



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA

[An Institute of National Importance under Ministry of Education, Govt. of India]

Sector 1, Rourkela, Sundergarh Dist., Odisha 769 008

“PROCUREMENT OF EQUIPMENT UNDER HEFA LOAN”

Tender No.: NITR/SR/HEFA116-ME/2021/L/059 dt. 06.09.2021

Index for Invitation for Tender (e-Procurement mode only)

The Institute invites **Two Cover Tenders** for the following items through the e-Procurement System of National Informatics Centre, which enables the Tenderers to download the Tender Schedule and then submit the bids online through Central Public Procurement Portal of Government of India (<https://eprocure.gov.in/eprocure/app>.) The detailed specifications, terms and conditions are given in the below Annexures. The complete Bid document may be downloaded from CPPP and NIT RKL website. Physical bids will not be accepted

S. No.	Description [with Technical Specifications in detail as Annexures TS1, TS2, TS3, TS4, TS5, TS6, & TS7]	Quantity
1)	Venturimeter apparatus [Detailed Technical Specifications in Annexure TS1]	1 Unit
2)	Pitot Tube Setup [Detailed Technical Specifications in Annexure TS2]	1 Unit
3)	Laminar and Turbulent Flow Table [Detailed Technical Specifications in Annexure TS3]	1 Unit
4)	Setup for Viscosity Measurement: Ball Drop Method [Detailed Technical Specifications in Annexure TS4]	1 Unit
5)	Darcy's Law Apparatus [Detailed Technical Specifications in Annexure TS5]	1 Unit
6)	Flow Over Notches [Detailed Technical Specifications in Annexure TS6]	1 Unit
7)	Bernoulli's Theorem Apparatus [Detailed Technical Specifications in Annexure TS7]	1 Unit

Annexures enclosed: Bidders should follow the entire Bid document and the attached Annexures before submission of bids.

1)	Annexure ST	Schedule of Tender
2)	Annexure TS	Technical Specifications
3)	Annexure 01	Instructions To Bidder for Online Bid Submission
4)	Annexure 02	General Conditions of Contract (GCC)
5)	Annexure 03	Special Conditions of Contract (SCC)
6)	Annexure 04	Tender Acceptance Letter
7)	Annexure 05	Declaration Performa
8)	Annexure 06	Check List for Bid Submission
9)	Annexure 07	Bid Security Declaration
10)	Annexure 08	Model Format for PBG
11)	Annexure 09	Mandate form for Electronic Fund Transfer
12)	Annexure 10	Checklist for Bidders' Eligibility
13)	Annexure 11	Checklist for Compliance on Technical specification

- 1) All the correspondence in this regard should be done in favor of Asst. Registrar (SRICCE), NIT Rourkela referring the tender reference number in the above mentioned email / address.
- 2) Complete Bidding document is available in Government of India's E-tender website. The bids should be submitted through the same website (<https://eprocure.gov.in/eprocure/app>). All amendments, time extension, clarifications etc. will be uploaded in the CPPP website and www.nitrkl.ac.in and it will not be published in newspapers.
- 3) Bidders should regularly visit the above websites to keep themselves updated.
- 4) Bidder may note that Bid shall be submitted in full compliance to the requirements of Bidding Document, failing which bid shall be considered as nonresponsive and may be liable for rejection.
- 5) Failure to upload the Tender acceptance letter in the enclosed format will lead to rejection of bids.
- 6) The Director of NIT Rourkela reserves the right to reject any or all the bids, or cancel the tender, without assigning any reason and the decision of the Director, NIT Rourkela shall be final and binding.

Sd/-
REGISTRAR



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA

[An Institute of National Importance under Ministry of Education, Govt. of India]

Sector 1, Rourkela, Sundergarh Dist., Odisha 769 008

“PROCUREMENT OF EQUIPMENT UNDER HEFA LOAN”

Annexure ST

Schedule of Tender

Invitation for Tender (e-Procurement mode only)

1)	Tender No.	NITR/SR/HEFA116-ME/2021/L/059
2)	Tender Date	06.09.2021
3)	Tender Type	Open
4)	Tender Category	Goods
5)	Form of Contract	Supply
6)	Work / Item Description (exactly as per the Sanction Order)	1.Venturimeter apparatus 2.Pitot Tube Setup 3.Laminar and Turbulent Flow Table 4.Setup for Viscosity Measurement: Ball Drop Method 5.Darcy’s Law Apparatus 6.Flow Over Notch 7.Bernoulli’s Theorem Apparatus
7)	Quantity Required	1 Unit.
8)	Number of covers (1 / 2 / 3 / 4)	2 (Technical and Financial)
9)	Date of Issue / Publishing	06.09.2021
10)	Document Download / Sale Start Date	06.09.2021
11)	Document Download / Sale End Date	04.10.2021 [06:00 PM]
12)	Last date and time for receipt of queries	NA
13)	Date of issuing Corrigendum, if any	NA
14)	Last Date & Time for Uploading of Bids	04.10.2021 [06:00 PM]
15)	Technical Bid Opening Date & Time	05.10.2021 [06:00 PM]
16)	Financial Bid Opening Date & Time	Will be intimated later.
17)	Tender Fee (INR)	Tender cost (Non-refundable) of INR 500/- (Rupees Five Hundred only) using the below options. <ul style="list-style-type: none"> ➤ Fund transfer (NEFT / RTGS / IMPS) to A/c. No: ‘10138951717’ & IFS Code: SBIN0002109 on or before 04/10/2021 at 06:00 PM. Transaction reference / UTR number to be mentioned in Annexure-4 (Tender Acceptance Later). ➤ Demand Draft in favor of “SRICCE FUND, NIT Rourkela” payable at Rourkela from any Scheduled Commercial Bank except Co-operative & Gramin bank. Tender Fee [if DD made] should reach physically through speed post / register post / courier in an envelope & superscribed with subject, “Tender Reference Number” addressing to Asst. Registrar (SR), SRICCE Office, NIT Rourkela-769008, Odisha; on or before 04/10/2021 at 06:00 PM
18)	EMD / Bid Security Amount (INR)	NIL with BID Security Declaration [as per F.9/4/2020-PPD dt. 12.11.2020]
19)	EMD / Bid Security Payable to	NA
20)	EMD / Bid Security Payable at	NA
21)	Performance Security Amount (INR)	3% of the Contract Value [excluding taxes] should be deposited to the Institute in shape of Demand Draft (DD) / Bank Guarantee in favor of “ SRICCE FUND, NIT Rourkela ” and payable at Rourkela from any Scheduled Commercial Bank except Co-operative and Gramin bank and Performance security should remain valid for a period of 60 days beyond the date of completion of all contractual obligations of the suppliers including warranty obligation.
22)	Warranty	24 months from the date of installation of equipment.
23)	Bid Validity period [Days]	90 days
24)	Delivery Period [Days]	90 days



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA

[An Institute of National Importance under Ministry of Education, Govt. of India]

Sector 1, Rourkela, Sundergarh Dist., Odisha 769 008

“PROCUREMENT OF EQUIPMENT UNDER HEFA LOAN”

25)	Payment Terms	The Institute undertakes to dispatch payment within 30 days of receipt of stores (in good condition) & successful installation / demo against a valid tax invoice. Upon receipt of bill(s) in SRICCE office; Payment will be processed within 10 working days from this office to HEFA Board / Canara Bank at Bangalore. The vendor shall be aware of this fact that the payment will be effected by HEFA Board (Canara Bank) after the above process.
26)	Pre-Bid Meeting Date & Time	NA
27)	Pre-Bid Meeting Place & Address	NA
28)	Delivery Location	Head of the Department Department of Mechanical Engineering National Institute of Technology Rourkela Odisha 769 008
29)	Technical Clarification, if any	Prof. Suman Ghosh Department of Mechanical Engineering National Institute of Technology Rourkela Odisha 769 008 Tel. #: 0661 -246-2531 Email: ghoshs@nitrkl.ac.in
30)	Tender Inviting Authority	Registrar National Institute of Technology Rourkela Odisha 769 008
31)	Address for General communication	Asst. Registrar (SR) SRICCE Office National Institute of Technology Rourkela Odisha 769 008.
32)	Detailed Technical Specifications	As stated in Annexure TS
<ul style="list-style-type: none">➤ Total Bid Price should be inclusive of all taxes, levies, transport, loading, unloading etc.➤ Price to be quoted in applicable currency as per the Tender Document / BOQ.➤ Prices quoted in other currencies will be summarily rejected for in-land supplies.➤ Price to be quoted with concession on GST, if and where applicable.		

Envelope Details for S.No.7:

1st Envelope / Cover (Technical Bid)		
S. No.	Contents	Format
1)	Detailed brochures, data sheets, catalogues etc. supporting the compliance of specifications	PDF
2)	Clientele list and details of Five (05) major installations in India	PDF
3)	Any other document as mentioned in the specifications or essential as per bidder. (Annexure 4,5,6,7,9,10,11)	PDF
4)	Copy of Tender Cost and Bid Security [EMD] payment receipt / BG details	PDF
2nd Envelope / Cover (Price Bid)		
1)	Price bid / BoQ: Item-wise prices for the items mentioned in the Technical Bid in applicable BoQ format (clearly mentioning the breakup for Tax / Duty / other charges etc.)	Excel (.xls)

NOTE:

- If any of the above days happens to be a NIT RKL holiday, the next working day will be considered.
- Please note being an Institute under MoE, Govt. of India, the Institute will not entertain any type of advance payment for the equipment, AMC or any other services.
- Failure to upload the Tender acceptance letter in the enclosed format will lead to rejection of bids.

**Sd/-
REGISTRAR**



Detailed Technical Specifications:

Specifications of the Venturimeter apparatus

Specification

The apparatus should consist of a pipeline containing a Venturimeter. The pressure tapings from the Venturimeter to differential manometer should be present to measure the pressure difference. Valves should be provided at the downstream of the flow. By operating the valves provided at the downstream, the flow can be regulated. A self-contained water re-circulating unit with a sump tank and a centrifugal pump should be provided. Flow control valve and by-pass valve should be fitted in the water line to conduct the experiment on different flow rates. Measuring tank and stopwatch should be provided to measure the flow rate of water.

EXPERIMENTS:

To determine the co-efficient of discharge through Venturimeter.

To measure discharge through Venturimeter as flow meters.

FEATURES:

Acrylic test section,
Closed-loop water circulation,
Compact & stand-alone set up,
Stainless Steel tanks,
Superb Painted structure,
Simple to operate & maintain

TECHNICAL DETAILS:

Product	Venturimeter Apparatus
Venturimeter	Material Clear Acrylic compatible to 1" Dia. Pipe
Water circulation	FHP capacity make Crompton Greaves/Kirloskar
Flow measurement	Capacity 30 Ltrs. MOC SS fitted with Piezometer Tube & scale
Sump tank	Capacity 50 Ltrs. MOC SS
Piping	MOC GI and PVC
Stopwatch	Electronic
Control panel	On/Off Switch, Mains Indicator, etc
Overall dimension	(L x B x H) 120 x 42 x 120 cm

Specifications of the Pitot Tube Setup

Specification

A pitot tube is used to measure the local velocity at a given point in the flow stress. A pitot tube of standard design made of copper/SS should be supplied and should be fixed below the Vernier scale. The Vernier scale should be capable of measuring the position of the Pitot Tube in the transparent pipe section. The pipe should have a flow control valve to regulate the flow. A U-tube manometer should be provided to determine the velocity head. The setup should have a self-contained water re-circulating unit together with a sump tank and a centrifugal pump etc. Flow control valve and by-pass valve should be fitted in the water line to conduct the experiment on different flow rates. A measuring tank and stopwatch should be provided to measure the flow rate of water.

EXPERIMENTS:

To find the point velocity at the center of a tube for different flow rates of water and calibrate the Pitot tube.

To plot velocity profile across the cross-section of the pipe

FEATURES:

Acrylic test section
Closed-loop water circulation
Compact & stand-alone set up
Stainless steel tanks
Superb painted structure
Simple to operate & maintain

TECHNICAL DETAILS:

Product	Pitot Static Tube Apparatus
Pitot Tube	Material Copper/SS of compatible size fitted with Vernier scale.
Test Section	Material Clear Acrylic, compatible to 1" Dia. Pipe.



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA

[An Institute of National Importance under Ministry of Education, Govt. of India]

Sector 1, Rourkela, Sundergarh Dist., Odisha 769 008

“PROCUREMENT OF EQUIPMENT UNDER HEFA LOAN”

Water Circulation	FHP capacity make Crompton Greaves / Kirloskar
Flow Measurement	Capacity 30 Ltrs. MOC SS fitted with Piezometer Tube & scale
Sump Tank	Capacity 50 Ltrs. MOC SS
Piping	MOC GI and PVC
Stopwatch	Electronic
Control Panel	On/Off Switch, Mains Indicator, etc.
Overall Dimensions	(L x B x H) 120 x 42 x 190 cm

Specifications of the Laminar and Turbulent Flow Table: Reynolds' Apparatus

Specification																									
<p>The apparatus should consist of a glass tube with one end having a bell mouth entrance, which should be connected to a constant head water tank. At the other end, a valve should be provided to vary the flow rate. The tank should have sufficient capacity to store water. A capillary tube should be introduced centrally in the bell mouth for feeding dye from a small container placed at the top of the tank, through polythene tubing. By varying the rate of flow, Reynolds's number (as well as the type of flow) can be changed. Visual observation of dye (Thread) will indicate the type of flow, which can be confirmed from the Reynolds number computed. The setup should have a self-contained water re-circulating unit together with a sump tank and a centrifugal pump etc. The flow control valve and by-pass valve should be fitted in the waterline. The measuring cylinder and stopwatch should be provided to measure the flow rate of water.</p>																									
<p>EXPERIMENTS: To determine Reynolds's number and hence the type of flow either laminar or turbulent To study the transition zone</p>																									
<p>FEATURES: Visible test section Closed-loop water circulation Compact & stand-alone set up Stainless steel tanks and wetted parts Superb painted structure Simple to operate & maintain</p>																									
<p>TECHNICAL DETAILS:</p> <table border="1"> <tr> <td>Product</td> <td>Laminar and Turbulent Flow Table: Reynolds' Apparatus</td> </tr> <tr> <td>Tube</td> <td>Material Borosilicate Glass</td> </tr> <tr> <td>Dye vessel</td> <td>Suitable Capacity</td> </tr> <tr> <td>Capillary tube</td> <td>Material Copper/Stainless Steel</td> </tr> <tr> <td>Constant head water tank</td> <td>Capacity 25 Ltrs, MOC SS</td> </tr> <tr> <td>Water Circulation</td> <td>FHP capacity make Crompton Greaves / Kirloskar</td> </tr> <tr> <td>Piping</td> <td>MOC GI and PVC</td> </tr> <tr> <td>Flow Measurement</td> <td>Using Measuring Cylinder</td> </tr> <tr> <td>Sump Tank</td> <td>Capacity 50 Ltrs MOC SS</td> </tr> <tr> <td>Stopwatch</td> <td>Electronic</td> </tr> <tr> <td>Control Panel</td> <td>On/Off Switch, Mains Indicator, etc.</td> </tr> <tr> <td>Overall Dimensions</td> <td>(L x B x H) 135 x 42 x 145 cm</td> </tr> </table>		Product	Laminar and Turbulent Flow Table: Reynolds' Apparatus	Tube	Material Borosilicate Glass	Dye vessel	Suitable Capacity	Capillary tube	Material Copper/Stainless Steel	Constant head water tank	Capacity 25 Ltrs, MOC SS	Water Circulation	FHP capacity make Crompton Greaves / Kirloskar	Piping	MOC GI and PVC	Flow Measurement	Using Measuring Cylinder	Sump Tank	Capacity 50 Ltrs MOC SS	Stopwatch	Electronic	Control Panel	On/Off Switch, Mains Indicator, etc.	Overall Dimensions	(L x B x H) 135 x 42 x 145 cm
Product	Laminar and Turbulent Flow Table: Reynolds' Apparatus																								
Tube	Material Borosilicate Glass																								
Dye vessel	Suitable Capacity																								
Capillary tube	Material Copper/Stainless Steel																								
Constant head water tank	Capacity 25 Ltrs, MOC SS																								
Water Circulation	FHP capacity make Crompton Greaves / Kirloskar																								
Piping	MOC GI and PVC																								
Flow Measurement	Using Measuring Cylinder																								
Sump Tank	Capacity 50 Ltrs MOC SS																								
Stopwatch	Electronic																								
Control Panel	On/Off Switch, Mains Indicator, etc.																								
Overall Dimensions	(L x B x H) 135 x 42 x 145 cm																								



