



Invitation for Expression of Interest (EoI)

Quotation for GuG/TRICEF/2026/01

Sealed Expression of Interest (EoI) are invited by the undersigned for **Establishment of Customized FABLAB at TRICEF Incubation Centre**. The rates should be quoted for the product whose details are outlined below.

Establishment of Customized FABLAB

The bidder should present a comprehensive solution to set up a state-of-the-art FABLAB on turn-key basis at TRICEF Incubation Centre, Gondwana University, Gadchiroli. This FABLAB should enable students and faculty to engage in experiential learning, prototyping, and innovation, in alignment with the mandate of Gondwana University, Gadchiroli. The proposed FABLAB should integrate cutting-edge tools, machinery, and infrastructure to create a dynamic environment for skill development and creativity. The facility will support startups working in the following domain: Bamboo, Minor Forest Produce, Agriculture, Aquaculture, Ethno-Medicines, Panchgavya, Tourism, Drone and any other relevant to the region.

Objectives of the FABLAB

1. To Encourage Learning by Doing: Foster a "learning by doing" pedagogy, enabling students to apply theoretical knowledge in a practical environment.
2. To Promote Innovation and Skill Development: Provide students with cutting-edge tools and technologies to develop skills in prototyping, product development, and creative problem-solving.
3. To Enable Industry Readiness: Equip students with practical knowledge and industry-relevant skills, preparing them to excel in the competitive global job market.
4. To Boost Research and Development: Create an environment conducive to research and innovation, enabling faculty and students to work on projects and solutions that address real-world challenges.
5. To Support Incubated Startups: Provide technical support, access to advanced equipment, prototyping facilities, testing infrastructure to incubated startups as per their specific requirements, enabling them to accelerate product development and commercialization.
6. To Provide Dedicated Infrastructure: Establish well-designed co-working spaces with computers, cabins, partitions, wall cladding, electrical fittings, networking facilities, and other necessary infrastructure as per layouts and design requirements. Ensure availability of essential

utilities, furnishings, and any additional facilities relevant to support the operational and developmental needs of startups.

Scope of the Work

1. Detailed Customized Design and Layout Planning:

- Develop a comprehensive layout plan for the makerspace, optimizing the use of space and ensuring easy accessibility to equipment.
- Integrate safety protocols and ergonomic considerations into the design.

2. Procurement and Supply of Equipment:

Sr. No.	Product	Specifications
1.	CO ₂ Laser Cutting & Engraving Machine (1 unit)	<ul style="list-style-type: none"> • Working Area: Minimum 450 x 300 mm • Laser Power: 60W Glass Sealed CO₂ Tube • Cutting Thickness: Up to 10 mm Acrylic / 6–8 mm MDF/Bamboo • Engraving Speed: Up to 500 mm/sec • Positioning Accuracy: ±0.01 mm • Cooling System: Water Cooling with chiller or pump • Air Assist: Integrated air compressor • Exhaust System: External exhaust blower with duct • Control Software Compatibility: CorelDraw / AutoCAD / RD Works • Supported Formats: DXF, PLT, JPG, PNG • Safety: Emergency Stop Button, Water Flow Protection
2.	3D Printer (Mini) (1 unit)	<ul style="list-style-type: none"> • Printer Type: FDM • Print Size (L x W x H) (mm): 256 x 256 x 256 • Filament Supports: PETG, PLA, PVA, TPU • Supported Nozzle size (mm): 0.2, 0.4 (Included), 0.6, 0.8 (optional) • Hot end Temperature (°C): 300 • Connectivity: Bambu-Bus, Wi-Fi • Machine Size (mm): 465 x 410 x 430 • Printing Speed (mm/s): 500 • No. of Extruders: 1 • No. of Nozzles: 1 • Heat bed Temperature (°C): 100
3.	Mini CNC Router (Compact Model) (1 unit)	<ul style="list-style-type: none"> • Working Area: Minimum 600 x 400 mm • Spindle Power: 1.5 kW (Air Cooled) • Spindle Speed: Up to 24,000 RPM • Drive Type: Ball Screw / Lead Screw • Controller: DSP / Mach3 • Supported Files: G-code • Compatible Materials: Bamboo, MDF, Acrylic, Soft Wood • Dust Collection Port: Mandatory • Frame: Heavy Duty Mild Steel

