

# INTERNATIONAL ADVANCED RESEARCH CENTRE FOR POWDER METALLURGY AND NEW MATERIALS (ARCI)

Balapur P.O, R.R. District, Hyderabad – 500 005, Telangana, India Tel: 040-24452326, Fax: 040-24442699 Web Site: <u>www.arci.res.in</u> eMail: stores@arci.res.in

Tender No. SC20190279/PO

Date:30.12.2020

# e-TENDER DOCUMENT

# PROCUREMENT OF HIGH RESOLUTION CONFOCAL MICRO-RAMAN SPECTROMETER WITH MAPPING SYSTEM

1.	EMD (Earnest Money Deposit/Bid Security)	Bidder should submit" Bid Security Declaration" in tender bidding documents.(Order No: Department of Expenditure Order No. F.9/4/2020- PPD dtd 12.11.2020)	
2.	Tender processing Fee	1180/- (1000+18% GST)	
3.	e-Tender document published date	30.12.2020	
4.	Bid documents can be accessed from	www.arci.res.in www.eprocure.gov.in	
5.	Clarification start date and end date	30.12.2020 to 06.01.2021	
6.	Bid submission start date and time	07.01.2021 at 09.00 AM	
7.	Bid submission end date and time	25.01.2021 upto 03.30 PM	
8.	Online Bids opening date and time (for COVER -1 Tender Fee and EMD/Bid Security Declaration)	28.01.2021 at 11:00AM	



# INTERNATIONAL ADVANCED RESEARCH CENTRE FOR POWDER METALLURGY AND NEW MATERIALS (ARCI)

Balapur P.O, R.R. District, Hyderabad – 500 005, Telangana, India Tel: 040-24452326, Fax: 040-24442699 Web Site: www.arci.res.in eMail: stores@arci.res.in

# **Instructions to Bidders**

Sl. No.	Description	Page No.
1.	Notice for inviting e-tender	3-5
2.	Special Instructions for online bid submission	6-8
3.	Part – 1: Technical Bid -Terms and conditions	9-12
4.	Part – 2: Tender Fee and Earnest Money Deposit-Terms and Conditions	13-14
5.	Part – 3: Price Bid -Terms and Conditions	15-17
6.	Declaration by Vendor	18
7.	Scope of Work (Annexure – I)	19-21
8.	Technical Compliance Statement (Annexure – II)	22-25
9.	Integrity Pact (Annexure-III)	26-28
10.	Checklist	29

# **Table of Contents**



# INTERNATIONAL ADVANCED RESEARCH CENTRE FOR POWDER METALLURGY AND NEW MATERIALS (ARCI)

Balapur P.O, R.R. District, Hyderabad – 500 005, Telangana, India Tel: 040-24452326, Fax: 040-24442699 Web Site: <u>www.arci.res.in</u> eMail: stores@arci.res.in

# **NOTICE FOR INVITING OPEN E-TENDER**

International Advanced Research Centre for Powder Metallurgy and New Materials (henceforth referred to as ARCI) is an Autonomous Research and Development Centre of Department of Science and Technology (DST), Government of India with main campus at Hyderabad and with operations in Chennai and Gurugram.

# SCOPE OF WORK: PROCUREMENT OF HIGH RESOLUTION CONFOCAL MICRO-RAMAN SPECTROMETER WITH MAPPING SYSTEM

You are invited to submit your most competitive <u>online</u> quotation through CPP Portal (Central Public Procurement Portal) website <u>https://eprocure.gov.in</u> on or before the prescribed due date. Manual bids shall not be accepted except for the original documents, if any mentioned in this tender.

Complete tender be viewed and submitted through can https://eprocure.gov.in/eprocure/app. То use the Electronic tender portal https://eprocure.gov.in/eprocure/app the bidders need to register on the portal.

## Tender Enquiry No: (Case No.) SC20190279/PO dt:30.12.2020

- Last date and time of submission of Tender online (Tender Fee, Bid security Declaration/ EMD, Technical Bid, and Price Bid): **25.01.2021 before 03:30 PM**.
- Services to be provided at:

International Advanced Research Centre for Powder Metallurgy and New Materials, Balapur Post, Hyderabad – 500 005, Telangana, India.

• Estimated Delivery period: 16 weeks from the date of P.O.

## Validity of Bid

Quotation should have minimum validity of 120 days from the date of opening

### Last date for submission: 25.01.2021 before 15:30 Hrs.

The bidders are required to submit soft copies of their bids electronically on the CPP Portal before the last date stated above using valid Digital Signature Certificates.

All the tenders, in which any of the prescribed conditions are not fulfilled or incomplete in any respect are liable to be rejected.

If the last date of bid submission is a closed holiday, the next working day will be treated as Bid submission closing date.

### **Clarification on bid**

Bidders can seek clarification as per the schedule start and end date through email IDs given below:

For technical clarifications: sarada@arci.res.in

For commercial clarifications: <a href="mailto:nsrinivas@arci.res.in">nsrinivas@arci.res.in</a>, <a href="mailto:stores@arci.res.in">stores@arci.res.in</a>, <a href="mailto:stores@arci.res.in">stores@arci.res.in</a>)

**"NO REQUEST FOR CLARIFICATION OR QUERY SHALL BE NORMALLY ENTERTAINED AFTER THE CLARIFICATIONS END DATE"**. Should ARCI deem it necessary to amend the bidding documents as a result of a clarification, it shall do so by hosting the clarifications and amendments on the website of ARCI/CPP Portal only for the benefit of other prospective bidders. Hence, prospective bidders are requested to follow the websites regularly.

