and rejected.
- 6.4 The price quoted by the bidder shall remain fixed during the entire period of contract and shall not be subject to variation on any account.
- 6.5 “DISCOUNT, if any, offered by the bidders shall not be considered unless they are specifically indicated in the price schedule. Bidders desiring to offer discount shall therefore modify their offers suitably while quoting and shall quote clearly net price taking all such factors like Discount, free service, etc, into account”.
- 6.6 The price accepted by the IIT KGP- SRIC for the service will be inclusive of Levies and Taxes. Breakup in various heads like basic cost and other taxes paid/payable as per clause 7.2(i) is for the information of the purchaser and any change in these other than taxes, shall have no effect on price during the scheduled delivery period.
7. **Guarantee/Warranty:**  
**Comprehensive onsite warranty for three years is required.** Warranty period will start from the date of installation of items. In case at installation stores / part of stores are found defective / damaged during or after delivery to consignee, the supplier will replace or repair the store under warranty at consignee’s location in India free of cost or if any case it is required to send back to foreign manufacturer / supplier should bear the cost. Bank Guarantee equivalent to the cost of equipment is required to be submitted before lifting the store. All expenses in this regard will be borne by the supplier.

### 8. BID SECURITY

- 8.1 The bidder shall furnish, as part of his bid, a bid security/EMD for an amount of **30,000 INR (Rupees Thirty Thousand Only)** in the form of Demand Draft in favour of the **IIT KHARAGPUR** and Payable at **KHARAGPUR**.
- 8.2 The bid security is required to protect IIT KGP-SRIC against the risk of bidder’s conduct, which would warrant the security’s forfeiture, pursuant to para 10.7.
- 8.3 The bid security shall also be in the form of a bank Guarantee, issued by a scheduled bank in favour of **IIT KHARAGPUR**, valid for a period of **90 days from the date of tender opening**
- 8.4 A bid not secured in accordance with para 10.1 & 10.3 shall be rejected by IIT KGP-SRIC as non-responsive at the bid opening stage and returned to the bidder unopened.
- 8.5 The bid security of the unsuccessful bidder will be discharged/returned without interest as promptly as possible as but not later than 30 days from the date of Opening of Financial Bid





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- 8.6 The successful bidder's bid security will be discharged upon the bidder's acceptance of the letter of intent and furnishing the performance security.
- 8.7 The bid security may be forfeited:
- If the bidder withdraws his bid during the period of bid validity specified by the bidder in the Bid form or any extension thereof in accordance with relevant clause or
  - Bidder does not respond or
  - Bidder fails to co-operate during bid evaluation procedure
  - In the case of successful bidder, if the bidder fails to furnish performance security.

### 9. PERIOD OF VALIDITY OF BIDS

- Bid shall remain valid for 90 days after the date of opening of bids prescribed by IIT KGP-SRIC. A bid valid for a shorter period shall be rejected by IIT KGP-SRIC as non-responsive.
- In exceptional circumstances, IIT KGP-SRIC may request the consent of the bidder for an extension to the period of bid validity. The request and the response thereto shall be made in writing. The bid security provided as per Clause 10 shall also be suitably extended. The bidder may refuse the request without forfeiting his bid security. A bidder accepting the request and granting extension will not be permitted to modify his bid.

### C. SUBMISSION OF BIDS

#### 10. SEALING AND MARKING OF BIDS

The bids must be submitted in Four Envelopes as detailed below:

- 10.1 Sealed Envelope-I shall contain the Technical Bid super-scribed as 'Tender for Supply of **Multi-target R.F. Sputtering Unit**, TECHNICAL BID. Should contain details of requirement at the end of purchases like electricity water fitting furniture etc.,
- 10.2 Sealed Envelope -II shall contain BID SECURITY & TENDER FEE as mentioned in Clause 10, Section II above & super scribed as "**Tender for Supply of Multi-target R.F. Sputtering Unit in the "BID SECURITY"**".
- 10.3 Sealed Envelope –III shall contain financial bid as per Section VI. (Duly signed by authorized representative of bidder with company seal) & superscribed as "**Tender for supply of Multi-target R.F. Sputtering Unit in the "FINANCIAL BID"**".
- 10.4 These three sealed envelopes may be put in a bigger envelope super scribed '**Tender for supply of Multi-target R.F. Sputtering Unit for IIT KGP-SRIC**' and must mention name & address of bidder on the envelope.