Specifications of the Setup for Viscosity Measurement: Ball Drop Method (Stokes’s law)

Specification

The apparatus should be designed to introduce students to the fundamental characteristics of the behavior of the particle system, in particular the relationship between the drag coefficient of falling particles (small sphere) and their Reynolds number value. Particles covering a range of sizes and densities will be supplied, and the experiments will be conducted by allowing single particles (small sphere: ball) to fall through a number of different liquids contained in the vertical glass tubes. The rate of fall of the particle has to be determined by timing their passage between two marks on the walls of the glass tubes. A shielded fluorescent tube light should be provided to aid the observation of the particle movement. The light should be mounted on the backboard. The arrangement should be made in such a way that the particles can be removed from the bottom of the tubes without the necessity of draining the liquid. A valve system should be provided at the bottom of each tube to allow the particles to be removed with the minimum loss of liquid.

EXPERIMENTS:

- To measure the drag co-efficient
- To plot the graph between drag co-efficient vs. Modified Reynolds number
- To study the motion of a solid particle through a liquid

TECHNICAL SPECIFICATIONS:

Product & Code	Drag Coefficient & FM 27
Tubes (2 nos.)	Material Borosilicate Glass tube, Dia 50 mm, Length 1200 mm (approx.)
Stopwatch	Electronic type
Steel and glass balls of different sizes should be provided	
The whole setup should be well designed and should be arranged in a good quality painted structure with the proper arrangement of the tube light.	

Specifications of the Darcy’s Law Apparatus

Specification

The setup should be designed to study and verify Darcy’s law and to find out the coefficient of permeability of a given porous medium. The apparatus should consist of a pipeline containing a clear acrylic cylindrical test section. The setup should have a self-contained water re-circulating unit together with a sump tank and a centrifugal pump. The water line should be fitted with the flow control valve and by-pass valve to conduct the experiment on different flow rates. Measuring tank and stopwatch should be provided to measure the flow rate of water. The pressure tapings connected to the test section should be provided with a differential manometer to measure the pressure difference. Valves should be provided at the downstream so that the flow can be regulated by operating the valves.

EXPERIMENTS:

- To verify Darcy’s law and find out the coefficient of permeability of a given porous medium.

FEATURES:

- Clear Test Section
- Closed-loop water circulation
- Compact & stand-alone set up
- Stainless Steel tanks and wetted parts
- Superb Painted structure
- Simple to operate & maintain

TECHNICAL DETAILS:

Product & code	Darcy’s Law Apparatus & FM 30
Test Section	Material Clear Acrylic Dia. 100 mm length/height 500 mm
Water Circulation	FHP capacity make Crompton Greaves/Kirloskar
Flow Measurement	Capacity 30 Ltrs. MOC SS fitted with Piezometer Tube & scale Rotameter of suitable range
Sump Tank	Capacity 50 Ltrs. MOC SS
Pressure Measurement	Using Suitable manometer
Piping	MOC GI and PVC
Stop Watch	Electronic
Control Panel	On/Off Switch, Mains Indicator, etc
Overall Dimensions	(L x B x H) 120 x 42 x 120 cm



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA

[An Institute of National Importance under Ministry of Education, Govt. of India]

Sector 1, Rourkela, Sundergarh Dist., Odisha 769 008

“PROCUREMENT OF EQUIPMENT UNDER HEFA LOAN”

Specifications for the Flow Over Notch Apparatus

Specification

The setup has to be designed to study the discharge through different notches. Set up should consist of a flow channel section, supply tank, measuring tank and pump for closed-loop water circulation. The flow channel should be fitted with the arrangements for creating jet using different interchangeable notches. The setup should consist of a hook gauge for measuring x-y coordinates of jet and a vernier pointer to measure the height of water in the channel. Measuring tank and stopwatch should be provided to measure the flow rate of water. A trapezoidal notch should be tested by adjoining two different notches.

EXPERIMENTS:

To determine the co-efficient of discharge using different notches.

FEATURES:

Closed-loop water circulation
Compact & stand-alone set up
Stainless Steel tanks and wetted parts
Superb Painted structure
Simple to operate & maintain

TECHNICAL DETAILS:

Product	NOTCH APPARATUS
Test Notches	Set of 3 Notches (SS Plates): Rectangular Notch, 45° V Notch & 60° V Notch
Channel Section	Size 600 × 250 × 180 mm MOC SS
Supply Tank	Capacity 80 Ltrs. MOC SS
Measuring tank	Capacity 30 Ltrs. MOC SS fitted with Piezometer Tube & scale
Vernier gauge	To measure the head of water in the channel
Pump	FHP capacity make Crompton Greaves / Kirloskar
Piping	MOC GI and PVC
Stop Watch	Electronic
Overall Dimensions	(L × B × H) 120 × 42 × 160 cm

Specifications for the Bernoulli's Theorem Apparatus

Specification

The setup should be designed to verify the Bernoulli's Theorem experimentally. The apparatus should consist of a one-piece clear acrylic test section with convergent and divergent part sections. The test section should be connected to the piezometer tubes through pressure tapping at different locations on the section to demonstrate the Bernoulli's Theorem. The setup should have a self-contained water re-circulating unit together with a sump tank and a centrifugal pump. The water line should be fitted with the flow control valve and by-pass valve to conduct the experiment on different flow rates. Measuring tank and stopwatch should be provided to measure the flow rate of water.

EXPERIMENTS:

To verify Bernoulli's Theorem experimentally.

FEATURES:

Acrylic test section
Closed-loop water circulation
Compact & stand-alone set up
Stainless Steel tanks
Superb Painted structure
Simple to operate & maintain

TECHNICAL DETAILS:

Product	BERNOULLI'S THEOREM APPARATUS
Test Section	Material Acrylic, Size 1" dia
Inlet Tank	Capacity 15 Ltrs. MOC SS
Supply Tank	Capacity 50 Ltrs. MOC SS
Measuring Tank	Capacity 30 Ltrs. MOC SS fitted with Piezometer Tube & scale
Piezometer Tubes	Material P.U. Tubes (9 Nos.)
Pump	FHP capacity make Crompton Greaves/Kirloskar
Piping	MOC GI and PVC
Stop Watch	Electronic
Overall Dimensions	(L × B × H) 120 × 42 × 170 cm

Provided by;

Prof. Suman Ghosh

Indenter [Faculty]



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA

[An Institute of National Importance under Ministry of Education, Govt. of India]

Sector 1, Rourkela, Sundergarh Dist., Odisha 769 008

“PROCUREMENT OF EQUIPMENT UNDER HEFA LOAN”

PREQUALIFICATION CRITERIA FOR BIDDER / BIDDER ELIGIBILITY

S. No.	Content	Pre-Requisite
1.)	OEM Supply	OEM Certificate.
2.)	In case a Bidder offering to supply goods under the contract which the Bidder did not manufacture or otherwise produce, the Bidder has been duly authorized by the goods' Manufacturer or producer to supply the goods in India.	Authorization certificate from the OEM should be provided with the bid.
3.)	Minimum Supply / Installation of Exact item(s) within India to Institutes / Labs of National Repute. Necessary Purchase Order (PO) / Work order (WO) with Installation Report (IR) must be included in the bidding document.	At least 5 (Five) PO / WO with IR should not be older than 8 (Eight) years.
4.)	Minimum Supply / Installation of Similar item(s) within India to Institutes / Labs of National Repute. Necessary Purchase Order (PO) / Work order (WO) with Installation Report (IR) must be included in the bidding document.	At least 5 (Five) PO / WO with IR should not be older than 8 (Eight) years.
5.)	Bidder or its Indian Representative must have a Complete After-Sales Service Set-up in India for fastest response. Installation / Commissioning should be accomplished with priority, as soon as we receive the Consignment at site. Warranty and After-Sales Service should be provided within Maximum 24 to 48 hours of our call.	Relevant document for after sales service set-up in India should be included with the bid.
6.)	Declaration from the principal company / by the bidder-self stating that the spare parts of the equipment will be made available to NIT Rourkela for at least 10 years from the date of installation.	Relevant document should be included with the bid.
7.)	Minimum Turnover of the firm. Annual returns of last 3 preceding years must be included in the bidding document.	Annual Returns of last 3 FY should be included with the bid.
8.)	GST Registration Certificate	Relevant document should be included with the bid
9.)	PAN Card	Relevant document should be included with the bid
10.)	NSIC / MSME Certificate	Relevant document should be included with the bid
11.)	Any Other _____	NA

Bidders are requested to carefully go through the eligibility criteria. It will be the responsibility of the bidders to ensure that all required documents, data, information, undertaking, certificates etc. are provided as per the bid document. Bids which fail to include the required documents, data and information, as mentioned in the bid document, may be declared non-responsive and rejected.

Provided by;
Prof. Suman Ghosh
Indenter [Faculty]

EVALUATION CRITERIA FOR AWARD OF CONTRACT

S. No	Content	Requirement	Evaluation [at the time of Bid opening]
1.)	A document tabulating the Make and Model of the quoted instrument and their accessories.	Relevant document should be included with the bid.	Yes / No
2.)	Technical Brochure for the authentication of the claims made with respect to specifications. In case the technical brochure is not available for some of the accessories, relevant technical details may be provided as a signed document.	Relevant document should be included with the bid.	Yes / No
3.)	An item-by-item commentary on the Purchaser's Technical Specifications demonstrating substantial responsiveness of the goods and services to those specifications should be provided as a duly signed compliance sheet. However, it is to note that this compliance sheet will not be considered as the technical specification of the equipment.	Annexure 11 should be included with the bid.	Yes / No



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA

[An Institute of National Importance under Ministry of Education, Govt. of India]

Sector 1, Rourkela, Sundergarh Dist., Odisha 769 008

“PROCUREMENT OF EQUIPMENT UNDER HEFA LOAN”

4.)	The quoted items MUST be from reputed companies. All goods and materials should be new, unused, and of the most recent or current models, and should incorporate all recent improvements in design and materials unless provided for otherwise in the technical specifications. Bidders may offer higher/better specifications but not the lower ones.	Relevant document should be included with the bid.	Yes / No
5.)	The bidder should provide the access to all genuine, original and licensed Software and Firmware along with their update releases during the warranty period and the validity period of contract.	Relevant document should be included with the bid.	Yes / No
6.)	The bidder will be responsible for total system integration and management wherever applicable. There should not be any compatibility problem / issues among the supplied products, software and components etc. The bidders should submit an undertaking to this effect.	Relevant document should be included with the bid.	Yes / No
7.)	The quotation must specify the pre-requirements (such as electrical power requirements etc.) for installation (which is to be carried out by the bidder) and the quotation must include onsite training of the personnel at NIT Rourkela.	Relevant document should be included with the bid.	Yes / No
8.)	At least one set of complete user and service manual in the English language in both Hard copy and Soft copy should also be provided.	Relevant document should be included with the bid.	Yes / No
9.)	Price quote should be inclusive of site preparation and installation, warranty and spares, training etc.	Relevant document should be included with the bid.	Yes / No
10.)	Bid System Evaluation	L1 [Lowest Evaluated Financial Bid] The lowest rate will not be the only basis of claim to get the order.	If more than one Bidder happens to quote the same lowest price, NIT RKL reserves the right to award the contract to more than one Bidder or any Bidder with the <u>lowest price bids (say equal)</u> , the bidder with the highest 'cumulative annual turnover of the last 3 financial years would be deemed as 'Successful Bidder' with respect to the submission of proof of documents as submitted by the bidder.
The comparison will be made for award of contract on the overall price basis. All prices to be quoted on FOR basis (NIT Rourkela). Price should be quoted as single combined price including site preparation and installation, warranty and spares etc., [all-inclusive]. Please furnish your Dealership Certificate & Proprietary Nature Certificate (If applicable).			

Provided by;

Prof. Suman Ghosh

Indenter [Faculty]



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA

[An Institute of National Importance under Ministry of Education, Govt. of India]

Sector 1, Rourkela, Sundergarh Dist., Odisha 769 008

“PROCUREMENT OF EQUIPMENT UNDER HEFA LOAN”

ANNEXURE 1

INSTRUCTIONS FOR ONLINE BID SUBMISSION

- The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates.
- The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.
- More information useful for submitting online bids on the CPP Portal may be obtained at: <https://eprocure.gov.in/eprocure/app>
- The Tender will be received online through portal <http://eprocure.gov.in/eprocure/app>. In the Technical Bids, the bidder is required to upload all the documents in .pdf format.
- Possession of a Valid Class- III Digital Signature Certificate (DSC) in the form of smart card / e-token in the company's name is a prerequisite for registration and participating in the bid submission activities through <https://eprocure.gov.in/eprocure/app>. Digital Signature Certificates can be obtained from the authorized certifying agencies, details of which are available in the web site <https://eprocure.gov.in/eprocure/app> under the link “Information about DSC”.

REGISTRATION

- 1) Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: <https://eprocure.gov.in/eprocure/app>) by clicking on the link “[Online Bidder Enrollment](#)” on the CPP Portal which is free of charge.
- 2) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- 3) Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
- 4) Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / nCode / eMudhra etc.), with their profile.
- 5) Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC's to others which may lead to misuse.
- 6) Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

SEARCHING FOR TENDER DOCUMENTS

- 1) There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, Organization Name, Location, Date, Value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as Organization Name, Form of Contract, Location, Date, Other keywords etc. to search for a tender published on the CPP Portal.
- 2) Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective ‘My Tenders’ folder. This would enable the CPP Portal to intimate the bidders through SMS / email in case there is any corrigendum issued to the tender document.
- 3) The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

PREPARATION OF BIDS

- 1) Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- 2) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
- 3) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF / JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
- 4) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use “**My Space**” or “Other Important Documents” area available to them to upload such documents. These documents may be directly submitted from the “My Space” area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

NOTE: “My Space” containing the documents is only a repository given to the Bidders to ease the uploading process. If Bidder has uploaded his Documents in “My Space”, this does not automatically ensure these Documents being part of Technical Bid.



