

**GOVERNMENT OF TAMILNADU**  
**DEPARTMENT OF TECHNICAL EDUCATION**  
**GOVERNMENT POLYTECHNIC COLLEGE, UDHAGAMANDALAM – 643 006**

**NOTICE INVITING TENDER**

E-tender Notice No:746/D/2026 Date :27.05.2026.

Online bids are invited through portal <https://tntenders.gov.in> for purchase of Lab Equipment's for ICE Department of Government Polytechnic College Udhagamandalam. from vendors involved in the relevant field. Manual bids shall not be accepted.

Sl. No	Item Name	Quantity required
1.01	Temperature Transmitter Trainer kit	1 No
1.02	Closed Loop Control of Temperature Process Using Thermistor	1 No
1.03	Proportional Control of Temperature Process	1 No
1.04	on off Control of Temperature Process	1 No

**TERMS AND CONDITIONS**

1. The Bidders interested in participation the e-Tender must be registered with Tamilnadu e-procurement system portal and also should have Digital Signature Certificate.
2. All the items/ Goods/EquipmentMachinery/Articles should be delivered and installed at the college premises only.
3. Bidders should submit their bids system through online ([www.tntenders.gov.in](http://www.tntenders.gov.in)) in prescribed format only.

(i) **Technical Bid** – Shall be submitted along with self attested scanned copies of necessary documents in .pdf format.

(ii) **Financial Bid** –

- a) In.xls format only (Excel format)
- b) Rate per unit should be mentioned.
- c) Rates quoted by Bidders should be firm &Final.
- d) Prices should be quoted only in Indian Rupees (INR)

e) Price should be inclusive of all freight, Insurance, Packing, Loading & Unloading, Delivery charges etc.

4. Tenders in any other manner will not be accepted.
5. Bidders should have local office in Tamil Nadu within 200 Kms from Ooty.
6. Bidders must not be black listed by Government of Tamil Nadu.
7. The Bidders must have valid
  - a) PAN
  - b) Valid GST Registration Number. (Bids without GST registration Copy will be rejected).
8. Warranty should not be less than 1 year (It will start after the date of Successful Installation).
9. Delivery of the item should be done at Government Polytechnic College, Udhagamandalam - 06
10. Mode of payment through ECS/Cheque (100% payment will be given only after the goods are received in good condition and installation is completed)
11. No Advance payment will be made.
12. As per Tamilnadu Transparency in Tender Act 1998 and Tamilnadu Transparency in Tender Rules 2000.
  - a) Government Polytechnic College Udhagamandalam - 06 reserves the right to modify, reduce or increase the quantity required.
  - b) Withhold any amount for the deficiency in service aspect of the ordered items.
13. The Final decision would be based on the Technical Capacity and pricing of the bidder.
14. The PRINCIPAL, Government Polytechnic College, Udhagamandalam -06, reserves the right, not to accept lowest price or to reject any or all the tenders without assigning any reasons.
15. The PRINCIPAL, Government Polytechnic College Udhagamandalam– 06, reserves the right to call off tender process at any stage without assigning any reasons.
16. For any Corrigendum and addendum please check the above website.
17. Delivery Period : Time is the Essence of this contract. Owing to the tight schedule of the upcoming academic calendar and to prevent any academic loss to the students, the successful bidder must fully deliver, install, check and commission all the ordered lab equipments within exactly 7 (seven) days from the date of issuance of the award of contract (AOC) / purchase order.

18. Vendor Capability: Bidders must ensure they have ready stocks available or a guaranteed supply chain before participating in this tender to meet the strict 7- day timeline.

*J. Ganesh*  
27.05.2026

THE PRINCIPAL / TENDER INVITING AUTHORITY  
GOVERNMENT POLYTECHNIC COLLEGE  
UDHAGAMANDALAM – 643 006.