### **Opening of the tender**

- Only the Technical bid shall be opened online on the date of the tender opening. Price bids of only those firms will be considered for opening whose offer would meet all tender requirements including compliance to technical specifications and has passed all tender conditions/ technical evaluation.
- After opening of the price bids, detailed comparative statement will be generated online and the finalization of successful bidder will be done on L-1 (lowest price) basis as per CPP Portal.

#### Award of Contract

Contract will be awarded to successful bidder and a copy of the award of the contract will be uploaded in CPP portal after finalizing the tender.

### **DISQUALIFICATION OF TENDERS:**

The tenders are liable for rejection in the following circumstances:

- If they are not in line with the terms and conditions of this tender notice.
- Conditional quotations
- Incomplete tenders
- Tenders without Tender Fee, Bid Security Declaration, if applicable.
- Tenders submitted through Fax or e-mail.
- If two bid system is not followed.
- Bid received simultaneously from Indian agent on behalf of Principal/OEM and Principal/OEM itself for same item/product/services in the same tender.
- The Firm need to quote all the charges /prices as per the tender requirement, if any firm quote nil charges/consideration, the bid shall be treated as Unresponsive bid and will not be considered.

Director, ARCI reserves the right to accept or reject any or all tenders either in part or in full or to split the order without assigning any reasons there for.

The original hard copies of Technical Bid documents along with Bid security declaration , supporting documents, etc., should be submitted on or before the due date to the following address:

International Advanced Research Centre for Powder Metallurgy and New Materials, Balapur Post, Hyderabad – 500 005, Telangana

**IMPORTANT NOTE:** Amendment, Corrigendum if any to this tender document, WILL BE HOSTED ONLY IN ARCI WEBSITE and CPP Portal and no separate Press Notification will be issued. Bidders are advised to visit our website and CPP Portal regularly to know such details.

**Director, ARCI, Hyderabad** 

# **SPECIAL INSTRUCTIONS FOR ONLINE BID SUBMISSION:**

Instructions to the Bidders to submit the bids online through the Central Public Procurement Portalfore-Procurement are at <u>https://eprocure.gov.in/eprocure/app</u>. The bidders must carefully follow the instructions.

- Possession of valid Digital Signature Certificate (DSC) and enrolment/registration of the contractors/bidders on the e-procurement/e-tender portal is a prerequisite for e-tendering.
- Bidder should do the enrolment in the e-Procurement site using the "Click here to Enroll" option available on the home page. Portal enrolment is generally free of charge. During enrolment/registration, the bidders should provide the correct/true information including valid e-mail-id. All the correspondence shall be made directly with the contractors/bidders through e-mail-id provided.
- Bidder need to login to the site through their user ID/ password chosen during enrolment/registration.
- Then the Digital Signature Certificate (Class III Certificates with signing key usage) issued by NIC/SIFY/TCS/nCode/eMudra or any Certifying Authority recognized by CCA India on e-Token / Smart Card, should be registered.
- The DSC that is registered only should be used by the bidder and should ensure safety of the same.
- Contractor / Bidder may go through the tenders published on the site and download the required tender documents/ Annexures for the tenders he/she is interested.
- After downloading / getting the tender document/ Annexures/ Appendices, the Bidder should go through them carefully and then submit the documents as asked, otherwise bid will be rejected.
- If there are any clarifications, this may be obtained online through the tender site, or through the contact details. Bidder should take into account the corrigendum / addendum published before submitting the bids online.
- Bidder then logs in to the site through the secured log in by giving the user id/ password chosen during enrolment/registration and then by giving the password of the e-Token/ Smart Card to access DSC.
- Bidder selects the tender which he/she is interested in by using the search option & then moves it to the 'my tenders' folder.
- From my tender folder, he selects the tender to view all the details indicated.
- It is construed that the bidder has read all the terms and conditions before submitting their offer. Bidder should go through the tender Annexures and appendices carefully and upload the documents as called for; otherwise, the bid will be rejected.
- Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document/ Annexure and generally, they can be in PDF/xls/rar/zip/dwf formats. If there is more than one document, they can be clubbed together and can be provided in the requested format. Each document to be uploaded through online for the tenders should be less than 2 MB. If any document is more than 2MB, it can be reduced through zip/rar and the same can be uploaded, if permitted. Bidders Bid documents may be scanned with 100 dpi with black and white

option. However if the file size is less than 1 MB the transaction uploading time will be very fast.