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## 11. SUBMISSION OF BIDS

11.1 Tender completed in all respects may be submitted as on **14/09/2020**. Following address (tenders received after the due date and time shall not be entertained)

**DR. DEBRAJ CHOUDHURY  
DEPARTMENT OF PHYSICS  
INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR  
PO: KHARAGPUR, DIST: MEDINIPUR (WEST)  
WEST BENGAL, INDIA - 721302**

## 12. LATE BIDS

Any bid received by IIT KGP-SRIC after the **deadline for submission 14/09/2020** of bids prescribed by IIT KGP- SRIC **shall be rejected**.

## 13. MODIFICATION AND WITHDRAWAL OF BIDS

13.1 The bidder may withdraw his bid after submission provided that the written notice of the withdrawal is received by IIT KGP-SRIC prior to the deadline prescribed for submission of bids.

13.2 The bidder's withdrawal notice shall be prepared, sealed, marked and dispatched as required in the case of bid submission in accordance with the provision of clause 13. A withdrawal notice may also be sent by email but followed by the signed confirmation copy by post, so as to reach this office **not later than the deadline for submission of bids**.

13.3 Subject to clause 15 no bid shall be modified subsequent to the deadline for submission of bids.

## D. BID OPENING AND EVALUATION

### 14. OPENING OF BIDS BY IIT KGP-SRIC

14.1 IIT KGP -SRIC shall open the **Technical bids (Envelope I and Envelope II)** in the presence of bidders or their authorized representatives who choose to attend, at **IIT KHARAGPUR**. The bidder's representatives who are present shall sign in an attendance register. Representatives of companies should provide Authority letter with attested specimen signature from their respective organizations for participating in the bid.

14.2 One representative for a bidder shall be authorized and permitted to attend the bid opening. The bidder's names, bid prices, modifications, bid withdrawals and such other details as IIT KGP- SRIC, at its discretion, may consider appropriate will be announced at the opening.

14.3 The date fixed for opening of bids if subsequently declared as holiday by IIT KGP-SRIC the revised date of schedule will be notified. However, in absence of such notification, the bids will be opened on next working day, time and venue remaining unaltered.

14.4 The financial bid will be opened only for bidders declared eligible and selected after techno-commercial evaluation. The financial bid will be opened on a date fixed after evaluation of techno-commercial bids and will be intimated to all eligible bidders at least two days in advance.

### 15. CLARIFICATION OF BIDS



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In case any Vendors requires any clarification on the specification, test parameters, quality assurance, end use, bidder can feel free to raise their query on or before the date given in SECTION-1A of the tender document. Release of response to clarifications on queries shall be available in the Institute's website [www.iitkgp.ac.in](http://www.iitkgp.ac.in). in by the respective principal investigator.

All interested bidders shall follow the institute's website at regular intervals for clarifications / corrigendum if any.

### 16. SELECTION PROCEDURE

16.1 Agencies found to fulfil eligibility conditions will be considered after verifications of eligibility criteria mentioned in Section II.

16.2 The bidders shall be evaluated as per criteria given at clause 19 below.

16.3 Financial bids of the selected agencies only shall be opened.

### 17. Bid Opening & Evaluation of Bids

#### 17.1 The technical bids will be evaluated in two steps

The bids will be examined based on eligibility criteria stipulated at Section-II-1 to shortlist the eligible bidders.

The technical bids of only the short listed eligible bidders shall be evaluated based on technical specifications stipulated at Section-V

The bidders whose technical bid is found to meet both the requirements as specified above will qualify for opening of the financial bid and will be informed about the date and time of the opening of the financial bid.

The duly constituted Tender Evaluation Committee (TEC) shall evaluate the bids. The TEC shall be empowered to take appropriate decisions on minor deviations, if any.

The bidder's name, bid prices, discounts and such other details considered as appropriate will be announced at the time of opening of the financial bids.

#### 17.2 Comparison of Bids

Only the short-listed bids from the bid evaluation shall be considered for commercial comparison.

The Financial bids will be evaluated on the basis of prices quoted.