4.	Multi-Product Weighing Filling Machine (1 unit)	<ul style="list-style-type: none"> • Filling Range: 25 gm – 1 Kg • Filling Accuracy: $\pm 2-3$ gm • Hopper Capacity: 25 Kg • Filling Speed: 6–20 pouches/min • Power: 300 W • Voltage: 230V / 50 Hz • Contact Parts: SS 304 • Body: Powder Coated MS
5.	Vacuum Packing Machine (1 unit)	<ul style="list-style-type: none"> • Chamber Size: 390 x 280 x 50 mm • Sealing Length: 260 mm • Vacuum Pump: 10 m³/hr • Cycle Time: 10–20 sec • Power: 0.4 kW • Body: Stainless Steel
6.	Tray Food Dehydrator (1 unit)	<ul style="list-style-type: none"> • No. of Trays: 20 • Tray Material: SS 304 • Temperature Range: 30°C – 90°C • Timer: 0–24 hours • Power: 2000 W • Air Circulation: Forced air circulation • Noise Level: < 50 dB
7.	Semi-Automatic Foil Sealing Machine (1 unit)	<ul style="list-style-type: none"> • Sealing Diameter: 120–200 mm • Power: 250–450 W • Voltage: 230V Single Phase • Application: Glass/Plastic bottles
8.	Electronics Workstation (1 unit)	<ul style="list-style-type: none"> • Temperature Controlled Soldering Station • Digital multi-meter • DC Regulated Power Supply (0–30V) • Digital Storage Oscilloscope (Minimum 50 MHz) • Hot Air Rework Station • Anti-static Mat
9.	Vinyl Cutting Plotter Machine (24 inch) (1 unit)	<ul style="list-style-type: none"> • Cutting Width 750 mm • Cutting Speed 800 mm/s • Motor Stepper Motor • Knife Pressure 10–500g (Digital) • CPU 32-bit, 1MB/4MB Cache • Repeatability 0.127 mm • Driven Type Electric • Classification Single-Blade Cutter
10.	Multi-tray solar Dryer (1 unit)	<ul style="list-style-type: none"> • Material: Aluminium, Polycarbonate • Product Dimensions: 68D x 68W x 37H Centimetres • Recommended Uses for Product: Spices, Fruits, Vegetables, Herbs, Pharmaceuticals, Coconut, Oil seeds, Tea leaves, Coffee beans, Chips, Flours, Fruits, Vegetables, Herbs, Pharmaceuticals, Coconut, Oil seeds, Tea leaves, Coffee beans etc.
11.	Bench Top Drill Machine (1 unit)	<ul style="list-style-type: none"> • Continuous rating input: 250W • Capacity: Steel: 13 mm (1/2") • Wood: 24 mm (15/16")

