

INVITATION FOR TENDER FOR SUPPLY OF EQUIPMENT

Sealed tender offers are invited in two separate sealed covers (Technical and Commercial offers) from eligible manufacturers/suppliers or their direct Indian agents for the supply of the following equipment.

450 kV Micro / Mini focus Computed Tomography system. The system should be capable of performing high speed Computed Tomography and real time X-ray visualization

Please send offers, ALONG WITH DESCRIPTIVE CATALOGUE/ BROCHURE. The validity of the bid should be at least four months (120 days) or more from the date of the opening of this tender. Please ensure that your quotation reaches not later than ~~02/04/2018 (Monday) by 15:00 Hrs~~ **26/04/2018 (Thursday) by 15:00 Hrs (extended date)** at the following address:

**Professor-in-Charge,
DHI Centre of Excellence on Advanced Manufacturing Technology,
(Inside Steel Technology Centre),
Indian Institute of Technology Kharagpur, 721 302,
West Bengal, India**

Earnest money of **Rs. 8,00,000/-** is to be deposited in the form of Account payee Demand Draft in favour of IIT Kharagpur, payable at Kharagpur, India. Any bid which is not accompanied with an EMD shall be summarily rejected. Earnest money deposited will be forfeited if the tenderer withdraws or amends its tender or impairs or derogates from the tender in any respect within the period of validity of its tender. No interest will be paid on the earnest money of the unsuccessful bidders.

Tender Reference	IIT/SRIC/CoE_AMT/DHI/2018/EQ2, Dated: 08.03.2018
Tender Fee	Rs. 10,000/-
Last Date and Time for submitting the tender document	02.04.2018 at 15:00 Hrs (Indian time) Extended to 26/04/2018 at 15:00 Hrs (Indian time)
Time and Date of Opening of Technical Bids	03.04.2018 at 12:00 Noon (Indian time) Extended to 27/04/2018 at 12:00 Noon (Indian time)
Place of Opening Tender	Office of Professor-in-Charge, DHI Centre of Excellence on Advanced Manufacturing Technology, (<i>Inside Steel Technology Centre</i>), Indian Institute of Technology Kharagpur, 721 302, West Bengal, India
Address of Communication	As stated above
Contact Telephone Numbers	+91- 3222 - 281576
E-mail	coeamt@gmail.com

DETAILED TECHNICAL SPECIFICATIONS FOR

450KV Micro / Mini focus Computed Tomography system. The system should be capable of performing high speed Computed Tomography and real time X-ray visualization with specification similar or better than as given below

A. X-RAY UNIT		
SI No	Description	Requirement
1	Voltage Range	100KV- 450KV continuously variable in steps of 1KV or better
2	Focal Spot (Bifocal)	Fine 0.3 to 0.5mm and Coarse 0.8 to 1.00 mm as per EN 12543
3	Tube Power	Minimum 450W for fine focus and minimum 1000W for coarse focus
4	The X-ray tube shall be bipolar constant potential high power metal ceramic type and it shall be demountable	
5	Focus detector distance	Flat panel 950mm Linear detector 1200mm
6	Tube Current	1.00mA minimum for fine focus 2.20mA minimum for coarse focus
7	It should be possible to centre the beam automatically/ manually	
8	The unit shall have provisions for automatic tube warm up	
9	Provision shall exist for automatic tripping of the unit on target overheating	
B. DETECTOR		
Dual Detector with both Linear Detector Array (Fan Beam CT) and Flat Panel detector (Cone beam CT) with the following specification		
1	Line Detector Array (Fan Beam CT) (for bigger object & high density materials)	<ul style="list-style-type: none"> • 14 bit linear detector array or better • Pixel pitch 400 micron or better • Minimum 650mm sensitive length
2	Flat Panel Detector (Cone Beam CT) (for faster 3D, and instant 2D imaging)	<ul style="list-style-type: none"> • 14 bit flat panel detector or better • Pixel pitch 200 micron or better as per ASTM E 2597 • Sensitive surface area 400 x 400mm (minimum) • Active pixel: 2000 x 2000 pixels minimum
3.	Detectability	100 micron or better
4.	Voxel resolution	100 micron or better
5.	Detector shall be ensured with; <ul style="list-style-type: none"> • Distortion free imaging system. • Homogeneous detection quantum efficiency over the whole area. • Free from pixel or line defects and ring artifact. • System shall have provision for image correction to get sharp and contrast image which will improve the X-ray sensitivity and hence boost the signal to noise ratio and the same shall be demonstrated satisfactorily. 	

