



राष्ट्रीय प्रौद्योगिकी संस्थान - आंध्रप्रदेश  
NATIONAL INSTITUTE OF TECHNOLOGY ANDHRA PRADESH  
Near National Highway No. 216A, Kadakatla, Tadepalligudem – 534101  
West Godavari District, Andhra Pradesh

Ref. No.: NITANP/SMMMD/TENDER/2025-26/59-Retender

Date: 18.12.2025

**TENDER ENQUIRY****Sub: Supply of Consumable Items for UG students - Quotation invited –Reg.**

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Please send your lowest quotation for the above work/supply as per the specifications/ requirements mentioned in **Annexure-1**. The lowest quotation must be submitted in the given format (**Annexure-1 along with necessary documents as specified and duly abiding to the important instructions**), failing which bid shall be treated as Unresponsive. The quotation is to be sent in a sealed envelope to the following address:

C/o Tender Box  
Material Management & Disposal Section (006, Ground Floor)  
Sardar Vallabhbhai Patel Administrative Building  
National Institute of Technology Andhra Pradesh,  
Near National Highway No. 216A, Kadakatla,  
Tadepalligudem – 534101  
West Godavari District, Andhra Pradesh.

The quotation has to be sent by Post (Ordinary / Register / Speed Post) or drop in Tender Box physically. (Any other mode will not be accepted)

The envelope must be superscribed as “**QUOTATION**” at the center of the envelope and the above **reference number at left top** along with the **Subject of the tender** on the envelope.

Please note that, the bid envelope received without the above-mentioned superscription **shall be treated as UNRESPONSIVE**.

The last date to receive the sealed envelope with quotation is **01.01.2026**.

**Annexure-1****Name of the Items: Supply of Consumable Items for UG students at NITANP.**

| S. No | Description of items                                                   | Quantity | Unit Cost | Amount |
|-------|------------------------------------------------------------------------|----------|-----------|--------|
| 1     | 4PIN IR Infrared Flame Detection Sensor Module                         | 3        |           |        |
| 2     | 4-wheel Drive Robot Smart Car Chassis Kits                             | 1        |           |        |
| 3     | TIP122 Transistor + IN4148 diode                                       | 1        |           |        |
| 4     | capacitor (102 pf/3x33pf) +Resistor(1kohm,1w)                          | 1        |           |        |
| 5     | Solar Panel<br>18 V (Vmp) / 50–100 W monocrystalline                   | 1        |           |        |
| 6     | Charge Controller<br>PWM 10 A / 12 V solar controller                  | 1        |           |        |
| 7     | Charge Controller<br>PWM 10 A / 12 V solar controller                  | 1        |           |        |
| 8     | ZVS Inverter Module<br>5–12 V Mini ZVS Induction Heating Module + Coil | 10       |           |        |
| 9     | Resonant Capacitors (C_TX)<br>Polypropylene 0.47–1 $\mu$ F / 250 V     | 10       |           |        |
| 10    | Decoupling Capacitors<br>100 $\mu$ F electrolytic                      | 10       |           |        |
| 11    | Decoupling Capacitors<br>1 $\mu$ F film each                           | 10       |           |        |
| 12    | Copper Wire for Rx Coil<br>Enameled Cu wire AWG 18 (1.0 mm) in meter   | 11       |           |        |
| 13    | Resonant Capacitor (C_RX)<br>25 nF / 250 V film capacitor              | 1        |           |        |
| 14    | Rectifier<br>Schottky Bridge MBR3045 or 4× MBR2045                     | 1        |           |        |
| 15    | Filter Capacitor<br>1000 $\mu$ F / 25 V electrolytic                   | 1        |           |        |
| 16    | Display MCU<br>Arduino UNO / Atmega Board                              | 1        |           |        |
| 17    | LCD Module<br>16×2 HD44780 type LCD                                    | 1        |           |        |
| 18    | DC Fan<br>12 V Brushless DC Fan (0.1–0.3 A)                            | 1        |           |        |
| 19    | Current Sensor<br>ACS712-05B (0–5 A)                                   | 1        |           |        |

