



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

TENDER NOTICE

No. JNTUH/ IST/CCST/Equip/01/2015

Dated: 07.08.2015

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 **26.08.2015** by **3.00 pm**. For further details see University website www.jntuh.ac.in.

DIRECTOR

INVITATION TO TENDER AND INSTRUCTIONS TO TENDERERS

Supply of Equipment for
Centre for Chemical Sciences & Technology, IST



**INSTITUTE OF SCIENCE & TECHNOLOGY
JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY
HYDERABAD, KUKATPALLY, HYDERABAD.**

INSTITUTE OF SCIENCE & TECHNOLOGY
Jawaharlal Nehru Technological University Hyderabad

INVITATION TO TENDER AND
INSTRUCTIONS TO TENDERER FOR THE SUPPLY OF EQUIPMENTS 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 for Chemical Sciences & Technology of 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-ordinator FIST (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, 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:

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” 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 **26.08.2015 at 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 on 26.08.2015 at 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. Specifications of Microwave Synthesizer (Reactor)

Sr.No.	Feature	SPECIFICATIONS
1	Microwave application	Should perform - Organic Chemistries (Classical & Customized Synthesis) BOTH UNDER PRESSURIZED CONDITION AND OPEN VESSEL CONDITION, Inorganic Synthesis ,Material Synthesis
2	Operation Volumes	The System must be able to insure efficient operation for the synthesis of compounds in sealed vials up to 10 mL in size or under atmospheric conditions in flasks up to 125 mL. Aluminum crimping should not be there for Sealing Reaction Vials and sealing should be done with re-usable septa
3	Continuous and not Pulsed Power Delivery	The System must feature a power delivery system that is capable of providing continuous microwave power in programmable 1-watt increments throughout a range upto 0 -300 watts.
4	High Energy at Lower Temperature	The System must incorporate the ability to simultaneously apply microwave energy while cooling the reaction environment. This capability is needed to perform high energy, low temperature syntheses and also for reaction Quenching.
5	Temperature Measurement and Feedback Control	The System must incorporate the ability for Temperature Measurement and Feedback Control , must be non-invasive and have a working range of 0 to 290 °C or better. It must feature a sensor positioned under the cavity floor so that temperature measurement is independent of sample volume and reaction container size.
6	In situ Stirring	The System must incorporate an <i>in situ</i> stirring system to affect the stirring of the reaction contents of both the atmospheric and sealed vials using off-the-shelf magnetic stir bars.

7	Safety against high pressure	The System must incorporate an automated vent and re-seal mechanism for 10-mL reaction vials.
8	Upgradability to	<ol style="list-style-type: none"> 1. To perform Scale up 80ml Pressurized Reactions. 2. To perform Hydrogenation Reactions and to add the Gaseous Reagent (Ex: Inert Gas) while Performing Under Pressurized Reaction condition. 3. To perform Stereo Selective Chemistries Sub-ambient temperature reactions upto -80°C
9	Essential Local Accessories	Air Compressor
10	Power Supply	240 V, 50Hz, 15A, single phase

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2. GAS LIQUID CHROMATOGRAPH SPECIFICATIONS:

We intend to purchase Microprocessor controlled Gas Chromatograph having single point control through PC with latest windows based software. It should be Up-gradable in future With detectors like TCD/ECD/NPD/PFPD etc... and GSV/LSV in future. Details of technical specification are as follows:

➤ **Basic System :**

1. Basic system with EPC/PPC control for carrier / detector Zone gases. All parameters should be stored as a part of method for better analysis reproducibility and to meet the regulatory compliance.
2. Oven temperature range ambient plus 4.0°C up to 450°C and optionally it should be upgradable to -100°C with liquid N₂ for sub ambient operation.
3. Minimum 22 Programmable Temperature ramp & higher ramp will be preferred.
4. Heating rate 0.1°C/min up to 110°C/min throughout the operating temperature range i.e. Ambient plus 5°C Upto 450°C.
5. Cooling time from 450°C to 50°C less than 5min.
6. Larger oven size (minimum should be 13 ltr.) for easy fixing and removing of different types / dimension of column without compromising rate of heating or cooling of oven. Low noise of Fan Motor & sufficient Safety features is must.
7. Method storage of more than 10 method built in basic GC. Higher method storage will be preferred.
8. Low power consumption will be preferred (power specification to be mentioned by vendor).
9. External communication via RS232 with built in logic input/ output. Multiple external events controls.
10. Built in gas saver capability.

➤ **Injectors :**

Choice of 1 or 2 injection to be configured at a time or upgradable with temperature range from 50 °C to 450 °C.

• **Programmable Temperature Capillary Injector :**

Programmable temperature inlet with built in Split/Splitless mode,

With operating modes of
Large volume injection, cold on column,
Higher heating rate injector will be preferred with min 200°C/min & preferred
temperature range of 450 °C or better.
Pressure range: 0 to 150 psi.

➤ **Detectors : FID Detector**

• **Specifications for FID :**

Temperature range : 450°C

Higher sensitivity with better detections limit will be preferred.

(Minimum 2.0 pg °C/S)

Linear dynamic range better than 10⁷

Data Work Station :

Optimized for latest Windows platform with user friendly software. It can acquire and
process/control multi chromatographic Instruments.

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3. SPECIFICATIONS OF ULTRASONIC PROBE:-

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

Ultrasonic Supply: 500 Watts

Ultrasonic Frequency: 20 ± 3 KHz.

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

Cyclic Mode: Maximum ON time 99 seconds, and 99 seconds OFF time. Total run time is 99 minutes Max 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: Sould be housed in a separate cabine with autotuning & the control Panel and Stand Jack for sample placement as Standard Accessory.

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4. LOW TEMPERATURE BATH WITH INBUILT MAGNETIC STIRRER

SPECIFICATIONS

- A very low temperature bath for conducting reactions at 0°C to -80°C Temp. range with in $\pm 1^\circ\text{C}$ temperature variation with digital display. The equipment should have in built stirrer with 100 to 800 RPM Rotation speed. The bath should be made of tough SS material to withstand the temperature variations and laboratory conditions. Bath capacity should be 3.5 litres and enclosed in a vaccum bath consisting of reaction vessel up to 300 ml.