The contract will be awarded to lowest evaluated bidder



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- 17.3 Agency selected will be offered contract as per clause 21, Section-II of the Tender Document
- 17.4 IIT KGP-SRIC reserves the right to offer the contract to a qualified bidder
- 17.5 IIT KGP-SRIC's decision in regard to evaluation & selection shall be FINAL and binding on the Agency and same shall not be challenged by the agency before the Court.

### 18. CONTACTING IIT KGP-SRIC

- 18.1 No bidder shall try to influence IIT KGP-SRIC on any matter relating to the bid.
- 18.2 Any effort by a bidder to influence IIT KGP-SRIC in IIT KGP-SRIC's bid evaluation, bid comparison or contract award decision shall result in the rejection of the bid.

### 19. AWARD of Contract

- 19.1 IIT KGP- SRIC shall evaluate as the most suitable by those eligible bidders whose offers have been found technically, commercially and financially acceptable and evaluated as the most suitable by IIT KGP-SRIC.
- 19.2 Award of work shall be considered on the basis of requirement as assessed by IIT KGP-SRIC,
- 19.3 A Purchase order will be issued by IIT KGP-SRIC to the selected Agency.
- 19.4 The Agency should supply the equipment as early as possible after the award of purchase order.
- 19.5 Upon the successful bidder furnishing of performance security pursuant to clause 2 Section III, IIT KGP-SRIC shall discharge the bid security in pursuant clause 10.

### 20. IIT KGP-SRIC's RIGHT TO ACCEPT ANY BID AND TO REJECT ANY OR ALL BIDS

IIT KGP –SRIC reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids, at any time prior to award of contract without assigning any reason whatsoever and without thereby incurring any liability to the affected bidder or bidders on the grounds of IIT KGP-SRIC's action.

### 21. JURISDICTION

21.1. This tender and or the contract or work order issued under this tender shall be governed by Laws of India and shall be exclusive jurisdiction of courts at Medinipur, West Bengal.



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## SECTION III

### GENERAL (COMMERCIAL) CONDITIONS OF CONTRACT

#### 1. APPLICATION

The general condition shall apply in contracts made by IIT KGP-SRIC for the procurement of goods/services.

#### 2. PERFORMANCE SECURITY

2.1 The successful bidder shall be required to deposit 10% of the total value of the order as performance security, within 14 days of issue of Purchase Order /letter of intent in the form of D.D\*/Pay Order\*/Fixed Deposit Receipt\* / Bank Guarantee (performance security bond prescribed in Section VIII) from commercial bank drawn in favour of "IIT Kharagpur, payable at Kharagpur" and the bank guarantee shall remain valid for 60 days beyond the date of completion of all contractual obligation of supplier including warranty obligation for the equipment/goods.

2.2 The amount of performance security so withheld will be discharged after the warranty period is over.

2.3 If the contractor fails or neglects any of the bid obligations under the contract it shall be lawful for IITKGP-SRIC to forfeit either whole or any part of performance security furnished by the bidder as penalty for such failure.

2.4 The proceedings of performance security shall be payable to IITKGP-SRIC as compensation for any loss resulting from Supplier/ Agency's failure to complete its obligation under the contract.

2.5 The performance security bond shall be extended suitably in the event of extension of period of contract or till all obligations under the contract has been satisfied.

\*Performance Security will not carrying any interest.

#### 3. PAYMENT TERMS

100% Payment on bill basis after supply, satisfactory installation, commissioning and performance of the equipment at Kharagpur and after satisfactory certification by respective principal investigator (PI).

#### 4. PRICES

4.1 The rates quoted for the equipment shall be for free delivery and installation at **IITKGP-SRIC (designated Laboratories/Department/Centre/Schools)**

4.2 Prices charged by the supplier for goods delivered and services performed under the contract shall not be higher than the price quoted by the supplier in his bid.