|    |                                                                                     |   |  |  |
|----|-------------------------------------------------------------------------------------|---|--|--|
| 20 | 65mm robot wheel                                                                    | 4 |  |  |
| 21 | Peacefair PZEM-004T AC Multifunction meter(22kw/100A)                               | 1 |  |  |
| 22 | 12 Modular Gang Box                                                                 | 1 |  |  |
| 23 | 1 Module Switch                                                                     | 2 |  |  |
| 24 | Camera sensor-RGB camera module/openMVcom                                           | 1 |  |  |
| 25 | stepper motors-12V with gear boxes                                                  | 2 |  |  |
| 26 | Transmitter and receiver coils -12v                                                 | 1 |  |  |
| 27 | Aurdino(DFROBOT)                                                                    | 1 |  |  |
| 28 | Flame sensor Module                                                                 | 2 |  |  |
| 29 | LM2596S DC-DC Buck converter                                                        | 2 |  |  |
| 30 | 650nm 5V DC laser module (RED)                                                      | 2 |  |  |
| 31 | VL53L1X Time of Flight distance sensor module                                       | 1 |  |  |
| 32 | BMI160 6-Axis accelerometer & gyroscope module                                      | 1 |  |  |
| 33 | OLED 0.96-inch 4 pin I <sup>2</sup> C 128×64 display module – blue (SSD1306)        | 1 |  |  |
| 34 | 5V 3A DC adapter having USB Port                                                    | 2 |  |  |
| 35 | Ai-Thinker Rd-03D 24G multi-target radar module                                     | 1 |  |  |
| 36 | PS2 Joystick module sensor                                                          | 2 |  |  |
| 37 | 1.25mm 4PIN (Pico blade compatible) to female Dupont (300mm)                        | 1 |  |  |
| 38 | Battery 5V (rechargeable)                                                           | 2 |  |  |
| 39 | USB A Type to Micro USB B Type Power only cable 100cm                               | 2 |  |  |
| 40 | USB A Type to Micro USB B Type Power+Data cable100cm                                | 1 |  |  |
| 41 | White LED 1 W High Bright                                                           | 2 |  |  |
| 42 | DS3231 RTC (I2C, ±2ppm accuracy, Battery backup)                                    | 1 |  |  |
| 43 | SD Card Module + 16GB (SPI, FAT32)                                                  | 1 |  |  |
| 44 | MQ-135 for Air Quality, (1 and 0-1000ppm NH <sub>3</sub> /NO <sub>x</sub> /Alcohol) | 1 |  |  |
| 45 | MQ-6 for LPG Gas, (200-10000ppm, Fast response)                                     | 1 |  |  |
| 46 | MQ-7 CO Gas, (10-500ppm, High sensitivity)                                          | 1 |  |  |
| 47 | BMP280 Pressure: 300-1100hPa, Temp: -40°C to +85°C                                  | 1 |  |  |
| 48 | MPX5010DP Pressure: 0-10kPa, Analog output                                          | 1 |  |  |
| 49 | MAX6675 + Thermocouple (Temp: 0°C to +1024°C, K-type, SPI)                          | 1 |  |  |

|    |                                                           |     |  |  |
|----|-----------------------------------------------------------|-----|--|--|
| 50 | DS18B20 (Temp: -55°C to +125°C, 1-Wire, Waterproof)       | 1   |  |  |
| 51 | IR Flame Sensor with 760-1100nm wavelength, 60° detection | 1   |  |  |
| 52 | LM2596 Converters DC-DC Buck, 3A, 3V-40V to 1.5V-35V      | 2   |  |  |
| 53 | DIN Rail Enclosure (200x150x80mm, IP20, Plastic)          | 1   |  |  |
| 54 | Terminal Blocks (5mm pitch, 2-20 positions, PCB mount)    | 100 |  |  |
| 55 | Power supply (12V DC, 3A, 36W, Input: 100-240V AC)        | 1   |  |  |
| 56 | GSM Antenna (900/1800MHz, SMA connector, 3dBi gain)       | 1   |  |  |
| 57 | Resistor Kit (500pcs, 1Ω-1MΩ, 1/4W, Carbon film)          | 1   |  |  |
| 58 | RGB LED (Common Anode, 5mm, 4-pin, Diffused)              | 1   |  |  |
| 59 | 0.96 OLED Display Module - SPI/I2C - 128x64 - 7 Pin Blue  | 1   |  |  |
| 60 | ADS1115 ADC                                               | 1   |  |  |
| 61 | TP4056 charger                                            | 1   |  |  |
| 62 | Resistor Box (Assortment of 130 Resistors and 30 Values)  | 1   |  |  |
| 63 | Ceramic Capacitor Box (100 pieces, 20 Values)             | 1   |  |  |
| 64 | (50-120 pcs) inductor assortment kit                      | 1   |  |  |
| 65 | op-amps (LM358 or TL072)                                  | 2   |  |  |
| 66 | on/ off toggle switch                                     | 1   |  |  |
| 67 | rotary encoder with push button                           | 1   |  |  |
| 68 | MCP4725 DAC module                                        | 1   |  |  |
| 69 | micro-SD card module 32GB                                 | 1   |  |  |
| 70 | Tactile Push Button Switch 6x6x5 (Pack of 10)             | 1   |  |  |
| 71 | PZEM-004T V3.0 Module (80-230V AC, 10-100A, UART)         | 1   |  |  |
| 72 | MicroSD memory (8 GB)                                     | 1   |  |  |
| 73 | LCD Display (16x2 LCD) With I2C Module                    | 1   |  |  |
| 74 | GSM SIM800L module                                        | 1   |  |  |
| 75 | LM385 OP-AMP gain Module                                  | 1   |  |  |
| 76 | Single phase energy meter (240V, 0-30A, 50 Hz)            | 1   |  |  |
| 77 | Plastic Box (15×10×7 cm <sup>3</sup> )                    | 1   |  |  |
| 78 | Micro switch(5v)                                          | 10  |  |  |
| 79 | BPW34 Photodiode                                          | 1   |  |  |
| 80 | micro sd card module                                      | 1   |  |  |
| 81 | 12V NEMA 17 Stepper Motor                                 | 2   |  |  |