- Bidder should take into account the corrigendum / addendum published from time to time before submitting the online bids.
- The Bidders can update well in advance, the documents such as certificates, annual report details etc., under My Space option and these can be selected as per tender requirements and then send along with bid documents during bid submission. This will facilitate the bid submission process faster by reducing upload time of bids.
- While submitting the bids online, the bidder reads the terms & conditions and accepts the same to proceed further to submit the bid packets.
- Bidder should submit the Tender Fee and Bid security Declaration, as specified in the tender. The original should be posted/couriered/given in person to the Tender Inviting Authority, within the bid submission due date & time for the tender. **Scanned copy of the instrument should be uploaded as part of the offer.**
- The bidder has to select the payment option as offline/online to pay the tender fee and EMD in form of Bid Security Declaration as applicable and enter details of the instruments
- The details of the DD/BC, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise submitted bid will not be acceptable.
- The bidder has to digitally sign and upload the required bid documents one by one as indicated. Bidders to note that the very act of using DSC for downloading the bids and uploading their offers shall be deemed to be a confirmation that they have read all sections and pages of the bid document including General conditions of contract without any exception and have understood the entire document and are clear about the requirements of the tender requirements.
- The bidder has to upload the relevant files required as indicated in the covered content. In case of any irrelevant files, the bid will be rejected.
- If the price bid format is provided in a spread sheet file like BoQ\_xxxx.xls, the rates offered should be entered in the allotted space only and uploaded after filling the relevant columns. The Price Bid/ BOQ template must not be modified/replaced by the bidder, else the bid submitted is liable to be rejected for this tender.
- The bidders are requested to submit the bids through online e-tendering system to the Tender Inviting Authority (TIA) well before the bid submission end date & time (as per Server System Clock). The TIA will not be held responsible for any sort of delay or the difficulties faced during the submission of bids online by the bidders at the eleventh hour.
- After the bid submission (i.e after Clicking "Freeze Bid Submission" in the portal), the acknowledgement number, given by the system should be printed by the bidder and kept as a record of evidence for online submission of bid for the particular tender and will also act as an entry pass to participate in the bid opening date.

- The time settings fixed in the server side & displayed at the top of the tender site, will be valid for all actions of requesting, bid submission, bid opening etc., in the e-tender system. The bidders should follow this time during bid submission.
- All the data being entered by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered will not viewable by unauthorized persons during bid submission & not be viewable by any one until the time of bid opening.
- Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid openers public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers. The confidentiality of the bids is maintained since the secured Socket Layer 128 bit encryption technology is used. Data storage encryption of sensitive fields is done.
- The bidder should logout of the tendering system using the normal logout option available at the top right hand corner and not by selecting the (X) exit option in the browser.
- For any queries regarding e-tendering process, the bidders are requested to contact as provided in the tender document. For any further queries, the bidders are asked to contact over phone as mentioned in the CPP website or send an email to <u>cppp-nic@nic.in</u>.

# PART–1 TECHNICAL BID - TERMS AND CONDITIONS

### **I. Vendor qualification criteria:**

- A. Original Equipment Manufacturer (OEM) or authorized representatives of OEM only can quote for this tender. Vendor should submit authorization letter valid on tender date from OEM along with the quotation.
- B. The OEM should have proven expertise in manufacture and supply of the item.
- C. The bidder should have supplied at least 10 or more similar units in India.
- D. It is essential that the manufacturer shall provide the list of users of the equipment with contact particulars.
- E. OEM is required to submit a letter of commitment at the time of quote for supply of spares and also for efficient and prompt after sales service of the equipment for a minimum period of 5 years after the guarantee/warranty period under mutually agreed terms and conditions.
- F. Failure to meet any of the above vendor qualification criteria may lead to disqualification of tender at technical evaluation stage itself and vendor's quotation may not be considered for procurement.

### **II. Pre dispatch inspection**

- A. The manufacturer/supplier of the unit shall demonstrate at their works during pre-dispatch inspection by ARCI personnel and shall satisfy all the technical specifications as described in the tender document.
- B. The manufacturer /supplier of the unit shall demonstrate the features as provided in <u>Annexure-I (Scope of supply work</u>).
- C. All the consumables, raw materials, required for the above demonstration should be arranged by the tenderer.
- D. All the utilities and manpower required for the demonstration shall be arranged by the supplier only.

### **III.** Acceptance criteria:

- A. If required, the manufacturer/supplier's trained engineer should carry out installation and commissioning of the unit at ARCI.
- B. The entire functionality of the equipment according to the specifications should be demonstrated at ARCI.
- C. The manufacturer/supplier of the unit shall demonstrate the features as specified in <u>Annexure</u> <u>I (Scope of work)</u>.

D. Infrastructure required for the above demo will be arranged by ARCI.

# IV. Other aspects:

# A. PATENT RIGHTS:

The Supplier shall indemnify ARCI against all third-party claims of infringement of patent, trademark or industrial design rights, copy rights arising from use of the Goods or any part thereof in India.

### **B.** Training:

The manufacturer shall impart training in the operation and preventive/breakdown maintenance of the complete unit including sub-parts during installation to ARCI personal at ARCI.

### C. Utilities/Infrastructure for installation:

A. Supplier shall indicate all the required utilities/infrastructure such as power, water, gas, etc including power backup requirements.

B. Supplier shall provide overall dimensions of the Unit along with floor area/height of the site or building, including foundation details if any, for accommodating the Unit.

C. The operating environment for the Unit including temperature and humidity control, antivibration, EMI, EMC etc. should be indicated.

D. If any charges extra are payable for Installation and Commissioning, the same should be included in the total cost of the stores as per the price schedule (BOQ).

### D. Manuals, software and other drawings etc.:

The following documents (in English) shall be provided along with the Unit in both hardcopy and softcopy forms:

- A. Operation and maintenance manuals, troubleshooting procedures, calibration methods, wiring and other schematic diagrams, list of components, spares and accessories.
- B. If there are any bought-out systems and components, manuals should be provided in hardcopy and softcopy forms for the same.
- C. Calibration certificates for sensors, instruments, gauges, display units etc. to be provided.
- D. Software upgrades pertaining to the supplied Unit should be provided free of cost as and when new versions are released by the OEM till warranty period.
- E. Safety and security instruction manual should be provided.