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA

[An Institute of National Importance under Ministry of Education, Govt. of India]

Sector 1, Rourkela, Sundergarh Dist., Odisha 769 008

“PROCUREMENT OF EQUIPMENT UNDER HEFA LOAN”

SUBMISSION OF BIDS

- 1) Bidder should log into the site well in advance for bid submission so that they can upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- 2) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- 3) Bidder has to select the payment option as “offline” to pay the tender fee / EMD as applicable and enter details of the instrument.
- 4) Bidder should prepare the EMD as per the instructions specified in the tender document. The original should be posted / couriered / given in person to the concerned office / official, latest by the last date of bid submission or as specified in the tender documents. The details of the DD / any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise the uploaded bid will be rejected.
- 5) A standard BOQ format has been provided with the Tender document to be filled by all the bidders.
- 6) Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BoQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BoQ file, open it and complete the white coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BoQ file is found to be modified by the bidder, the bid will be rejected.

(OR)

In some cases, Financial Bids can be submitted in RAR format as well (in lieu of BOQ).

- 7) The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
- 8) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the Secured Socket Layer (SSL) 328-bit encryption technology. Data storage encryption of sensitive fields is done. 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 opener's public keys.
- 9) The uploaded tender documents become readable only after the tender is opened by the authorized bid openers.
- 10) Upon the successful and timely submission of bids (i.e. after Clicking “Freeze Bid Submission” in the portal), the portal will give a successful bid submission message & a Bid Summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- 11) Kindly add scanned PDF of all relevant documents in a single PDF file of compliance sheet.
- 12) The Bid Summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

ASSISTANCE TO BIDDERS

- 1) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant Authorized Official indicated in the tender.
- 2) Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk.
- 3) The document '**Instructions to Bidder for Online Bid Submission**' is downloadable from: <https://eprocure.gov.in/eprocure/app?page=StandardBiddingDocuments&service=page>



ANNEXURE 2

GENERAL CONDITIONS OF THE CONTRACT WITH TERMS

- a) Bidder must fill the Letter of Undertaking (**Annexure-4**) and Declaration Performa (**Annexure-5**) complete in all respect.
- b) Bidder must quote their rates exclusive of all taxes and duties. Taxes applicable may be quoted separately giving full details.
- c) While all efforts have been made to avoid errors in the drafting of the tender documents, the Bidder is advised to check the same carefully. No claim on account of any errors detected in the tender documents shall be entertained.
- d) All Bidders are hereby explicitly informed that conditional offers or offers with deviations from the conditions of Contract, the bids not meeting the minimum eligibility criteria, Technical Bids not accompanied with Bid Security receipt of RTGS / NEFT of requisite amount or the proof of exemption from Bid Security and an Undertaking In lieu of Bid Security, or any other requirements stipulated in the tender documents are liable to be rejected.
- e) The Bid Security shall be returned through electronic transfer if submitted online to the bidder(s) bank account as provided by the bidder(s) or it will be returned by post whose offer is not accepted by the Institute within 35 days after finalization and award of the contract without any interest. If the return of Bid Security is delayed for any reason, no interest/penalty shall be payable to the bidder.
- f) For all purposes of the contract including arbitration there under, the address of the bidder mentioned in the bid shall be final unless the bidder notifies any change of address by a separate letter sent by registered post with acknowledgement due to NIT RKL. The bidder shall be solely responsible for the consequences of any omission or error to notify any change of address in the aforesaid manner.
- g) Each page in the bid document must be numbered properly and duly signed & sealed by the bidder. Submit the tender document as per Instruction for Online Bid Submission.
- h) The date fixed for opening of bids, if subsequently declared as holiday by the Government, the revised date of schedule will be notified. However, in absence of such notification, the bids will be opened on next working date, the time remaining unaltered.
- i) In preparing the financial bids, bidders are expected to take into account the requirements and conditions laid down in this Tender document. The financial bids should be uploaded online as per the specified “.xls” format i.e. Price Bid in Excel sheet attached as ‘.xls’ with the tender and based on the scope of work, service conditions and other terms of the Tender document. It should include all costs associated with the Terms of Reference / Scope of Work of the assignment.
- j) Quoted rate should be valid as asked in “Tender Schedule”.
- k) All figures etc. must be in English Language only.
- l) The lowest rate will not be the basis of claim to get the order.
- m) The firm blacklisted by any IIT / IIIT / NIT / Government Department / PSU / PSU Banks / Autonomous Bodies / Statutory Bodies in India at any stage need not to apply.
- n) Director, National Institute of Technology Rourkela reserves the right to reject or accept any tender.
- o) Director, National Institute of Technology Rourkela will be the sole arbitrator of all the disputes and his decision will be binding on both the parties.
- p) Director, National Institute of Technology Rourkela reserves the right to alter/modify any or all conditions of this tender notice.
- q) Delivery of Stores is restricted between 09:30 HRS to 17:30 HRS on all working days except Saturday & Sunday and a Public Holiday.
- r) **Tenderer should take into account any corrigendum published on the tender document before submitting their bids. All such corrigendum will be placed on Central Public Procurement Portal as well as NIT RKL website www.nitrkl.ac.in. Intending tenderers are advised to visit www.nitrkl.ac.in and <https://eprocure.gov.in> for regular update, if any, till the closing date of tender for any corrigendum / addendum / amendment. NIT RKL will not be responsible for ignorance of corrigendum.**
- s) Rate should be quoted in BOQ in Cover 2 (Price Offer **OR** Schedule of Rate).
- t) ANTI COMPETITIVE AGREEMENTS/ABUSE OF DOMINANT POSITION: The Competition Act, 2002 as amended by the Competition (Amendment) Act, 2007 (the Act), prohibits anti- competitive practices and aims at fostering competition and at protecting Indian markets against anti- competitive practices by enterprises. The Act prohibits anti- competitive agreements, abuse of dominant position by enterprises, and regulates combinations (consisting of acquisition, acquiring of control and M&A) wherever such agreements, abuse or combination causes, or is likely to cause, appreciable adverse effect on competition in markets in India. NIT RKL reserves the right to approach the Competition Commission established under the Act of Parliament and file information relating to anti-competitive agreements and abuse of dominant position. If such a situation arises, then Vendors are bound by the decision of the Competitive Commission and also subject to penalty and other provisions of the Competition Act.
- u) The tenderer who submits false, forged or fabricated documents or conceals facts with intention to win over the tender or procure purchase order; Bid Security of such tenderer firm shall be forfeited and firm shall be liable for blacklisting for a



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA

[An Institute of National Importance under Ministry of Education, Govt. of India]

Sector 1, Rourkela, Sundergarh Dist., Odisha 769 008

"PROCUREMENT OF EQUIPMENT UNDER HEFA LOAN"

period of not less than 2 years. The firm shall also be liable for Legal action depending on the facts & circumstances of the case.

- v) If the supplier fails to execute the purchase order and informs NIT Rourkela about its inability to execute the order and non-compliance of the purchase order, firm shall be liable for blacklisting for a period of not less than 2 years.
- w) National Institute of Technology Rourkela reserves the right to amend or withdraw any of the terms and conditions contained in the Tender Document or to reject any or all tenders without giving any notice or assigning any reason or to cancel the tender. The decision of Director – NIT RKL shall be final and binding on all.
- x) All disputes are subject to Jurisdiction of Rourkela.
- y) Interested agencies / firms can visit the site in office working hours i.e. 0900 HRS to 1800 HRS on working days.

2.1 DEFINITIONS

2.1.1 The following words and expressions shall have the meanings hereby assigned to them:

- a) "Contract" means the Contract Agreement entered into between the Purchaser and the Supplier, together with the Contract Documents referred to therein, including all attachments, appendices, and all documents incorporated by reference therein.
- b) "Contract Documents" means the documents listed in the Contract Agreement, including any amendments thereto.
- c) "Contract Price" means the price payable to the Supplier as specified in the Contract Agreement, subject to such additions and adjustments thereto or deductions there from, as may be made pursuant to the Contract.
- d) "Day" means calendar day.
- e) "Completion" means the fulfilment of the Related Services by the Supplier in accordance with the terms and conditions set forth in the Contract.
- f) "GCC" means the General Conditions of Contract.
- g) "Goods" means all of the commodities, raw material, machinery and equipment, and/or other materials that the Supplier is required to supply to the Purchaser under the Contract.
- h) "The Work" means all labour, materials, tools and plant, equipment including government taxes and transport, that may be required in preparation of and for and in the full and entire execution and completion of "the Work".
- i) "Related Services" means the services incidental to the supply of the goods, such as transportation, insurance, installation, training and initial maintenance and other such obligations of the Supplier under the Contract.
- j) "SCC" means the Special Conditions of Contract.
- k) "Subcontractor" means any natural person, private or government entity, or a combination of the above, to whom any part of the Goods to be supplied or execution of any part of the Related Services is subcontracted by the Supplier.
- l) For the Bidding/ Tender Document Purposes, National Institute of Technology Rourkela shall be referred to as 'Institute' and the Bidder / Successful Bidder shall be referred to as 'Contractor and / or Bidder or Tenderer / Supplier / Vendor'.
- m) "Bidder" means the natural person, private or government entity, or a combination of the above, whose bid to perform the Contract has been accepted by the Purchaser and is named as such in the Contract Agreement.
- n) National Institute of Technology Rourkela (NIT RKL) means a society registered under the Certificate of Registration of Societies under Act XXI of 1860, vide no. 21466/210 of 2001-2002 dt. 05.01.2002.
- o) "The final destination," where applicable, means the place named in the SCC.

2.2 CONTRACT DOCUMENTS

2.2.1 Subject to the order of precedence set forth in the Contract Agreement, all documents forming the Contract (and all parts thereof) are intended to be correlative, complementary, and mutually explanatory. The Contract Agreement shall be read as a whole.

2.3 FRAUD AND CORRUPTION

2.3.1 The purchaser requires that bidders, suppliers, contractors and consultants, if any, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuit of this policy,

- a) The terms set forth below are defined as follows:
 - i) "Corrupt practice" means the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the procurement process or in contract execution;
 - ii) "Fraudulent practice" means a misrepresentation or omission of facts in order to influence a procurement process or the execution of a contract;
 - iii) "Collusive practice" means a scheme or arrangement between two or more bidders, with or without the knowledge of the Borrower, designed to establish bid prices at artificial, noncompetitive levels; and
 - iv) "Coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the procurement process or affect the execution of a contract;
- b) the purchaser will reject a proposal for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for the Contract in question.

2.4 JOINT VENTURE, CONSORTIUM OR ASSOCIATION

2.4.1 If the Supplier is a joint venture, consortium, or association, all of the parties shall be jointly and severally liable to the Purchaser for the fulfilment of the provisions of the Contract and shall designate one party to act as a leader with authority to bind the joint venture, consortium, or association. The composition or the constitution of the joint venture, consortium, or association shall not be altered without the prior consent of the Purchaser.



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA

[An Institute of National Importance under Ministry of Education, Govt. of India]

Sector 1, Rourkela, Sundergarh Dist., Odisha 769 008

“PROCUREMENT OF EQUIPMENT UNDER HEFA LOAN”

2.5 SCOPE OF SUPPLY

2.5.1 The Goods and Related Services to be supplied shall be as specified in the Schedule of Requirements.

2.6 SUPPLIERS' RESPONSIBILITIES

2.6.1 The Supplier shall supply all the Goods and Related Services included in the Scope of Supply in accordance with Scope of Supply Clause of the GCC, and the Delivery and Completion Schedule, as per GCC Clause relating to delivery and document.

2.7 CONTRACT PRICE

2.7.1 Prices charged by the Supplier for the Goods supplied and the Related Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid.

2.8 COPYRIGHT

2.8.1 The copyright in all drawings, documents, and other materials containing data and information furnished to the Purchaser by the Supplier herein shall remain vested in the Supplier, or, if they are furnished to the Purchaser directly or through the Supplier by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such third party.

2.9 APPLICATION

2.9.1 These General Conditions shall apply to the extent that they are not superseded by provisions in other parts of the Contract.

2.10 STANDARDS

2.10.1 The Goods supplied and services rendered under this Contract shall conform to the standards mentioned in the Technical Specifications and Schedule of Requirements, and, when no applicable standard is mentioned, to the authoritative standard appropriate to the Goods' country of origin and such standards shall be the latest issued by the concerned institution.

2.11 USE OF CONTRACT DOCUMENTS AND INFORMATION

2.11.1 The Supplier shall not, without the Purchaser's prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample or information, furnished by or on behalf of the Purchaser in connection therewith, to any person other than a person employed by the Supplier in performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far, as may be necessary for purposes of such performance.

2.11.2 The Supplier shall not, without the Purchaser's prior written consent, make use of any document or information enumerated above except for purposes of performing the Contract.

2.11.3 Any document, other than the Contract itself, enumerated above shall remain the property of the Purchaser and shall be returned (in all copies) to the Purchaser on completion of the Supplier's performance under the Contract if so required by the Purchaser.

2.12 PATENT INDEMNITY

2.12.1 The Supplier shall, subject to the Purchaser's compliance with GCC Sub-Clause 12.2, indemnify and hold harmless the Purchaser and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Purchaser may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract by reason of:

(a) The installation of the Goods by the Supplier or the use of the Goods in India; and

(b) The sale in any country of the products produced by the Goods.

2.12.2 If any proceedings are brought or any claim is made against the Purchaser, the Purchaser shall promptly give the Supplier a notice thereof, and the Supplier may at its own expense and in the Purchaser's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claims.

2.13 PERFORMANCE SECURITY

2.13.1 Within 21 days of receipt of the notification of award / PO, the Supplier shall furnish Performance Security (PS) in the amount specified in SCC, valid till 60 days after the warranty period. Alternatively, the PS may also be submitted at the time of release of final payment in cases where part payment is made against delivery & part on installation. The PS, where applicable, shall be submitted in advance for orders where full payment is to be made on Letter of Credit (LC) or on delivery. In this case, submission of PS at the time of negotiation of documents through Bank would be stipulated as a condition in the LC and the BS (Bid Security) should be kept valid till such time the PS is submitted.

2.13.2 The proceeds of the performance security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.

2.13.3 The Performance Security shall be denominated in Indian Rupees (INR) for the offers received for supplies within India and / or denominated in the currency of the contract in the case of offers received for supply from foreign countries.

2.13.4 In the case of imports, the PS may be submitted either by the principal or by the Indian agent and, in the case of purchases from indigenous sources, the PS may be submitted by either the manufacturer or their authorized dealer / bidder.



