Under Technical Education Quality Improvement Programme Phase-III of Government of India



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# NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI-620 015 INVITATION FOR QUOTATION

## TEQIP-III/2017/NITT/Shopping/26

01-Nov-2017

To,

Address (Firm)

# Sub: Invitation for Quotations for supply of Closed Loop Control System for DC and AC Motor.

Dear Sir,

1. You are invited to submit your most competitive quotation for the following goods with item wise detailed specifications given at Annexure I,

| Sl.<br>No | Brief<br>Description                                    | Quantity | Delivery<br>Period<br>(In days) | Place of Delivery   | Installation<br>Requirement (if any)   |
|-----------|---|----------|---------------------------------|---|--|
| 1         | Closed Loop<br>Control System<br>for DC and AC<br>Motor | 1        | 60                              | Department of<br>Electrical and<br>Electronics<br>Engineering,<br>National Institute<br>of Technology,<br>Tiruchirappalli | Installation to be done<br>in the Department of<br>Electrical and<br>Electronics<br>Engineering, National<br>Institute of<br>Technology,<br>Tiruchirappalli, Tamil<br>Nadu |

- 2. Government of India has received a credit from the International Development Association (IDA) towards the cost of the **Technical Education Quality Improvement Programme[TEQIP]-Phase III** Project and intends to apply part of the proceeds of this credit to eligible payments under the contract for which this invitation for quotations is issued.
- 3. Quotation,
  - 3.1 The contract shall be for the full quantity as described above.

- 3.2 Corrections, if any, shall be made by crossing out, initialing, dating and re writing.
- 3.3 All duties and other levies payable by the supplier under the contract shall be included in the unit price.
- 3.4 Applicable taxes shall be quoted separately for all items.
- 3.5 The prices quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
- 3.6 The Prices should be quoted in Indian Rupees only.
- 4. Each bidder shall submit only one quotation.
- 5. Quotation shall remain valid for a period not less than **45** days after the last date of quotation submission.
- 6. Evaluation of Quotations,

The Purchaser will evaluate and compare the quotations determined to be substantially responsive i.e. which

#### 6.1 are properly signed; and

6.2 confirm to the terms and conditions, and specifications.

- 7. The Quotations would be evaluated for all items together.
- 8. Award of contract:

The Purchaser will award the contract to the bidder whose quotation has been determined to be substantially responsive and who has offered the lowest evaluated quotation price.

- 8.1 Notwithstanding the above, the Purchaser reserves the right to accept or reject any quotations and to cancel the bidding process and reject all quotations at any time prior to the award of contract.
- 8.2 The bidder whose bid is accepted will be notified of the award of contract by the Purchaser prior to expiration of the quotation validity period. The terms of the accepted offer shall be incorporated in the purchase order.
- 9. Payment shall be made in Indian Rupees as follows:

#### Delivery, Installation & Satisfactory Acceptance - 100% of total cost

- 10. All supplied items are under warranty of **12** months from the date of successful acceptance of items.
- 11. You are requested to provide your offer latest by 15:00 hours on 30-November-2017.
- 12. Opening time : 30-November-2017 16:00 hours at TEQIP Office, Administrative Building, NIT Trichy
- 13. Detailed specifications of the items are at Annexure I.
- 14. Training Clause (if any) NA.

- 15. Testing/Installation Clause (if any) 100% payment after delivery and successful installation at Department of Electrical and Electronics Engineering, NIT, Tiruchirappalli 620 015, Tamil Nadu
- 16. Information brochures/ Product catalogue, if any must be accompanied with the quotation clearly indicating the model quoted for.

### 17. Sealed Quotations to be submitted at the following address:

**The Head of Department** Dept. of Electrical and Electronics Engineering National Institute of Technology Tiruchirappalli – 620 015.

18. We look forward to receiving your quotation and thank you for your interest in this project.

Note: The cover should be duly superscribed with the following details.

- (1) Quotation Reference Number (2) Quotation for the supply of .....
  - (3) Date of opening .....