### E. After-sales service:

The supplier shall guarantee efficient and prompt after-sales service including the supply of the spares for a minimum period of 5 years after the guarantee/warranty period under mutually agreed terms and conditions.

### F. Bought-out items:

All bought-out sub-systems and components if any should be of reputed make conforming to international standards. Make and details of all bought-out sub-systems and components shall be specified.

### G. General Quote:

The breakup for accessories or sub system(s) /attachments apart from the basic system, if any, should be quoted separately.

Bidders shall download the Schedule of Quantities and Prices in the XLS Format and save it without changing the name of the file. Bidder shall quote their rate in figures in the appropriate cells, thereafter save and upload the file in financial bid cover (Price Bid) only. Bidder shall quote the prices in the given format BOQ\_XXXX in excel sheet for online submission of bids. The Technical bid also shall be uploaded in CPP Portal in the appropriate place.

It is required to take utmost care for uploading Schedule of Quantities & Prices and any change/ modification of the price schedule shall render it unfit for bidding.

# If the template of Schedule of Quantities & Prices file is found to be modified/ corrupted in the eventuality by the bidder, the bid will be rejected.

### H. Technical compliance statement:

The vendor should provide item wise details against each and every specification. Deviations if any are to be highlighted. Suppliers are required to provide the Technical Compliance Statement as per Annexure – II while submitting the Technical Bid (Cover 2).

### I. Guarantee/warranty:

The Unit shall be under warranty **for a period of three years from the date of acceptance**. During the warranty period, all software and hardware updates shall be provided free of cost. Items, if any, excluded from the warranty shall be explicitly mentioned by the supplier.

The Unit shall be guaranteed for satisfactory performance for three years from the date of installation, commissioning and acceptance at ARCI. The manufacturer shall replace premature failure of parts during the guarantee period at their cost and risk.

### J. Delivery/ time schedule:

The offer shall be accompanied by a detailed delivery time schedule showing the individual time schedule required for submission of initial equipment layout drawings, foundation drawings along with load data, main equipment and sub-assembly drawing, shipment schedule of the equipment as well as the time for installation, commissioning and performance tests.

# K. Packing:

The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit. In order to maintain safety of the equipment, we prefer to have wooden crating with adequate cushion inside for transportation of any goods. The material has to be dispatched with International standard packing to withstand rigors, and to avoid any transit damages.

### L. Insurance:

The Goods supplied under the Contract shall be fully insured in Indian Rupees against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery.

For delivery of goods at the purchaser's premises, the insurance shall be obtained by the Supplier in an amount equal to 110% of the value of the goods from "Warehouse to warehouse" (final destinations) on "All Risks" basis including War Risks and Strikes. The insurance shall be valid for a period of not less than 3 months after dispatch or upto installation and commissioning of stores whichever is later. **The supplier shall arrange Insurance F.O.R, ARCI Hyderabad.** 

### **M.** General instructions:

- A. The bidder should submit the scanned copy of the Technical Bid for online submission and original hard copy of all the documents must be submitted in an organized and structured manner. No brochures/leaflets etc. should be submitted in loose form. Please indicate page nos. on your quotation. The price should not be mentioned anywhere in this document.
- B. The original hard copies of Technical Bid documents along with supporting documents etc., should be submitted on or before the due date. The bidder should ensure that all the technical documents submitted through online and hard copies are one and the same. If any deviation is found, the tender is liable to be rejected.
- C. Price Bid should be submitted online only and no other mode of submission is acceptable.
- D. The technical offer should be complete to indicate that all products and services asked for are quoted. Each page of the bid and strikeout/corrections shall be duly signed and stamped by the bidder. Unsigned Tenders are liable to be rejected. Failure to comply with this requirement may result in the bid being rejected.
- E. The purpose of certain specific conditions is to get or procure best product/service etc. for ARCI. The opinion of Technical Committee shall be the guiding factor for technical short listing. Vendor should provide list of deliverables / bill of materials and services.

## <u> PART- 2</u>

### TENDER FEE AND EARNEST MONEY DEPOSIT

1. Bid should be accompanied by Tender Processing Fee of INR 1180/- in the form of Demand Draft drawn on in favour of Director, International Advanced Research Centre, Payable at Hyderabad or payment online like RTGS/NEFT/ECS. Tender Fee is not refundable. Bids submitted without tender processing fee will not be considered for further processing.