	<ul style="list-style-type: none"> Filters such as Aluminium, Copper etc. and other accessories such as Collimators grid units shall be quoted separately if it is not included in the basic system. 	
6.	<p>Manipulator for object handling</p> <p>A High Precision Manipulator is to be provided with the following specification for precise rotation and translation of the objects</p> <ul style="list-style-type: none"> Stable granite based manipulator. Manipulator travel Magnification Axis : 400mm minimum Height : 800mm minimum High Precision rotation stage diameter:300mm with 360° rotation. True running of rotation axis : Less than 5 micron Typical part weight : 50kg maximum Size of the job to be inspected : $\Phi 400 \times 800$mm minimum 	
7.	CT Measurement Accuracy	20 + L/100 micron or better as per VDI2630 (L= measuring length in mm)
8.	<p>Depth of penetration of X-rays</p> <ul style="list-style-type: none"> in steel : minimum 60 mm other materials : penetration thickness is to be provided 	
9.	Material/ parts to be inspected are made of Steel, Aluminium, Titanium and Plastic	
C. SOFTWARE AND HARDWARE:		
1.	<p>Interactive user friendly software shall be provided for CT acquisition, reconstruction, Metrological analysis, Wall thickness measurement, CAD data comparison, Porosity analysis etc.</p> <ul style="list-style-type: none"> Full featured 3D volume viewing and analysis package. Clipping and object positioning Segmentation and classification of voxels based on grey level Region of interests shall be defined and utilized for analysis Data import and export Data analysis and measuring functions Animation Filtering of the volume data Surface extraction Documentation of results. Automation 	
2.	<p>Co-ordinate measurement</p> <ul style="list-style-type: none"> Advanced surface determination. Enhanced alignment techniques. Measurement of objects and between objects. Geometric Dimensioning and Tolerancing analysis. Automation of measurements through measurement templates. Measurement taken directly on volume data. Reduction of uncertainties by the use of many points to define the objects. Reporting tools to output the measured data report 	
3.	<p>Porosity/ inclusion/ crack analysis</p> <ul style="list-style-type: none"> Automatic and fast detection, analysis and visualization of pores, inclusions and crack 	

	<p>etc. in the material.</p> <ul style="list-style-type: none"> • Volume, position, size and surface area estimation for every individual pore/ void/ crack analysis. • Colour-coding of pores, inclusions or crack according to volume
4.	<p>Wall thickness</p> <ul style="list-style-type: none"> • Automatic and quick analysis of wall thicknesses. • Color-coded visualization of wall thickness variations. • Direct processing of volume data.
5.	<p>Actual/ nominal comparison</p> <ul style="list-style-type: none"> • Automatic and fast comparison of a scanned object with a reference object. • Comparison of volume data with CAD model (nominal/ Actual comparison). • Direct comparison of volume data sets
6.	<p>Statistical evaluation of all metrological defect features with colour coded visualisation of analysis results of the entire object or region of interest</p>
7.	<p>Generation of user defined reports for both Metrology inspection and defect analysis.</p>
8.	<p>Manufacturer should provide all the necessary and suitable software for functions mentioned from Sl. No. C1 to C5 and hardware for data acquisition, processing, cross-sectional image reconstruction, measurement of features from images and general image processing software</p>
<p>D. COMPUTER CONTROL ANALYSIS SYSTEM</p> <ul style="list-style-type: none"> • The control including joysticks and twin control monitors as well as the radiation tolerant monitors should be mounted close to the cabinet. One control monitor is meant for viewing the X-ray image and other monitor is meant for display of the inspection control data. • Monitors shall be 22" (min) Flat Screen Display, with keyboard and mouse. Memory shall be ≥ 4 GB. • Window based system to control the operation of the machine as well as Data backup for analysis must be quoted. • Latest/ high end workstation details/ specification compatible with the equipment and latest software to give the best performance should be provided. • Microprocessor based control for manual control with joystick operation. • Should be possible to program the machine through "TEACH MODE" manual operation. • All necessary provisions to be provided for "OFF LINE" programming like separate identical computer with the same measurement software, licenses if required etc. should be provided 	
<p>E. RADIATION SAFETY CABINET SYSTEM</p> <ul style="list-style-type: none"> • The CT system should be supplied with a self-shielded and radiation proof lead cabinet. The leakage radiation should be less than $1\mu\text{Sv/h}$ (0.25mR/h) measured at a distance of 100 mm when operating at the highest power. The cabinet should be constructed with steel-lead-steel sandwich construction. The cabinet should be in compliance fully with International Radiation Regulations (IRR 99) and the Local AERB Regulations and supplied with independent safety switches to protect the operator when the doors are open. Cabinet side service doors should house the generators, safety system, power distribution and pneumatics. • An in cabinet colour CCTV System with external viewing monitor (Desk mounted) shall be provided to aid in the safe manipulation of the sample in the cabinet. 	
<p>F. CT SYSTEM ENCLOSURE SIZE</p> <ul style="list-style-type: none"> • Cabinet Dimension 3000 x 3000 x 4000mm (maximum) • The supplier shall obtain Atomic Energy Regulatory Board (AERB) clearance for Radiation safety of the system supplied. 	