|     |                                                                                                                                                        |    |  |  |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------|----|--|--|
| 82  | GT2 Timing Belt and Pulleys                                                                                                                            | 1  |  |  |
| 83  | Stepper Driver (TMC2208 or A4988)                                                                                                                      | 2  |  |  |
| 84  | Tactile Push Button Switch                                                                                                                             | 10 |  |  |
| 85  | 8 mm Chromed Steel Rod 5.5cm                                                                                                                           | 1  |  |  |
| 86  | 8 mm Chromed Steel Rod 35cm                                                                                                                            | 2  |  |  |
| 87  | MGN12H Linear Guide Rail - 0.5M with Sliding block                                                                                                     | 1  |  |  |
| 88  | 12V adapter 2A or above                                                                                                                                | 1  |  |  |
| 89  | Barrel Connector (Female)                                                                                                                              | 1  |  |  |
| 90  | 6 mm Idler Wheel (3 mm Bore)                                                                                                                           | 1  |  |  |
| 91  | High-Current Driver Circuit (e.g., MOSFET/H-Bridge)<br>(3.3 V gate compatible)                                                                         | 1  |  |  |
| 92  | Calibration Fluids (for pH and TDS) (pH 4.00, 7.00,<br>10.00; EC 1413 $\mu$ S/cm, 100 mL)                                                              | 1  |  |  |
| 93  | Waterproof Connectors/Probe Guards                                                                                                                     | 1  |  |  |
| 94  | PH SENSOR KIT (ARDUINO-COMPATIBLE) (0- 14<br>pH, analog 0-5V)                                                                                          | 1  |  |  |
| 95  | TDS/EC SENSOR KIT(ARDUINO-COMPATIBLE),0-<br>2000ppm (0-5V output)                                                                                      | 1  |  |  |
| 96  | INSULATED COPPER WIRE (25 METERS)                                                                                                                      | 1  |  |  |
| 97  | RECTIFIER (6-10) A                                                                                                                                     | 1  |  |  |
| 98  | LiPo OR LITHIUM-ION BATTERY (3.7V/9V)                                                                                                                  | 1  |  |  |
| 99  | SOLAR PANELS (5-6)V                                                                                                                                    | 1  |  |  |
| 100 | W88-A 10A Solar Charger Controller                                                                                                                     | 1  |  |  |
| 101 | MAGNETIC FIELD SENSORS                                                                                                                                 | 1  |  |  |
| 102 | Super Strong Neodymium Magnets (6×2 mm Silver,<br>Pack of 100)   Ultra Powerful Rare Earth Round<br>Magnets for Fridge, Crafts, DIY, Office & Home Use | 1  |  |  |
| 103 | BUZZER, Electromagnet/Solenoid (12 V rated, <=3A )                                                                                                     | 1  |  |  |
| 104 | INDUCTION COILS                                                                                                                                        | 1  |  |  |
| 105 | AC-to-DC Power Adapter/Supply (eg.100V AC to 9V<br>DC)                                                                                                 | 1  |  |  |
| 106 | witching Relay (5 or 12 V,10 A contact rating)                                                                                                         | 1  |  |  |
| 107 | Submersible Water Pump or Agitator (DC 3–12V, 100<br>L/h flow)                                                                                         | 1  |  |  |
| 108 | Solar Universe India 30watt 12v Solar Modules Solar<br>Panel                                                                                           | 1  |  |  |
| 109 | LM2596 DC-DC Buck Buck Converter module                                                                                                                | 2  |  |  |
| 110 | INA219 Sensor module                                                                                                                                   | 4  |  |  |
| 111 | GP2Y1010AU0F sensor                                                                                                                                    | 2  |  |  |
| 112 | 16x2 LCD Display                                                                                                                                       | 1  |  |  |

|     |                                                                                                                                                     |    |  |  |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------|----|--|--|
| 113 | BTS7960 motor driver module (6-27 V)                                                                                                                | 2  |  |  |
| 114 | Buck Converter(LM2596)(1.25-35V)(adjustable)                                                                                                        | 1  |  |  |
| 115 | Throttle sensor (Hall-effect type)(5V or 24V)                                                                                                       | 1  |  |  |
| 116 | 24V 10Ah Lithium Ion Battery Pack                                                                                                                   | 1  |  |  |
| 117 | Current sensor (ACS712)(30 A)                                                                                                                       | 1  |  |  |
| 118 | Voltage detection sensor(0-25V)                                                                                                                     | 1  |  |  |
| 119 | Temperature sensor (LM35)(4-30 V )                                                                                                                  | 1  |  |  |
| 120 | LCD I2C Display 16×2 (5V supply)                                                                                                                    | 1  |  |  |
| 121 | Fuse(10A or 15A)                                                                                                                                    | 1  |  |  |
| 122 | Power Switch (24 V DC)                                                                                                                              | 2  |  |  |
| 123 | Insulation Box (24 V)                                                                                                                               | 1  |  |  |
| 124 | Original Arduino Mega 2560 ATmega2560 Rev3                                                                                                          | 1  |  |  |
| 125 | DFPlayer Mini MP3 Module                                                                                                                            | 1  |  |  |
| 126 | Micro SD Card (4–8GB)                                                                                                                               | 1  |  |  |
| 127 | 12V Adapter / Power Bank                                                                                                                            | 1  |  |  |
| 128 | Water Leakage Sensor(5v)                                                                                                                            | 2  |  |  |
| 129 | 24V/12V to 5V 5A Power Module DC-DC XY-3606<br>Power Converter                                                                                      | 2  |  |  |
| 130 | Waterproof Enclosure + Glands                                                                                                                       | 2  |  |  |
| 131 | Micro SD Card Module(5V)                                                                                                                            | 2  |  |  |
| 132 | Micro SD Card (8GB, Class 10)                                                                                                                       | 2  |  |  |
| 133 | Header Pins (Male & Female) pack of 10                                                                                                              | 10 |  |  |
| 134 | 3-Pin Screw Terminals (PCB Mount)                                                                                                                   | 20 |  |  |
| 135 | JST-XH Connectors (2/3/4 Pin Sets)                                                                                                                  | 20 |  |  |
| 136 | Fuse Holder (PCB Mount) + Fuses (1A)                                                                                                                | 2  |  |  |
| 137 | Brass/Nylon Standoffs (M3 Kit)                                                                                                                      | 2  |  |  |
| 138 | Small Screws & Nuts (M3)                                                                                                                            | 2  |  |  |
| 139 | Zip Ties & Heat Shrink Tubing                                                                                                                       | 2  |  |  |
| 140 | 2 POLE 40A MHD3 AC CONTACTOR Used for Water<br>Pump Motor Starter.                                                                                  | 2  |  |  |
| 141 | Thermal Overload Relays(230-415V)                                                                                                                   | 2  |  |  |
| 142 | Residual Current Circuit Breaker (RCCB)(2-Pole)<br>(240V)                                                                                           | 1  |  |  |
| 143 | MCBs / Breakers(1-Pole) (240V)                                                                                                                      | 2  |  |  |
| 144 | CAMDENBOSS IP20 Polycarbonate DIN Rail Module<br>Box Enclosure                                                                                      | 1  |  |  |
| 145 | Yokins Emergency Stop Push Button, EB2M-A-01-ZS,<br>22mm Red color with auto lock on push & twist to<br>release with 1NC (copper & silver contacts) | 1  |  |  |
| 146 | Wire Ferrules                                                                                                                                       | 1  |  |  |