S. No	Department where the equipment is required	Name of the Equipment (As per TANSCHÉ List)	Final Specification	Quantity
1	INSTRUMENTATION AND CONTROL ENGINEERING	Temperature Transmitter Trainer kit	<ul style="list-style-type: none"> <li>• RTD / Thermocouple input.</li> <li>• Digital temperature display.</li> <li>• (4–20) mA current output.</li> <li>• Zero and span calibration facility.</li> <li>• Power supply: 230 V ac, 50 Hz.</li> </ul>	1
2	INSTRUMENTATION AND CONTROL ENGINEERING	Closed Loop Control of Temperature Process Using Thermistor	<ul style="list-style-type: none"> <li>• Provision to operate in: ON/OFF, P, PI, and PID control modes.</li> <li>• Three potentiometers provided to vary proportional gain, integral time, and derivative time.</li> <li>• Separate potentiometer provided to adjust overlap in ON/OFF control.</li> <li>• Two individual potentiometers provided to vary overlap and maximum heater power.</li> <li>• Thermistor used as temperature sensor.</li> <li>• SCR firing circuit with 2 SCRs for heater power control.</li> <li>• In-built error detector provided to compare set value and measured value.</li> <li>• Hot air blower with PVC tube and three thermistor insertion points for studying transport lag, two-step control and PID control.</li> <li>• Air flow control through shutter arrangement.</li> <li>• In-built IC regulated power supply.</li> <li>• Two digital panel meters provided to display set value and measured temperature.</li> <li>• All components housed in cabinet with mimic diagram and suitable termination connectors.</li> </ul>	1

S. No	Department where the equipment is required	Name of the Equipment (As per TANSCHÉ List)	Final Specification	Quantity
3	INSTRUMENTATION AND CONTROL ENGINEERING	Proportional Control of Temperature Process	<ul style="list-style-type: none"> <li>• SCR firing circuit: 2 SCRs provided to vary the power supplied to the heaters.</li> <li>• Control voltage source: One (0–5) V voltage source provided to vary the control voltage.</li> <li>• Mode selection switch: Provided to select internal or external control voltage mode from personal computer.</li> <li>• Temperature process setup: Mini furnace (100°C) with blower arrangement.</li> <li>• Temperature sensor: RTD.</li> <li>• Temperature display: 3½ digit digital indicator to display actual temperature.</li> <li>• Front panel: Mimic diagram provided for easy reference.</li> </ul> <p>DATA ACQUISITION SYSTEM</p> <ul style="list-style-type: none"> <li>• CPU card: Microcontroller-based CPU card.</li> <li>• Operation: True plug-and-play.</li> <li>• Program memory: 62 kB non-volatile Flash/EE memory.</li> <li>• Integrated peripherals: High-performance self-calibrating multichannel ADC and dual DAC.</li> <li>• Data memory: 4 kB non-volatile Flash/EE memory.</li> <li>• RAM: 256 bytes RAM and 2 kB extended RAM integrated on-chip.</li> <li>• Digital I/O: 8 Digital Inputs and 8 Digital Outputs.</li> </ul>	1
4	INSTRUMENTATION AND CONTROL ENGINEERING	on off Control of Temperature Process	<ul style="list-style-type: none"> <li>• Furnace system: Temperature up to 99°C for temperature measurement and control.</li> <li>• ON/OFF controller: Provided with 3½-digit display and set-point control facility.</li> <li>• Temperature setting: 3½-digit digital indicator provided on the front panel to set the desired temperature.</li> <li>• Signal conditioner: Provided with thermocouple interface.</li> <li>• Temperature sensing and control: Thermocouple senses the furnace temperature and maintains the desired value using ON/OFF control method.</li> <li>• Dead band adjustment: Potentiometer provided to vary the dead band in ON/OFF control.</li> <li>• Heater control: SCR / relay-based heater control.</li> <li>• Power supply: 230 V ac, 50 Hz.</li> <li>• Front panel: Mimic diagram with suitable test points.</li> </ul>	1
<b>Total</b>				