Online Payment Account details are as follows:

### **Details of Account Holder**

Name of the Institution	International Advanced Research Centre	
	for Powder Metallurgy & New Materials	
Name of Account Holder (As per Bank	ARCI TECHNOLOGY PROGRAM	
Record)	FUND	
Account Number of above account	1849101016974	
Complete Contact Address	RCI Road, Balapur, Opposite Balapur	
Vilage, Hyderabad -500005		
Telephone No	0091-040-24452361	
Fax No	0091-040-24442699	

### **Bank Account Details**

Bank Name	CANARA BANK
Branch Name	Kanchanbagh
Beneficiary's Name	ARCI Technology Program Fund
Complete Contact Address	Kanchanbagh, Hyderabad 5000059
Telephone No	040-23438704
9- Digit Code No of Bank & Branch	500015032
Account Number	1849101016974
Account Type (SB/Current/Cash/Credit/Etc	Savings Account
IFSC Code No of Bank	CNRB0001849
PAN Number	AAAAI0324C
TIN Number	36980207289
Service Tax Number	AAAAI0324CST001
GSTIN Number	36AAAAI0324C1ZG
E.Mail	fao@arci.res.in

The details of transaction for tender fee viz Name of Bidder firm, tender description, Transaction ID/No. of Transfer, Transaction date, Amount of Transaction, Name of Bank, Address of Bank shall be furnished by the TENDERER ON THEIR LETTERHEAD SEPARATELY ENCLOSED IN COVER-1 (Offline) ALONG WITH TENDER.

Bidder registered with District Industries Centre or Khadi and Village Industries commission or Khadi and Village Industries Board or Coir Board or National Small Industries Corporation (NSIC) or Directorate of Handicrafts and Handloom or Udyog Aadhar Memorandum or any other body specified by Ministry of Micro, Small and Medium Enterprises as MSMES or Startups as recognized by Department of Industrial Policy and Promotion (DIPP), Govt of India for the tendered item are exempted from payment of tender fee and Earnest Money Deposit (EMD) subject to submission of valid documentary evidences throughout the time of the contract. Copies of MSME, NSIC registration certificates and other supporting documents should be submitted for exemption of Tender Processing Fee and EMD. Failure to submit the required documents in cover 1 shall lead to rejection of bid.

Non registered MSME/NSIC bidders should submit "Bid Security Declaration "in tender bidding documents instead of submission of EMD.

### PART-3

### **PRICE BID – TERMS AND CONDITIONS**

## PRICE BID SHOULD BE SUBMITTED ONLINE ONLY AND NO OTHER MODE OF SUBMISSION IS ACCEPTABLE.

Bidders shall download the Schedule of Quantities and Prices in the XLS Format and save it without changing the name of the file. Bidder shall quote their rate in figures in the appropriate cells, thereafter save and upload the file in financial bid cover (Price Bid) only. Bidder shall quote the prices in the given format BOQ\_XXXX in excel sheet for online submission of bids. The Technical bid also shall be uploaded in CPP Portal in the appropriate place.

It is required to take utmost care for uploading Schedule of Quantities & Prices and any change/ modification of the price schedule shall render it unfit for bidding.

# If the template of Schedule of Quantities & Prices file is found to be modified/ corrupted in the eventuality by the bidder, the bid will be rejected.

### I. Terms and Conditions:

- a) Tenders with any condition, including conditional rebate, are liable to be rejected.
- b) The Price Bid/BOQ template must not be modified/replaced by the bidder, else the bid submitted is liable to be rejected for this tender.
- c) The bidder should carefully read the BOQ columns and feed the price as per the price breakup asked in the BOQ. If the quoted price is not as per the price breakup given in the BOQ, the concerned price bid will be rejected.
- d) The unit price of materials is basic cost. GST, packing, forwarding, freight and insurance amount if any may be provided separately as per the BOQ.
- e) Unit price should include main equipment (total system) including computer hardware and software as per the specifications in scope of the work.
- f) **Total price should be F.O.R. ARCI, Hyderabad.**
- g) The bidder should quote single price for the equipment in the price bid (excel BOQ) taking into account all the items as per their specifications mentioned in SCOPE OF WORK.
- h) Printed conditions of the vendor submitted with the tender will not be binding on ARCI.
- i) The commercial bids of only the technically qualified bidders shall be considered for further processing.
- j) Commercial Bid (prices quoted) should not be enclosed in the technical bid envelope. If the price quote is submitted with technical bid, the tender is liable to be rejected.
- k) The Director, ARCI reserves the right to accept the offer in full or in part or reject summarily or partly thereof.
- ARCI is a public funded research institution, concessional GST rate @ 5% may please be quoted for the supply of goods with reference to GST Notification no. 45/2017 dated 14.11.2017 ARCI will provide certificate for the same.

### **II.** Tenderer to inform himself fully

The tenderer is required to carefully examine the documents enclosed and get fully aware himself as to all conditions and matters which may in any way affect the works or the cost thereof, before submitting his offer.

If the tenderer finds any discrepancies, omissions, or contradictions in the documents or is in doubt as to the true meaning of any part, he shall at once contact in writing for an interpretation/clarification from the Director, ARCI.

The tenderer shall however not be entitled to any extension of time for submission of his tender on such account, unless the Director extends the due date.

### **III.** Payment terms:

Subject to deduction of taxes at source, if any,

97% of the goods cost + 100% taxes will be paid after receipt of the goods at our site subject to inspection & acceptance of the goods/works/commissioning by ARCI authorities.

Balance 3 % will be paid against submission of Performance Bank Guarantee (i.e. 3 % of the total order value excluding taxes etc.) from a Nationalized /Scheduled Bank valid till the expiry of the warranty period OR after completion of warranty period from the date of successful commissioning of equipment at ARCI.

### **IV. Inspection Certificate (IC)**

The end user will provide inspection certificate after receipt of materials based on which payment will be released.