G. INPUT ELECTRIC POWER SUPPLY & ENVIRONMENTAL CONDITION

- 3 Phase with Neutral & Earth 415 VAC $\pm 10\%$ and. 50Hz Frequency. Suppliers to specify the KVA rating.
- Operating temperature: $23^{\circ} \pm 2^{\circ} \text{C}$ preferred.

H. OPTIONAL REQUIREMENT

Additionally the party may offer a Flat Panel Detector coupled with a system to improve the image quality to match with Linear Detector Array (as a replacement for I-DA) using suitable scatter correction Hardware & Software

Scope Of Work

Supply, Installation & Commissioning of the 450KV Micro/ Mini focus Computed Tomography system as per the technical specification mentioned above.

A. SYSTEM SHOULD CONSISTS OF ;

- Manual image analysis measurement tool.
- Image processing features such as noise suppression, structure attenuation, extraction of edges and structures and image combination.
- Visualization of image and volume data.
- Generation of volume data as an image sequence.
- Real time manipulation of displayed volume.
- 2D cross sectional image generation and measurement.
- 3D display.
- Image subtraction system.
- Absence of foggy structure for homogeneous materials.
- Automatic rotation centre determination with an included calibration tool for best measurement result.
- System should be supplied with suitable software for scatter correction and beam hardening

B. THE CONTROL CONSOLE SHOULD DISPLAY THE FOLLOWING

- Tube voltage set and achieved.
- Tube current set and achieved.
- Error messages.
- The Control Unit should have provisions for door interlock and operating through system table.
- The HT generator should be suitably interfaced with the tube head through a HT Cable.
- HT and other cables should be of appropriate length as required in the system.
- A suitable cooling unit should be provided and interfaced for cooling the target.
- Work holders for flat, rectangular and cylindrical objects should be quoted.
- The entire manipulator should be computer controlled and it should be possible to access the individual axis through remote control.
- It should be possible to align the tube and the detector.
- Party should supply Calibration Standards/ Phantoms as per International Standards for
- Line Detector Array, Flat Panel Detector and Metrology Measurement functions

C. SPARES AND CONSUMABLES

- Essential Spares like Silicon paste, Lamps, fuses, Coolants for tube & detector should be quoted. Other essential and optional spares if any should also be quoted separately.
- List of spares, accessories and consumables recommended for 5 year period (Mechanical/ Electrical & Electronic) required for smooth operation of the machine after the expiry of warranty period should be provided

D. PRE-DELIVERY INSPECTION AT SUPPLIER'S SITE

- All the performance test and accuracy results of the machine to be sent to IIT KHARAGPUR prior to pre-delivery inspection for review at our end.
- At least eight weeks time gap should be given for arranging the travel and other formalities for pre-delivery inspection by IIT KHARAGPUR personnel, if needed.
- Performance test and accuracy demonstration for Metrology and defect analysis of the Computed Tomography System may be carried out at the supplier's site in presence of IIT KHARAGPUR representatives, if needed. The machine has to be fully assembled and erected for this purpose.
- Training to our representatives for the operation of the machine and usage of software in all aspects of measurement and defect analysis. Demonstration of the capabilities of the CT system for Dimensional measurements and defect analysis should be done. Measurement program generation on samples should be done and measurement methods should be qualified.
- Basic training on maintenances and trouble shooting
- The inspection and calibration certification for compliance to the specified requirements as per the specification should be verified by IIT KHARAGPUR personnel. Dispatch clearance will be provided by IIT KHARAGPUR representatives based on the satisfactory pre-dispatch inspection and testing at your site if required.

