INSTITUTE OF SCIENCE AND TECHNOLOGY
JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY
KUKATPALLY, HYDERABAD

TENDER NOTICE

No. JNTUH/ IST/CCST/Equip/01/2017 **Dated:08.03.2017**

Sealed tenders are invited from the reputed manufacturers or authorized dealers / suppliers for supply of equipments with installation and commissioning in the Centre for Chemical Sciences& Technology, IST. The tender documents can be obtained from the office of the Centre for Chemical Sciences& Technology, IST, JNT University Hyderabad, on payment of Rs. 1000/- by way of Demand Draft in favor of "The Co-ordinator FIST (DST) Project, CCST, IST, JNTUH. The last date for submission of tender is **21.03.2017**by **3.00 pm.** For further details see University website.

DIRECTOR

INVITATION TO TENDER AND INSTRUCTIONS TO TENDERERS

Supply of Equipment for

Centre for Chemical Sciences & Technology

INSTITUTE OF SCIENCE & TECHNOLOGY

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY

KUKATPALLY, HYDERABAD.

INSTITUTE OF SCIENCE & TECHNOLOGY
Jawaharlal Nehru Technological University Hyderabad

INVITATION TO TENDER AND
INSTRUCTIONS TO TENDERER FOR THE SUPPLY OF EQIPMENTS FOR
Centre for Chemical Sciences & Technology

Institute of Science & Technology, Jawaharlal Nehru Technological University, Hyderabad invites tenders for supply, erection, installation and commissioning of various equipments for the Centre forChemical Sciences & Technologyof the Institute as per specifications given in the Schedule attached to the Tender form annexed hereto. All offers should be made in the English and should be written in both figures and words. The relevant brochure may also be enclosed.

The Tender Schedule can be obtained from the office of "The Co-ordinatorFIST (DST) Project, CCST, IST , JNT University, Kukatpally, Hyderabad on payment of Rs.1000/- (Rupees One Thousand only) in the form of crossed Demand Draft on any Nationalized Bank drawn in favor of the "The Co-ordinator FIST (DST) Project, CCST, IST,JNTUH" payable at Hyderabad. Alternatives offer / option, if any, must be quoted in separate tender schedule.

Tender fee once paid is neither refundable, transferable nor adjustable for other tenders. The tender form is non-transferable and should be purchased in the exclusive name of the party who has to actually submit the offer.

The Co-ordinator FIST (DST) Project, CCST, IST , JNT University Hyderabad, reserves the right to select certain items (in single or multiple units) and reject the others or all mentioned in the Schedule. The Co-ordinator FIST (DST) Project, CCST, IST, JNT University, also reserves the right to revise or alter the specifications of the software before acceptance of any tender.Incomplete tenders, amendments and additions to tender after opening or late tenders are liable to be ignored, and rejected.

Delivery:

The tenderer shall be responsible for delivery and installation and commissioning of the equipments as per the stipulations and specifications at destination site.

EMD:

For Instruments 1-3 in the tender document, A Demand Draft for Rs. 10,000/- (Rupees Ten Thousand only) drawn in favor of the "The Co-ordinator FIST (DST) Project, CCST, IST, JNT University Hyderabad" towards EMD must accompany the tender.

For Instruments 4-6 in the tender document, A Demand Draft for Rs. 10,000/- (Rupees Ten Thousand only) drawn in favor of the "The Director, IST, JNT University Hyderabad" towards EMD must accompany the tender.

Those tender without EMD will be rejected. The EMD will be refunded to all the unsuccessful tenderers only after the purchase orders are placed on the successful tenderer.

The final acceptance of the equipment will be made only after delivering in good condition and to the satisfaction of the specifications given, by the Institute / University and satisfactory functioning of the same.

NOTE: Tender schedule can be download from website and submit filled copy along with Rs.1000/- DD in favor of "The Co-ordinator FIST (DST) Project, CCST, IST, JNT University"

TENDERER **DIRECTOR**

Prices:

The Prices must be quoted in Indian Rupees only and should be inclusive of packing, forwarding, freight, insurance, delivery and commissioning at destination site (JNTUH, CCST,Institute of Science & Technology, Kukatpally, Hyderabad), and all taxes.