|     |                                                                   |     |  |  |
|-----|-------------------------------------------------------------------|-----|--|--|
| 147 | Wire Ducts (Panduit)                                              | 1   |  |  |
| 148 | DIN Rail Accessories                                              | 1   |  |  |
| 149 | Panel Labels                                                      | 1   |  |  |
| 150 | Earthing/Grounding Bus Bar                                        | 1   |  |  |
| 151 | Panel Glands                                                      | 1   |  |  |
| 152 | Waterproof Sensor Cable (4-Core) 1METER                           | 50  |  |  |
| 153 | "Control Wire (Single Core, 24 AWG)" IN METER                     | 100 |  |  |
| 154 | Arduino Mega 2560 Rev3                                            | 1   |  |  |
| 155 | L293D motor control shield                                        | 1   |  |  |
| 156 | MPU 9250 gyroscope sensor                                         | 1   |  |  |
| 157 | LM2596S DC-DC Buck Converter                                      | 6   |  |  |
| 158 | 6 A One-Way Switch                                                | 2   |  |  |
| 159 | DFPlayer Mini MP3 Module                                          | 1   |  |  |
| 160 | Micro SD Card (8GB/16GB, Class 10)                                | 1   |  |  |
| 161 | Speaker[3W,8Ω(30-50mm diameter)]                                  | 1   |  |  |
| 162 | 1 x APM Pixhawk Power Module with XT60                            | 1   |  |  |
| 163 | 1 x Nylon Strap Belt for RC Lipo Battery.                         | 2   |  |  |
| 164 | 1 x 3D printed Shock Absorber Anti-vibration Set for APM Pixhawk. | 1   |  |  |
| 165 | Limbo 5200 mah 3 cell li-ion battery.                             | 1   |  |  |
| 166 | 12 -0-12 step down transformer                                    | 1   |  |  |
| 167 | 1N4007 General Purpose Rectifier Diode                            | 4   |  |  |
| 168 | LM7805                                                            | 1   |  |  |
| 169 | 3S 10A 12V 18650 Lithium Battery Charger Board Protection Module  | 2   |  |  |
| 170 | INA219 BIDIRECTIONAL POWER MONITORING MODULE                      | 1   |  |  |
| 171 | 16X2 LCD DISPLAYS WITH I2C MODULE                                 | 1   |  |  |
| 172 | PBS-PACK OF 110 Push Button Switch Press Through - Red            | 1   |  |  |
| 173 | PERF BOARD                                                        | 1   |  |  |
| 174 | 35V 10000uF capacitor                                             | 1   |  |  |
| 175 | 2 PIN PLUG                                                        | 1   |  |  |
| 176 | Arduino Uno R3 Original                                           | 1   |  |  |
| 177 | HC-05 Bluetooth Module                                            | 1   |  |  |
| 178 | MPU-6050 IMU Sensor                                               | 1   |  |  |
| 179 | Robot arms and body frame parts                                   | 1   |  |  |
| 180 | Servo brackets                                                    | 8   |  |  |
| 181 | Servo extension wires                                             | 4   |  |  |
| 182 | ESP32 Development Board                                           | 1   |  |  |

