



# PERIYAR UNIVERSITY

SALEM- 636011, TAMIL NADU

NAAC A Grade - State University - NIRF Rank 73, ATAL Rank 4.

Ref. No.PU/R/PL&D3/Physics/07282/2021

Date: 28.10.2021

## TENDER NOTIFICATION

**Sealed Tenders** (Two cover system) are invited by the Registrar, Periyar University, Periyar Palkalai Nagar, Salem – 11 for the **Purchase of Automated equipment for the large scale production of Nano Hydroxyapatite from the Eggshell Waste for DST Project in the Department of Physics** from reputed firms.

The detailed tender documents with specifications terms and conditions etc., can be downloaded from the University website [www.periyaruniversity.ac.in](http://www.periyaruniversity.ac.in). The last date for receipt of the tender in this office is **16.11.2021 at 10.30 a.m.**

## TENDER SUMMARY

Tender Ref. Number	PU/R/PL&D3/Physics/07282/2021, Date: 28.10.2021
Tender Document Cost (Rs.) (Downloadable One)	Rs. 16,800/- [(Demand Draft drawn in any Nationalized bank in favour of the Registrar, Periyar University, payable at Salem) [(Separate DD)]
Amount of EMD (Rs.)	1% of the quoted value [(Demand Draft drawn in any nationalized bank in favour of the Registrar, Periyar University, payable at Salem) [(Separate DD)]
Bid Submission	upto 10.30 A.M. on 16.11.2021
Bid Outer Cover Opening	16.11.2021, 11.30 AM
Bid Opening (Technical)	Will be decided on the day of opening
Bid Opening (Commercial)	Will be decided on the day of opening

**REGISTRAR (FAC)**



# PERIYAR UNIVERSITY

SALEM- 636011, TAMIL NADU

NAAC A Grade - State University - NIRF Rank 73, ATAL Rank 4.

From

The Registrar  
PeriyarUniversity  
Periyar Palkalai Nagar  
Salem – 636 011.  
Tamil Nadu, India.

To

**No. PU/R/PL&D3/Physics/07282/2021**

**Date:**

**NAME OF THE SUPPLY: Purchase of Automated equipment for the large scale production of Nano Hydroxyapatite from the Eggshell Waste for DST Project in the Department of Physics**

## **Tender Conditions**

- 01) Sealed tenders will be received by the Registrar upto **10.30 a.m. on 16.11.2021** for the **“Purchase of Automated equipment for the large scale production of Nano Hydroxyapatite from the Eggshell Waste for DST Project in the Department of Physics”** as per the specifications given in the tender schedules.
- 02) The tender shall be submitted in sealed cover superscribed as **“Tender for Purchase of Automated equipment for the large scale production of Nano Hydroxyapatite from the Eggshell Waste for DST Project in the Department of Physics”** for use of Periyar University due on **16.11.2021 at 10.30 a.m.**
- 03) If the last day fixed for the receipt of tender happens to be a holiday tenders will be received on the next working day upto 10.30 a.m.
- 04) Each tender shall accompany with an **Tender Document Cost of Rs. 16,800/-**. The Tender Document Cost in the form of the Demand Draft drawn in any nationalized bank in favour of the **Registrar, Periyar University, payable at Salem.** (Separate DD)
- 05) Each tender shall accompany with an **EMD at 1% of the Instrument Value.** The EMD in the form of the Demand Draft drawn in any nationalized bank in favour of the Registrar, Periyar University, payable at Salem. Tenders without E.M.D. will be summarily rejected. E.M.D. will not carry any interest.
- 06) **Tenders received late will be returned to the tenderer unopened.**
- 07) The entries in the tender schedules shall be as far as possible without scoring and corrections and over writings and shall be legible. The unavoidable correction or scoring shall be attested by full signature of the tenderer. The tenderer should sign on each page of the tender document.
- 08) **In the tender schedule, the tenderer should quote his rate and tax for each item separately in figures and words in the corresponding column.**

