

INDIAN INSTITUTE OF TECHNOLOGY GOA

At Goa Engineering College Campus

Farmagudi, Ponda, Goa 403401

E-mail: purchase@iitgoa.ac.in

GSTIN: 30AABAI1653D1ZF

PAN: AABAI1653D

TAN: BLRI08261B

Enquiry No: IITGOA/2019-20/039

Date: 04/12/2019

IIT Goa invites sealed quotations in two bid form for the supply of below mentioned item.

Sl. No.	Description of Item	Qty
1	6 Axis Robotic Welding Set (Detailed Specifications Attached)	01 No.

Terms and conditions:

1. Quotation must be valid for at least 90 days.
2. The GSTIN should invariably be mentioned in your offer.
3. Kindly attach a compliance certificate along with the technical quote.
4. Prices:
 - I) **For Import Supplies:**
 - a) It is mandatory to quote prices in FOB basis only.
 - b) In case of multiple options of same product, bidders are requested to quote only one best option and not multiple options.
 - c) Payment terms: 90% payment by letter of credit and balance 10% will be paid by wire transfer after satisfactory installation and commissioning.
 - II) **For Indigenous Supplies:**
 - a) In case of multiple options of same product, bidders are requested to quote only one best option and not multiple options.
 - b) Payment terms: Within 30 days after the delivery and installation of the item at IIT GOA.
5. Delivery and installation should be made within 6 weeks of getting a confirmed order.
6. The suppliers shall provide the banking details along with their quote on their letterhead duly signed and stamped.

7. Quotations shall be submitted in two parts;
 - 1) **Part – I (Technical)** should contain all the technical details and specification of the product. It should contain unpriced bid along with terms and conditions, compliance certificates, proprietary certificates (if applicable), any other certificates/details etc. This envelope should be marked as “Technical Bid”
 - 2) **Part -II (Financial)** The financial bid of the above item should be in a sealed envelope marked as “Financial Bid” and should contain financial terms and conditions.
8. IIT Goa reserves the right to accept or reject any or all bids without assigning any reason in public interest.
9. For any clarification, you may kindly contact Dr. Sachin Kore (E-mail: sachin@iitgoa.ac.in and Stores & Purchase Department (email: purchase@iitgoa.ac.in) till 13/12/2019.
10. All sealed quotations must reach to the Assistant Registrar (Stores & Purchase), IIT Goa, at Goa College of Engineering Campus, Farmagudi, Ponda, Goa, 403 401 by 17.00 Hrs on or before 24/12/2019.

Sd/-
Asst. Registrar (S&P)

1) Specifications for Robot (6 Axis Servo) Configuration Details:

- Model: Suitable for the Welding Application
- Payload: 12 kg
- No. of Axis: 6
- Max. Reach: 1300 mm or more
- Repeatability: +/- 0.08 mm or better
- Protection: IP 54
- Weight: 80-130 kg
- Axis: J1; Axis Range: $\pm 180^\circ$; Max. Speed: 150°/s
- Axis: J2; Axis Range: $\pm 130^\circ$; Max. Speed: 150°/s
- Axis: J3; Axis Range: $\pm 150^\circ$; Max. Speed: 150°/s
- Axis: J4; Axis Range: $\pm 180^\circ$; Max. Speed: 180°/s
- Axis: J5; Axis Range: $\pm 110^\circ$; Max. Speed: 180°/s
- Axis: J6; Axis Range: $\pm 360^\circ$; Max. Speed: 180°/s
- Installation: Floor, wall & ceiling mount
- Ambient Operating temperature: 15°- 40°
- Acoustic noise level: < 70 dB
- Power supply: 440 VAC, Three phase
- Max power consumption: 6-8 KW
- Spare digital I/O: 5 Input, 6 Output
- Communication protocol: CAN, EtherCAT, Ethernet, USB
- Controller panel dimension range: (700-800) x (550-650) x (400-450) (in mm)
- Warranty: Minimum one-year warranty should be included
- Extended Warranty: Firm to quote separately the extended warranty for two more years
- Support: The Firm must be OEM or Authorised reseller /distributor / channel partner/system integrator for Automation, Robots and its Application products.

2) **Specifications for Teach pendant**

- Screen: Handheld (7" or more) inch Display with touch-screen
- Should have following Additional features: Emergency stop,
Plug and Play Connectivity Options,
Mode selector switch.

3) **Specifications for Welding Power source with Wire feeder: (it should be of Reputed make)**

- Parameters: MIG 350 A - 400 A
- Rated Input voltage (VAC): 3 PHASE, 415 VAC, +/-10%, 50/60 Hz
- Power factor: 0.99
- Protection class: IP 23
- Insulation class: H
- Rated input current (A): 23.5
- Rated input capacity (KVA): 16
- Open circuit voltage range (V-DC): 74
- Output current range (A): 60-400
- Output voltage range (V): 16-34
- Crater current range (A): 80-400
- Crater voltage range (V): 16-34
- Rated duty cycle (%): 50-70
- Dimensions (LxWxH) (mm): (600-700) x (250-300) x (650-750)
- Warranty: Minimum one-year warranty should be included
- Extended Warranty: Firm to quote separately the extended warranty for two more years
- Support: The Firm must be OEM or Authorized reseller /distributor / channel partner/system integrator for Automation, Robots and its Application products.

4) **Additional requirements from the system**

- **The MIG Welding torch unit consisting tool holding adapter should have:**
Control switch, Power cable, Conduit, Contact tip, Gas nozzle and Gas hose.
- **Fixture for holding component:** Fixture Material should be made up of MS and size ranging from (500-700) mm x (350-450) mm x (300-380) mm height, having 4-6 no's Toggle clamps, having 2-4 proximity sensors.
- **Safety Fencing:** Fencing area of 2500 x 2500 mm² or more of robotic welding cell. Weld guard to be attached. To be fabricated with wire mesh panels ISO 30x30 Sq tubes of approx 2000-2500mm height. Should have Door Light curtains.
- **Referencing Base Structure:** Material - Mild steel, Finish - powder coating, The MS top plate should range from (1000-1500) mm x (1500-2000) mm x (10-15) mm Thick. The structure should consist of Rectangular hollow tube of (30-50) x (60-100) mm x (2-6) mm Thick.

Note:

- Bidder to provide the sample parts of 5 No's for Trials (considering MIG Welding process).
- Bidder to design, supply, integrate & prove out the complete Robotic Welding System.
- Installation, Commissioning & Training of the proposed robotic cell to be provided at IIT/GOA Site.