|     |                                                                                       |    |  |  |
|-----|---------------------------------------------------------------------------------------|----|--|--|
| 183 | ACS712 Current Sensor                                                                 | 1  |  |  |
| 184 | ZMPT101B Voltage Sensor                                                               | 1  |  |  |
| 185 | 16×2 I2C LCD Display Module                                                           | 1  |  |  |
| 186 | 5 Volt AC DC Converter                                                                | 1  |  |  |
| 187 | 40-Watt Bulb as Load                                                                  | 1  |  |  |
| 188 | Current Sensor (SCT-013)                                                              | 1  |  |  |
| 189 | RTC Module -DS3231                                                                    | 1  |  |  |
| 190 | MicroSD Card Module                                                                   | 1  |  |  |
| 191 | vibration/accelerator sensor                                                          | 1  |  |  |
| 192 | transistor (BC547 OR NPN)                                                             | 1  |  |  |
| 193 | Pro-Range 392.4 N-cm 50 RPM 12V Planetary Gear<br>DC Motor PGM45775-99.5K             | 2  |  |  |
| 194 | Shafts / Axles (steel rods, 3–5 mm)                                                   | 2  |  |  |
| 195 | GT2 Timing Pulley                                                                     | 6  |  |  |
| 196 | Springs (soft, 20-30mm) / Shock Absorbers                                             | 16 |  |  |
| 197 | Chassis / Frame (Aluminum / Acrylic / Wood)                                           | 1  |  |  |
| 198 | Screws, Nuts, Bolts, Washers (M3/M4 Assorted)                                         | 1  |  |  |
| 199 | Remote Control Module (RF 433MHz, serial<br>communication)                            | 1  |  |  |
| 200 | lcd display (16*2 LCD or 0.96*OLED)                                                   | 1  |  |  |
| 201 | GP2Y1010AU0F Dust sensor (5V analog output)                                           | 1  |  |  |
| 202 | DC Power Supply / Adapter: 12V                                                        | 1  |  |  |
| 203 | Copper wire (25 m)                                                                    | 1  |  |  |
| 204 | PP capacitor (0.1μF–1μF, ≥100V)                                                       | 1  |  |  |
| 205 | MOSFET -IRFZ44N (2 No)                                                                | 1  |  |  |
| 206 | ZVS Driver Board for Tesla Coil Power Supply Board<br>Induction Heating Module 12-30V | 1  |  |  |
| 207 | Heatsink & Cooling Fan                                                                | 1  |  |  |
| 208 | "Filter Capacitor 1000μF/50V "                                                        | 1  |  |  |
| 209 | "Schottky Diodes - 1N581 (2nos)"                                                      | 1  |  |  |
| 210 | Filter Capacitor 1000μF / 25V                                                         | 1  |  |  |
| 211 | Voltage Regulator , LM7812 (12V)                                                      | 1  |  |  |
| 212 | L293D motor control sheild                                                            | 1  |  |  |
| 213 | Battery Cell 3.7V                                                                     | 3  |  |  |
| 214 | MPU 9250 gyroscope sensor                                                             | 1  |  |  |
| 215 | LM2596S DC-DC Buck Converter                                                          | 2  |  |  |
| 216 | Micro SD TF Card Memory Shield Module SPI Micro<br>SD Adapter Arduino                 | 1  |  |  |
| 217 | Standard 5V 1A Power Supply with 5.5mm DC Plug                                        | 1  |  |  |
| 218 | IRLML2502                                                                             | 1  |  |  |



|     |                                                                                                 |   |  |  |
|-----|-------------------------------------------------------------------------------------------------|---|--|--|
| 219 | ESP-01 ESP8266 Serial WiFi Transceiver Module                                                   | 1 |  |  |
| 220 | 60GA775 DC12V 100RPM/MIN DC Reduction Motor                                                     | 1 |  |  |
| 221 | bulb holder                                                                                     | 1 |  |  |
| 222 | Slide switch                                                                                    | 1 |  |  |
| 223 | Step-Down Transformer(12-0-12 , 1 A)                                                            | 1 |  |  |
| 224 | Step-Up Transformer(12V DC, 230V AC,20-30W)                                                     | 1 |  |  |
| 225 | NPN BJT - PN2222ABU                                                                             | 2 |  |  |
| 226 | N-channel power MOSFET-IRFZ44NPBF                                                               | 8 |  |  |
| 227 | Diode: 1N4007                                                                                   | 6 |  |  |
| 228 | Electrolytic Capacitor (1000 $\mu$ F, 25 V DC)                                                  | 2 |  |  |
| 229 | Ceramic Capacitor (0.1 $\mu$ F (100 nF), 50 V)                                                  | 3 |  |  |
| 230 | Level shifters(5v-3.3v)                                                                         | 3 |  |  |
| 231 | micro sd card 32GB                                                                              | 1 |  |  |
| 232 | Lm2596 buck converter                                                                           | 1 |  |  |
| 233 | Stepdown transformer (230-12V)                                                                  | 1 |  |  |
| 234 | 1N4007 diodes                                                                                   | 4 |  |  |
| 235 | Current sensor (ACS712-5A/20A)                                                                  | 1 |  |  |
| 236 | Temperature sensor (LM35)                                                                       | 1 |  |  |
| 237 | Relay module 4- Channel                                                                         | 1 |  |  |
| 238 | Buzzer                                                                                          | 1 |  |  |
| 239 | I2C LCD display                                                                                 | 1 |  |  |
| 240 | Breadboard                                                                                      | 1 |  |  |
| 241 | LM2596(adjustable buck module)                                                                  | 1 |  |  |
| 242 | nRF24L01+ Module: 3.3 V supply, 11–14 mA current, 2.4 GHz frequency and NRF24L01 adapter boards | 3 |  |  |
| 243 | 0.96 inch OLED Display                                                                          | 1 |  |  |
| 244 | WS2812B LED                                                                                     | 1 |  |  |
| 245 | Standard FR-4 PCB, rated for low-voltage (<20 V) circuits.                                      | 1 |  |  |
| 246 | 100 $\mu$ F capacitors (rated 10V or higher)                                                    | 3 |  |  |
| 247 | Benewake TFMini-S Micro LiDAR Distance Sensor                                                   | 1 |  |  |
| 248 | Micro SD Card 32gb                                                                              | 1 |  |  |
| 249 | HDMI Cable-1b                                                                                   | 1 |  |  |
| 250 | 12v DC motor                                                                                    | 4 |  |  |
| 251 | wild scorpion 11.1v 5500mAh lithium polymer rechargable battery                                 | 1 |  |  |
| 252 | xt60 male connector(for battery)                                                                | 1 |  |  |
| 253 | Toggle switch                                                                                   | 3 |  |  |
| 254 | 12v DC Brushless Motor                                                                          | 1 |  |  |
| 255 | Voltage Regulator (LM317 / 7805)                                                                | 1 |  |  |