- 09) If the rates quoted in the schedule differ in words and figures, the lowest quoted rate will be taken.
- 10) No revision of rates will be accepted. Rates quoted shall be firm.
- 11) The rates quoted shall be for delivery at University Campus inclusive of charges such as packing and forwarding. Discount if any should be indicated prominently. The tenderer is solely responsible till delivery in good condition.
- 12) **The tenderer should produce the materials as per the specifications given in the tender schedule.**
- 13) Tender shall be submitted only in this official form and the tenderer should sign on each page of the tenderer enclosed without any omission. Tenders with price variation will not be accepted.
- 14) The tender shall be valid for a period of One year from the date of opening. Tenderer should not withdraw his tender after the tenders are opened. In case the tender is withdrawn after opening, the E.M.D. will be forfeited.
- 15) The E.M.D. of the unsuccessful tenderers will be refunded on their request immediately after the disposal of tender by the competent authority.
- 16) **The successful tenderer shall also furnish security deposit at 2% of the value of the order. The Security Deposit will be refunded after one year from the date of supply of materials.**
- 17) In case of failure by the tenderer to supply items demanded within the period prescribed, the Registrar shall have the power to purchase from others in lieu of rejected or not delivered goods, the excess cost and expenses will be worked out and recovered from the tenderer.
- 18) Successful tenderer should execute an agreement on stamp paper to the value of ₹20/- within seven days from the date of receipt of intimation about acceptance of the tender. Failure to execute the agreement in the stipulated time will entail in forfeiture of the E.M.D.
- 19) Any dispute arising out of this contract shall be settled only on the court having jurisdiction of Salem.
- 20) The authority competent to accept the tender reserves the right to reject the tender without assigning reasons thereof.
- 21) Regarding the acceptance of supply with reference to the specifications and quality of materials supplied, the decision of the Registrar shall be final. The rejected materials should be removed within 15 days at Tenderer's cost.
- 22) This University's General rules for the supply of the materials and works will apply on this purchase also.
- 23) The goods should be supplied within 15 days of the receipt of order.

- 24) If the tenderer fails in the due performance of his supply within the time fixed, the tenderer is liable to pay as liquidated damages upto 2% per month for the supply value of such portion of the materials as have not been delivered.
- 25) The tender schedule is not transferable and it should be used only by the tenderer to whom it is officially issued.
- 26) Percentage of payment to be withheld for the effective performance of the contract, provided that withheld amounts do not exceed ten percent of the total value of contract.
- 27) The cost must include the warranty maintenance for 5 years from the date of intallation.
- 28) Complete address of the firm including year of establishment, Phone No., Fax No., E- mail address etc., may be furnished.
- 29) The tenderers should be responsible for erection & installation of the equipment at destination site and for making it fully operational. Payment and terms and conditions if any for the same would be specified by the tenderer separately.
- 30) Canvassing in connection with tender/quotation is strictly prohibited.
- 31) The tenderer shall furnish the Income Tax return certificate for last three years and copy of PAN card along with the tender documents.
- 32) The tenderer should enclose audited statement of the firm for the last three years.
- 33) The tenderer should attach the copy of GST/TIN/Sales Tax Certificate.
- 34) List of details of works executed and list of customers for the last three years shall be attached.
- 35) The tenderer shall submit the tender by “Two cover system”

“Two cover system” means a procedure under which the tenderers are required to simultaneously submit two separate sealed covers, one containing the Earnest Money Deposit and the details of their capability to undertake the tender (Technical Specification) which will be opened first and the second cover containing the price quotation which will be opened only if the tenderer is found qualified to execute the tender on technical Specification.

This tender is submitted subject to and agreeing to the above conditions.

**Details of Tender Document Cost (DD) Enclosed**

S.No.	Demand Draft No. / Date & Name of the Bank	Amount

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**Details of EMD Enclosed**

**Details of EMD Enclosed**

S.No.	Demand Draft No. / Date & Name of the Bank	Amount

***TENDER SCHEDULE***

**Purchase of Automated equipment for the large scale production of Nano Hydroxyapatite from the Eggshell Waste for DST Project in the Department of Physics**

The quantities given below are approximate and are likely to be increased/ reduced.  
The rates should be quoted for the brand mentioned only.