E. POST INSTALLATION REQUIREMENT AT IIT KHARAGPUR

- It is the responsibility of supplier to fully integrate, erect and commission the machine at our identified site/ room.
- Performance and accuracies are to be demonstrated as per ISO Standards on samples supplied by IIT KHARAGPUR and on Calibration Standards supplied by the supplier.
- Extensive training (minimum 10 working days) should be provided to IIT KHARAGPUR engineers on Computed Tomography. The training should cover complete operation, application software usage in all aspects of measurement and data analysis, part programming, calibration, basic & preventive maintenance and trouble shooting
- Measurement program generation for minimum of 5 types of sample parts (as per the enclosure) should be done and measurement method should be qualified during training.
- Party should bring all necessary calibration standards, calibration equipments for proving the machine accuracies with valid traceability certificates at our site

F. DOCUMENTATION

- All the data and results of testing and calibration of the Computed Tomography at supplier's site as well as at IIT KHARAGPUR site shall be properly documented and supplied to IIT KHARAGPUR. Calibration Certificates (traceable to National / International Standard) of all the artifacts/ reference standards used for the same should be provided to us
- The following documents (hard copy 2 sets & soft copy in CD/ Flash Drive/ HDD) to be provided to IIT KHARAGPUR.
 - Operations, Calibration & Application Software Manual - This document should explain all the measurement options, calibration, application of the system with sketches and detailed explanation.
 - System administration & Maintenance manual - This document should explain the detailed system configuration and administration including controller, probe head with the help of sketches. System manual should explain known possible errors and solution for the same.
 - User manual and service manual (for both Mechanical and Electronic Hardware/ Circuits) in English language should also be provided

G. AFTER SALES SUPPORT

- Technical service support including the availability of spares and trained manpower to be available in India and details of these facilities should be provided with the offer. Online help desk should also be provided for 5 years from date of expiry of warranty.
- Supplier should guarantee the availability of spares, software/ firmware updates and additional add-on modules for at-least 5 years from date of expiry of warranty

H. AUTHORISED SERVICE TEAM IN INDIA

- Foreign suppliers should have authorized team of trained service personnel in India for extending service and for undertaking Annual Maintenance Contract for the supplied machine
- Customer support facility should be made available for at least Five years after expiry of the guarantee period. Following details should be provided;
 - Online remote diagnostic till the machine life/ online help for maintenance application.
 - Online help support for system Queries/ Application support.
 - Service facilities and personnel availability.
 - Service personnel to attend any fault within 3 days after receipt of the information, whenever called for.

I. WARRANTY

- **The Machine should have warranty for a minimum period of 5 years after commissioning for defect free operation and specified accuracies at IIT KHARAGPUR with manpower to run the machine.**
- Any defect observed during the warranty period should be replaced / repaired free of cost with minimum down time. All the software updates during the warranty period should be supplied, installed and trained to our personnel on real time basis at free of cost.

J. ANNUAL MAINTENANCE CONTRACT

- The scope should be for two preventive maintenance visits per year. For each preventive maintenance visit, duration should be of 3 days per visit.
- The scope should also include any number of breakdown visits. In case of any major breakdown which needs the intervention of Original Equipment Manufacturer (OEM), the quote should include per visit cost for the same.
- Preventive Maintenance
 - The authorized Indian service provider should perform two half yearly preventive maintenance visits in one year i.e. three days per visit (two service engineers should be assigned, one from Mechanical and other from Electrical/ Electronics background). Total no. of preventive maintenance visits for 3 years should be 6.
 - The party shall quote for per man-day basis, which shall be all inclusive price, including boarding, lodging & internal travel etc. However, to and fro airfare shall be paid at actual on production of documentary proof as applicable.
- Breakdown Maintenance
 - The authorized Indian Service Provider shall attend to any number of breakdown calls per year, immediately within 24 hours of intimation during the contract period.
 - The party shall quote for per man-day basis, which shall be all inclusive price, including boarding, lodging & internal travel etc. However, to and fro airfare shall be paid at actual on production of documentary proof as applicable.
 - In the event of major breakdown of the machine which requires intervention from original manufacturer based outside India, the same shall be quoted by the party in terms of foreign currency for per man-day basis, which shall be all inclusive price, including boarding, lodging & internal travel etc. However, to and fro airfare shall be paid at actual on production of documentary proof as applicable.

- Payment Terms

- Maintenance charges shall be paid after every half yearly service on pro-rata basis on completion of each satisfactory service.
- However, at the end of each service, a Service Report duly signed by Contractor, Indentor and Indentor's Divisional Head shall be obtained from the user division to the effect that the Computed Tomography has been serviced and is working satisfactorily and shall be submitted to IIT KHARAGPUR, WEST BENGAL, 721302, along with bill/invoice in duplicate.
- Income Tax, as applicable shall be deducted from the party's bill, at source if carried out by Indian service provider.
- In case of any part items to be taken to supplier's premises for repair, then the supplier has to furnish equivalent value of Bank Guarantee from a Nationalized Bank or Scheduled Bank