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- 4.3 Prices will be fixed at the time of issue of purchase order as per taxes and statutory duties applicable at that time.
- 4.4 In case of reduction of taxes and other statutory duties during the scheduled delivery period, purchaser shall take the benefit of decrease in these taxes/duties for the supplies made from the date of enactment of revised duties/taxes.
- 4.5 In case of increase in duties/taxes during the scheduled delivery period, the purchaser shall revise the prices as per new duties/taxes for the supplies, to be made during the remaining delivery period as per terms and conditions of the purchase order.
- 4.6 Any increase in taxes and others statutory duties/levies after the expiry of scheduled delivery date or award of contract/work order shall be to the supplier account. However, benefit of any decrease in these taxes/duties shall be passed on to the purchaser by the supplier.

### 5. CHANGES IN PURCHASE ORDERS

- 5.1 IIT KGP-SRIC may, at any time, by a written order given to a Supplier/ Agency, make changes within the general scope of the contract related to terms & references, enlarging the scope, analysis or specifications.
- 5.2 If any such change causes an increase or decrease in the cost of, or the time required for the execution of the contract an equitable adjustment shall be made in the contract price or delivery schedule, or both, and the contract shall accordingly be amended. Any proposal by the Supplier/ Agency for adjustment under this clause must be made within thirty days from the date of the receipt of the change in order.

### 6. Liquidated Damage Clause

The Liquidated Damages shall be levied, for delay in supply beyond the contractual delivery date at the rate 0.5% per week subject to maximum of 5% of contract value of the stores the delivery of which is delayed, for each month or part of a month.

### 7. FORCE MAJEURE

- 7.1 If, at any time, during the continuance of this contract, the performance in whole or in part by either party of any obligation under this contract is prevented or delayed by reasons of any war, or hostility, acts of the public enemy, civil commotion, sabotage, fires, floods, explosions, epidemics, quarantine restrictions, strikes, lockouts, or act of God (hereinafter referred to as events) provided notice of happenings of any such eventuality is given by either party to the other within 21 days from the date of occurrence thereof, neither party shall by reason of such event be entitled to terminate this contract nor shall either party have any claim for damages against other in respect of such non-performance or delay in performance, and deliveries under the contract shall be resumed as soon as practicable after such an event come to an end or cease to exist, and the decision of IIT KGP-SRIC as to whether the deliveries have been so resumed or not shall be final and conclusive. Further that if the performance in whole or part of any obligation under this contract is prevented or delayed by reasons of any such event for a period exceeding 60 days, either party may, at its option, terminate the contract.



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7.2 Provided, also that if the contract is terminated under this clause, IIT KGP-SRIC shall be at liberty to take over from the contractor at a price to be fixed by IIT KGP-SRIC, which shall be final, all unused, undamaged and acceptable materials, bought out components and stores in course of manufacture which may be in possession of the contractor at the time of such termination or such portion thereof as IIT KGP-SRIC may deem fit, except such materials, bought out components and stores as the contractor may with the concurrence of IIT KGP-SRIC elect to retain.

### 8. TERMINATION FOR DEFAULT

8.1 IIT KGP-SRIC may, without prejudice to any other remedy for breach of contract, by written notice of default, sent to the Supplier/ Agency, terminate this contract in whole or in part,

(a) If the Supplier/ Agency fails to deliver satisfactorily any or all of the goods & services within the time period (s) specified in the contract, or any extension thereof granted by IIT KGP-SRIC.

(b) If the Supplier/ Agency fails to perform any other obligation(s) under the Contract; and

(c) If the Supplier/ Agency, in either of the above circumstances, does not remedy his failure within a period of 15 days (or such longer period as IIT KGP-SRIC may authorize in writing) after receipt of the default notice from IIT KGP-SRIC.

8.2 In the event IIT KGP-SRIC terminates the contract in whole or in part to IIT KGP-SRIC may procure, upon such terms and in such manner as it deems appropriate, services similar to those undelivered and the Supplier/ Agency shall be liable to IIT KGP-SRIC for any excess cost for such similar services. However the Supplier/ Agency shall continue the performance of the contract to the extent not terminated.