		<ul style="list-style-type: none"> No Load Speed (RPM): 570, 890, 1,300, 1,900, 2,670(50 Hz), 690, 1,070, 1,560, 2,280, 3,200(60 Hz) Net weight: 20 kg (44.1 lbs.) Power supply cord: 1.75 m (5.7 ft)
12.	Bench Vice (1 unit)	<ul style="list-style-type: none"> Material: Cast Iron Item dimensions L x W x H: 28 x 13 x 16 Centimetres
13.	Soldering Station (1 unit)	<ul style="list-style-type: none"> Wattage: 60W ABS Body LED Display for SET and RUN modes Micro controller Based control unit ESD safe
14.	Cordless Drill/Driver (1 unit)	<ul style="list-style-type: none"> Battery capacity 2 Ah Battery voltage 18.0 V Torque (soft/hard/max.) 21/50/- Nm No-load speed (1st gear / 2nd gear) 0 – 500 / 0 – 1,900 rpm Weight incl. battery 1.3 kg Chuck capacity, min/max. 1.5 / 13 mm
15.	Mitre Saw (1 unit)	<ul style="list-style-type: none"> Input Power: 1750 KW Saw blade diameter: 254 mm Saw blade bore diameter: 25.4 mm
16.	Table Saw (1 unit)	<ul style="list-style-type: none"> Speed: 4600 RPM Number of Teeth: 80 Wattage: 1.8 Watts
17.	Bench Grinder (1 unit)	<ul style="list-style-type: none"> Grinding wheel diameter: 150mm No-load speed: 3,000 rpm Rated input power: 350 W
18.	Blower (1 unit)	<ul style="list-style-type: none"> Rated input power: 650 W Volumetric flow rate: 3.7 m³/min No-load speed: 16,000 rpm
19.	Cordless Screw Driver (1 unit)	<ul style="list-style-type: none"> Torque (soft/hard/max.): 14/30/- Nm No-load speed (1st gear / 2nd gear): 0 – 400 / 0 – 1,500 rpm Battery capacity: 1.5 Ah Battery type: Lithium-Ion Chuck capacity, min./max.: 0.8 / 10 mm Weight excl. battery: 0.8 kg Torque settings: 20+1
20.	Vacuum Cleaner (1 unit)	<ul style="list-style-type: none"> Dimensions (W x D x H): 350 x 350 x 520 mm Weight: 5.7 kg Tank Capacity: 20 litres Input Power: 1400 W Motor Suction Power: 20 KPa Blower Efficiency: 1400 litres/min Cord Length: 5 meters Dust Capacity: 20 litres Voltage: 230 V AC, 50 Hz Noise Level: 70 dB

21.	Sander (1 unit)	<ul style="list-style-type: none"> • Orbit Diameter: 5 mm • Air Consumption: 8 CFM • Free Speed (rpm): 10000 RPM • Sanding Pad Diameter: 6 inches • Air Inlet: 6.35 mm • Hose Size: 3/8 inch • Air Inlet (in inch): 1/4 inch
22.	Hacksaw (1 unit)	<ul style="list-style-type: none"> • Blade Material: Steel • Surface Recommendation: Wood, Metal, Plastic • Power Source: Manual • Special Feature: Easy Blade Change, Ergonomic Handle • Product Dimensions 14L x 3.4W x 44.5H Centimetres
23.	Ball Pein Hammer (1 unit)	<ul style="list-style-type: none"> • Handle Material: Wood, Steel • Product Dimensions: 24.5L x 8W x 3.2Th Centimetres
24.	Ring Spanner Set, 12PC. (1 unit)	<ul style="list-style-type: none"> • 6X7, 8X9, 10X11, 12X13, 14X15, 16X17, 18X19, 20X22, 21X23, 24X27, 25X28, 30X32MM
25.	Open end spanner set 12Pcs. (1 unit)	<ul style="list-style-type: none"> • 6x7, 8x9, 10x11, 12x13, 14x15, 16x17, 18x19, 20x22, 21x23, 24x27, 25x28, 30x32MM
26.	Combination Plier (1 unit)	<ul style="list-style-type: none"> • Material: Alloy Steel, Plastic • Product Dimensions 21.6L x 7.1W Centimetres • Handle Material: plastic, steel • Cutting Width:8 Inches
27.	Long Nose Plier (1 unit)	<ul style="list-style-type: none"> • Product Dimensions 2.15L x 0.5W Meters • Handle Material: Alloy Steel
28.	Adjustable Spanner (1 unit)	<ul style="list-style-type: none"> • Item Length: 15.5 Centimetres
29.	Screwdriver Set (1 unit)	<ul style="list-style-type: none"> • Item dimensions L x W x H: 22 x 9 x 22 Centimetres
30.	Hot Glue Gun (1 unit)	<ul style="list-style-type: none"> • Feed Type: Trigger-fed Gun • Wattage: 40 W • Temperature Control: Standard Temperature • Type: Corded Glue Gun
31.	Pegboard (1 unit)	<ul style="list-style-type: none"> • Material: Plastic • Item dimensions L x W x H: 22.9 x 22.9 x 10.2 Centimetres
32.	Digital Vernier Calliper (1 unit)	<ul style="list-style-type: none"> • Electronic vernier calliper: 150 mm • Measuring Range: 0 to 150 mm • Resolution 0.01mm • Accuracy +/- 0.03 mm
33.	Measuring Tape (5 M) (1 unit)	<ul style="list-style-type: none"> • Product Dimensions: 24L x 8W Centimetres
34.	Mask (10 unit)	<ul style="list-style-type: none"> • N95