### V. Liquidated damages (LD)

As time is the essence of the contract, the work period mentioned in the Service Order should be strictly adhered to. Otherwise, LD clause will be applicable /enforced. If the supplier fails to provide the services mentioned in the order within the stipulated period, the Director, ARCI shall without prejudice to any other right or remedy available in law, levy a penalty for such delay by way of liquidated damages, at 0.5% per week of delay or part thereof, subject to a maximum of 10% of contract value. Such LD will be deducted from any amount due or which may become due to the supplier.

### VI. Order acceptance

The successful bidder, on award of contract/order, must send the contract/order acceptance in writing, within 15 days of award of contract.

#### VII. Award of contract:

ARCI reserves the right at the time of award of Contract to increase or decrease the quantity of items specified in the Schedule of Requirements without any change in price or other terms and conditions.

### **VIII. Corrupt or Fraudulent Practices:**

ARCI requires that the bidders who wish to bid for this project have highest standards of ethics. ARCI will reject a bid if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices while competing for this contract. ARCI may declare a vendor ineligible, either indefinitely or for a stated duration, to be awarded a contract if it at any time it is determined that the vendor has engaged in corrupt and fraudulent practices during the execution of contract.

### IX. Interpretation of the clauses in the Tender Document/Contract Document:

In case of any ambiguity/dispute in the interpretation of any of the clauses in this Tender Document, Director, ARCI's interpretation of the clauses shall be final and binding on all parties.

### X. Arbitration

In case of Dispute or difference arising between the Purchaser and a supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Indian Arbitration & Conciliation Act, 1996, the rules there under and any statutory modifications or re-enactments thereof shall apply to the arbitration proceedings. The dispute shall be referred to arbitrator appointed by the Director, ARCI. The award of the arbitrator so appointed shall be final, conclusive and binding on all parties to this order.

The venue of the arbitration shall be the place from where the purchase order/contract is issued. Notwithstanding any reference to arbitration herein, the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree.

# **Declaration by the Vendor** (to be provided in the following format in their letter head)

It is hereby declared that I/We the undersigned, have read and examined all the terms and conditions etc. of the tender document for which I/We have signed and submitted the tender under proper authorization. It is also certified that all the terms and conditions of the tender document are fully acceptable to me/us and I/We will abide by the conditions of the tender. We have not given any printed conditions beyond the scope of this tender. It is also certified that I/We/our firm has no objection in signing the contract if the opportunity for the work against this tender is given to me/us.

Date:	
Signature:	
Name:	
Address:	
Designation:	
On behalf of:	

# **SCOPE OF WORK**

## PROCUREMENT OF HIGH RESOLUTION CONFOCAL MICRO-RAMAN SPECTROMETER WITH MAPPING SYSTEM

(Brief technical specifications)

-----

High Resolution Confocal Micro-Raman Spectrometer for the analysis of solid, liquid and gas samples. The equipment should have the facility to perform Raman Imaging of the samples with high resolution. Two excitation lasers including Diode LASER 532 nm, 75 mW or more and Excitation laser 633 nm, 50 mW or more where Lasers should be air cooled. The spectrometer should have a mapping system with high resolution, for the samples.

### **Detailed technical specifications as mentioned below:**

#### **Spectrometer:**

High performance aberration corrected computer controlled spectrograph Lens based high throughput spectrometer with focal length 500 mm or more Spectral resolution: less than 0.5 cm-1 per pixel for VIS-NIR Lasers Lasers should be coupled to microscope using single mode fibers. Confocal microscopy in reflection and diffraction limited lateral resolution 250 nm or better for 532 nm excitation Scan to scan repeatability should be better than 0.05 cm-1. Raman Spectral range should be 50 cm-1 to 4000 cm-1 Edge filter for 532 nm to suppress Rayleigh background down to 50 cm-1. Motorized Grating Stage with 600 gr per mm, 1800 gr per mm & 2400 gr per mm. Peizo driven scanner Resolution accuracy less than 1 nm in x and y directions. for z-direction, it should be less than 0.2 nm Peak position accuracy 0.04 wave number or better Rayleigh scattering filters to obtain information at low wave numbers Spectral range 200 -1600 nm

### **Excitation Laser:**

All the lasers should be air cooled for maximal confocal performance. Laser should be able to vary power from 1 % to 100% Excitation Diode LASER 532 nm, 75 mW or more Excitation laser 633 nm, 50 mW or more Lasers should be air cooled Software controlled laser switching off system Lasers should be extremely stable during long time experiments and mapping.

# Microscope:

Confocal Microscope should be of branded research grade with color video camera for viewing. The model and make of the microscope should be specified. Microscope to include: 6X Objective turret, color video camera Standard Objectives - 10X, 50X and 100X Long working distance objectives 50X. (WD 10 mm or more) LED white-light source for Kohler illumination System must have true Confocal benefits instead of virtual software controlled option. Laser Coupler for Microscopes.

Diffraction limited point illumination for highest confocal resolution by coupling the laser to the system.