### 9. REJECTION:

In the event that any of the stores supplied by the Contractor is found defective in material or workmanship or otherwise not in conformity with the requirements of the Contract specifications, the purchaser shall either reject the stores or request the Contractor, in writing, to rectify the same. The Contractor, on receipt of such notification, shall either rectify or replace the defective stores free of cost to the purchaser. If the Contractor fails to do so, the purchaser may at his option either –

- a) replace or rectify such defective stores and recover the extra cost so involved from the Contractor, or
- b) terminate the Contract for default as provided under clause 8 above, or
- c) acquire the defective stores at a reduced price considered equitable under the circumstances. The provision of this article shall not prejudice the Purchaser's rights

### 10. REPLACEMENT:



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If the stores or any portion thereof is damaged or lost during transit, the Purchaser shall give notice to the Contractor setting forth particulars of such stores damaged or lost during transit. The replacement of such stores shall be effected by the Contractor within a reasonable time to avoid unnecessary delay in the intended usage of the Stores. In case the purchaser agrees, the price towards replacement items shall be paid by the purchaser on the basis of original price quoted in the tender or as reasonably worked out from the tender.

### 11. TERMINATION FOR INSOLVENCY

IIT KGP-SRIC may at any time terminate the Contract by giving written notice to the Supplier/ Agency, without compensation to the Supplier/ Agency. If the Supplier/ Agency becomes bankrupt or otherwise insolvent as declared by the competent court provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to IIT KGP-SRIC.

### SECTION IV

#### **Special conditions of the Contract: - (To be checked by PI before freezing)**

1. The special conditions of the contract shall supplement the 'Instructions to the Bidders' as contained in Section II & "General Conditions of the Contract" as contained in Section III and wherever there is a conflict, the provisions herein shall prevail over those in Section II and Section III.
2. If the date fixed for opening of bids is subsequently declared as holiday by the Government of India, the revised schedule will be notified. However, in absence of such notification, the bids will be opened on next working day, time and venue remaining unaltered.
3. Purchaser reserves the right to disqualify such bidders who have a record of not meeting contractual obligations against earlier contracts entered into with the purchaser.
4. Any clarification issued by purchaser in response to query raised by prospective bidders shall form an integral part of bid documents and it may amount to amendment of relevant clauses of the bid documents.
5. Purchaser reserves the right to blacklist a bidder for a suitable period in case he fails to honor his bid without sufficient grounds.
6. The bidder has to arrange demonstration of the product to be supplied at his own cost.
7. The Agency shall be responsible for compliance of all applicable laws, codes, statutory Regulations & established practice as required for performance of services under this contract. Whether now in force or which may hereinafter come in force during the currency of the contract and or extension thereof.
8. **Invoices should be in the name of The Dean (SRIC), IIT Kharagpur, Kharagpur-721302, Dist: Paschim Medinipur, West Bengal, India.**

### SECTION V





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## DETAILED TECHNICAL SPECIFICATIONS

### Multi-target R.F. Sputtering Unit

#### A. Sputtering Chamber:

- Stainless Steel spherical chamber with quick access door and the chamber having suitable number of view port with shutter arrangement and 3 nos Confocal ports for 1" dia guns. One port for load lock (future upgrade).
- All the flanges should be CF type.
- System should be capable of being pumped down the chamber pressure to  $5 \times 10^{-7}$  mbar or less.
- Chambers should be buffed and polished for better vacuum performance.

#### B. High Vacuum Pumping System :

- The equipment should be connected to a turbo molecular pump of reputed make (Pfeiffer, Agilent, Edwards, or equivalent) with pumping speed no less than 250 l/s and rotary pump (pumping speed no less than 10 m<sup>3</sup>/hour) of reputed make (Pfeiffer, Agilent, Edwards, or equivalent) to achieve the desired vacuum level of  $5 \times 10^{-7}$  mbar or less.
- The pumping system should have suitable vacuum gauges (e.g. Pirani and cold cathode gauges) to measure the chamber pressure of reputed make (Pfeiffer Vacuum, Edwards, Instrutech or equivalent). Cold cathode gauge capable of measuring up to  $1 \times 10^{-8}$  mbar should be provided. Gauges should be such that they can be interfaced in future.
- For throttling as well as isolation SS gate valve with shaft bellow sealed should be included.  
And suitable vent valve, gas purging valve, Plumbing line and miscellaneous components like connecting cables hardware etc. are to be provided.

