Quotation Invitation

NIT Uttarakhand invites online Quotations for the purchase of "**E-Bike Components (Consumables)**" as per the specifications mentioned below:

S No	Particulars	Components	Specifications	Quantity
1.	Structure Material	Weight: 20kg Carbon minimum 0.1%	Grade: Mild steel 4140, 1feet of 2.1inch outer diameter with 2.65mm thickness, Rest 1.1inch outer diameter with 2.65mm thickness	1
		Plate to be attached at the bottom of the Battery for Balancing	40cm*30cm*0.5cm mild steel plate	
2.	Tool Box	Bearings	4 X (8mm inner dia. ball bearings) 4 X (10mm inner dia. ball bearings) 2 X (32006X Tapered Roller Bearing) 2 X (6003 Deep groove ball bearing) 2 X (6204 Deep groove ball bearing)	1
		Shaft and Shaft Couplers (4140 Steel)	4 X (8mm-8mm shaft coupler (rigid)) 4 X (10mm-8mm shaft coupler(rigid)) 2 X (8mm diameter, 0.5m long metal rod), 2X (10mm diameter, 0.5m long metal pipe)	
		Bearing Sealings	1 X 6003-2RS, 1 X 6204-2RS	
		Nuts and Bolts	10 X Hex Head Bolts (Grade 8.8 or higher): Size: M8 × 30 mm, M10 × 50 mm, 10 X Flanged Hex Bolts: Size: M6 × 25 mm, 5 X Cap Head Bolts (Allen Head): Size: M12 × 40 mm, 2 X Axle Nuts: Size: M12 or M14, 2 X Axle Bolts: Size: M12 × 150 mm or M10 × 100 mm 50 X Self-Tapping Screws Size: M5 x 20 mm	
3.	Motor and motor controller Kit	Hub Motor	Wattage: 2KW, Peak power: 4KW, Rating: IP67, 60V, Hub motor, Torque: 63 Nm, Rpm at no load: 900-1100, Max torque: 127 Nm	1
		Stepper motor	**2 X Nema 17,** Holding Torque: ~5.6 Kg-cm Step angle: ~1.8°, Detent torque: ~2.8 N-cm (maximum).	
		Stepper motor	**3 X Nema 23,** Holding Torque: 28 Kg-cm Weight: ~1.6Kg, Step Angle : ~1.8 Degree Shaft diameter: ~8mm, Phase current: 3 A	
		Motor Controller	Voltage: 60V, Compatible with Motor (Hub motor), 2KW, 60V, speed regulation, gradual start, overload protection, regenerative braking (KERS).	
		Motor Controller	2 X Nema17, 3 X Nema 23 Stepper Motor Driver, MKS OSC PWM Pulse Signal Generator Module, 8-24VDC Speed, Frequency, Direction, Control Regulator	
4.	Wires and Wire Connector kit	Single Strand Hookup Wires	Length: 30 meters, 22 AWG, PVC insulation	1
		Copper Silicon Wire	Length: 10 meters, current rating: 75A (Max), high-temperature resistant, PVC insulated	
		Wire connectors	2 X Waterproof, copper core, compatible with 22 AWG wires	
		Control Switch	6 X Handlebar mounted, waterproof, multi-function (headlight, indicators, horn control)	
5.	Sensors Kit	Raspberry Pi	2 X Microcontroller, model 4B with 8GB RAM, compatible Python programming, 40 GPIO pins	1