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA

[An Institute of National Importance under Ministry of Education, Govt. of India]

Sector 1, Rourkela, Sundergarh Dist., Odisha 769 008

“PROCUREMENT OF EQUIPMENT UNDER HEFA LOAN”

- 2.13.5 The Performance security shall be in one of the following forms:
- (a) A Bank guarantee or stand-by Letter of Credit issued by a Nationalized / Scheduled bank located in India or a bank located abroad in the form provided in the bidding documents. **(OR)**
 - (b) A Banker's cheque or Account Payee demand draft in favour of the purchaser. **(OR)**
 - (c) A Fixed Deposit Receipt pledged in favour of the Purchaser.

2.13.6 The performance security will be discharged by the Purchaser and returned to the Supplier not later than 60 days following the date of completion of the Supplier's performance obligations, including any warranty obligations, unless specified otherwise in SCC, without levy of any interest.

2.13.7 In the event of any contract amendment, the supplier shall, within 21 days of receipt of such amendment, furnish the amendment to the performance security, rendering the same valid for the duration of the contract, as amended for further period of 60 days thereafter.

2.13.8 The order confirmation should be received within 15 days from the date of notification of award. However, the Purchaser has the powers to extend the time frame for submission of order confirmation and submission of Performance Security (PS). Even after extension of time, if the order confirmation / PS is not received, the contract shall be cancelled and limited tenders irrespective of the value would be invited from the responding firms after forfeiting the bid security of the defaulting firm, where applicable provided there is no change in specifications. In such cases the defaulting firm would not be considered again for re-tendering in the particular case.

2.14. INSPECTIONS AND TESTS

2.14.1 The Supplier shall at its own expense and at no cost to the Purchaser carry out all such tests and / or inspections of the Goods and Related Services as are specified in the SCC or as discussed and agreed to during the course of finalization of contract.

2.14.2 The Purchaser or its representative shall have the right to inspect and / or to test the Goods to confirm their conformity to the Contract specifications at no extra cost to the Purchaser. The Technical Specifications and SCC shall specify what inspections and tests the Purchaser requires and where they are to be conducted. The Purchaser shall notify the Supplier in writing in a timely manner of the identity of any representatives retained for these purposes

2.14.3 The inspections and tests may be conducted on the premises of the Supplier or its subcontractor(s), at the point of delivery and / or at the final destination of the Goods. If conducted on the premises of the Supplier or its subcontractor(s), all reasonable facilities and assistance, including access to drawings and production data - shall be furnished to the inspectors at no charge to the Purchaser.

2.14.4 Whenever the Supplier is ready to carry out any such test and inspection, it shall give a reasonable advance notice, including the place and time, to the Purchaser. The Supplier shall obtain from any relevant third party or manufacturer any necessary permission or consent to enable the Purchaser or its designated representative to attend the test and / or inspection

2.14.5 Should any inspected or tested Goods fail to conform to the specifications, the Purchaser may reject the goods and the Supplier shall either replace the rejected Goods or make alterations necessary to meet specification requirements free of cost to the Purchaser.

2.14.6 The Purchaser's right to inspect, test and, where necessary, reject the Goods after the Goods' arrival at final destination shall in no way be limited or waived by reason of the Goods having previously been inspected, tested and passed by the Purchaser or its representative prior to the Goods shipment.

2.14.7 The Supplier shall provide the Purchaser with a report of the results of any such test and / or inspection.

2.14.8 With a view to ensure that claims on insurance companies, if any, are lodged in time, the bidders and / or the Indian agent shall be responsible for follow up with their principals for ascertaining the dispatch details and informing the same to the Purchaser and he shall also liaise with the Purchaser to ascertain the arrival of the consignment after clearance so that immediately thereafter in his presence the consignment could be opened and the insurance claim be lodged, if required, without any loss of time. Any delay on the part of the bidder / Indian Agent would be viewed seriously and he shall be directly responsible for any loss sustained by the purchaser on the event of the delay.

2.15. PACKING

2.15.1 The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the Contract. 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.

2.15.2 The packing, marking and documentation within and outside the packages shall comply strictly with such special requirements as shall be provided for in the Contract including additional requirements, if any, specified in SCC and in any subsequent instructions ordered by the Purchaser.

2.16. DELIVERY AND DOCUMENTS

2.16.1 Delivery of the Goods and completion of related services shall be made by the Supplier in accordance with the terms specified by the Purchaser in the contract. The details of shipping and / or other documents to be furnished by the supplier are specified in SCC.

2.16.2 The terms FOB, FCA, CIF, CIP etc. shall be governed by the rules prescribed in the current edition of the Incoterms published by the International Chambers of Commerce, Paris.

2.31. INSURANCE

2.17.1 Should the purchaser elect to buy on CIF / CIP basis, the Goods supplied under the Contract shall be fully insured in Indian Rupees (INR) against any loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified in SCC.

2.17.2 Where delivery of the goods is required by the purchaser on CIF or CIP basis the supplier shall arrange and pay for Cargo Insurance, naming the purchaser as beneficiary and initiate & pursue claims till settlement, on the event of any loss or damage.

2.17.3 Where delivery is on FOB or FCA basis, insurance would be the responsibility of the purchaser.



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA

[An Institute of National Importance under Ministry of Education, Govt. of India]

Sector 1, Rourkela, Sundergarh Dist., Odisha 769 008

“PROCUREMENT OF EQUIPMENT UNDER HEFA LOAN”

2.17.4 With a view to ensure that claims on insurance companies, if any, are lodged in time, the bidders and / or the Indian agent shall be responsible for follow up with their principals for ascertaining the dispatch details and informing the same to the Purchaser and he shall also liaise with the Purchaser to ascertain the arrival of the consignment after clearance so that immediately thereafter in his presence the consignment could be opened and the insurance claim be lodged, if required, without any loss of time. Any delay on the part of the bidder / Indian Agent would be viewed seriously and he shall be directly responsible for any loss sustained by the purchaser on the event of the delay.

2.18 TRANSPORTATION

2.18.1 Where the Supplier is required under the Contract to deliver the Goods FOB, transport of the Goods, up to and including the point of putting the Goods on board the vessel at the specified port of loading, shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract price. Where the Supplier is required under the Contract to deliver the Goods FCA, transport of the Goods and delivery into the custody of the carrier at the place named by the Purchaser or other agreed point shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract price.

2.18.2 Where the Supplier is required under the Contract to deliver the Goods CIF or CIP, transport of the Goods to the port of destination or such other named place of destination in the Purchaser's country, as shall be specified in the Contract, shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract Price.

2.18.3 In the case of supplies from within India, where the Supplier is required under the Contract to transport the Goods to a specified destination in India, defined as the Final Destination, transport to such destination, including insurance and storage, as specified in the Contract, shall be arranged by the Supplier, and the related costs shall be included in the Contract Price.

2.19 INCIDENTAL SERVICES

2.19.1 The supplier may be required to provide any or all of the services, if any, specified in SCC

2.20 SPARE PARTS

2.20.1 The Supplier shall be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:

- (a) Such spare parts as the Purchaser may elect to purchase from the Supplier, providing that this election shall not relieve the Supplier of any warranty obligations under the Contract; and
- (b) In the event of termination of production of the spare parts:
 - (i) Advance notification to the Purchaser of the pending termination, in sufficient time to permit the Purchaser to procure needed requirements; and
 - (ii) Following such termination, furnishing at no cost to the Purchaser, the blueprints, drawings and specifications of the spare parts, if requested.

2.21 WARRANTY

2.21.1 The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.

2.21.2 The Supplier further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in India.

2.21.3 Unless otherwise specified in the SCC, the warranty shall remain valid for twelve (12) months after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the SCC, or for eighteen (18) months after the date of shipment from the port or place of loading in the country of origin, whichever period concludes earlier.

2.21.4 The Purchaser shall give notice to the Supplier stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof. The Purchaser shall afford all reasonable opportunity for the Supplier to inspect such defects.

2.21.5 Upon receipt of such notice, the Supplier shall, within a reasonable period of time, expeditiously repair or replace the defective Goods or parts thereof, at no cost to the Purchaser.

2.21.6 If having been notified, the Supplier fails to remedy the defect within the reasonable period of time; the Purchaser may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.

2.21.7 Goods requiring warranty replacements must be replaced on free of cost basis to the purchaser.

2.22 TERMS OF PAYMENT

2.22.1 The method and conditions of payment to be made to the Supplier under this Contract shall be as specified in the SCC.

2.22.2 The Supplier's request(s) for payment shall be made to the Purchaser in writing, accompanied by an invoice describing, as appropriate, the Goods delivered and the Services performed, and by documents, submitted pursuant to Delivery and document Clause of the GCC and upon fulfillment of other obligations stipulated in the contract.

2.22.3 Payments shall be made promptly by the Purchaser but in no case later than thirty (30) days after submission of the invoice or claim by the Supplier.

2.22.4 Payment shall be made in currency as indicated in the contract.

The Institute undertakes to dispatch payment within 30 days of receipt of stores (in good condition) & successful installation / demo against a valid tax invoice. Upon receipt of bill(s) in SRICCE office; Payment will be processed within 10 working days from this office to HEFA Board / Canara Bank at Bangalore. The vendor shall be aware of this fact that the payment will be effected by HEFA Board (Canara Bank) after the above process.



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA

[An Institute of National Importance under Ministry of Education, Govt. of India]

Sector 1, Rourkela, Sundergarh Dist., Odisha 769 008

“PROCUREMENT OF EQUIPMENT UNDER HEFA LOAN”

2.23. CHANGE ORDERS AND CONTRACT AMENDMENTS

- 2.23.1 The Purchaser may at any time, by written order given to the Supplier pursuant to Clause on Notices of the GCC make changes within the general scope of the Contract in any one or more of the following:
- Drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Purchaser;
 - The method of shipping or packing;
 - The place of delivery; and / or
 - The Services to be provided by the Supplier.
 - The delivery schedule.
- 2.23.2 If any such change causes an increase or decrease in the cost of, or the time required for, the Supplier's performance of any provisions under 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 claims by the Supplier for adjustment under this clause must be asserted within fifteen (15) days from the date of the Supplier's receipt of the Purchaser's change order.
- 2.23.3 No variation or modification in the terms of the contract shall be made except by written amendment signed by the parties.

2.24. ASSIGNMENT

- 2.24.1 The Supplier shall not assign, in whole or in part, its obligations to perform under the Contract, except with the Purchaser's prior written consent.

2.25. SUBCONTRACTS

- 2.25.1 The Supplier shall notify the Purchaser in writing of all subcontracts awarded under this Contract if not already specified in the bid. Such notification, in the original bid or later, shall not relieve the Supplier from any liability or duties or obligation under the Contract.

2.26. EXTENSION OF TIME

- 2.26.1 Delivery of the Goods and performance of the Services shall be made by the Supplier in accordance with the time schedule specified by the Purchaser.
- 2.26.2 If at any time during performance of the Contract, the Supplier or its sub-contractor(s) should encounter conditions impeding timely delivery of the Goods and performance of Services, the Supplier shall promptly notify the Purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Supplier's notice, the Purchaser shall evaluate the situation and may, at its discretion, extend the Supplier's time for performance with or without penalty, in which case the extension shall be ratified by the parties by amendment of the Contract.
- 2.26.3 Except as provided under the Force Majeure clause of the GCC, a delay by the Supplier in performance of its delivery obligations shall render the Supplier liable to the imposition of penalty pursuant to Penalty Clause of the GCC unless an extension of time is agreed upon pursuant to above clause without the application of penalty clause.

2.27. PENALTY CLAUSE

- 2.27.1 Subject to GCC Clause on Force Majeure, if the Supplier fails to deliver any or all of the Goods or to perform the Services within the period(s) specified in the Contract, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as penalty, a sum equivalent to the percentage specified in SCC of the delivered price of the delayed Goods or unperformed Services or contract value for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the Percentage specified in SCC. Once the maximum is reached, the Purchaser may consider termination of the Contract pursuant to GCC Clause on Termination for Default. The SCC shall also indicate the basis for ascertaining the value on which the penalty shall be applicable.

2.28. TERMINATION FOR DEFAULT

- 2.28.1 The Purchaser may, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Supplier, terminate the Contract in whole or part;
- If the Supplier fails to deliver any or all of the Goods within the period(s) specified in the contract, or within any extension thereof granted by the Purchaser pursuant to GCC Clause on Extension of Time; or
 - If the Supplier fails to perform any other obligation(s) under the Contract.
 - If the Supplier, in the judgment of the Purchaser has engaged in corrupt or fraudulent or collusive or coercive practices as defined in GCC Clause on Fraud or Corruption in competing for or in executing the Contract.
- 2.28.2 In the event the purchaser terminates the contract in whole or in part, he may take recourse to any one or more of the following action:
- The Performance Security is to be forfeited;
 - The purchaser may procure, upon such terms and in such manner as it deems appropriate, stores similar to those undelivered, and the supplier shall be liable for all available actions against it in terms of the contract.
 - However, the supplier shall continue to perform the contract to the extent not terminated.



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA

[An Institute of National Importance under Ministry of Education, Govt. of India]

Sector 1, Rourkela, Sundergarh Dist., Odisha 769 008

“PROCUREMENT OF EQUIPMENT UNDER HEFA LOAN”

2.29 FORCE MAJEURE

- 2.29.1 Notwithstanding the provisions of GCC Clauses relating to extension of time, penalty and Termination for Default the Supplier shall not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that, its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
- 2.29.2 For purposes of this Clause, “Force Majeure” means an event or situation beyond the control of the Supplier that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Supplier. Such events may include, but not be limited to, acts of the Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.
- 2.29.3 If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such conditions and the cause thereof within 21 days of its occurrence. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
- 2.29.4 If the performance in whole or in part or any obligations under the contract is prevented or delayed by any reason of force majeure for a period exceeding 60 days, either party may at its option terminate the contract without any financial repercussions on either side.

2.30 TERMINATION FOR INSOLVENCY

- 2.30.1 The Purchaser may at any time terminate the Contract by giving written notice to the Supplier, if the Supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy, which has accrued or will accrue thereafter to the Purchaser.

2.31 TERMINATION FOR CONVENIENCE

- 2.31.1 The Purchaser, by written notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time. The notice of termination shall specify that termination is for the Purchaser's convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.
- 2.31.2 The Goods those are complete and ready for shipment within 30 days after the Supplier's receipt of notice of termination shall be accepted by the Purchaser at the Contract terms and prices. For the remaining Goods, the Purchaser may elect:
- (a) To have any portion completed and delivered at the Contract terms and prices; and / or
 - (b) To cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and for materials and parts previously procured by the Supplier.