Validity:

The tenders should be valid for acceptance up to a period of 3 months. The tenderers should be ready to extend the validity, if required,

Demonstration and feedback:

The tenders must accompany the list of reputed organizations, and educational institutions where the similar orders have been executed with track record along with proof of work order. They should provide the demonstration, if required.

Delivery:

All the goods ordered shall be delivered with proper packing within the delivery period from the date of issue of order at the above destination.

Terms of Payment:

Payment shall be made by "The Co-ordinator FIST (DST) Project, CCST, IST , JNT University Hyderabad" only after receipt of equipments in good condition demonstrating the software and providing training to the university staff with all specifications and standards to the entire satisfaction of the institute.

Terms and Conditions of the Tendering Firms:

Printed terms and conditions of the Tenderers will not be considered as forming part of their tenders.

Delivery of Tender:

The sealed tender should be addressed to:

The Co-ordinator FIST (DST) Project,
Centre for Chemical Sciences & Technology,
Institute of Science & Technology,
JNT University,Kukatpally, Hyderabad – 500 085

Superscripted on the right hand side **"TENDER FOR EQUIPMENTS FOR CCST, IST"** and should indicate clearly the name and address of the tenderer. In addition, left hand corner of the envelope / container should indicate the Tender No., date and time of opening of tender. The University reserves the Right to reject any tender which fails to comply with the above instructions. All tenders should be sent by Registered post or through messenger- to drop the tender in the sealed tender box provided in the office, it is the responsibility of the tenderer to see that his tender offer is delivered by the specified time at the above address. All further communication should be addressed to the Officer named above and by title only.

TENDERER **DIRECTOR**

Time for Receipt and opening of Tenders:

The tender must reach the Director, Institute of Science & Technology, JNT University, Kukatpally, Hyderabad – 500085 not later than **21.03.2017at 3.00 p.m**. Tenders submitted after the specified time shall not be considered and no intimation will be sent in this regard. The tenders will be opened on the same date at the specified time mentioned below.

Tenderer should make their representative available on21.03.2017at 4.00 p.m. at the time of opening tenders in the meeting hall of the Director, Institute of Science and Technology or any other designated place within the University.

Right to Acceptance:

The Co-ordinator FIST (DST) Project,CCST,IST,JNT University, Hyderabad does not bind himself to accept the lowest on any tender and reserves to himself the right of accepting the whole or any part of the tender or portion of the quantity offered and the tenderer shall supply the same at the rate quoted further the Director, IST reserves the right to reject any or all offers received in response to tender or cancel or withdraw the tender notice without assigning any reason, whatsoever.

Results of Tender:

Acceptance of Tender shall be communicated by letter of acceptance or formal acceptance of the tender to the successful tenderer.

Other Terms:

The Tenderer should produce Value Added Tax (VAT) – Registration Certificate.

Tenderer should be responsible and bear any price escalation within the validity period and also after the indent has been placed till the supply.

Warranty Declaration, All tenderers should give a warranty declaration as detailed below:

We warrant that everything to be supplied by us hereunder shall be free from all defects and faults in material, workmanship and shall be of the highest quality and material of the type ordered, shall be in full conformity with the specification.

Any deviation in the material, and the specifications from the accepted terms may liable to be rejected and the tenderer need to supply all the goods in the specified form to the satisfaction / specifications specified in the order / contract and demonstrate at the their own cost. The payments shall be made only after receiving the material in the required format and quality to the satisfaction of the University authorities and after satisfactory demonstration and training.

For any further information in this regard, please contact The Co-ordinator FIST (DST)Project,CCST,IST, J.N.T. University, Hyderabad during 11.00 am to 04.00 pm.

TENDERER **DIRECTOR**

BID PARTICULARS

1. Name of the Supplier :

2. Address of the Supplier :

3. Address of the Show Room :

4. Availability of demonstration of equipment : Yes / No

5. EMD enclosed : Yes / No if Yes
D.D. No._____ Bank_____
Amount_____

6. Name and address of the Officer to whom all references shall be made regarding this tender enquiry.

Name :

Address :

Telephone No.:

Fax No.:

Mobile No :

e-Mail :

Web :

TENDERER **DIRECTOR**

EQUIPMENT SPECIFICATIONS

1. MICROWAVE SYNTHESIZER SPECIFICATIONS

We intended to procure a Microwave Synthesis system, which should contain the below given specifications