### Mapping Stage:

Raman Imaging - Mapping stage Raman images must be generated using mapping and able to generate Motorized sample positioning stage with x, y & z direction, > 100mm x 50 mm x 25mm travel range. Single step size resolution 100nm or better Positioning accuracy, <1 micron 3D imaging and depth profile based on Confocal configuration with Raman Depth resolution 1  $\mu$ m (better resolution would be preferred) Spectrometer with high throughput Fiber coupled OR Direct coupled to microscope. Focal length of 500 mm or higher

Motorized stage with Joystick controller in order to position and focus the sample accurately with 100nm (or better) step size in XY with reproducibility 0.01% Travel range: 100 mm in X and 50 mm in Y

### **<u>CCD Detector:</u>**

Minimal 1024x256 pixel format with Peltier cooling down to -70 deg C or better, Peak QE > 60 %, Pixel 26 micron x 26 micron or less Very low noise levels and dark noise less than 0.001 e / pixel per sec or better USB interface

## **Controller:**

Flexible and expandable digital controller based on a single field programmable gate array (FPGA) chip 80 MHz FPGA or better Fully digital feedback control

# Software:

The state-of-the-art computer control system compatible with and optimized for the application software to perform the various measurement options automatically. Software license for 4 additional offline workstation Fully integrated data analysis presentation software with image capture software Auto alignment of laser Self-validation using built-in reference sample Motorized switching between laser and white light sample images

### **Computer:**

The desktop computer with current generation Processor, 8 GB RAM, 1 TB HDD, DVD-RW, Latest Windows (64 bit) Operating System, 24 " or higher LCD display with laser printer

## **General:**

Installation-The system or equivalent category system should have at least 10 numbers of installations in India.

Vendor should provide standard samples for calibration and testing.

The system should be compatible to 220-230 VAC, 50 Hz single phase power supply

Any additional advanced features of the equipment and accessories can be quoted with full details and specifications as optional.

Installation and training on site for 2 users by experienced personnel

Tools and spares pertaining to different parts of the machine

Required UPS and Anti Vibration table should be quoted.

All essential and recommended spares should be intimated and quoted.

Necessary pre-installation requirement including power requirement etc. should be enclosed along with the offer.

Principal company Service facility should be available in India.

## Warranty for three years.

Supply, Commissioning and Services must be done at

International Advanced Research Centre for Powder Metallurgy and New Materials, Balapur Post, Hyderabad – 500 005, Telangana, India

# **TECHNICAL COMPLIANCE STATEMENT**

## PROCUREMENT OF HIGH RESOLUTION CONFOCAL MICRO-RAMAN SPECTROMETER WITH MAPPING SYSTEM.

Item code	Item Description	Technically compliance as per specification given (Yes/No)	Remarks / Deviations (if any)
221002440	Confocal Raman Spectrometer		
	Spectrometer:		
	High performance aberration corrected computer controlled spectrograph Lens based high throughput spectrometer with focal length 500 mm or more Spectral resolution: less than 0.5 cm-1 per pixel for VIS-NIR Lasers Lasers should be coupled to microscope using single mode fibers. Confocal microscopy in reflection and diffraction limited lateral resolution 250 nm or better for 532 nm excitation Scan to scan repeatability should be better than 0.05 cm-1. Raman Spectral range should be 50 cm-1 to 4000 cm-1 Edge filter for 532 nm to suppress Rayleigh background down to 50 cm-1. Motorized Grating Stage with 600 gr per mm,1800 gr per mm & 2400 gr per mm. Peizo driven scanner Resolution accuracy less than 1 nm in x and y directions. for z-direction, it should be less than 0.2 nm Peak position accuracy 0.04 wave number or better Rayleigh scattering filters to obtain information at low wave numbers Spectral range 200 -1600 nm <b>Excitation Laser:</b> All the lasers should be air cooled for maximal confocal performance. Laser should be able to vary power from 1 % to 100%		

Excitation Diode LASER 532 nm, 75 mW or more Excitation laser 633 nm, 50 mW or more Lasers should be air cooled Software controlled laser switching off system Lasers should be extremely stable during long time experiments and mapping	
MicroscopeConfocal Microscope should be of branded researchgrade with color video camera for viewing. Themodel and make of the microscope should bespecified.Microscope to include:6X Objective turret, color video cameraStandard Objectives - 10X, 50X and 100XLong working distance objectives 50X. (WD 10 mmor more)LED white-light source for Kohler illuminationSystem must have true Confocal benefits instead ofvirtual software controlled option.Laser Coupler for Microscopes.Diffraction limited point illumination for highestconfocal resolution by coupling the laser to thesystem.	
Mapping Stage: Raman Imaging - Mapping stage Raman images must be generated using mapping and able to generate Motorized sample positioning stage with x , y & z direction, > 100mm x 50 mm x 25mm travel range. Single step size resolution 100nm or better Positioning accuracy , <1 micron 3D imaging and depth profile based on Confocal configuration with Raman Depth resolution 1 μm (better resolution would be preferred) Spectrometer with high throughput Fiber coupled OR Direct coupled to microscope. Focal length of 500 mm or higherMotorized stage with Joystick controller in order to position and focus the sample accurately with 100nm (or better) step size in XY with 	

CCD Detector Minimal 1024x256 pixel format with Peltier cooling down to -70 deg C or better, Peak QE > 60 %, Pixel 26 micron x 26 micron or less Very low noise levels and dark noise less than 0.001 e / pixel per sec or better USB interface	
<b>Controller:</b> Flexible and expandable digital controller based on a single field programmable gate array (FPGA) chip 80 MHz FPGA or better Fully digital feedback control Dynamic position error correction Two free FPGA slots for future extensions	
<b>Software:</b> The state-of-the-art computer control system compatible with and optimized for the application software to perform the various measurement options automatically. Software license for 4 additional offline workstation Fully integrated data analysis presentation software with image capture software Auto alignment of laser Self validation using built-in reference sample Motorized switching between laser and white light sample images	
Computer:	
The desktop computer with current generation Processor, 8 GB RAM, 1 TB HDD, DVD-RW, Latest Windows (64 bit) Operating System, 24 " or higher LCD display with laser printer	
<b>General</b> Installation-The system or equivalent category system should have at least 10 numbers of installations in India. Vendor should provide standard samples for calibration and testing The system should be compatible to 220-230 VAC, 50 Hz single phase power supply Any additional advanced features of the equipment and accessories can be quoted with full details and specifications as optional.	