2.32 SETTLEMENT OF DISPUTES

- 2.32.1 The Purchaser and the supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.
- 2.32.2 If, after twenty-one (21) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract.
- 2.32.3 The dispute settlement mechanism / arbitration proceedings shall be concluded as under:
- (a) In case of Dispute or difference arising between the Purchaser and a domestic 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 the Chairman, Board of Governors of NIT Rourkela and if he is unable or unwilling to act, to the sole arbitration of some other person appointed by him willing to act as such Arbitrator. The award of the arbitrator so appointed shall be final, conclusive and binding on all parties to this order.
 - (b) In the case of a dispute between the purchaser and a Foreign Supplier, the dispute shall be settled by arbitration in accordance with provision of sub-clause (a) above. But if this is not acceptable to the supplier then the dispute shall be settled in accordance with provisions of UNCITRAL (United Nations Commission on International Trade Law) Arbitration Rules.
- 2.32.4 The venue of the arbitration shall be the place from where the purchase order or contract is issued.
- 2.32.5 Notwithstanding any reference to arbitration herein,
- (a) The parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and
 - (b) The Purchaser shall pay the Supplier any monies due to the Supplier.

2.33 GOVERNING LANGUAGE

- 2.33.1 The contract shall be written in English language which shall govern its interpretation. All correspondence and other documents pertaining to the Contract, which are exchanged by the parties, shall be written in the English language only.



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA

[An Institute of National Importance under Ministry of Education, Govt. of India]

Sector 1, Rourkela, Sundergarh Dist., Odisha 769 008

“PROCUREMENT OF EQUIPMENT UNDER HEFA LOAN”

2.34 APPLICABLE LAW

2.34.1 The Contract shall be interpreted in accordance with the laws of the Union of India and all disputes shall be subject to place of jurisdiction as specified in SCC.

2.35 NOTICES

2.35.1 Any notice given by one party to the other pursuant to this contract / order shall be sent to the other party in writing or by cable, telex, FAX, e-mail or and confirmed in writing to the other party's address specified in the SCC.

2.35.2 A notice shall be effective when delivered or on the notice's effective date, whichever is later.

2.36 TAXES AND DUTIES

2.36.1 For goods manufactured outside India, the Supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside India.

2.36.2 For goods Manufactured within India, the Supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred till its final manufacture / production.

2.36.3 If any tax exemptions, reductions, allowances or privileges may be available to the Supplier in India, the Purchaser shall make its best efforts to enable the Supplier to benefit from any such tax savings to the maximum allowable extent.

Bidders having GST Registration Certificate are required to indicate their GST Registration number and shall have to enclose a self-certified copy of GST Registration Certificate. If bidder has opted for composition scheme under GST ACT 2017, they have to declare themselves as "Composition Scheme" in the bid and indicate their Registration number in the Price Bid. Bidder shall have to enclose a certificate in original from a practicing Chartered Accountant / Cost & Management Accountant / Company Secretary confirming that Bidder is eligible to opt the scheme and has fulfilled all the conditions as mentioned in notification in this regard. In addition, bidder has to enclose the self-attested GST Registration Certificate in the commercial bid. If the Bidder is unregistered i.e. exempted from GST registration, they have to declare themselves as "GST Unregistered Bidders" in the bid and shall have to enclose GST Exemption documents i.e. certificate in original from Practicing Chartered Accountant / Cost & Management Accountant / Company Secretary that Bidder is fulfilling all the conditions prescribed in GST Act, 2017 to make him exempt from registration.

2.37 RIGHT TO USE DEFECTIVE GOODS

2.37.1 If after delivery, acceptance and installation and within the guarantee and warranty period, the operation or use of the goods proves to be unsatisfactory, the Purchaser shall have the right to continue to operate or use such goods until rectifications of defects, errors or omissions by repair or by partial or complete replacement is made without interfering with the Purchaser's operation.

2.38 PROTECTION AGAINST DAMAGE

2.38.1 The system shall not be prone to damage during power failures and trip outs.

The normal voltage and frequency conditions available at site as under:

- (a) Voltage 230 volts – Single phase / 435 V 3 phase ($\pm 10\%$)
- (b) Frequency 50 Hz.

2.39. SITE PREPARATION AND INSTALLATION

The Purchaser is solely responsible for the construction of the equipment sites in compliance with the technical and environmental specifications defined by the Supplier. The Purchaser will designate the installation sites before the scheduled installation date to allow the Supplier to perform a site inspection to verify the appropriateness of the sites before the installation of the Equipment, if required. The supplier shall inform the purchaser about the site preparation, if any, needed for installation, of the goods at the purchasers' site immediately after notification of award / contract.

**Sd/-
REGISTRAR**



ANNEXURE 3

SPECIAL CONDITIONS OF CONTRACT

- These instructions are over and above the instructions contained in the enclosed set of tender documents and **override** instructions in case of conflict.
- All the documents submitted must be legible and self-attested and stamped. Otherwise it is likely to be rejected.
- Tender must be quoted in prescribe format on the company / firm letter head.

3.1. ELIGIBLE BIDDERS

- 3.1.1 This Invitation for Bids is open to all suppliers; Each Bidder shall submit only one Bid, either individually or as a partner in a joint venture. A Bidder who submits or participates in more than one Bid (other than as a sub-contractor) shall cause all Bids with the Bidder's participation to be disqualified.
- 3.1.2 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.

3.2. COST OF BIDDING

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

3.3. FRAUD AND CORRUPTION

- 3.3.1 The purchaser requires that the bidders / suppliers and contractors observe the highest standard of ethics during the procurement and execution of such contracts.
- 3.3.2 The purchaser will reject a proposal for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for the Contract in question.

3.4. COST OF BIDDING DOCUMENTS

- 3.4.1 Interested eligible bidders may download the document from our Website. However, the bid document cost to be paid during the submission of the bid.

3.5. CONTENT OF BIDDING DOCUMENTS

- 3.5.1 The goods required, bidding procedures and contract terms are prescribed in the bidding documents which should be read in conjunction.
- 3.5.2 The Bidder is expected to examine all instructions, forms, terms, and specifications in the bidding documents. **Failure to furnish all information required by the bidding documents or submission of a bid not substantially responsive to the bidding documents in every respect will be at the Bidder's risk and may result in rejection of its bid.**

3.6. CLARIFICATION OF BIDDING DOCUMENTS

- 3.6.1 A prospective Bidder requiring any clarification of the Bidding Documents shall contact the Purchaser in writing via email / fax. The Purchaser will respond in writing to any request for clarification, provided that such request is received not later than ten (30) days prior to the deadline for submission of bids. The Purchaser shall forward copies of its response to all those who have acquired the Bidding Documents directly from it, including a description of the inquiry but without identifying its source. Should the Purchaser deem it necessary to amend the Bidding Documents as a result of a clarification, it shall do so following the procedure under clause relating to amendment of Bidding Documents and Clause relating to Deadline for Submission of Bids. The clarifications and amendments issued would also be hosted on the website of the purchaser for the benefit of the other prospective bidders.

3.7. AMENDMENT OF BIDDING DOCUMENTS

- 3.7.1 At any time prior to the deadline for submission of bids, the Purchaser may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the bidding documents by amendment.
- 3.7.2 All prospective bidders who have received the bidding documents will be notified of the amendment in writing or by e-mail and will be binding on them. The same would also be hosted on the website of the purchaser and all prospective bidders are expected to surf the website before submitting their bids to take cognizance of the amendments.
- 3.7.3 In order to allow prospective bidders reasonable time to take the amendment into account, while in preparing their bids, the Purchaser, at its discretion, may extend the deadline for the submission of bids and host the changes on the website of the purchaser.
- 3.7.4 In case of any amendment to the bid, it will be done at least 7 days before due date and will be published in website. Bidders are required to keep this in view before submission. Normally extension of due date will not be entertained. However, in special cases if due date is extended, it will be notified under the same tender notice before 3 days of due date.



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA

[An Institute of National Importance under Ministry of Education, Govt. of India]

Sector 1, Rourkela, Sundergarh Dist., Odisha 769 008

“PROCUREMENT OF EQUIPMENT UNDER HEFA LOAN”

PREPARATION OF BIDS

3.8. LANGUAGE OF BID

3.8.1 The bid prepared by the Bidder, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Purchaser, shall be written in English language only especially when the details are technical.

3.9. DOCUMENTS COMPRISING THE BID

3.9.1 The bid prepared by the Bidder shall include:

- a) Tender Acceptance Letter
- b) Declaration Performa
- c) Check List for Bid Submission
- d) Bid Security Declaration.
- e) Model Format for PBG
- f) Mandate form for Electronic Fund Transfer
- g) Checklist for Bidders' Eligibility
- h) Checklist for Compliance on Technical specification

3.10. BID FORM AND PRICE SCHEDULE

3.10.1 The bidder shall complete the Bid with the appropriate price schedule.

3.11. BID PRICES

3.11.1 The currency of all quoted rates shall be Indian Rupees. All payment shall be made in Indian Rupees. The rates are to be quoted by the bidders in Indian Rupees only and payment shall be made to successful bidders in Indian Rupees only. Any statutory applicable taxes such as applicable Tax, etc. should be mentioned separately in the Financial Bid. However, quote should be inclusive of all other levies, statutory taxes and charges etc. and should be delivered at the premises. All prices shall be fixed and shall not be subject to escalation of any description. The rates must be quoted strictly as per the 'Financial Bid Format' provided.

The rates quoted should preferably be net, inclusive of all taxes and duties, packing, forwarding, freight, Insurance and all other incidental charges. In case these charges are quoted extra in addition to the quoted rates, the amount thereof or Ad Valorem rate must be specified. Packing, forwarding, freight etc., when quotes separately are reimbursable at actuals. If external agencies are employed, their receipts must be enclosed with the invoice.

Duties and Taxes are to be quoted separately. Ad Valorem rates thereof should be clearly indicated with reference to the relevant Acts and Rules. The Bidder shall indicate on the appropriate price schedule, the unit prices and total bid prices of the goods with applicable statutory taxes shown separately it proposes to supply under the contract.

Vendor should clearly mention the Rate of applicable GST separately, if firm will not mention the Taxes clearly on their Price Quotation, NIT Rourkela will assume that the quoted price is inclusive of all and no extra amount in later stage shall be paid by NIT Rourkela on account of Taxes. In case of tax exemption or lower TDS, vendor has to submit letter from Government Authority for tax exemption or lower TDS (to be submitted along with each of the invoice(s)).

3.11.2 Prices indicated on the price-schedule form shall be entered separately in the following manner:

(A) FOR GOODS MANUFACTURED WITHIN INDIA

- (i) The price of the goods quoted Ex-works including taxes already paid.
- (ii) Applicable taxes **[shall be shown extra]** which will be payable on the goods if the contract is awarded.
 - a. The charges for inland transportation, insurance and other local services required for delivering the goods at the desired destination as specified in the price schedule.
 - b. The installation, commissioning and training charges including any incidental services, if any.

(B) FOR GOODS MANUFACTURED ABROAD

Bidders are required to show break-up of Ex-works [which should include packing and handling charges], FOB / FCA and CIF / CIP price in the quotation. NIT Rourkela has a mechanism for consolidation and customs clearance. The consolidators will be nominated for this purpose at the time of awarding the contract if desires so.

- (i) The price of the goods, quoted on FCA (named place of delivery abroad) or FOB (named port of shipment), as specified in the price schedule.
- (ii) The charges for insurance and transportation of the goods to the port / place of destination.
- (iii) The agency commission charges should be shown, if any.
- (iv) The installation, commissioning and training charges including any incidental services, if any

3.11.3 **The terms FOB, FCA, CIF, CIP etc. shall be governed by the rules prescribed in the current edition of the Incoterms published by the International Chambers of Commerce, Paris.**

3.11.4 Where there is no mention of packing, forwarding, freight, insurance changes, taxes etc. such offer shall be rejected as incomplete.



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA

[An Institute of National Importance under Ministry of Education, Govt. of India]

Sector 1, Rourkela, Sundergarh Dist., Odisha 769 008

“PROCUREMENT OF EQUIPMENT UNDER HEFA LOAN”

- 3.11.5 The price quoted shall remain fixed during the contract period and shall not vary on any account.
- 3.11.6 All lots and items must be listed and priced separately in the Price Schedules. If a Price Schedule shows items listed but not priced their prices shall be assumed to be included in the prices of other items. Lots or items not listed in the Price Schedule shall be assumed to be not included in the bid.
- 3.11.7 **The purchases made by the purchaser for scientific purpose are exempt from GST and Customs Duty as applicable below notifications;**
- **Notification no. 51/96- Customs dt. 21.07.1996, Notification no. - 47/2017- Integrated Tax (Rate) dt. 14.11.2017 and Notification No- 45/2017- Central tax (Rate) dt. 14.11.2017 [vide Registration No.: TU/V/RG-CDE (227)/2016, dated: 11.11.2018].**
 - **Notification No.45/2017 Central Tax-(Rate), Dated: 14.11.2017 Notification No. 47/2017 Integrated Tax (Rate), Dated: 14.11.2017 are required for research purpose only.**
- 3.12. BID CURRENCIES**
- 3.12.1 Prices shall be quoted in Indian Rupees for offers received for supply within India and in freely convertible foreign currency in case of offers received for supply from foreign countries.
- 3.13. DOCUMENTS ESTABLISHING BIDDER'S ELIGIBILITY AND QUALIFICATIONS**
- 3.13.1 The bidder shall furnish, as part of its bid, documents establishing the bidders' eligibility to bid and its qualification to perform the contract if its bid is accepted.
- 3.13.2 The documentary evidence of the bidder's qualification to perform the contract if the bid is accepted shall establish to the purchaser's satisfaction that:
- a) The bidder meets the qualification criteria listed in bidding documents, if any.
 - b) Bidder doesn't manufacture the goods it offers to supply shall submit to Manufacturers' Authorization Form (MAF) to demonstrate that it has been duly authorized by the manufacturer of the goods to quote and / or supply the goods.
 - c) In case a bidder not doing business within India, it shall furnish the certificate to the effect that the bidder is or will be represented by an agent in India equipped and able to carry out the supply, maintenance, repair obligations etc. during the warranty and post warranty period or ensure a mechanism at place for carrying out the supply, maintenance, repair obligations etc. during the warranty and post-warranty period.
- 3.13.3 **Conditional tenders shall not be accepted.**
- 3.14. DOCUMENTS ESTABLISHING GOODS' ELIGIBILITY AND CONFORMITY TO BIDDING DOCUMENTS**
- 3.14.1 To establish the goods' eligibility, the documentary evidence of the goods and services eligibility shall consist of a statement on the country of origin of the goods and services offered which shall be confirmed by a certificate of origin at the time of shipment.
- 3.14.2 To establish the conformity of the goods and services to the specifications and schedule of requirements of the bidding document, the documentary evidence of conformity of the goods and services to the bidding documents may be in the form of literature, drawings and data, and shall consist of:
- a) A detailed description of the essential technical and performance characteristics of the goods;
 - b) A list giving full particulars, including available sources and current prices, of spare parts, special tools, etc., necessary for the proper and continuing functioning of the goods during the warranty period following commencement of the use of the goods by the Purchaser in the Priced bid; and
 - c) An item-by-item commentary on the Purchaser's Technical Specifications demonstrating substantial responsiveness of the goods and services to those specifications or a statement of deviations and exceptions to the provisions of the Technical Specifications.
- 3.14.3 For purposes of the commentary to be furnished pursuant to above, the Bidder shall note that standards for workmanship, material and equipment, designated by the Purchaser in its Technical Specifications are intended to be descriptive only and not restrictive. The Bidder may substitute these in its bid, provided that it demonstrates to the Purchaser's satisfaction that the substitutions ensure substantial equivalence to those designated in the Technical Specifications.
- 3.15. BID SECURITY / EARNEST MONEY DEPOSIT (GFR RULE 170)**
- 3.15.1 As per F.9/4/2020-PPD dt. 12.11.2020; No provisions regarding Bid Security should be kept in the Bid Documents in future and only provision for Bid Security Declaration should be kept in the Bid Documents.
- As per this, Bid Security Declaration is provided in the Bid Document as Annexure 7 for the purpose of submission by the Bidder along with the bid documents.
- 3.16. PERIOD OF VALIDITY OF BIDS**
- 3.16.1 Bids shall remain valid for minimum of 90 days (in general) after the date of bid opening prescribed by the Purchaser. **A bid valid for a shorter period shall be rejected by the Purchaser as non-responsive.**
- 3.16.2 In exceptional circumstances, the Purchaser may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing (or by e-mail, cable, telex or fax). The bid security provided shall also be suitably extended. A Bidder may refuse the request without forfeiting its bid security. A Bidder granting the request will not be required nor permitted to modify its bid.