		SIM 800A Module	1 X GSM/GPRS Module, quad-band 850/900/1800/1900 MHz, supports SMS, voice, and data communication	
		MQ-2 Module	2 X Smoke detection sensor, operating voltage: 5V, detects LPG, smoke, alcohol, propane	
		Ultrasonic Sensor	4 X Detection distance: 2 cm- 450 cm, waterproof	
		MPU9250	1 X 9-Axis Attitude Gyro Accelerator Magnetometer Sensor Module, Build-in the Logic level converter for I2C	
		Tilt Sensor Module	2 X SW-520D sensor module, Max output current: ~15mA, 3.3-5V	
		ESP32	5 X Bluetooth + Wi-Fi dual module, 2.4GHz, dual-core processor, 520kB RAM, GPIO pins: 34	
6.	Electrical components kit	Dashboard	Length: 10 Inch, Width: 7 Inch, 1 X Touch Control, Basic Graphics, Data Input & Display, 5V 1A DC, TFT display, 16MB, 200+nits, 800x480, Integrated with a GUI	1
		Reed Switch	2 X Rating: IP65+, Current rating: ~0.5Amps, DC 3V-12V	
		Camera Module	2 X Raspberry pi camera, 8-12.3 MP	
		Relay 5V	2 X Operating voltage: 5V DC, switching capacity:10A 30V DC	
		Relay 5V-60V	2 X Operating voltage: 5V-60V, high-power switching relay, supports load up to 30A.	
		DC to DC 60V to 12V (Buck Converter)	1 X DC-DC Buck Converter Step Down Module, 60V to 12V, 10Amps, DC	
		DC to DC 12V to 5V (Buck Converter)	3 X DC-DC Buck Converter Step Down Module, 12V to 5V, ~800 mA	
		Buzzer (Indicator)	12V, beeps during turn signal operation	
		Ignition key	Keyed ignition switch, waterproof, 2-position (on/off), rated for 60V	
		Kill switches	2 X Mushroom-type, red colour, emergency stop button, rated for 60V, IP65+ waterproof	
7.	Electrical Kit	Charging Module	2 X USB Type-C charging module, supports fast charging, input voltage: 5V-20V, output: 5V/3A	1
		MCB	1 X 60A Current Protection (equal to the peak current rating of battery)	
		Cooling fan	4 X RPM: 1400, Size: 120mm x 120mm, 12V DC, sleeve bearing, airflow: 60 CFM	
		Headlight	1 X High/Low beam, 12V, brightness: 1000 lumens, IP67 waterproof	
		Horn	2 X Power: 35W, waterproof, 12V DC, compact design	
		Brake light	1 X 12V DC, wattage: 15W, waterproof Brightness: 1,000 Lumens	
		Indicator LED	Set of 4, amber colour, 12V, waterproof	
		Hazard Indicator	1 X Multi-function switch for hazard lights, waterproof, rated for 12V	
8.	Housing Cases	Enclosures for each electronic module/ microcontroller	Protective enclosures for electronic modules, made of ABS plastic, waterproof	1
9.	Heat Resistance Tape		Withstands temperatures up to 500°C, silicone adhesive, suitable for electrical insulation.	2

10.	Harness Tape		Length: 20 meters, flame-retardant, high flexibility, adhesive backing	2
11.	Zip Ties		Nylon, length: 300mm, tensile strength: 50kg	3
12.	Cable Management Sleeve	Length: 5 Mtr	Length: 5 meters, expandable, made of PET material, abrasion-resistant	2
13.	Rear view mirror	Handlebar Mount	Bike mirror	2
14.	Epoxy with Hardner	Epoxy Quantity: 5ltr Hardner: 250ml	Epoxy Grade: LY551, Hardner Grade: HY951	2
15.	Glass fibre	Size: 6x10ft	-	3
16.	Spray paint	Colour: Black 400 ml	Applicable on metal, rust proof	25
17.	Anti Rust Spray	Colour: Grey 440 ml	Castrol anti rust spray	15
18.	Spray Lubricant	Quantity: 500 ml	-	2
19.	Loctite Thread Locker	Quantity: 50 ml	Loctite 290 Thread locker	2
20.	Grease	Weight: 0.5Kg	-	1
21.	Stickers	Different sets Colour: Yellow	Danger, kill switch, high voltage, low voltage, etc.	1
22.	Balsa Wood	2mm Thickness	200mm*100mm	10 sheets
23.	Monokote Film	3m*0.6m	Purple Colour	2
24.	Driver Insurance	1 month Rider's Insurance		1
25.	3D printing	Different parts	Mountings	1
26.	Material Testing		Mild Steel Strength Test, Rulebook Requirement	4

The deadline to submit the quotation through online (emails) to the following Email addresses is on or before **17/02/2025**, 05:00 PM.

Dr. T. Sudhakar, sudhakar@nituk.ac.in, +91-9032455615
Dr. Sourav Bose, souravbose@nituk.ac.in, +91-9634771744
Dr. Deepak Kumar, deepak.kumar@nituk.ac.in, +91-8791671176

Guidelines:

1. Quotation must be submitted only in the prescribed format (**Annexure I**).
2. The quotation format must be printed on the letter head of the vendor with seal and signature. Invalid quotations shall directly be rejected without any communication.
3. The quotations **must be password protected and only in PDF format**. The committee will contact through given mobile number to the respective vendor at the time of quotation opening.
4. Clearly mention your contact number in the mail body.
5. After the due date and time, no quotation will be considered for processing.
6. The quotations will be evaluated as per GRF 2017 guidelines.
7. Institute reserves the right to cancel the procurement process at any given point of time.
8. For more information, contact the above committee members.

Sd/

Registrar,
NIT Uttarakhand

Format

Printed on Company letter head

GST Number:---
PAN number:--

Date:

To,
The Director,
National Institute of Technology Uttarakhand,
Srinagar, Garhwal-246174

Subject: Online quotation for the supply of "**E-Bike Components (Consumables)**".

Specifications:

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Terms and Conditions of the vender/supplier (if any)

Name and Signature of
Company head with seal

Compete address with contact number at footer.