(Dr. K. Sundareswaran) HoD /EEE

# Annexure I

| Item Name   | Specifications  |   |  |  |
|---|---|---|--|--|
| Closed Loop<br>Control System<br>for DC and AC<br>Motor | AC Drives   |   |  |  |
|   | The specifications of the ac drive (meant to drive the induction motor in the machine set) unit are as follows. The vendor shall specify the time duration the machine can be operated on full load under inverter supply at various speeds.  |   |  |  |
|   | Input   | : 415V±10%,50±5%Hz,3 wire   |  |  |
|   | Output  | : 0-415V, Variable Frequency ( range: 0 to 50Hz)  |  |  |
|   | Rated Power   | : 1kW   |  |  |
|   | Control Type  | : V/f and Vector Control  |  |  |
|   | Input Section   | : Diode Bridge  |  |  |
|   | Output Section  | : Four Quadrant Inverter  |  |  |
|   | Braking   | : Dynamic Braking Resistor Should be provided   |  |  |
|   | Speed Feedback  | : DC Voltage  |  |  |
|   | Speed Reference   | : Adjustable in control panel (10V for maximum speed)   |  |  |
|   | Controller Gains  | : Adjustable by the user  |  |  |
|   | The drive shall also have facility to be run as a multiple motor and drive system accepting reference command on a common communication bus for future use. The drive shall have the capability to use all popular communication protocols – CANBUS / PROFIBUS / Devicenet / MODBUS |   |  |  |
|   | DC DRIVES   |   |  |  |
|   | The specifications of the dc drive (meant to drive the dc motor in the machine set) unit are as follows. The vendor shall specify the time duration the machine can be operated on full load under drive operation at various speeds.   |   |  |  |
|   | Input Voltage   | : 415V±10%, 50±5%Hz,3 wire  |  |  |
|   | Output Voltage  | : 0 to 220V   |  |  |
|   | Output Power  | : 1.1kW   |  |  |
|   | Drive Type  | : Dual Converter  |  |  |
|   | Closed Loop<br>Control System<br>for DC and AC  | AC DrivesThe specifications of machine set) unit are<br>the machine can be of<br>speeds.InputOutputRated PowerControl TypeInput SectionOutput SectionBrakingSpeed FeedbackSpeed Referencefor DC and ACMotorController GainsThe drive shall also f<br>system accepting refer<br>future use. The dri<br>communication proto<br>MODBUSDC DRIVESThe specifications of<br>machine set) unit are<br>the machine can be of<br>speeds.Input Voltage<br>Output VoltageOutput Power |  |  |

|  | Braking  | : Regenerative  |  |  |
|--|--|---|--|--|
|  | Speed Feedback   | : DC Voltage  |  |  |
|  | Speed Reference  | : Adjustable in control panel (10V for maximum speed) |  |  |
|  | Controller Gains   | : Adjustable by the user                              |  |  |
|  | The drive shall also have facility to be run as a multiple motor and drive system accepting reference command on a common communication bus for future use. The drive shall have the capability to use all popular communication protocols – CANBUS / PROFIBUS / Devicenet / MODBUS. |   |  |  |

#### FORMAT FOR QUOTATION SUBMISSION

(In letterhead of the supplier with seal)

To:

| SI.<br>No. | Description of<br>goods (with full<br>Specifications) | Qty. Unit |   | Quoted Unit rate in Rs.<br>(Including Ex Factory price, excise duty, packing and | Total Price | Sales tax and other<br>taxes payable |  |
|------------|---|-----------|---|--|-------------|--------------------------------------|--|
|            |   |           | forwarding, transportation, insurance, other local<br>costs incidental to delivery and warranty/ guaranty<br>commitments) | (A)  | In<br>%     | In figures<br>(B)                    |  |
|            |   |           | 1   | Fotal Cost   |             |                                      |  |

Gross Total Cost (A+B): Rs. \_\_\_\_\_

We agree to supply the above goods in accordance with the technical specifications for a total contract price of Rs. ——————— (Amount in figures)

(Rupees ————————amount in words) within the period specified in the Invitation for Quotations.

We confirm that the normal commercial warranty/ guarantee of ————— months shall apply to the offered items and we also confirm to agree with terms and conditions as mentioned in the Invitation Letter.

We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in bribery.

Signature of Supplier

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Contact No: \_\_\_\_\_

Date: \_\_\_\_\_

\_\_\_\_\_