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA

[An Institute of National Importance under Ministry of Education, Govt. of India]

Sector 1, Rourkela, Sundergarh Dist., Odisha 769 008

“PROCUREMENT OF EQUIPMENT UNDER HEFA LOAN”

3.16.3 Bid evaluation will be based on the bid prices without taking into consideration the above corrections.

3.17. CONFIDENTIALITY

3.17.1 Information relating to the examination, evaluation, comparison, and post qualification of bids, and recommendation of contract award, shall not be disclosed to bidders or any other persons not officially concerned with such process until publication of the Contract Award.

3.17.2 Any effort by a Bidder to influence the Purchaser in the examination, evaluation, comparison, and post qualification of the bids or contract award decisions may result in the rejection of its Bid.

3.18. CLARIFICATION OF BIDS

3.18.1 To assist in the examination, evaluation, comparison and post qualification of the bids, the Purchaser may, at its discretion, ask the Bidder for a clarification of its bid. The request for clarification and the response shall be in writing and no change in prices or substance of the bid shall be sought, offered or permitted. However, no negotiation shall be held except with the lowest bidder, at the discretion of the purchaser. Any clarification submitted by a bidder in respect to its bid which is not in response to a request by the purchaser shall not be considered.

3.19. CONVERSION TO SINGLE CURRENCY

3.19.1 To facilitate evaluation and comparison, the Purchaser will convert all bid prices expressed in the amounts in various currencies in which the bid prices are payable to Indian Rupees at the selling exchange rate established by any bank in India on the date of bid opening in the case of single part bidding and the rates prevalent on the date of opening of the Priced bids in the case of two-part bidding. For this purpose, exchange rate notified in www.xe.com or www.rbi.org or any other website could also be used by the purchaser.

3.20. CONTACTING THE PURCHASER

3.20.1 Subject to ITB Clause 1.24, no Bidder shall contact the Purchaser on any matter relating to its bid, from the time of the bid opening to the time the Contract is awarded.

3.20.2 Any effort by a Bidder to influence the Purchaser in its decisions on bid evaluation, bid comparison or contract award may result in rejection of the Bidder's bid.

3.21. POST QUALIFICATION

3.21.1 In the absence of pre-qualification, the Purchaser will determine to its satisfaction whether the Bidder that is selected as having submitted the lowest evaluated responsive bid is qualified to perform the contract satisfactorily, in accordance with the criteria listed in ITB Clause 11.

3.21.2 The determination will take into account the eligibility criteria listed in the bidding documents and will be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, as well as such other information as the Purchaser deems necessary and appropriate.

3.21.3 An affirmative determination will be a prerequisite for award of the contract to the Bidder. A negative determination will result in rejection of the Bidder's bid.

3.22. PURCHASER'S RIGHT TO ACCEPT ANY BID AND TO REJECT ANY OR ALL BIDS

3.22.1 The Purchaser 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 thereby incurring any liability to the affected Bidder or Bidders.

3.23. WARRANTY

3.23.1 The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.

3.23.2 The Supplier further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in India.

3.23.3 Unless otherwise specified, the warranty shall remain valid for twelve (12) months after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated, or for eighteen (18) months after the date of shipment from the port or place of loading in the country of origin, whichever period concludes earlier.

3.23.4 The Purchaser shall give notice to the Supplier stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof.
The Purchaser shall afford all reasonable opportunity for the Supplier to inspect such defects.

3.23.5 Upon receipt of such notice, the Supplier shall, within a reasonable period of time, expeditiously repair or replace the defective Goods or parts thereof, at no cost to the Purchaser.

3.23.6 If having been notified, the Supplier fails to remedy the defect within the reasonable period of time; the Purchaser may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA

[An Institute of National Importance under Ministry of Education, Govt. of India]

Sector 1, Rourkela, Sundergarh Dist., Odisha 769 008

“PROCUREMENT OF EQUIPMENT UNDER HEFA LOAN”

3.23.7 Goods requiring warranty replacements must be replaced on free of cost basis to the purchaser.

Performance Guarantee: The successful bidder is required to submit a performance Guarantee of 10% of Purchase Order value valid during warranty period, plus two months' grace period.

3.24 PENALTY CLAUSE

3.24.1 Subject to GCC Clause on Force Majeure, if the Supplier fails to deliver any or all of the Goods or to perform the Services within the period(s) specified in the Contract, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as penalty, a sum equivalent to the percentage specified in contract of the delivered price of the delayed Goods or unperformed Services or contract value for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the Percentage specified in contract. Once the maximum is reached, the Purchaser may consider termination of the Contract pursuant to GCC. Clause on Termination for Default. The SCC shall also indicate the basis for ascertaining the value on which the penalty shall be applicable

3.25 INSURANCE

3.25.1 Should the purchaser elect to buy on CIF / CIP basis, the Goods supplied under the Contract shall be fully insured in Indian Rupees against any loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified in contract.

3.25.2 Where delivery of the goods is required by the purchaser on CIF or CIP basis the supplier shall arrange and pay for Cargo Insurance, naming the purchaser as beneficiary and initiate & pursue claims till settlement, on the event of any loss or damage.

3.25.3 Where delivery is on FOB or FCA basis, insurance would be the responsibility of the purchaser.

3.25.4 With a view to ensure that claims on insurance companies, if any, are lodged in time, the bidders and / or the Indian agent shall be responsible for follow up with their principals for ascertaining the dispatch details and informing the same to the Purchaser and he shall also liaise with the Purchaser to ascertain the arrival of the consignment after clearance so that immediately thereafter in his presence the consignment could be opened and the insurance claim be lodged, if required, without any loss of time. Any delay on the part of the bidder / Indian Agent would be viewed seriously and he shall be directly responsible for any loss sustained by the purchaser on the event of the delay.

3.26 TRANSPORTATION

3.26.1 Where the Supplier is required under the Contract to deliver the Goods FOB, transport of the Goods, up to and including the point of putting the Goods on board the vessel at the specified port of loading, shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract price. Where the Supplier is required under the Contract to deliver the Goods FCA, transport of the Goods and delivery into the custody of the carrier at the place named by the Purchaser or other agreed point shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract price.

3.26.2 Where the Supplier is required under the Contract to deliver the Goods CIF or CIP, transport of the Goods to the port of destination or such other named place of destination in the Purchaser's country, as shall be specified in the Contract, shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract Price.

3.26.3 In the case of supplies from within India, where the Supplier is required under the Contract to transport the Goods to a specified destination in India, defined as the Final Destination, transport to such destination, including insurance and storage, as specified in the Contract, shall be arranged by the Supplier, and the related costs shall be included in the Contract Price.

3.27 PACKING

Should be as per standards prescribed for international trade and movement of the goods.

3.28 STANDARDS

The Goods supplied and services rendered under this Contract shall conform to the standards mentioned in the Technical Specifications and Schedule of Requirements, and, when no applicable standard is mentioned, to the authoritative standard appropriate to the Goods' country of origin and such standards shall be the latest issued by the concerned institution.

If it is found that items are fake or of sub-standard quality and not conforming to the required specifications, the firm will have to replace the fake/ sub-standard items with genuine ones immediately but they will also be liable to be blacklisted.

3.29 PERFORMANCE SECURITY / GUARANTEE (GFR RULE 171)

3.29.1 Within 21 days of receipt of the notification of award / PO, the Supplier shall furnish performance security of 3% of Contract / Purchase Order value in the amount specified in the Contract, valid till 60 days beyond the completion of contractual obligations.

3.29.2 The proceeds of the performance security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.

3.29.3 The Performance Security shall be denominated in Indian Rupees for the offers received for supplies within India and denominated in the currency of the contract in the case of offers received for supply from foreign countries.

3.29.4 In the case of imports, the PS may be submitted either by the principal or by the Indian agent and, in the case of purchases from indigenous sources, the PS may be submitted by either the manufacturer or their authorized dealer / bidder.



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA

[An Institute of National Importance under Ministry of Education, Govt. of India]

Sector 1, Rourkela, Sundergarh Dist., Odisha 769 008

“PROCUREMENT OF EQUIPMENT UNDER HEFA LOAN”

3.29.5 The Performance security shall be in one of the following forms:

- (a) A Bank guarantee or stand-by Letter of Credit issued by a Nationalized/Scheduled bank located in India or a bank located abroad in the form provided in the bidding documents. **(OR)**
- (b) A Banker's cheque or Account Payee demand draft in favour of the purchaser. **(OR)**
- (c) A Fixed Deposit Receipt pledged in favour of the Purchaser.

3.30 DELIVERY & LIQUIDATED DAMAGE

Delivery schedule should be specified clearly.

Delivery of completion of systems/ components and Work is delayed for reasons of force majeure such as acts of God, Acts of Public enemy, acts of Government, fires, floods, epidemics, quarantine restrictions, illegal strikes and freight embargoes, the Contractor shall within 3 days from the date of such occurrence, give notice to NIT Rourkela in writing of his claim for extension of delivery period. NIT Rourkela on receipt of such notice may agree to extend the supply / contract delivery date as may be reasonable but without prejudice to other terms and conditions of the contract. Unless the extended delivery period is agreed by NIT Rourkela in writing, Tender Number cannot claim the extension of delivery time as a matter of right. NIT Rourkela shall have the right to cancel/ extend the order validity / levy Liquidated Damage (LD) as appropriate.

The time of delivery and Completion of Work including testing and handing over in satisfactory condition is the essence of the contract and the shipment should be effected as per the schedule. In the event of part supply, NIT Rourkela shall withhold the entire payment until the whole of the supply and work completed as per the order. In case the delivery schedule is not stipulated as essential criteria, contractor may indicate the period of delivery required for them.

Defect Liability period shall be 12 months from the date of satisfactory completion and handing over the site and satisfactory report from the indenter / End user.

If the successful bidder, on receipt of the supply order, fails to execute the order within the stipulated period, in full or part, it will be open to the Director, NIT Rourkela to recover liquidated damage from the firm at the rate of 0.25 percent of the value of undelivered goods per week or part thereof, subject to a maximum of 30 percent of the value of undelivered goods. Alternatively, it will also be opened to the Director, to arrange procurement of the required goods from any other source at the risk and expenses of the bidder.

3.31 ORDER ACCEPTANCE

It is proposed kindly incorporate that the successful bidder should submit Order Acceptance within 7 days from the date of order.

3.32 PAYMENT TERMS

For Indigenous supplies payment will be made within 30 days from the date of supply, installation and commissioning. For Imported goods, the preferred payment mode of the Institute is Sight Draft / Net 30 days. If Letter of Credit is insisted by the vendors, the LC will be established for 100% of Purchase Order value out of which 90% will be paid against Proforma Invoice with shipping evidence and 10% after installation and commissioning and on submission of Performance Bank Guarantee for 10% of Purchase Order value which should be valid during warranty period. However, the advance payment to the vendors is not encouraged.

The Institute undertakes to dispatch payment within 30 days of receipt of stores (in good condition) & successful installation / demo against a valid tax invoice. Upon receipt of bill(s) in SRICCE office; Payment will be processed within 10 working days from this office to HEFA Board / Canara Bank at Bangalore. The vendor shall be aware of this fact that the payment will be effected by HEFA Board (Canara Bank) after the above process.

Sd/-
REGISTRAR



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA

[An Institute of National Importance under Ministry of Education, Govt. of India]

Sector 1, Rourkela, Sundergarh Dist., Odisha 769 008

“PROCUREMENT OF EQUIPMENT UNDER HEFA LOAN”

ANNEXURE 4

TENDER ACCEPTANCE LETTER

(To be printed on Bidder's letterhead with Reference No. & Date with ink signature.)

Ref. No. with Date.:

To,
The Director,
National Institute of Technology, Rourkela
Odisha 769 008, India.

Sub: Undertaking & Acceptance of Terms & Conditions of Tender.

Tender Reference No : _____

Name of Tender / Work : _____

Dear Madam / Sir,

1. I / We have downloaded / obtained the tender document(s) for the above mentioned 'Tender / Work' from the web site(s) namely: _____ as per your advertisement, given in the above mentioned website(s).
2. I / We hereby certify that I / we have read the entire terms and conditions of the tender documents from Page No. _____ to _____ (including all documents like annexure(s), schedule(s), etc.), which form part of the contract agreement and I / we shall abide hereby by the terms / conditions / clauses contained therein.
3. The corrigendum(s) issued from time to time by your department / organization too have also been taken into consideration, while submitting this acceptance letter.
4. I / We hereby unconditionally accept the tender conditions of above mentioned tender document(s) / corrigendum(s) in its totality / entirety.
5. I / We also declare that the Government of India / any other Government body / any other organization has not declared us ineligible or blacklisted on charges of engaging in corrupt, fraudulent, collusive or coercive practices or any failure / lapses of serious nature.
6. I / We will not withdraw or modify its bids submitted for the above Tender No. _____ dated _____ during the period of validity of the bids.
7. I / We certify that all information furnished by our Firm is true & correct and in the event that the information is found to be incorrect / untrue or found violated, then your department / organization shall without giving any notice or reason thereof summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of the full said Earnest Money Deposit absolutely.
8. I / We, further undertake to have understood that if my company M/s. _____ withdraws or modifies its bids or if it fails to sign the contract or fails to submit a performance security within the stipulated deadline, M/s. _____ will be suspended for a specified time period at least for two years from being eligible to submit bids with National Institute of Technology, Rourkela.
9. I, further certify that in the event of any decrease in the price/ price variation indices during the currency of this contract, we shall promptly notify this to the purchaser and offer the requisite reduction in the contract rate.
10. Our bid shall be valid for a period of **00 days** from the date fixed for the bid submission deadline in accordance with the Bidding Documents and shall remain binding upon us and maybe accepted at any time before the expiry of the period.
11. If our bid is accepted, we commit to submit a Performance Security within 35 days from the date of issuance of the work/supply order.