|     |                                                                                                                                                        |    |  |  |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------|----|--|--|
| 256 | e rikshaw Windshield 1200×800 mm                                                                                                                       | 1  |  |  |
| 257 | wheel axle 1inch ×                                                                                                                                     | 1  |  |  |
| 258 | Machanical Disc brake set - 180 mm Diameter                                                                                                            | 1  |  |  |
| 259 | RV-9001L Rear View Mirror Set of 2                                                                                                                     | 1  |  |  |
| 260 | Plastic White LED HeadLight                                                                                                                            | 1  |  |  |
| 261 | 12V Vehicle Horn with reverse beepack                                                                                                                  | 1  |  |  |
| 262 | Sprocket Chain Breaker                                                                                                                                 | 1  |  |  |
| 263 | 12V 20AH Rechargeable Lithium Ion Battery Pack for Multipurposes                                                                                       | 1  |  |  |
| 264 | Smart Battery Charger                                                                                                                                  | 1  |  |  |
| 265 | 12v Motor Controller                                                                                                                                   | 1  |  |  |
| 266 | ESP32 DevKit ESP32-WROOM-32 Module, 3.3V Logic, 5V USB Input, Wi-Fi + Bluetooth                                                                        | 1  |  |  |
| 267 | MPU6050 3-Axis Gyro + 3-Axis Accelerometer, Operating Voltage: 3–5V DC                                                                                 | 4  |  |  |
| 268 | MQ3 Operating Voltage: 5V DC, Analog Output Range 0–5V                                                                                                 | 1  |  |  |
| 269 | IR Module Operating Voltage: 3.3–5V DC, Detection Range 2–30 cm                                                                                        | 5  |  |  |
| 270 | 5V Buzzer Rated Voltage: 5V DC, Rated Current: 20–30 mA                                                                                                | 2  |  |  |
| 271 | RGB LEDs Forward Voltage: R=2.0V, G=3.2V, B=3.2V; Forward Current: 20 mA/Color                                                                         | 10 |  |  |
| 272 | 3.7V 2200mAh Liion                                                                                                                                     | 2  |  |  |
| 273 | FSR Force Sensing Pad Sensing range ~0.2N–20N, Interface: analog voltage divider, Operating Voltage: 3.3–5V DC                                         | 4  |  |  |
| 274 | Electret condenser mic module with preamp (e.g. MAX9814), Operating Voltage: 2.7–5.5V, Analog output                                                   | 2  |  |  |
| 275 | Mini speaker 8Ω, 1W (diameter ~30–40 mm), Impedance 8Ω, Power rating 1W                                                                                | 2  |  |  |
| 276 | PAM8403 Class-D Stereo Amp, 2×3W output, Supply: 5V DC                                                                                                 | 2  |  |  |
| 277 | HFP/HSP + A2DP support (e.g., CSR8635 / WT32i compatible module), Supply: 3.3–5V, Supports external mic & stereo speaker, Built-in pairing & AVRCP/HFP | 1  |  |  |
| 278 | Waterproof momentary push button, 12mm, Rated 12V DC (low current switching)                                                                           | 1  |  |  |

|     |                                                                                                                            |   |  |  |
|-----|----------------------------------------------------------------------------------------------------------------------------|---|--|--|
| 279 | Transparent OLED/TFT HUD, Size ~1.5–3.5",<br>Resolution ~480×320 (or closest), Interface:<br>SPI/Parallel, Supply: 3.3–5V, | 1 |  |  |
| 280 | Power Bank (10000 MAH)-5V,3A,                                                                                              | 1 |  |  |
| 281 | ESP 32 -DevKit (ESP-WROOM-32),~520 KB SRAM, 4<br>MB flash typical                                                          | 1 |  |  |
| 282 | Motor driver modules-L298N                                                                                                 | 3 |  |  |
| 283 | Servo motors (SG90/MG90S)                                                                                                  | 3 |  |  |
| 284 | lithium ion batteries 7.4 V 2S Li-ion 2200 mAh                                                                             | 4 |  |  |
| 285 | DC motors(nominal voltage 6v)                                                                                              | 5 |  |  |
| 286 | Raspberry Pi Camera Module 3                                                                                               | 1 |  |  |
| 287 | Z120 USB speaker -logitech,~3 W output, plug-and-<br>play USB audio compatible with Raspberry Pi.                          | 1 |  |  |
| 288 | mic -generic USB mini mic                                                                                                  | 1 |  |  |
| 289 | MicroSD card 32-64 GB                                                                                                      | 1 |  |  |
| 290 | 65 mm plastic robot wheels with BO motors                                                                                  | 5 |  |  |
| 291 | Fuse 12V,30-60A                                                                                                            | 2 |  |  |
| 292 | PCB 20-60A                                                                                                                 | 2 |  |  |
| 293 | DC Battery 12V,40-100A                                                                                                     | 2 |  |  |
| 294 | MOSFET 55-75V,60-120A                                                                                                      | 8 |  |  |
| 295 | Gate driver IC IR2110/IR2101/SG3525                                                                                        | 2 |  |  |
| 296 | PWM Controller IC SG3525,TL494                                                                                             | 2 |  |  |
| 297 | DC Bus Capacitor 25V,2200 -4700 microFarad                                                                                 | 4 |  |  |
| 298 | Output filter capacitor 440V,1-2.2 micro Farad                                                                             | 2 |  |  |
| 299 | Inductor 1-3mH,5-10A                                                                                                       | 2 |  |  |
| 300 | Transformer 12V-Primary, 230V-Secondary<br>,POWER:500-1000W                                                                | 2 |  |  |
| 301 | Heat sink 40-70W                                                                                                           | 3 |  |  |
| 302 | Solar Panel (10W, 12V Monocrystalline)                                                                                     | 1 |  |  |
| 303 | GL5528 Light Dependent Resistor (Max Voltage 150V,<br>Max Power 90mW)                                                      | 4 |  |  |
| 304 | 10kΩ Pull-Down Resistor                                                                                                    | 4 |  |  |
| 305 | MicroSD Card (32GB Class 10)                                                                                               | 1 |  |  |
| 306 | Power Supply (5V, 3A USB-C)                                                                                                | 1 |  |  |
| 307 | MCP3008 ADC 8-Channel, 10-bit, SPI                                                                                         | 1 |  |  |
| 308 | PCA9685 PWM Servo Driver 16-Channel, 12-bit, I2C                                                                           | 1 |  |  |
| 309 | 12V 7Ah SLA Battery                                                                                                        | 1 |  |  |
| 310 | 10A PWM Solar Charge Controller 10A, 12V/24V                                                                               | 1 |  |  |
| 311 | INA219 Current/Voltage Sensor High-Side I2C Sensor                                                                         | 1 |  |  |
| 312 | LM2596 DC-DC Buck Converter Input up to 40V                                                                                | 1 |  |  |