Installation and training on site for 2 users by
experienced personnel
Tools and spares pertaining to different parts of the machine
Required UPS and Anti Vibration table should be quoted.
All essential and recommended spares should be intimated and guoted.
Necessary pre-installation requirement including power requirement etc. should be enclosed along with the offer.
Principal company Service facility should be available in India. Warranty for three years.

Suppliers are required to provide this Technical Compliance Statement while submitting the Technical Bid (Cover 2).

**<u>NOTE:</u>** Please ensure all the relevant boxes are marked YES/NO against each column.

# **INTEGRITY PACT**

Between

International Advanced Research Centre for Powder Metallurgy and New Materials hereinafter referred to as "ARCI".

And

......herein referred to as "The Bidder/ Contractor."

Preamble

In order to achieve these goals, the ARCI will appoint an Independent External Monitor (IEM), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above

### Section 1 – Commitments of the ARCI

- (1) The ARCI commits itself to take all measures necessary to prevent corruption and to observe the following principles:
  - a. No employee of the ARCI, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
  - b. The ARCI will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
  - c. The ARCI will exclude from the process all known prejudiced persons.
- (2) If the ARCI obtains information on the conduct of any of its employees which is a criminal offence under the IPC/PC Act, or if there be a substantive suspicion in this regard, the Principal will inform the Chief Vigilance Officer and in addition can initiate disciplinary action.

### Section 2 – Commitments of the Bidder(s)/Contractor(s)

- (1) The Bidder(s)/Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.
  - a. The Bidder(s)/Contractor(s) will not, directly or through any other Person or firm, offer, promise or give to any of the ARCI's employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.

- b. The Bidder(s)/Contractor(s) will not enter with other Bidders into any Undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, Certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
- c. The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act; further the Bidder(s)/Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the ARCI as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- d. The Bidder(s)/Contractor(s) of foreign origin shall disclose the name and address of the Agents/representatives in India, if any. Similarly the Bidder(s)//Contractors(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any.
- e. The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
- (2) The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

### Section 3 – Disqualification from tender process and exclusion from future Contracts

If the Bidder(s)/Contractor(s), before award or during execution has committed a transgression through a violation of Section 2, above or in any other form such as to put his reliability or credibility in question, the ARCI is entitled to disqualify the Bidder(s)/Contractor(s) from the tender process or take action as per the procedure.

### **Section 4 – Compensation for Damages**

(1) If the ARCI has disqualified the Bidder(s) from the tender process prior to the award, the ARCI is entitled to demand and recover the damages equivalent to Earnest Money Deposit.

### Section 5 – Equal treatment of all Bidders / Contractors/ Subcontractors

- (1) The Bidder(s)/Contractor(s) undertake(s) to demand from all Subcontractors a commitment in conformity with this Integrity Pact, and to submit it to the ARCI before contract signing.
- (2) The ARCI will enter into agreements with identical conditions as this one with all Bidders, Contractors and Subcontractors.
- (3) The ARCI will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

### **Section 6 – Other provisions**

- (1) This agreement is subject to Indian Law. Place of performance and Jurisdiction is the Registered Office of the ARCI i.e. Hyderabad.
- (2) Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.
- (3) If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.
- (4) Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

(For & On behalf of the ARCI) (Office Seal)	(For & On behalf of Bidder/Contractor) (Office Seal)
Place	Place
Date	Date
Witness 1:	
(Name & Address):	
Witness 2:	
(Name & Address):	

# CHECK LIST

## BIDDER HAS TO FILL IN THE CHECK LIST GIVEN BELOW (Following documents are to be submitted online and manual as part of Technical Bid. Bidders are requested to state Yes / No against each column)

Sl. No.	Description	Online Submission	Manual Submission
1.	If bidder is not an original equipment manufacturer, authorization letter attached.		
2.	Whether Tender Fee and EMD/Bid Security Declaration Submitted in Cover-1(Online)		
3.	Whether Technical Bid Submitted		
4.	Whether Commercial Bid Submitted (Cover 3)		No offline submission. Only ONLINE submission.
5.	PAN / GSTIN Number from concerned authorities		
6.	Details of Products and Components		
7.	Whether declaration form signed and Submitted (Scanned Copy by online )		
8.	Whether warranty clause mentioned		
9.	This Checklist (Scanned Copy by online)		
10.	Whether all pages of tender document signed and uploaded		
11	Payment Terms		
12.	Optional items, if any (Separate cover enclosed with Technical bid)		

## NOTE:

- 1. Please ensure all the relevant boxes are marked YES/NO against each column.
- 2. Tenderers must ensure that all the required documents indicated in the Tender documents are submitted without fail. Tenders received without supporting documents for the various requirements mentioned in the tender document are liable to be rejected at the initial stage itself.