HEATING RATE: 2-6 ^{o}C/second
TEMPERATURE: -80 to 300 ^{o}C
PRESSURE: Operate: 0-27 bar (0-400 psi)
Control: 0-21 bar (0-300 psi)
ActiVent Self-Venting Technology included for pressure relief during or after reaction
REFLUX REACTION COMPLIANT: Open Vessel option included for refl ux reactions
POWER: 0-300 W
TEMPERATURE MEASUREMENT: Infrared for volume-independent non-invasive temperaturemeasurement Fiber optic probe for direct feedback
OPERATING VOLUME: 0.2 – 75 mL
0.2 – 50 mL pressurized
REACTION AGITATION: Electromagnetic stirring with adjustable speeds
AIR COOLING: ≥25 psi (20 L/min fl ow) user-supplied
For Simultaneous Cooling (PowerMAX) and reaction quenching
COMPULSORY ACCESSORIES:
Camera
Sub-ambient reactions (CoolMate Sub-Ambient Microwave System)
Gas Addition kit
OPTIONAL ACCESSORIES
Flow Cell
Peptide Synthesis
Enzymatic Digest

2. GAS LIQUID CHROMATOGRAPH SPECIFICATIONS:

We intend to purchase Microprocessor controlled Gas Chromatograph having single point control through PC with latest windows based software. Details of technical specification are as follows:

FID Detector

- Advanced Pressure controller for digital control of detector gas.
- Temperature range: 400 °C.
- Minimum detection limit: 2pgC/s
- Dynamic Range: 10^{7}

Split / Splitless Injection Unit

- Temperature range: +5 to 400 °C**.**
- Suitable for Micro, Analytical & Semi-preparative mixing volumes.
- Dynamic gradient mixing with inbuilt membrane filters.
- Carrier gas to be digitally controlled.

Column Oven

- Temperature range: Room temperature +10 to 400 °C
- Temperature accuracy: ± 1% of setting value
- Temperature deviation: Within 3 °C
- Room temperature dependency: 0.01 °C / °C.
- Programming steps: 20 steps.
- Program rate setting range: -250 to 250 °C
- Total step time: -9999.99min.
- Capacity: 5.6 liters.

Carrier gas flow controller (Advanced Flow Controller)

- Pressure setting range: 0 to 970kPa
- Program plate: 7
- Program rate setting range: -400 to 400kPa/min.
- Split ratio setting range: 0 to 9999.9
- Total flow setting range: 0 to 1200mL/min

Auto Injector

- Sample injection method: Liquid sample injection via special micro-syringe
- Number of samples: 6 vials (optional 12 vials)
- Sample volume: 0.1 to 8.0uL, 0.1uL steps (using 10uL syringe)
  0.5 to 40uL, 0.5uL steps (using 50uL syringe)
  2.5 to 200uL, 2.5uL steps (using 250uL syringe)
- Sample Vials: Glass construction, 1.5mL, 4mL, screw top, Teflon coated septum
- Number of sample injections: 1-99 injections per sample
- Syringe speed: 2 modes – Fast and slow
- Wait time: 0 – 99.9 sec following sample aspiration (in 0.1 sec steps)
- Injection volume linearity: ± 0.5%
- Cross contamination: Less than 10^{-4}

Gas Chromatography software

- Software under WINDOWS XP/7 platform on 32 bit technology
- Digital acquisition & processing system ensures speed & stability of data
- Instrument should provide 21 CFR part 11 compliance.
- Software should support GLP/GMP with its user-management, self-diagnostic and audit trail functions.

Warranty

- 1 Year

3. ULTRASONIC PROB SPECIFICATIONS:-

Electrical Supply: 240 V, AC, 50 - 60 Hz, 1 Phase.

Ultrasonic Supply: **500 Watts**

Ultrasonic Frequency: 20 plus / minus 3 KHz.

Process Control: Micro-processor based Programmable timer with display isprovided for selecting ON time, OFF time & Total Time of processor operation incyclic mode.

Cyclic Mode: Maximum ON time 99 seconds, and 99 seconds OFF time. Total run time is 99 minutes Max.To run the sonicator in continuous mode put the OFF time '0' zero. Do not run themachine in Continuous mode; more than 20 minutes (Max.).