**The rates should be inclusive of all taxes. Taxes must be exhibited separately in the bill. If not, deduction of tax (GST) will be made at the final payment.**

The Unit rates noted below are those governing payments.

The rates quoted are for delivery at the University Campus

Sl. No.	Description of the Equipment	Qty.	Rate in Rs. (Without Tax)	Amount in Rs. (With Tax)
1.	Automated equipment for the large scale production of Nano Hydroxyapatite from the Eggshell Waste  (Specifications enclosed as Annexure)	1 No.		

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Phone: 0427- 2345766, 2346268, 2346269 Fax: 0427- 2345124

Website: [www.periyaruniversity.ac.in](http://www.periyaruniversity.ac.in)

Annexure

**Technical Specifications of “Automated equipment for the large scale production of Nano Hydroxyapatite from the Eggshell Waste” To Design of the prototype equipment**

**Mineral Extractor:**

Gentle Washing:

Digitally controlled and programmable conveyer with intensive water sprayers  
Conveyor 1 meter long, Motor and gear box 0.5 HP, Minimum 10 nozzles (1 HP)

Intensive washing :

Digitally controlled and programmable rotary water washing equipment  
Drum Capacity 20 liters (1 HP ).

Crusher :

Rotary heavy wheel type (Digitally controlled and programmable)  
Stainless steel drum 5kg (1 HP)

Calcination chamber:

Roller hearth microwave calcination chamber  
Shell size and useful volume:  $\approx 550 \times 450 \times 2000$  and  $\approx 250 \times 50 \times 2000$  mm  
Silicon carbide heating elements, Working temperature -  $1250^{\circ}\text{C} (\pm 1^{\circ}\text{C})$ ,  
AIE PID (Model 16 segment) programmer Cum Digital Indicator

Chelation Chamber:

Digitally controlled and programmable  
Teflon lined SS (304 grade) containers with stirrer mechanism, 150 liters–2 nos, 300 liters-1 no, with pH stat

**\*Continuous Flow Microwave Smart Reactor:**

Microwave assisted spray pyrolysis with evaporation capacity of 25 liter/hour  
Operation. Three phase /AC/230V, Digitally controlled and programmable  
Microwave Heating System (2.45GHz), Operating temperature: approximately  
 $750^{\circ}\text{C} \pm 1^{\circ}\text{C}$ , Quartz reactor tube, nozzle suitable for aqueous metal oxide  
precursors, anti-clogging type, PID programmer cum Digital Temperature  
Indicator

Conveyer and Washer:

Digitally controlled and programmable, Water capacity (20L), 1 HP

Dryer and collector:

Drying oven, Shell size  $\approx 700 \times 700 \times 700$  mm (Double wall structure), Useful volume  
 $450(\text{L}) \times 450(\text{W}) \times 450(\text{H})$  mm, Working temperature Room temperature to  $200^{\circ}\text{C}$ , Tray  
5 (Stainless steel)

Packing unit: Digitally controlled and programmable  
Automation of the entire process

\* If the tender is going to be selected then the party has to agree for IPR regulations regarding patenting of process and product.

**Pre-Qualification criteria for Tender upload:**

- 1) The bidder must be a registered company as per GST act. Necessary certificate to be attached.
- 2) The company should be an ISO and CE Certified company.
- 3) The company should not have been banned/suspended/black listed for any reasons by any Government Organization /PSU/CSIR lab in last 3 years. A self-Certified letter must be submitted at the time of bid submission.
- 4) The company should have existence and supplied to the Govt institutions like IIT's, NIT's, BARC, CSIR Labs for at least 10 years, and the necessary proof to be attached along with quotation.
- 5) The vendor should be of OEM and must have experience of supply the same equipment(continuous flow microwave assisted spray Pyrolysis) in the past successfully (attach proof and purchase order copies *etc*).
- 6) General Performance certificate/Testimonial from at least 5 users testifying the good performance of the supplied/installed equipment.
- 7) The bidder should be Class I / Class II under preference "TO MAKE IN INDIA" category.
- 8) The bidder should have a turnover of Rs. 5 crores per annum for the last 3 years (Audited statement should be submitted).