35.	Fire Extinguisher (2 unit)	<ul style="list-style-type: none"> • 4kg
36.	First Aid Kit (1 unit)	
37.	Hand Gloves (10 unit)	
38.	Mitsubishi make heavy duty 2.5 Tonne Air-conditioner, Split Type	01 quantity
39.	Co-Working Space with Cabins	<ul style="list-style-type: none"> • Open Co-Working Area: 2 modular workstations, ergonomic chairs, shared meeting table (4-seater), whiteboard/pin-up board, electrical outlets. • Infrastructure & Utilities: Electrical wiring, LED lighting, ventilation, basic interior finishing and branding.
40.	Any other item or equipment as per needs of Tricef Incubation Centre and not mentioned above	As desired by the applicant vendor
41.	Tricef office with 4 cubicles	12 ft X 10 ft area. Desk, ergonomic chair, small cabinet per cubicle.
42.	Exhibit Shop for products (External)	16 ft X 7 ft size area with 8 ft height, internal product display and storage with one door.
43.	Partition at Director (II&L) Cabin	20 ft X 7 ft high partition with one 3 ft door at the end of one side.
44.	Retrofitting of product show case in DIIL cabin	Existing show case to be retrofitted as per new design
45.	Furnishing items for every space utilized as per its aesthetical requirement	Like wall hangings, medians, claddings, paintings and any other item etc.

- Ensure all equipment meets quality standards and industry requirements.

3. Installation and Setup:

- Set up and calibrate machinery to ensure operational readiness.
- Install infrastructure components such as furniture, workstations, and storage facilities as outlined in the proposal.

4. Training and Capacity Building:

- Conduct training sessions for faculty and staff on the operation and maintenance of equipment.
- Provide introductory workshops for students to familiarize them with the makerspace tools and technologies.

5. Support and Maintenance:

- Offer post-installation support for troubleshooting and resolving operational issues.
- Provide scheduled maintenance services to ensure the longevity of equipment.

Equipment Overview

This FABLAB should include a carefully curated selection of advanced equipment, designed to meet the needs of a modern fabrication lab and support a wide range of activities such as prototyping, product design, and hands-on learning.

Eligibility and Other Requirements:

1. Any Firm/Company owned and run by person having relevant expertise with relevant credentials like GSTIN, Relevant Work Experience etc.
2. The given firm shall be responsible for **Establishment of Customized FABLAB** at TRICEF Incubation Centre, Gondwana University, MIDC Road Complex, Gadchiroli-442605.
3. The given firm shall ensure **Establishment of Customized FABLAB** as per the terms and conditions as mentioned in the work order.
4. The firm should provide a qualified technical person with the necessary expertise to operate and maintain the FABLAB equipment, ensuring smooth day-to-day operations and offering technical support to students, faculty, and incubated startups. The given personnel should have hands-on experience with the machinery and tools listed in the proposal and shall be available for training and troubleshooting on a full-time basis.

The last date for submission of EoI is 5th March 2026 up to 5.00 P.M. in sealed envelope containing necessary documents and mentioning the **TRICEF Incubation Centre - Establishment of Customized FABLAB Quote** admissible for the assignment may be sent to "Director, TRICEF, Gondwana University, Gadchiroli - 442 605 (M.S.)". The envelope should be clearly marked with "EoI for Establishment of Customized FABLAB at Tricef Incubation Center". For any additional information, you may contact Mr. Wrushank Sorte, Chief Executive Officer (TRICEF) Mob. No. 9011090611.



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