Terms And Conditions

A. GENERAL CONDITIONS

- Installation and commissioning of the equipment shall be carried out at our site by the trained Engineer from the principal. All the tools, tackles, manpower and equipments for installation and commissioning is under suppliers scope.
- The training for IIT KHARAGPUR Engineers at IIT KHARAGPUR after Installation and commissioning shall be given free of cost.
- The supplied systems/ equipment shall comply with required relevant standards in vogue.
- All supplied assemblies/ systems and components should be state-of-the art technology and standard parts should be from reputed make/ brands.
- Three sets of operation and maintenance manuals (in English) for the supplied system with electrical circuit diagrams and mechanical drawings for jigs etc, to be supplied.
- Colour coding shall be followed for each system in the equipment as per the relevant standards.
- The overall dimensions of the system, requirements of civil works and Material handling system if needed, to be informed to IIT KHARAGPUR in advance.
- Metric system of measurement shall be followed in all specifications, drawings, manuals. etc
- All documents, manuals, drawings, communications etc., shall be in English language only.
- The total system shall be fully integrated within a robust steel framework with removable covers and accessible panels.
- Installation & commissioning at purchaser's site in India.
- Supplies shall indicate the total electrical power supply capacity in KVA rating for readying the same at installation site.
- Pneumatic supply will be provided by purchaser, if necessary. Supplier to indicate the pressure and flow requirements.
- Earthing requirements, if any, shall be projected to purchaser.
- Foundation requirements for the machine if needed, including drawings shall be communicated to purchaser within one month of ordering to ready machine installation site.
- Though quotations are also sought for Annual Maintenance Contract (AMC), it is to be noted that the AMC will be placed on the Indian Service Provider and in Indian Rupees after completion of warranty period, accordingly, the prices quoted for the AMC should be valid till such time.
- Seaworthy/ Airworthy packing of machine shall be under supplier scope.
- Parties shall submit their price bid on FOB basis and also show C&F charges separately.
- Delivery schedule shall be 6 months maximum from date of purchase order.
- ARBITRATION
 - Dispute if any shall be settled mutually, failing which it will be referred to a One Man Arbitrator appointed by Director, IIT Kharagpur in accordance with the Indian Arbitration and Conciliation Act 1996, whose decision shall be final and binding on both the parties

B. HERITAGE OF SUPPLY OF CT MACHINES

The party should have the heritage of supply of similar 450KV CT machines for reputed Engineering Industries (Aerospace Industries would be an added advantage) either in India or abroad. The details such as the Company name, Year of supply and Commissioning date and its satisfactory performance including customer feedback shall be provided

C. CRITERIA FOR COST COMPARISON

Suppliers shall note that the criteria for cost comparison shall be for:

- Cost of the basic machine as per specification & scope of work document of tender.
- Cost for essential spares & consumables for 5 years of normal operation of the machine.
- Cost for Non-comprehensive AMC for 3 years

D. INSTRUCTIONS FOR SUBMITTING OFFERS

- The suppliers shall submit their offers in two separate covers as under:
 - Part -I :Techno-Commercial
 - Part -II :Price Bid
- The offers should include the following details;
 - Basic Price of full component of the machine as per specification and scope of work as per tender document.
 - Price for essential spares and consumables with break-up cost for each.
 - Price for installation & commissioning of the machine at purchasers site.
 - Price for optional items with cost break up.
 - Price for Annual Maintenance Contract for three years.
 - Price for work holding devices if any

E. SPECIAL INSTRUCTIONS (TWO PART TENDER)

The tender is as per TWO COVER SYSTEM.

- Techno-Commercial part (in Duplicate) in one envelope.
- Price part (in Duplicate) in another envelope.

The envelope should be subscribed with the 'Tender Number', 'Due Date', and 'Item description' clearly

F. TECHNO - COMMERCIAL PART

- Techno-Commercial part shall clearly indicate in addition of quotation, the technical details, the terms & conditions like Payment Terms, Validity, Warranty/ Guarantee, Delivery period etc.
Please note that prices should not be indicated in the techno commercial bid

G. COMPLIANCE MATRIX

Part-I, Techno-commercial bid should include compliance matrix showing each & every tender specification item and details of offer made as per format given under, without which the offer will not be considered.

Sl. No. of Tender specification	Details	Tender specification	Details of offered specification	Compliance

H. PRICE PART

Part-II, Price part shall only indicate price as per Tender Form enclosed.

Complete Literature/Leaflets relevant to the offer, as applicable shall be enclosed to the Techno-commercial part of the tender.

The offer should be valid for a minimum period of 120 days from the date of opening the price-bid.