#### C. Sputter Source :

- Magnetron cathode (Sputter sources): Number: 3 nos., Size: 1 inch.
- Magnetron cathode (Sputter sources) should have height adjustment facility to vary the distance between target and substrate and used for system integration in confocal orientation.
- All magnetron cathode should be flange mounted.
- Shutters for sputter guns: Flange should be mounted with inbuilt shutters.
- Magnetron cathode should have indirect water-cooling facility for magnet sources to ensure uniform cooling of the target during sputter deposition.
- All shutter feedthroughs should be magnetic sealed or bellow sealed.

#### D. Power Supply:



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Two nos. RF power supplies of 300 Watt each at frequency of 13.56 MHz with auto matching network of reputed make (SEREN/ Advanced energy/ Comdel/ Coaxial power system or equivalent for both the RF generator and RF Matchbox) are to be provided.

### E. Sample Holder:

- Substrate rotation: 0 to 8 rpm or better,
- Substrate Heater Temperature range: RT to 800°C or better.
- Sample size: 2 inch diameter.
- Shutter: Manual.
- Heater should be capable of working in oxygen environment and vacuum.
- All rotations should be bellows sealed or magnetic coupled for vacuum integrity.
- Temperature controller for substrate holder should be PID programmable along with power supply suitable for heater operation.
- Bellows sealed manual up down movement by 25mm.

### F. Mass Flow Controller:

The equipment should comprise of two programmable digital Mass Flow Controllers 0-200SCCM, (of reputed make) with power supply to control the flow of Argon, oxygen and nitrogen into the sputtering chamber. Suitable gas inlets are to be provided for argon, oxygen and nitrogen. The vendor must specify the details of the gas inlet system it offers.

### G. Thermal Evaporator:

System should be provided with 1 pair of LT Source with manual shutter, variac, transformer (10V, 200Amp) and cables, current readout. Power supply setup.

### H. Water Chiller:

- Water chiller (1 KW) should be PID programmable.
- Water distribution manifold should be included
- Flow switch and interlock assembly for safe operation.

I. Demonstrable leak rates better than  $1 \times 10^{-9}$  torr lit/sec for the quoted sputtering unit by using Helium Mass Spectrometer Leak Detector.

J. Rack/frame to mount all electronics, display units etc.

K. The vendor should provide a schematic diagram of the whole equipment clearly showing the configuration.

### Other specifications:



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1. The vendor should offer in case of successful bid, pre delivery inspection of the equipment at their site (at user's cost) for all the functionalities of the equipment as per the technical specifications mentioned in the tender document. The vendor shall bear the cost of any successive visit necessary if satisfactory demonstration of any feature as per the technical specification mentioned in the tender document cannot be conducted during the mutually agreed visit by the customer.

2. A Checklist and Compliance statement against each item mentioned in the technical specification must be provided in tabular format.

### 3. **Warranty:**

The complete instrument and accessories excluding consumables should be under comprehensive onsite warranty for a period of three years from the date of installation. Extended warranty is preferable. In case of breakdown during the warranty period, a competent service engineer of the supplier should make as many visits as are necessary to rectify the problem and replace the faulty parts. But it should be repaired within reasonable time from the date and time of complaint lodged by the user. The supplier should provide all spares required for making the instrument operational.

### 4. **Maintenances:**

The tender document must indicate what kind of service/maintenance is required for the system. Vendor should be easily accessible and available on demand within 72 hours of any problem reported. Two compulsory visit for maintenance during the warranty period must be conducted after installation.

### 5. **Training and demonstration:**

Vendor should provide on-site demonstration of all the features of the system and training to operate the system should be arranged at no extra cost.

### 6. **User list with contacts:**

Vendor should provide detail list of installations in India with all contact details and model details and modules available so that IIT Kharagpur can approach the contact person for any feedback. Original documents supporting the specifications should be provided.

7. **Spares:** The supplier of the equipment must confirm in writing that the spares for the equipment will be available for a period of at least ten years after installation and commissioning of the equipment.

### 8. **Operating manual:**

One set of operating manual, service manual, maintenance and safety instructions, recommended recurring spare parts list, mechanical and electrical drawings, part lists, air, water and electrical diagrams (in English) should be provided with the instrument.