|     |                                                                                    |    |  |  |
|-----|------------------------------------------------------------------------------------|----|--|--|
| 313 | 1-Channel 5V Relay Module Max 10A load                                             | 1  |  |  |
| 314 | 12V LED Strip or 12V DC Fan                                                        | 1  |  |  |
| 315 | In-line 5A Safety Fuse                                                             | 1  |  |  |
| 316 | Prototyping Gear Set Breadboard, Jumper Wires, 18-20 AWG                           | 2  |  |  |
| 317 | ZVS Induction Heater Driver (12–36V)                                               | 1  |  |  |
| 318 | DS3231 RTC module                                                                  | 1  |  |  |
| 319 | gauge wires 16 AWG                                                                 | 4  |  |  |
| 320 | Solar Panel 20 W 12 V                                                              | 1  |  |  |
| 321 | Voltage Detection Sensor Module 0-25 V                                             | 2  |  |  |
| 322 | Zero PCB/Vero Board                                                                | 1  |  |  |
| 323 | Micro-USB Data Cable                                                               | 1  |  |  |
| 324 | 12v 15w solar panel                                                                | 1  |  |  |
| 325 | boost converter                                                                    | 1  |  |  |
| 326 | MPPT                                                                               | 1  |  |  |
| 327 | ES8388                                                                             | 1  |  |  |
| 328 | STM32F407G-DISC1 DISCOVERY KIT                                                     | 1  |  |  |
| 329 | SPEAKER (8 ohm/3W mini)                                                            | 2  |  |  |
| 330 | PAM8403 module (3W)                                                                | 2  |  |  |
| 331 | AUX CABLE(3.5mm)                                                                   | 2  |  |  |
| 332 | Arduino Uno R3 Original                                                            | 5  |  |  |
| 333 | ESP32 DEV Board                                                                    | 10 |  |  |
| 334 | Pro-Range Raspberry pi 4 Basic Kit                                                 | 5  |  |  |
| 335 | Pro-Range Raspberry pi 4 Basic Kit                                                 | 10 |  |  |
| 336 | Hi-Link HLK-5M12B 12V/5W Switch Power Supply Module                                | 10 |  |  |
| 337 | AS734x Visible Infrared Color Spectrometer Sensor Module                           | 2  |  |  |
| 338 | SmartElex FT232H Breakout – General Purpose USB to GPIO, SPI, I2C – USB C & JST-SH | 5  |  |  |
| 339 | F4 Pro V2 V3.5 v3s Flight Control Built-in OSD / BEC                               | 2  |  |  |
| 340 | 600TVL 170 Degree Mini FPV AV Camera with Audio for Mini 200 250 300 Drone         | 10 |  |  |
| 341 | Micro NRF24L01+ Power Enhanced 2.4GHz RF Transceiver Module                        | 12 |  |  |
| 342 | APM/Pixhawk Power Module Output BEC 3A XT60 Connector 28V 90A                      | 5  |  |  |
| 343 | Heart Rate Monitor Kit with AD8232 ECG sensor module – Good Quality                | 5  |  |  |