I. IMPORTANT INSTRUCTIONS

- The wordings ‘TECHNO-COMMERCIAL OFFER’ should be mentioned on top right side of envelope very clearly. Similarly, the cover containing the Price bid should be worded as “PRICE BID”.
- Both the TECHNO-COMMERCIAL OFFER cover and PRICE BID envelope are to be sealed in separated covers and both to be kept in a single envelope duly sealed and subscribed with Tender Number, due date and item. Tender fee shall be submitted along with Techno-commercial Bid only and not with the Price Bid. If foreign supplier quotes directly, then they are exempted from payment of Tender fees. The cover thus prepared should be sent to the following address to reach us on or before the date and Time specified in the Tender form:

Professor-in-Charge,
DHI Centre of Excellence on Advanced Manufacturing Technology,
(Inside Steel Technology Centre),
Indian Institute of Technology Kharagpur,
721 302, West Bengal, India

- The TECHNO-COMMERCIAL part of the tender will be opened at the first instance and in case of any clarifications/ negotiations, if found necessary will be sought without opening the Price Bid.
- Late and delayed tender will not be considered. Therefore, please ensure that your Tender is posted advance to reach us before the Due Date & time to ensure validity of the offer.
- Tenders not superscribed as per our instructions are likely to be rejected.
- Please specifically indicate the following in your quotation.
- Price on "FOB or C&F". basis duly packed
- Net/ Gross Measurements/ Weight of the consignment and brief details of packing shall be submitted along with quote.
- Performance bank Guarantee for 10% value of the machine has to be furnished in case of a Purchase Order. No waiver in this regard is permissible.
- Complete Banker’s Address from your side shall be provided

GENERAL TERMS & CONDITIONS

PLEASE SPECIFICALLY INDICATE THE FOLLOWING POINTS IN YOUR QUOTATIONS AND COMPLY THE TERMS AS MENTIONED HEREUNDER:-

1. TENDERS ARE INVITED COMPLYING THE REQUIREMENT FOR TENDER AS DETAILED IN THE TENDER SPECIFICATION TO BE SUBMITTED IN THE COMPANY'S / FIRM'S LETTERHEAD NEATLY PRINTED / TYPED DULY SIGNED BY AUTHORIZED PERSON WITH THE SEAL OF THE BIDDERS. ALL ENVELOPES CONTAINING THE TENDER SHOULD BE PROPERLY SEALED. SEPARATE ENVELOPES SHOULD BE USED FOR TECHNICAL AND PRICE BID AND INDICATION TO THEIR EFFECT MAY PLEASE BE SUPERSCRIBED ON THE ENVELOPE.

THE FOLLOWING DOCUMENTS ARE REQUIRED FROM THE INDIAN AGENTS OF FOREIGN FIRMS:

1.1 FOREIGN PRINCIPAL'S PROFORMA INVOICE INDICATING THE COMMISSION PAYABLE TO THE INDIAN AGENT AND NATURE OF AFTER SALES SERVICE TO BE RENDERED BY THE INDIAN AGENT.

1.2 COPY OF THE AGENCY AGREEMENT WITH THE FOREIGN PRINCIPAL INDICATING THE NATURE OF AFTER SALES SERVICES, PRECISE RELATIONSHIP BETWEEN THEM AND THEIR MUTUAL INTEREST IN THE BUSINESS.

2. TECHNICAL CATALOGUE/LEAFLET SHOULD BE ENCLOSED WITHOUT FAIL. PROVIDE COMPLIANCE STATEMENT WITH RESPECT TO THE TECHNICAL SPECIFICATIONS MENTIONED ABOVE.
3. PLEASE CONFIRM WHETHER YOU ARE AUTHORIZED TO QUOTE ON BEHALF OF YOUR PRINCIPALS AND IF SO, PLEASE ENCLOSE A COPY OF SUCH AUTHORISATION WITH YOUR QUOTATION.
4. **PRICE BIDS FOR FOREIGN FIRMS:** PRICES ARE TO BE QUOTED ON 'EX-WORKS' DULY PACKED OR ON "FCA/FOB" INTERNATIONAL PORT" BASIS AND ALSO INCLUDING AGENCY COMMISSION PAYABLE TO YOUR INDIAN AGENTS, IF ANY SHOWING CLEARLY THE FOLLOWING BREAK UP:-

- I) EX-WORKS PRICE
- II) PACKING & FORWARDING
- III) FREIGHT
- IV) ANY OTHER RELEVANT EXPENSES.
- V) TAXES PAYABLE BY THE INSTITUTE

INSURANCE WILL BE PAID BY OUR INSTITUTE SEPARATELY AND SHOULD NOT FORM PART OF THE QUOTED PRICE.

PRICE BIDS FOR INDIAN FIRMS: PRICES ARE TO BE QUOTED ON F.O.R., IIT KHARAGPUR, ON DOOR DELIVERY BASIS CLEARLY SHOWING THE BREAK UP.