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA

[An Institute of National Importance under Ministry of Education, Govt. of India]

Sector 1, Rourkela, Sundergarh Dist., Odisha 769 008

“PROCUREMENT OF EQUIPMENT UNDER HEFA LOAN”

I / We declare the following information provided are correct to the best of my knowledge:

1	Type of the Bidder	Manufacturer / Dealer / Agent
2	If Dealer / Agent, Kindly provide the name of OE Manufacturer	
3	Address & Contact details of OE Manufacturer, if applicable	
4	Name of the Bidder	
5	Address of the Bidder	
6	Authorized / Contact Person	
7	Office Phone Number	
8	Email	
9	Mobile Number	
10	GST No	
11	PAN No	
12	DD / UTR No / DU No with date. (in case of Tender Fee, if any)	
13	DD / UTR No / DU No with date. (in case of online transfer of EMD)	NA as per [as per F.9/4/2020-PPD dt. 12.11.2020]
14	Inco terms, if import	
15	Bid Validity Period [Days]	000 days from the date of submission of quotation / tender.
16	Warranty [Months]	00 months from the date of receipt of goods / commissioning or installation.
17	Delivery Period [Days]	000 days / 00 months from the date of issue of PO / WO.
18	Mode of Shipment	Air / Ocean / Road / Rail
19	Port of Shipment	Kolkata Airport / Kolkata Sea Port [Preferably] or _____
20	Payment terms in detail	Choose any one from below. <ul style="list-style-type: none">○ 100% after delivery on the final Invoice. [For inland supplies]○ 100% after delivery & successful installation / demo with the final Invoice. [For inland supplies]○ 90% payment by Letter of Credit (90% payment will be released on receipt of documents without any discrepancies and balance 10% will be paid by LC / Wire Transfer after satisfactory installation and commissioning with the receipt of Proforma Invoice. [For Foreign supplies]○ Payment by wire transfer (on request) within 30 days from the date of supply and installation of item. [For Foreign supplies]○ Any Other _____.
21	PO to be placed in favour of	

Yours Faithfully,

Name:

Designation:

(Signature of the Bidder, with Official Seal)

Company Seal:

Place:

Date:



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA

[An Institute of National Importance under Ministry of Education, Govt. of India]

Sector 1, Rourkela, Sundergarh Dist., Odisha 769 008

“PROCUREMENT OF EQUIPMENT UNDER HEFA LOAN”

ANNEXURE 5

DECLARATION

(Regarding ownership and / or employment of NIT RKL Employees)
(To be printed on Bidder's letterhead with Reference No. & Date with ink signature.)

I / We hereby declare that I / We or Partners or Directors of our concern do not have any such person under my / or employment who has retired / resigned / removed / dismissed from NIT RKL during the last two years.

I / We hereby declare that I / We or partners or Directors of our concern have the following under my / our employment who has / have retired / resigned / removed / dismissed from NIT RKL during the last two years.

I / We hereby declare that I / We or partners of directors are not related to any employees of NIT RKL.

S. No	Name of the Person	Date of leaving NIT RKL	Reason for leaving NIT RKL

OR

I / We hereby declare that the following persons employed in NIT RKL and any other NIT RKL Project / Station are related to me / us for partners or directors of our concern as per details indicated.

S. No	Name of the Person	Designation & Name of the Project / Office of NIT RKL	Relationship

NOTE: The near relative shall include wife, husband, parents, grandparents, children, grandchildren, brothers, sisters, uncles, aunts, cousins and their corresponding in-laws.

(Signature of Bidder with Official Seal)

(Name in CAPITALS)

Witness Signature

Name:

Place:

Date:

Note:

1. Please tick whatever is applicable and delete / strike whatever is not applicable
2. Please attach extra sheet if necessary.



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA

[An Institute of National Importance under Ministry of Education, Govt. of India]

Sector 1, Rourkela, Sundergarh Dist., Odisha 769 008

“PROCUREMENT OF EQUIPMENT UNDER HEFA LOAN”

ANNEXURE 6

CHECKLIST FOR BID SUBMISSION

(To be printed on Bidder's letterhead with Reference No. & Date with ink signature.)

S. No	Compliance Statement	Bidder's Confirmation (Yes / No) With Clarification / Details as required [Strike out whichever is not applicable]
A	B	C
1.	Confirm that you have submitted your bid for “Venturimeter apparatus, Pitot Tube Setup, Laminar and Turbulent Flow Table, Setup for Viscosity Measurement: Ball Drop Method, Darcy's Law Apparatus, Flow Over Notch, Bernoulli's Theorem Apparatus”, at NIT Rourkela.	QUOTED / NOT QUOTED
2.	Confirm that you have attached the documentary evidence as desired in Pre-Qualification Criteria.	CONFIRMED (YES / NO)
3.	The bidder should have submitted annual turnover for the Last 3 financial years (2017-18, 2018-19 & 2019-20). Audited and certified copies of balance sheet, letter mentioning turnover and profit and loss statement of these three years duly certified by chartered accountant should be submitted.	CONFIRMED (YES / NO) Turnover in INR 2017-18 _____ (INR) 2018-19 _____ (INR) 2019-20 _____ (INR)
4.	Confirm that the bidder must not have been blacklisted by any IIT / IIIT / NIT / Government / Department / PSU / PSU / Banks / Autonomous Bodies / Statutory Bodies in India at the time of submission of bid.	CONFIRMED (YES / NO)
5.	Confirm that the company must have its GST Registration certificate.	CONFIRMED (YES / NO)
6.	Confirm that the Contractor / Vendor / Bidder accept all the Terms and Condition of Special Condition of Contract.	CONFIRMED (YES / NO)
7.	Confirm that quoted price of the prescribed Supply, laying, material is on FOR / designated NIT Rourkela office / store, including transportation charges, taxes etc. all complete as defined in complete RFQ.	CONFIRMED (YES / NO)
8.	Confirm there is no deviation / clarification / cutting / overwriting in Price Schedule.	CONFIRMED (YES / NO)
9.	Confirm the Completion Period schedule is accepted as per Tender Documents provision.	CONFIRMED (YES / NO)
10.	Copy of PAN, Income Tax Return certificate submitted. [income tax return certificate for last 03 years as per tender documents.]	CONFIRMED (YES / NO) PAN NO: _____
11.	HSN CODE (if Applicable)	CONFIRMED (YES / NO)
12.	Confirm that the duly filled and scanned copy of all applicable ANNEXURES ST, TS & 1 to 11 submitted.	CONFIRMED (YES / NO)
13.	Confirm that the quoted price is firm and fixed for entire contract period till completion of work unless there is separate provision in the Bid document.	CONFIRMED (YES / NO)
14.	Confirm that Bidder's Bid is based on total compliance to the provisions of Tender document and subsequent amendment and corrigendum, if any, without any deviations and the quoted price is based on all the terms and conditions and specifications of Bid document.	CONFIRMED (YES / NO)
15.	Confirm that the Price Reduction Schedule (PRS) as per Tender provision is acceptable and certify that there has been no decrease in the price of price variation indices and, in the event of any decrease of such indices during the currency of this contract, we shall promptly notify this to the purchaser and offer the requisite reduction in the contract rate.	CONFIRMED (YES / NO)
16.	Confirm that the bidder accept all the terms and condition, methodology, GCC and all Annexure of entire tender documents.	CONFIRMED (YES / NO)
17.	Confirm that proof of remittance with transaction number of EMD / exemption certificate is attached.	CONFIRMED (YES / NO)

Yours Faithfully,

(Signature of the Bidder, with Official Seal)

Name:

Designation:

Company Seal:

Place:

Date:



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA

[An Institute of National Importance under Ministry of Education, Govt. of India]

Sector 1, Rourkela, Sundergarh Dist., Odisha 769 008

"PROCUREMENT OF EQUIPMENT UNDER HEFA LOAN"

ANNEXURE 7

BID SECURITY DECLARATION

(To be printed on Bidder's letterhead with Reference No. & Date with ink signature.)

Tender Ref. No.: _____ Date: _____

Tender ID : _____

To

**The Registrar,
National Institute of Technology, Rourkela
Sundergarh, Odisha-769 008**

The undersigned, declare that I / We understand that, according to your conditions, bids must be supported by a Bid Securing Declaration. I / We accept that I / We may be disqualified / suspended from bidding for any tender / contract in your Institute (NIT Rourkela) for a period of **Five Years** from the date of notification of present tender, if I am / We are in a breach of any obligation under the bid conditions as under, if I / We

- a) Withdraw / modify / amend, impair or derogate the tender / bids, during the period of bid validity specified in the form of Bid; or
- b) having been notified of the acceptance of our Bid by the purchaser during the period of bid validity
 - (i) fail or refuse to execute the contract, if required, or
 - (ii) fail or refuse to furnish the Performance Security, in accordance with the Instructions to Bidders.

I / We understand this Bid Securing Declaration shall cease to be valid if I am / we are not the successful Bidder, upon the earlier of (i) the receipt of your notification of the name of the successful Bidder; or (ii) thirty days after the expiration of the validity of my / our Bid.

Signed: (insert signature of person whose name and capacity are shown) in the capacity of (insert legal capacity of person signing the Bid Securing Declaration)

Name: (insert complete name of person signing the Bid Securing Declaration) Duly authorized to sign the bid for and on behalf of (insert complete name of Bidder)

Dated on _____ day of _____ (insert date of signing) Corporate Seal (where appropriate)

Note: In case of a Joint Venture, the Bid Securing Declaration must be in the name of all partners to the Joint Venture that submits the bid.



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA

[An Institute of National Importance under Ministry of Education, Govt. of India]

Sector 1, Rourkela, Sundergarh Dist., Odisha 769 008

“PROCUREMENT OF EQUIPMENT UNDER HEFA LOAN”

ANNEXURE 8

FORMAT FOR PERFORMANCE GUARANTEE BOND

(To be typed on **Non-judicial stamp paper** of the value of Indian Rupees of One Hundred)

(to be established through any of the national banks (whether situated at Rourkela or outstation) with a clause to enforce the same on their local branch at Rourkela or any scheduled bank situated at Rourkela. Bonds issued by co-operative banks are not accepted.)

To,
The Director,
National Institute of Technology, Rourkela

LETTER OF PERFORMANCE GUARANTEE

WHEREAS National Institute of Technology, Rourkela (Buyer) have invited Tenders vide Tender no..... Dt for Purchase of and WHEREAS the said tender document requires that any eligible successful tenderer (seller) wishing to supply the equipment / machinery, etc. in response thereto shall establish an irrevocable Performance Guarantee Bond in favor of **“Director, National Institute of Technology, Rourkela”** in the form of Bank Guarantee for INR **[3% (Three percent) of the purchase value]** and valid till **01 (one) year or up to warranty period whichever is later** from the date of issue of Performance Guarantee Bond may be submitted within 15 (Fifteen) days from the date of Order Acknowledgment as a successful bidder.

NOW THIS BANK HEREBY GUARANTEES that in the event of the said tenderer (seller) failing to abide by any of the conditions referred in tender document / purchase order / performance of the equipment / machinery, etc. this Bank shall pay to National Institute of Technology, Rourkela on demand and without protest or demur INR (Rupees only).

This Bank further agrees that the decision of National Institute of Technology, Rourkela (Buyer) as to whether the said Tenderer (Seller) has committed a breach of any of the conditions referred in tender document / purchase order shall be final and binding.

We,.....(name of the Bank & branch) hereby further agree that the Guarantee herein contained shall not be affected by any change in the constitution of the Tenderer (Seller) and / or National Institute of Technology, Rourkela (Buyer).

Notwithstanding anything contained herein:

1. Our liability under this Bank Guarantee shall not exceed INR (Indian Rupees..... only).
2. This Bank Guarantee shall be valid up to (date) and
3. We are liable to pay the guaranteed amount or any part thereof under this bank guarantee only and only if NIT Rourkela serve upon us a written claim or demand on or before (date).

This Bank further agrees that the claims if any, against this Bank Guarantee shall be enforceable at our branch office at situated at (Address of local branch)

Yours truly,

Signature and seal of the Guarantor:

Name of Bank:

Address:

Date:

Instruction to Bank: Bank should note that on expiry of Bond Period, the Original Bond will not be returned to the Bank. Bank is requested to take appropriate necessary action on or after expiry of bond period.



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA

[An Institute of National Importance under Ministry of Education, Govt. of India]

Sector 1, Rourkela, Sundergarh Dist., Odisha 769 008

“PROCUREMENT OF EQUIPMENT UNDER HEFA LOAN”

ANNEXURE 9

MANDATE FORM FOR ELECTRONIC FUND TRANSFER / RTGS TRANSFER & DETAILS OF BID SECURITY TRANSACTION

(To be printed on Bidder's letterhead with Reference No. & Date with ink signature.)

Tender Ref. No.:

Due date & time: 00.00.0000 & 00:00 PM

To,
Registrar
National Institute of Technology, Rourkela
Rourkela – 769 008.

Sub: Authorization for release of payment / dues from National Institute of Technology, Rourkela through Electronic Fund Transfer / RTGS Transfer.

1. Name of the Bidder / Firm / Company / Institute: _____

2. Address of the Bidder: _____

_____ City: _____

State: _____ Country: _____ ZIP / Pin Code : _____

Email ID: _____ Mobile : _____

Permanent Account Number [PAN]: _____

3. Particulars of Bank:

Bank Name : _____ Branch Name : _____

Branch Address : _____ Branch City : _____

ZIP / PIN Code : _____ Branch Code : _____

Swift Code : _____ MICR Code : _____

IBAN : _____

IFS Code (11 Digit Alpha-Numeric Code) : _____

Account Number : _____

Account Type: Savings / Current / Cash / Credit

DECLARATION

I hereby declare that the particulars given above are correct and complete. If any transaction delayed and not effected for reasons of incomplete or incorrect information, I shall not hold National Institute of Technology, Rourkela responsible. I also undertake to advise any change in the particulars of my account to facilitate updating of records for purpose of credit of amount through NEFT / RTGS Transfer in the same format with cover letter.

Place :

Date : 00.00.0000

Signature & Seal of the Authorized Signatory of the Bidder



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA

[An Institute of National Importance under Ministry of Education, Govt. of India]

Sector 1, Rourkela, Sundergarh Dist., Odisha 769 008

“PROCUREMENT OF EQUIPMENT UNDER HEFA LOAN”

ANNEXURE 10

CHECKLIST FOR BIDDERS' ELIGIBILITY

(To be printed on Bidder's letterhead with Reference No. & Date with ink signature.)

