Mahatma Gandhi University, Kerala

Tender No: E-tender/IIUCNN/SPIN/2019 Dated: 08 /03/2019

NOTICE INVITING TENDER

(Tender No: E-tender/IIUCNN/SPIN/2019)

The Registrar, Mahatma Gandhi University, Kottayam invites online bid (technical and financial bid) for Supply and Installation of the Scientific Equipment SPIN COATING UNIT from reputed firms. The period of the tender is 180 days from the date of tender.

1	Name of the scientific equipment	SPIN COATING UNIT
2	Earnest money deposit (EMD)	Rs. 15000/-
3	Tender submission fee	Rs. 2300/- + GST
4	Period of supply and installation	Within 60 days
5	Mode of submission of Bid	Online
6	Tender Documents	Can be downloaded from the website www.etenders.kerala.gov.in
7	Last date and Time of submission of tender by online	16.03.2019 4 pm
9	Date and time of opening of technical bid	19.03.2019 10.30 am

General tender documents and tender schedule can be downloaded in A_4 plain size paper free of cost from the website www.etenders.kerala.gov.in. Documents to be submitted along with bid through online.

Sl.No	Through online
1	Scanned copy of valid registration certificate/dealership certificate
2	Scanned copy of duly filled e-payment form
3	Scanned copy of other certificates required, if any, for tender acceptance
4	Scanned Copy of duly filled preliminary Agreement in stamp paper of Rs.200/-
5	**BOQ**

SPECIAL CONDITIONS

1. The quoted price should be inclusive of all Taxes/freight/installation charges, etc.
2. GST should also be specified in the quote. If necessary, GST exemption certificate will be provided.
3. The quotation should have at least three months validity.
4. Brand name of the equipment should be mentioned and brochure to be enclosed.
5. Warranty conditions, details of the nearest servicing centers, user reference, necessary supporting catalogues and demonstration should be provided.
6. Authorized dealer certificate should be attached with tender.
7. If the date of receipt and opening of quotation is declared a holiday, the next working day shall be the last day for the purpose.
8. At least two users should be trained by the application engineers during the time of installation.
9. The item mentioned in the tender is for research purpose. Any specification which is above or below the defined values and standard is not compatible for the studies and hence not fit to purpose and will be rejected. Only the specifications which is exactly or most close will be considered for the next stage of the tender process.
10. Signed copy of this tender document must be included along with the technical bid.
11. The Delivery Schedule, Payment Terms & Warranty/Guarantee etc must be clearly indicated in the technical bid.

The bids shall be opened at the date and time specified. Further details can be had from the office of **The Director**, The International and Inter University Centre for Nanoscience and Nanotechnology (IIUCNN), M G UNIVERSITY, KOTTAYAM

Dr. Nandakumar Kalarikkal Contact number: *0481-2731043,* 2731669 *(Office), 09447671962 (Mobile) E-mail: nkkalarikkal@mgu.ac.in, cnnmgu@gmail.com* The bidders are advised to submit their bid well in advance to avoid any kind of network issues.

The undersigned reserves the right to reject any or all the tender without assigning any reason whatsoever.

Sd/-
Registrar

International and Inter University Centre for Nanoscience and Nanotechnology
Mahatma Gandhi University
Kottayam - 686560, Kerala, India
Tel: 0481-2731043, 2731669 (Office), 09447671962 (Mobile)
E-mail: nkkalarikkal@mgu.ac.in, cnnmgu@gmail.com

SPECIFICATIONS

Spin coating unit with attachments

S. No.	Parameter	Value	Upgraded Features Required	Technical Compliance [YES/NO] (for official use)
1	Operation Type	Microprocessor Controlled Program	Program functions to be customized as required.	
2	Operating Mode	LCD Touch Screen with colour real time display of speed (RPM) versus time (T)	Upgrade with 4″-7″ Touch Screen	
3	Motor	Integrated brushless DC servomotor with closed loop digital speed control		
4	Maximum Spin Speed	Higher than 12000 RPM	Upgrade to 18000 rpm	
5	Spin Speed Stability	±1 RPM	±1 RPM	
6	Spin Speed Resolution	<±2%	<±2%	
7	Spin speed repeatability	±5%	±5%	
8	Spin Head	Stainless Steel (SS 304) ~ 6″ Diameter bowl with Teflon coating.	Upgrade to 8″ bowl	
		Glass Lid and drain connection.		
9	Spin Baffle	Suitable assembly and also rotating seal with shaft to avoid polymer solution spill over to rotation mechanism.	-	
10	Chuck Size	2″ std.	Upgrade with 3″ & 4″	

11	Substrate Holder	Vacuum chuck/holder to handle substrates of various sizes (10 – 25 mm or higher) with integrated vacuum release switch for easy removal of substrates.	"	
12	Spin Cycle	One cycle upto16 steps with control of acceleration/deceleration.	"	
13	Acceleration	Up to 5000 RPM/Sec	Up to 5000 RPM/Sec	
14	Deceleration	Up to 5000 RPM/Sec	Up to 5000 RPM/Sec	
15	Programmable Step Time	0-999 sec	0-999 sec	
16	Control Electronics	A suitable control interface included with spin cycle recipe programming and storage up to 20 recipes.	Upgrade up to 100+ recipes programs & Special Feed Programs	
17	Control Parameters	Spin Speed / Number of Steps / Acceleration / Deceleration / Step Time	Customized as user required.	
18	Gas purging connection	Nitrogen Gas Purging facility	Calibrated accurate, Inline multi GAS feed controllers	
19	Vacuum Pump	Oil free, Diaphragm pump with pumping speed ~ 75 lit/min	"	
20	Safety interlocks	All the standard safety interlocks is incorporated, including vacuum switch interlock.	"	
21	Vacuum connections	Polyurethane tubing	"	
22	Operating Voltage	230V AC, 50Hz, Single Phase	Inverter & UPS supported	
23	Operating Temperature	Ambience to 50°C	"	
24	Storage Temperature	Suitable for all environment	"	
25	Overall Dimensions	330 mm x 460 mm x 340 mm	''	
26	Glove Box Chamber	Dimension: 500mm x 600mm x 500mm	''	
		Weight: 80kg approx.		

Essential Accessories Required

1. WC-1 Work bench attachment UV Pre processor

   UV32 - 395nm, 385nm &365nm UV 30/50 W sample pre processing unit

2. WC-2 Work bench attachment Ultrasonic Pre processor

   GT-P3 Ultra sonic substrate cleaning system

3. Other Accessories required

   K22 - Vacuum Chuck

   B42 – Adapter

4. Sample wafers: High purity Si single side polishing single crystal silicon

   Single crystal, 5*5mm, Transmission wavelength must be 1200-14000nm, Orientation <111><100><110>, TR <3microM, TTV: <10 microM, BOW <10microM.

S. No.	Parameter	Value	Upgraded Features	Technical Compliance [YES/NO] (for official use)
27	Workbench attachment	UV32 - 395nm, 385nm &365nm UV 30/50 W sample pre processing unit	Multiple wavelength UV Pre processors	
28	Workbench attachment	GT-P3 Ultra sonic substrate cleaning system	Modular substrate cleaning system	
29	Workbench attachment	K22 - Vacuum Chuck B42 - Adapter	Vacuum Chuck & Adapter	
30	Test Samples	High purity Si single side polishing single crystal silicon	Single crystal, 5*5mm, Transmission wavelength must be 1200-14000nm, Orientation <111><100><110>, TR <3microM, TTV: <10 microM, BOW <10microM.	

Above mentioned essential accessories are required to be supplied along with the main unit, tenders without this will not be considered further.