5. **PERIOD OF VALIDITY:** BIDS SHALL REMAIN VALID FOR ACCEPTANCE FOR A PERIOD OF 120 DAYS FROM THE DATE OF OPENING.
6. INDIAN AGENTS ADDRESS AND PERCENTAGE OF AGENCY COMMISSION INCLUDED IN ABOVE F.O.B./EX-WORKS PRICE. (THIS WILL BE PAID TO THE INDIAN AGENTS IN INDIAN RUPEES ONLY AND NOT IN **FE**). PLEASE ENCLOSE COPY OF AGENCY AGREEMENT ENTERED INTO

WITH YOUR PRINCIPALS INDICATING THE NATURE OF AFTER SALES SERVICES OF INDIAN AGENTS, PRECISE RELATIONSHIP & MUTUAL INTEREST IN THE BUSINESS.

7. **MEASUREMENTS/WEIGHT:** NETT/GROSS OF THE CONSIGNMENT. IN CASE OF AN ORDER, YOU SHALL USE AIR WORTHY PACKAGE (AS APPLICABLE) DULY CERTIFIED WITH DOCUMENTS – PLYTO – SANITARY CERTIFICATE (AS PER QUARANTINE ORDER 2003).
8. **SCOPE OF SUPPLY:** SHOULD INCLUDE FREE INSTALLATION AND COMMISSIONING
9. **PAYMENT TERMS FOR FOREIGN FIRMS**

The offer will be made on a single currency and only one PO will be issued for the entire scope of the supply.

- A) 90% PAYMENT THROUGH SIGHTDRAFT/FOREIGN DEMAND DRAFT/LC (EXCEPTIONAL CASES)/SWIFT TELE TRANSFER AFTER RECEIPT OF STORE IN GOOD ORDER AND CONDITION AND 10% AFTER SUCCESSFUL INSTALLATION & COMMISSIONING.
- B) BANK CHARGES ON LC/SD (WITHIN INDIA APPLICANT ACCOUNT AND OUTSIDE INDIA TO BENEFICIARY ACCOUNT).

PAYMENT TERMS FOR INDIAN FIRMS

A) 100% PAYMENT THROUGH CROSSED ACCOUNT PAYEE CHEQUE / ELECTRONIC TRANSFER AFTER RECEIPT OF STORE IN GOOD ORDER & CONDITION AND SUCCESSFUL INSTALLATION & COMMISSIONING.

B) ENSURE MENTIONING

- i) BANK DETAILS OF THE BENEFICIARY, GST NO. AND PAN NUMBER
- ii) FULL NAME AND ADDRESS OF THE BENEFICIARY ON WHOM ORDER HAS TO BE PLACED

10. WHETHER ANY EXPORT LICENCE IS REQUIRED FROM YOUR GOVERNMENT, IF SO, PLEASE CONFIRM WITH DETAILS.
11. COUNTRY OF ORIGIN OF THE GOODS IS TO BE MENTIONED.
12. THE INSTITUTE SHALL PROVIDE THE CONCESSIONAL CUSTOMS DUTY AND EXCISE DUTY EXEMPTION CERTIFICATE AS PER GOVT. NOTIFICATION NO. 51/96 CUSTOMS DATED: 23.07.1996 AND CENTRAL EXCISE DUTY EXCEMPTION IN TERMS OF GOVT. NOTOFICATION NO. 10/97 – CENTRAL EXCISE DATED: 01.03.1997 AS AMENDED FROM TIME TO TIME.
13. **LIQUIDATED DAMAGES:** THE STORES SHOULD BE DELIVERED / DISPATCHED TO DESTINATION AND READY FOR OPERATION NOT LATER THAN THE DELIVERY DATE SPECIFIED. IT THE SUPPLIER FAILS TO DELIVER ANY OR ALL THE STORES OR PERFORM THE SERVICE BY THE SPECIFIED DATE, LIQUIDATED DAMAGES AT 1% PER MONTH OR PART THEREOF IN RESPECT OF THE VALUE OF STORES WILL BE DEDUCTED FROM THE CONTRACT PRICE SUBJECT TO A MAXIMUM OF 5%. ALTERNATIVELY, THE ORDER WILL BE CANCELLED AND THE UNDELIVERED STORES PURCHASED FROM ELSEWHERE AT THE RISK AND EXPENSE OF SUPPLIER.
14. **PATENT RIGHTS:** THE SUPPLIER SHALL INDEMNIFY THE PURCHASE AGAINST ALL THIRD PARTY CLAIMS OF INFRINGEMENT OF PATENT, TRADEMARK OR INDUSTRIAL DESIGN RIGHTS ARISING FROM USE OF THE GOODS OR ANY PART THEREOF IN INDIA.