## SECTION-VI



# Indian Institute of Technology Kharagpur Sponsored Research and Industrial Consultancy

## TECHNICAL BIDS

(To be sealed in separate Cover)

Specification of the equipment / item (in detail) to be purchased

Details of Technical Specifications	Whether complied with YES/NO	If yes, please attach Tech literature of the equipment duly printed & clearly specify page No of Bulletin which specifically confirm this	If no, attach deviation statement	Remarks (if any)

N.B.:- 1. All the bidders are requested to provide true statement in the columns. Concealing of facts will liable to be rejected the tender completely. No communication will be made in this regard.

2. Category of classification of the goods in its packing as per IATA definition inclusive of nature of sensitivity and volume of cargo.

3. Separate page, if required may be used for the stated information with same format.

Signature of Tenderer with office seal

## SECTION- VII

Price BID FORM



# Indian Institute of Technology Kharagpur Sponsored Research and Industrial Consultancy

No. IIT/SRIC/PHY/FTT/DC/20-21/EQ-01

Date: 17/08/2020

To

**DR. DEBRAJ CHOUDHURY**

**DEPARTMENT OF PHYSICS**

Indian Institute of Technology Kharagpur

Po: Kharagpur; Dist: Medinipur (West)

Pin: 721302

Dear Sir,

Having examined the conditions of contract and specifications including addenda Nos. (If any) the receipt of which is hereby duly acknowledged, we, undersigned, offer to provide as per clause 8, section II in conformity with the said services to be rendered, conditions of contract and specifications for the sum shown in the schedule of prices attached herewith and made part of this Bid.

We undertake, if our Bid is accepted, to commence deliveries within schedule time frame and to complete delivery of all the services specified in the contract within as per schedule calculated from the date of issue of your purchase order/RO.

If our Bid is accepted, we will obtain the performance guarantees of a Scheduled Bank for 10% of the cost of equipment.

We agree to abide by this Bid for a period of 90 days from the date fixed for Bid opening and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

Until a formal Purchase Order of Contract is prepared and executed, this Bid together with your written acceptance thereof in your notification of award shall constitute a binding contract between us.

Bid submitted by us is properly sealed and prepared so as to prevent any subsequent alteration and replacement.

We understand that you are not bound to accept the lowest or any bid, you may receive.

We have applied and have submitted required bid security as per clause 10, section II of tender document.

Dated this ..... day of ..... 2020

Name and Signature -----

In the capacity of -----

Duly authorized to sign the bid for and on behalf of.....

**SECTION – VIII -BID FORM**

**PRICE SCHEDULE FOR DOMESTIC GOODS OR GOODS OF FOREIGN ORIGIN LOCATED WITHIN INDIA**



## Indian Institute of Technology Kharagpur Sponsored Research and Industrial Consultancy

Item Description	Country of origin	Unit & Quantity	Price Per Unit						Over all price (a+b+c+d+e+f)	GST tax payable, if contract awarded (d)	Total Price (e)
			Ex-factory/ ex-warehouse/ ex-showroom off-the shelf (a)	Excise Duty if any (b)	Packing and forwarding (c)	Transportation (d)	Insurance, other duties and taxes if any (other than sales tax) and incidental costs (e)	Incidental services (including supervision) (f)			

**Total bid price in Rupees: (in figures) .....**  
**(in words) .....**

**Signature of bidder**  
**Name**  
**Business address**

**Place:**  
**Date:**



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**Note:**

1. Organization will be provided DSIR Certificate (Tax exemption certification) to the Firms if required, so Firms will quote their rates accordingly.
2. In case of discrepancy between unit price and total price, the unit price shall prevail.
3. Bidder can use separate sheet, if required. But Price should be quoted at a prescribed Format. Using of any other Format, Bid shall be liable for rejected



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## SECTION IX

### PERFORMANCE SECURITY GUARANTEE BOND

In consideration of Indian Institute of Technology Kharagpur, (SRIC) (herein after called the "IIT KGP-SRIC") having agreed to exempt \_\_\_\_\_ (hereinafter called "the said contractor(s)') from the demand under the terms and conditions of an agreement/(Purchase Order) No \_\_\_\_\_ dated \_\_\_\_\_ made between \_\_\_\_\_ and \_\_\_\_\_ for \_\_\_\_\_ for the supply of \_\_\_\_\_ (hereinafter called "the said agreement"), of security deposit for the due fulfilment by the said contractor (s) of the terms and conditions contained in the said Agreement, on production of the bank guarantee for \_\_\_\_\_ we, (name of the bank) \_\_\_\_\_ (hereinafter refer to as "the bank") at the request of \_\_\_\_\_ (contractor(s)) do hereby undertake to pay to IIT KGP-SRIC an amount not exceeding \_\_\_\_\_ against any loss or damage caused to or suffered or would be caused to or suffered by the government by reason of any breach by the said Contractor(s) of any of the terms or conditions contained in the said Agreement or any reason of the contracts failure to perform said Agreement.