|     |                                                                                                                      |     |  |  |
|-----|----------------------------------------------------------------------------------------------------------------------|-----|--|--|
| 344 | ADS1232 24Bit Low Noise AD Analog To Digital Converter Module                                                        | 5   |  |  |
| 345 | HC49/U 16MHz Crystal Oscillator                                                                                      | 20  |  |  |
| 346 | N20 12V 300RPM Micro Metal Gear Motor With Encoder                                                                   | 50  |  |  |
| 347 | 18650 1×1 Single Battery Cell Spacer/Holder                                                                          | 500 |  |  |
| 348 | Lithium Battery Spot Welding Gun                                                                                     | 3   |  |  |
| 349 | L7805CV-Stmicroelectronics-Linear Voltage Regulator, 7805, Fixed, Positive, 10V To 35V In, 5V And 1.5A Out, TO-220-3 | 50  |  |  |
| 350 | M6 Thread Brass Nozzle V5 V6 UM Compatible – 1.75mm x 0.4mm (for 3D printer)                                         | 10  |  |  |
| 351 | Ai Thinker LoRa Series Ra-02 Spread Spectrum Wireless Module                                                         | 5   |  |  |
| 352 | SIM800L GPRS GSM Module Core Board Quad-band TTL Serial Port with the antenna                                        | 5   |  |  |
| 353 | 433Mhz RSI Wireless Transmitter Receiver Module                                                                      | 2   |  |  |
| 354 | Vibration sensor module alarm Motion sensor module vibration switch SW-420                                           | 10  |  |  |
| 355 | MG995 Metal Gear Servo Motor (180° Rotation)- Standard Quality for Robotics Science Project Drone                    | 30  |  |  |
| 356 | Pro-Range 4mm PNP Inductive Proximity Sensor RM12 DC6~36V (Unshielded)                                               | 5   |  |  |
| 357 | Pro-Range 11.1V 5200mAh 40C 3S Lithium Polymer Battery Pack                                                          | 15  |  |  |
| 358 | Best Quality 6 X 4 CM PCB General Purpose Printed Circuit Board, Zero PCB Board                                      | 50  |  |  |
| 359 | PCB Drill Bits 1/8" CNC End Mill Engraving Cutter 0.8-3.175mm 10 Pcs Set                                             | 4   |  |  |
| 360 | 30 in 1 Multipurpose Mini Magnetic Screw Driver Set                                                                  | 10  |  |  |
| 361 | YIHUA 938BD-II Soldering Station with Hot Air Gun Handle, Soldering Iron with Magnifier                              | 6   |  |  |
| 362 | 5MP Raspberry Pi Camera Module for Pi 3/4 Model B – Rev 1.3                                                          | 5   |  |  |
| 363 | Official USB type-C 15.3W Power Supply For Raspberry Pi 4-Black                                                      | 5   |  |  |
| 364 | Crealty Ender-PLA+ 3D Printing Filament 1.75mm (1kg – White, Red, Green, Black, Yellow)                              | 15  |  |  |

|                    |                                                                                                                                                                         |    |  |  |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|--|--|
| 365                | STANLEY 84-214-22 130mm/5.25" Wire Stripper with Range 0.5mm-4mm, Convenient Hole for Looping/Bending Wires, Ideal for Cutting, Stripping Speaker Wire, Appliance Cords | 10 |  |  |
| 366                | Wire Stripper 2 in 1 Cable with Cutter, Stripper Diameter: 0.5mm~6mm, Wire Cutter                                                                                       | 5  |  |  |
| 367                | Taparia 6 inch Handy Wire Saw Frame with Blade, HJHW-6                                                                                                                  | 2  |  |  |
| 368                | Insulating Tape                                                                                                                                                         | 50 |  |  |
| 369                | Hall Effect Sensor Module                                                                                                                                               | 15 |  |  |
| 370                | HC-SR501 Pyroelectric Infrared PIR Motion Sensor Modules for Microcontrollers                                                                                           | 10 |  |  |
| 371                | Micro HDMI Cable to HDMI Cable, 4K 60Hz, 1.5 Meter 5 feet, Adapter Ethernet Audio Return for Raspberry Pi 4 pi 5 RPI                                                    | 20 |  |  |
| 372                | LM393 Motor Speed Measuring Sensor Module                                                                                                                               | 11 |  |  |
| 373                | Electronic Spices 5v 8 Channel Relay Module With Light Coupling                                                                                                         | 10 |  |  |
| 374                | MAX30102 Heart Rate and Pulse Oximeter Sensor Module (Black)                                                                                                            | 5  |  |  |
| 375                | NEO 7M GPS With Compass for APM 2.6/2.8 and Pixhawk 2.4.6/2.4.8                                                                                                         | 10 |  |  |
| 376                | 30A Brushless Controller ESC for Multicopter KK Quad-rotor                                                                                                              | 20 |  |  |
| <b>Total</b>       |                                                                                                                                                                         |    |  |  |
| <b>GST@18%</b>     |                                                                                                                                                                         |    |  |  |
| <b>Grand Total</b> |                                                                                                                                                                         |    |  |  |

**The Firm/ Bidder must submit following documents along with Quotation failing which bid shall be treated as UNRESPONSIVE:**

1. **Certificate of GST Registration.**
2. Authorization Certificate from the Original Equipment Manufacturer (Proprietary Article Certificate (PAC) cases & wherever essential).
3. Copy of the tender document and enclosures with Bidder's signature and seal.
4. Company incorporation Certificate relevant to want of experience in the tender document.

**Important Instructions:**

1. L1 will be identified based on the consolidated quoted price if otherwise not specified in the bid document.
2. The quotation should not contain any handwritten text except the Price quoted.
3. Rates should be clearly quoted against each item.



4. The quotation shall be valid for a minimum period of 90 Days form the closing date of the Bid.
5. The price quoted should be F.O.R. Destination (including Freight, insurance, loading, unloading at specific location in the premises of NIT Andhra Pradesh).
6. The Bidder shall inscribe the Tender reference number and Tender Subject on the bid envelope submitted to the Institute.
7. Please note that the Director reserves the right to modify or alter the specifications and also to reject any or all the Quotations without assigning any reasons thereto.
8. The Institute is not responsible for delays / loss in postal transit or due to any other reasons in regard to timely receipt of the bid.



**Sd/-**  
**Associate Dean, P&D (SMMD)**

सह अधिष्ठाता / Associate Dean  
CENTRAL STORES & PURCHASE SECTION  
NIT Andhra Pradesh