15. ONLY THOSE BIDDERS WHO'S BIDS HAVE BEEN TECHNICALLY FOUND ACCEPTABLE WILL ONLY BE INVITED FOR PARTICIPATION IN THE PRICE BID.
16. THOSE BIDDERS WHO DO NOT RECEIVE ANY COMMUNICATION FOR PARTICIPATION IN PRICE BID OPENING MEETING MAY PRESUME THAT THEIR BID HAS NOT BEEN ACCEPTED BY THE INSTITUTE.
17. CONDITIONAL OFFER WILL NOT BE ACCEPTED.
18. LATE TENDERS i.e. TENDER RECEIVED AFTER THE DUE DATE AND TIME OF SUBMISSION AS MENTIONED ABOVE SHALL NOT BE ACCEPTED.
19. BIDDERS TO ENCLOSE THE FOLLOWING DOCUMENTS:-

A) INCOME TAX RETURN (3 YRS) AND LATEST SALES TAX RETURN (GST No.), AND PAN NO.

B) BANKER'S SOLVENCY CERTIFICATE

C) SUMMARY OF AUDITED STATEMENT OF ACCOUNTS FOR THE LAST THREE YEARS TO BE ENCLOSED AND FINANCIAL HIGHLIGHTS AND THE KEY PERFORMANCE DURING THE LAST THREE QUARTERS TO BE ENCLOSED AS PER FORMAT:-

COMPANY'S KEY PERFORMANCE

DESCRIPTION	JAN. TO MARCH	APRIL TO JUNE	JULY TO SEPT.
GROSS REVENUE			
PROFIT BEFORE TAX			
PROFIT AFTER TAX			
RETURN ON INVESTED			
CAPITAL (ROIC)			

D) CUSTOMER SATISFACTION CERTIFICATE FROM ONE SUCH ORGANIZATION IS TO BE ATTACHED WITH THE TECHNICAL BID AND PRICE BID.

E) NAME AND ADDRESS OF MINIMUM THREE CLIENTS TO WHOM SUCH EQUIPMENT HAVE BEEN SUPPLIED SHOULD BE MENTIONED.

20. WARRANTY/ GUARANTEE: THIS COMPREHENSIVE WARRANTY/ GUARANTEE SHALL REMAIN VALID FOR 60 MONTHS AFTER THE GOODS (OR ANY PORTION THEREOF AS THE CASE MAY BE) HAVE BEEN DELIVERED AND COMMISSIONED TO THE FINAL DESTINATION, WITH MANPOWER.

21. THE INSTITUTE DOES NOT BIND ITSELF TO OFFER ANY EXPLANATION TO THOSE BIDDERS WHO'S TECHNICAL BID HAS NOT BEEN FOUND ACCEPTABLE BY THE EVALUATION COMMITTEE OF THE INSTITUTE.

22. ALL TENDERS (UNLESS OTHERWISE SPECIFIED) ARE TO BE SUBMITTED / HANDED OVER TO

**OFFICE OF PROFESSOR-IN-CHARGE,
DHI CENTRE OF EXCELLENCE ON ADVANCED MANUFACTURING TECHNOLOGY,
(INSIDE STEEL TECHNOLOGY CENTRE),
INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR, 721 302, WEST BENGAL, INDIA**

AND ACKNOWLEDGEMENT TO BE OBTAINED.

IMPORTANT

1. IIT Kharagpur authority may accept or reject any or all the bids in part or in full without assigning any reason and does not bind itself to accept the lowest bid. The Institute at its discretion may change the quantity/ upgrade the criteria/ drop any item or part thereof at any time before placing the Purchase Order.
2. Promptly make arrangements for repair and/ or replacement of any damaged item (s) irrespective of settlement of claim.
3. In case of any dispute, the decision of the Institute authority shall be final and binding on the bidders.
4. For any query pertaining to this bid document correspondence may be addressed to *Professor-In-Charge*, at the address mentioned above.

**LAST DATE FOR SUBMISSION OF SEALED BIDS: ~~02.04.2018 (15:00 HRS IST)~~
EXTENDED TO 26.04.2018 AT 15:00 HRS (IST)**

- 1) Please Note that the Institute remains closed during Saturdays & Sundays and all specified government holidays.
 - 2) Fax, e-mail Tender will not be accepted.
 - 3) The General Terms and Conditions as stated above relate to supply of stores / equipment /assets etc. and for specific service, other terms and conditions of the Institute will apply.
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