2. We (name of the bank) \_\_\_\_\_ do hereby undertake to pay the amounts due and payable under this guarantee without any demure, merely on a demanded from IIT KGP-SRIC stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by IIT KGP-SRIC by reason of breach by the said contractor(s)' of any of the terms or conditions contained in the said Agreement or by reason of the contractors(s)' failure to perform the said Agreement or roll out the services as per schedule V & parameters for failure of compliance of intellectual property rights. Any such demand made on the bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee where the decision of IIT KGP-SRIC in these counts shall be final and binding on the bank. However, our liability under this guarantee shall be restricted to an amount not exceeding \_\_\_\_\_.

3. We undertake to pay to IIT KGP-SRIC any money so demanded notwithstanding any dispute or disputes raised by the contractor(s)/Supplier/ Agency(s) in any suit or proceeding pending before any court or tribunal relating thereto our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be valid discharge of our liability for payment there under and the contractor(s)/Supplier/ Agency(s) shall have no claim against us for making such payment.

4. We (name of the bank) \_\_\_\_\_ further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of IIT KGP-SRIC under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till expiry of 90days beyond the date on which the warranty period of the equipment(s) expire.

5. We (name of the bank) \_\_\_\_\_ further agree with IIT KGP-SRIC that IIT KGP-SRIC shall have the fullest liberty without our consent and without affecting in any manner our obligations there under to vary any of the terms and conditions of the said Agreement or to extend





## Indian Institute of Technology Kharagpur Sponsored Research and Industrial Consultancy

time of performance by the said contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by IIT KGP-SRIC against the said Contractor(s) and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor(s) or for any forbearance, act or omission on the part of IIT KGP-SRIC or any indulgence by IIT KGP-SRIC to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

6. We (name of the bank) \_\_\_\_\_ lastly undertake not to revoke this guarantee during its currency except with the previous consent of IIT KGP-SRIC in writing.

Dated the \_\_\_\_\_ day of \_\_\_\_\_ for \_\_\_\_\_

(Indicate the name of bank)



# Indian Institute of Technology Kharagpur Sponsored Research and Industrial Consultancy

## SECTION X

**TENDER DOCUMENT FOR PURCHASE OF Multi-target R.F. Sputtering Unit  
TENDER NO. IIT/SRIC/PHY/FTT/DC/20-21/EQ-01**

### CHECKLIST FOR THE TENDERER

Name and Address of the Tenderer:	List of Equipment Quoted
EMD should be in the form of DD drawn in any Nationalized Bank in favour of The _____ -	
DD No	
Dated	
Amount (Rs.)	
Drawn on.....Bank .....Branch	

**\*Supportive Documents must enclosed for fulfilling Eligibility criteria, to be submitted by the Tenderer**

01	Minimum _____ experience in the field of supply of laboratory equipment	Yes/No
02	Annual Turnover for supply of laboratory equipment development at least Rs. _____ Lakhs (Rupees _____) in each of the Preceding three years (i.e. from _____) as per P&L audited statement of account	
03	A bid form and price schedule at a prescribed Format/ Schedule	
04	Bid Security	
05	Audited Financial Statement & IT Return Acknowledgement for the preceding three years (i.e. _____)	
06	Registration Certificate/Certificate of incorporation, if any	
07	GST Registration Certificate	
08	Copy of PAN./CIN No. of the Company	
09	Lists of clients with reference in minimum five firms with name, designation and contact details	
10	Authorized dealer Certificate from Manufacturer.	
11	Brief on supply of laboratory equipment handled during last five years	
12	List of offices/branches in India, with address and contact details	
13	Contact Person Mobile No. & Land Line	

Date:

Signature of the Tenderer  
Date with Company Seal