S. No.	Content	Pre-Requisite	Submitted
1.)	OEM Supply	OEM Certificate.	Yes / No / NA
2.)	In case a Bidder offering to supply goods under the contract which the Bidder did not manufacture or otherwise produce, the Bidder has been duly authorized by the goods' Manufacturer or producer to supply the goods in India.	Authorization certificate from the OEM should be provided with the bid.	Yes / No / NA
3.)	Minimum Supply / Installation of Exact item(s) within India to Institutes / Labs of National Repute. Necessary Purchase Order (PO) / Work order (WO) with Installation Report (IR) must be included in the bidding document.	At least 5 (Five) PO / WO with IR should not be older than 8 (Eight) years.	Yes / No / NA
4.)	Minimum Supply / Installation of Similar item(s) within India to Institutes / Labs of National Repute. Necessary Purchase Order (PO) / Work order (WO) with Installation Report (IR) must be included in the bidding document.	At least 5 (Five) PO / WO with IR should not be older than 8 (Eight) years.	Yes / No / NA
5.)	Bidder or its Indian Representative must have a Complete After-Sales Service Set-up in the India for fastest response. Installation / Commissioning should be accomplished with priority, as soon as we receive the Consignment at site. Warranty and After-Sales Service should be provided within Maximum 24 to 48 hours of our call.	Relevant document for after sales service set-up in India should be included with the bid.	Yes / No / NA
6.)	Declaration from the principal company / by the bidder-self stating that the spare parts of the equipment will be made available to NIT Rourkela for at least 10 years from the date of installation.	Relevant document should be included with the bid.	Yes / No / NA
7.)	Minimum Turnover of the firm. Annual returns of last 3 preceding years must be included in the bidding document.	Annual Returns of last 3 FY should be included with the bid.	Yes / No / NA
8.)	GST Registration Certificate	Relevant document should be included with the bid	Yes / No / NA
9.)	PAN Card	Relevant document should be included with the bid	Yes / No / NA
10.)	NSIC / MSME Certificate	Relevant document should be included with the bid	Yes / No / NA
11.)	Any Other _____	NA	Yes / No / NA

Bidders are requested to carefully go through the eligibility criteria. It will be the responsibility of the bidders to ensure that all required documents, data, information, undertaking, certificates etc. are provided as per the bid document. Bids which fail to include the required documents, data and information, as mentioned in the bid document, may be declared non-responsive and rejected.



ANNEXURE 11

Checklist for Compliance on Technical specification

(To be printed on Bidder's letterhead with Reference No. & Date with ink signature.)

Specifications of the Venturimeter apparatus

Specification

The apparatus should consist of a pipeline containing a Venturimeter. The pressure tapings from the Venturimeter to differential manometer should be present to measure the pressure difference. Valves should be provided at the downstream of the flow. By operating the valves provided at the downstream, the flow can be regulated. A self-contained water re-circulating unit with a sump tank and a centrifugal pump should be provided. Flow control valve and by-pass valve should be fitted in the water line to conduct the experiment on different flow rates. Measuring tank and stopwatch should be provided to measure the flow rate of water.

EXPERIMENTS:

To determine the co-efficient of discharge through Venturimeter.

To measure discharge through Venturimeter as flow meters.

FEATURES:

Content	Submitted
Acrylic test section,	Yes / No
Closed-loop water circulation,	Yes / No
Compact & stand-alone set up,	Yes / No
Stainless Steel tanks,	Yes / No
Superb Painted structure,	Yes / No
Simple to operate & maintain	Yes / No

TECHNICAL DETAILS:

Product	Venturimeter Apparatus	Yes / No
Venturimeter	Material Clear Acrylic compatible to 1" Dia. Pipe	Yes / No
Water circulation	FHP capacity make Crompton Greaves/Kirloskar	Yes / No
Flow measurement	Capacity 30 Ltrs. MOC SS fitted with Piezometer Tube & scale	Yes / No
Sump tank	Capacity 50 Ltrs. MOC SS	Yes / No
Piping	MOC GI and PVC	Yes / No
Stopwatch	Electronic	Yes / No
Control panel	On/Off Switch, Mains Indicator, etc	Yes / No
Overall dimension	(L x B x H) 120 x 42 x 120 cm	Yes / No

Specifications of the Pitot Tube Setup

Specification

A pitot tube is used to measure the local velocity at a given point in the flow stress. A pitot tube of standard design made of copper/SS should be supplied and should be fixed below the Vernier scale. The Vernier scale should be capable of measuring the position of the Pitot Tube in the transparent pipe section. The pipe should have a flow control valve to regulate the flow. A U-tube manometer should be provided to determine the velocity head. The setup should have a self-contained water re-circulating unit together with a sump tank and a centrifugal pump etc. Flow control valve and by-pass valve should be fitted in the water line to conduct the experiment on different flow rates. A measuring tank and stopwatch should be provided to measure the flow rate of water.

EXPERIMENTS:

To find the point velocity at the center of a tube for different flow rates of water and calibrate the Pitot tube.

To plot velocity profile across the cross-section of the pipe

FEATURES:

Content	Submitted
Acrylic test section	Yes / No
Closed-loop water circulation	Yes / No
Compact & stand-alone set up	Yes / No
Stainless steel tanks	Yes / No
Superb painted structure	Yes / No
Simple to operate & maintain	Yes / No

TECHNICAL DETAILS:

Product	Pitot Static Tube Apparatus	Yes / No
Pitot Tube	Material Copper/SS of compatible size fitted with Vernier scale.	Yes / No
Test Section	Material Clear Acrylic, compatible to 1" Dia. Pipe.	Yes / No
Water Circulation	FHP capacity make Crompton Greaves / Kirloskar	Yes / No



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA

[An Institute of National Importance under Ministry of Education, Govt. of India]

Sector 1, Rourkela, Sundergarh Dist., Odisha 769 008

“PROCUREMENT OF EQUIPMENT UNDER HEFA LOAN”

Flow Measurement	Capacity 30 Ltrs. MOC SS fitted with Piezometer Tube & scale	Yes / No
Sump Tank	Capacity 50 Ltrs. MOC SS	Yes / No
Piping	MOC GI and PVC	Yes / No
Stopwatch	Electronic	Yes / No
Control Panel	On/Off Switch, Mains Indicator, etc.	Yes / No
Overall Dimensions	(L x B x H) 120 x 42 x 190 cm	Yes / No

Specifications of the Laminar and Turbulent Flow Table: Reynolds' Apparatus

Specification

The apparatus should consist of a glass tube with one end having a bell mouth entrance, which should be connected to a constant head water tank. At the other end, a valve should be provided to vary the flow rate. The tank should have sufficient capacity to store water. A capillary tube should be introduced centrally in the bell mouth for feeding dye from a small container placed at the top of the tank, through polythene tubing. By varying the rate of flow, Reynolds's number (as well as the type of flow) can be changed. Visual observation of dye (Thread) will indicate the type of flow, which can be confirmed from the Reynolds number computed. The setup should have a self-contained water re-circulating unit together with a sump tank and a centrifugal pump etc. The flow control valve and by-pass valve should be fitted in the waterline. The measuring cylinder and stopwatch should be provided to measure the flow rate of water.

EXPERIMENTS:

To determine Reynolds's number and hence the type of flow either laminar or turbulent

To study the transition zone

FEATURES:

Content	Submitted
Visible test section	Yes / No
Closed-loop water circulation	Yes / No
Compact & stand-alone set up	Yes / No
Stainless steel tanks and wetted parts	Yes / No
Superb painted structure	Yes / No
Simple to operate & maintain	Yes / No

TECHNICAL DETAILS:

Product	Laminar and Turbulent Flow Table: Reynolds' Apparatus	Yes / No
Tube	Material Borosilicate Glass	Yes / No
Dye vessel	Suitable Capacity	Yes / No
Capillary tube	Material Copper/Stainless Steel	Yes / No
Constant head water tank	Capacity 25 Ltrs, MOC SS	Yes / No
Water Circulation	FHP capacity make Crompton Greaves / Kirloskar	Yes / No
Piping	MOC GI and PVC	Yes / No
Flow Measurement	Using Measuring Cylinder	Yes / No
Sump Tank	Capacity 50 Ltrs MOC SS	Yes / No
Stopwatch	Electronic	Yes / No
Control Panel	On/Off Switch, Mains Indicator, etc.	Yes / No
Overall Dimensions	(L x B x H) 135 x 42 x 145 cm	Yes / No



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA

[An Institute of National Importance under Ministry of Education, Govt. of India]

Sector 1, Rourkela, Sundergarh Dist., Odisha 769 008

“PROCUREMENT OF EQUIPMENT UNDER HEFA LOAN”

Specifications of the Setup for Viscosity Measurement: Ball Drop Method (Stokes's law)

Specification

The apparatus should be designed to introduce students to the fundamental characteristics of the behavior of the particle system, in particular the relationship between the drag coefficient of falling particles (small sphere) and their Reynolds number value. Particles covering a range of sizes and densities will be supplied, and the experiments will be conducted by allowing single particles (small sphere: ball) to fall through a number of different liquids contained in the vertical glass tubes. The rate of fall of the particle has to be determined by timing their passage between two marks on the walls of the glass tubes. A shielded fluorescent tube light should be provided to aid the observation of the particle movement. The light should be mounted on the backboard. The arrangement should be made in such a way that the particles can be removed from the bottom of the tubes without the necessity of draining the liquid. A valve system should be provided at the bottom of each tube to allow the particles to be removed with the minimum loss of liquid.

EXPERIMENTS:

To measure the drag co-efficient

To plot the graph between drag co-efficient vs. Modified Reynolds number

To study the motion of a solid particle through a liquid

TECHNICAL SPECIFICATIONS:

Product & Code	Drag Coefficient & FM 27	Yes / No
Tubes (2 nos.)	Material Borosilicate Glass tube, Dia 50 mm, Length 1200 mm (approx.)	Yes / No
Stopwatch	Electronic type	Yes / No
Steel and glass balls of different sizes should be provided		Yes / No
The whole setup should be well designed and should be arranged in a good quality painted structure with the proper arrangement of the tube light.		Yes / No

Specifications of the Darcy's Law Apparatus

Specification

The setup should be designed to study and verify Darcy's law and to find out the coefficient of permeability of a given porous medium. The apparatus should consist of a pipeline containing a clear acrylic cylindrical test section. The setup should have a self-contained water re-circulating unit together with a sump tank and a centrifugal pump. The water line should be fitted with the flow control valve and by-pass valve to conduct the experiment on different flow rates. Measuring tank and stopwatch should be provided to measure the flow rate of water. The pressure tapings connected to the test section should be provided with a differential manometer to measure the pressure difference. Valves should be provided at the downstream so that the flow can be regulated by operating the valves.

EXPERIMENTS:

To verify Darcy's law and find out the coefficient of permeability of a given porous medium.

FEATURES:

Content	Submitted
Clear Test Section	Yes / No
Closed-loop water circulation	Yes / No
Compact & stand-alone set up	Yes / No
Stainless Steel tanks and wetted parts	Yes / No
Superb Painted structure	Yes / No
Simple to operate & maintain	Yes / No

TECHNICAL DETAILS:

Product & code	Darcy's Law Apparatus & FM 30	Yes / No
Test Section	Material Clear Acrylic Dia. 100 mm length/height 500 mm	Yes / No
Water Circulation	FHP capacity make Crompton Greaves/Kirloskar	Yes / No
Flow Measurement	Capacity 30 Ltrs. MOC SS fitted with Piezometer Tube & scale Rotameter of suitable range	Yes / No
Sump Tank	Capacity 50 Ltrs. MOC SS	Yes / No
Pressure Measurement	Using Suitable manometer	Yes / No
Piping	MOC GI and PVC	Yes / No
Stop Watch	Electronic	Yes / No
Control Panel	On/Off Switch, Mains Indicator, etc	Yes / No
Overall Dimensions	(L x B x H) 120 x 42 x 120 cm	Yes / No



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA

[An Institute of National Importance under Ministry of Education, Govt. of India]

Sector 1, Rourkela, Sundergarh Dist., Odisha 769 008

“PROCUREMENT OF EQUIPMENT UNDER HEFA LOAN”

Specifications for the Flow Over Notch Apparatus

Specification

The setup has to be designed to study the discharge through different notches. Set up should consist of a flow channel section, supply tank, measuring tank and pump for closed-loop water circulation. The flow channel should be fitted with the arrangements for creating jet using different interchangeable notches. The setup should consist of a hook gauge for measuring x-y coordinates of jet and a vernier pointer to measure the height of water in the channel. Measuring tank and stopwatch should be provided to measure the flow rate of water. A trapezoidal notch should be tested by adjoining two different notches.

EXPERIMENTS:

To determine the co-efficient of discharge using different notches.

FEATURES:

Content	Submitted
Closed-loop water circulation	Yes / No
Compact & stand-alone set up	Yes / No
Stainless Steel tanks and wetted parts	Yes / No
Superb Painted structure	Yes / No
Simple to operate & maintain	Yes / No

TECHNICAL DETAILS:

Product	NOTCH APPARATUS	Yes / No
Test Notches	Set of 3 Notches (SS Plates): Rectangular Notch, 45° V	Yes / No
Channel Section	Size 600 x 250 x 180 mm MOC SS	Yes / No
Supply Tank	Capacity 80 Ltrs. MOC SS	Yes / No
Measuring tank	Capacity 30 Ltrs. MOC SS fitted with Piezometer Tube &	Yes / No
Vernier gauge	To measure the head of water in the channel	Yes / No
Pump	FHP capacity make Crompton Greaves / Kirloskar	Yes / No
Piping	MOC GI and PVC	Yes / No
Stop Watch	Electronic	Yes / No
Overall Dimensions	(L x B x H) 120 x 42 x 160 cm	Yes / No

Specifications for the Bernoulli's Theorem Apparatus

Specification

The setup should be designed to verify the Bernoulli's Theorem experimentally. The apparatus should consist of a one-piece clear acrylic test section with convergent and divergent part sections. The test section should be connected to the piezometer tubes through pressure tapping at different locations on the section to demonstrate the Bernoulli's Theorem. The setup should have a self-contained water re-circulating unit together with a sump tank and a centrifugal pump. The water line should be fitted with the flow control valve and by-pass valve to conduct the experiment on different flow rates. Measuring tank and stopwatch should be provided to measure the flow rate of water.

EXPERIMENTS:

To verify Bernoulli's Theorem experimentally.

FEATURES:

Content	Submitted
Acrylic test section	Yes / No
Closed-loop water circulation	Yes / No
Compact & stand-alone set up	Yes / No
Stainless Steel tanks	Yes / No
Superb Painted structure	Yes / No
Simple to operate & maintain	Yes / No

TECHNICAL DETAILS:

Product	BERNOULLI'S THEOREM APPARATUS	Yes / No
Test Section	Material Acrylic, Size 1" dia	Yes / No
Inlet Tank	Capacity 15 Ltrs. MOC SS	Yes / No
Supply Tank	Capacity 50 Ltrs. MOC SS	Yes / No
Measuring Tank	Capacity 30 Ltrs. MOC SS fitted with Piezometer Tube & scale	Yes / No
Piezometer Tubes	Material P.U. Tubes (9 Nos.)	Yes / No
Pump	FHP capacity make Crompton Greaves/Kirloskar	Yes / No
Piping	MOC GI and PVC	Yes / No
Stop Watch	Electronic	Yes / No
Overall Dimensions	(L x B x H) 120 x 42 x 170 cm	Yes / No

~END OF DOCUMENT~