Processor Tips: Detachable type made of SS 304Grade12mm tip.

Ultrasonic Horn: Is made of SS 304 Grade & is fitted with PZT Transducer (Sandwich Type)

Ultrasonic Generator: Is housed in a separate cabinet. It has Autotuning & the control Panel is provided on theouter panel.

Standard Accessories: Stand Jack Type for sample placement.

4. Specifications for Low Temperature Bath with following features:

Specifications:

Working temperature range (°C)	-90 ... +30
Temperature stability (°C)	±1
Temperature Display	LED
Cooling capacity (Medium Ethanol)	°C 20 10 0 -10 -20 -30 -40 -50 -60 -70 -80 kW 0.3 0.29 0.27 0.26 0.25 0.24 0.23 0.21 0.18 0.13 0.05
Ambient temperature	5...40 °C
Dimensions W x L x H (cm)	38 x 55 x 60
Cooling of compressor	Air
Immersion probe	5.6 x 14.0 (H x Ø) cm
Connection tube (L) cm	160

5. Specifications for RO SYSTEM with following features:

Feed water Specifications:

Feed Water pressure : 2 - 6 bar

Feed conductivity : < 2000 µS/cm

Purpose :

• Feed for Laboratory grade Ultrapure water purification system

Water flow rate :

• Flow rate : 50 Liters per hour

SYSTEM SHOULD HAVE FOLLOWING

• System should have 10 micron, Activated carbon, sediment filter, 5 micron filters to remove the contamination in the preliminary stage.

• System should have booster pumps to create pressure for RO process

• System should have several stage RO membranes to reduce the conductivity to lower side

• Salt rejection should be > 98 %

• System should be connected with external 200 Litres HDPE tank

• Tank should be configured with auto cut-off switch to maintain it as a automatic operation

• Tank should have provision to collect the water in the lower side with 1⁄2 inch male UPVC connector

• Tank level should be visible

• Tank should have over flow provision with one way non-returnable check valve to avoid contaminations

• System should have one year warranty from the date of installation

• One set of all the filters including RO membranes should be provided along with the system for smooth operation.

6. Specifications for Water Purification System with following features:

Table top/Wall mountable INTEGRATED Water Purification System should be capable to produce Type III and Ultrapure Type I water with the help of Pretreatment module , RO Module, Polishing module and final filter 0.2 µm. The system should have following features and specifications:

Feed water Specifications:

Feed Water: Treated water will be stored in the 200 litres tank and system should have the efficiency to pull the water from the tank
Feed conductivity : < 1400 µS/cm

SYSTEM SHOULD HAVE FOLLOWING

• SYSTEM SHOULD BE INTEGRATED, TABLE TOP TAP WATER FEED SYSTEM.(Option for Wall mount preferred)

• Pre-treatment & RO module for removal of inorganic & organic impurities. Removal range should be >98-99%.
• System should have at more than 60% of water recovery rate.
• System should have in-built booster pump to bring feed water to the system and a recirculation pump for recirculation process. NOISE LEVEL SHOULD BE <40db
• System should have in-built 7 liters tank (Should have a option to connect external tank for type-3 water storage)
• System should have polishing unit to remove Endotoxins/pyrogens, DNase, RNase in water.
• Final dispenser should have 0.2µm sterile filter, which should be autoclavable.
• System should have built-in automatic self cleaning mechanism to extend the life of cartridge
• System should exceed all reagent water quality standards including ASTM Type 1, CLSI and ISO 3696 Type I
• Automatic flushing and recirculation in standby mode.
• System should have controller to show Type-3 and Type-1 water quality, temperature and tank level.
• One year warranty from the date of installation

Type III Pure Water flow rate :

• Flow rate :

TYPE III: ≥ 13 Liter per hour or above

Ultra pure water specification :

• Flow rate : 1 Liter per min or above

• Conductivity @ 25 Deg C : 0.055 µs/cm

• Resistivity @ 25 Deg C : 18.2 MΩ-cm

• DNase < 10 pg / µml

• RNase < 0.05 pg / ml

• TOC < 10 ppb

• Bacteria : < 1 cfu/ml

• Endotoxins : <0.001 EU/ml

• Particles > 0.2 µm : <1 per ml