

Tender Notice No.: 01/ITI/Khariar

Date: 15-02-2025

TENDER FOR SETTING UP ELECTRIC VEHICLE LAB

Sealed tenders are invited from established and accredited Original Equipment Manufacturers (OEMs)/authorized dealers for the **purchase, installation, and commissioning of equipment and infrastructure** for establishing an **Electric Vehicle (EV) Centre of Excellence** at Government ITI, Khariar, Nuapada.

Scope of Work: Supply of advanced Electric Vehicle (EV) tools and equipment, Installation and commissioning of EV lab infrastructure.

Eligibility Criteria: 1. The bidder must be a registered company/organization with relevant experience in setting up EV or related technical laboratories. 2. Proven track record of similar projects in educational institutions. 3. Compliance with applicable quality and safety standards.

Important Dates:

SI. No.	Reason	Date	Time
1	Date of issue of tender paper	21-02-2025	11:00 AM
2	Last date of submission of tender	10-03-2025	5:00 PM
3	Date of opening of tender	11-03-2025	11:30 AM

If any of the mentioned dates will be declared as the Govt. Holiday then the next working day shall be considered for opening of the tender respectively.

Interested vendors are requested to submit their proposals in a sealed envelope marked "RFP for EV Centre of Excellence" to the following address: The Principal, Government Industrial Training Institute, At/Po-Badi, Via- Raj Khariar, Dist-Nuapada, PIN-766107, Odisha.

The RFP document, containing detailed specifications, terms, and conditions, can be obtained from the office of the Principal during working hours or downloaded from the official website: https://www.govtitikhariar.org/. A **non-refundable fee of Rs. 1000/-** is to be paid for the RFP document. **The Principal, Government Industrial Training Institute, Khariar, Nuapada, Odisha** reserves the right to accept/reject/modify & cancels the full tender or part thereof at any time without assigning any reason thereof.

For more details: Email ID:principalitikhariar@gmail.com

N.B: QUOTATIONS RECEIVED AFTER DUE DATE AND TIME WILL NOT BE ENTERTAINED AND THE AUTHORITY SHALL NOT HELD RESPONSIBLE FOR DELAY/ MISSING OF TENDER DURING TRANSIT.

Sd/-

The Principal, Govt. ITI, Khariar, Nuapada, Odisha



OFFICE OF THE PRINCIPAL: GOVERNMENT I.T.I, KHARIAR, NUAPADA

AT/PO-BADI, VIA-RAJ KHARIAR, DIST-NUAPADA, PIN:-766107, ODISHA Email ID:principalitikhariar@gmail.com Website : https://www.govtitikhariar.org/ Tender No 01 / ITI / Khariar Date: 15.02.2025

TENDER CALL NOTICE

KK-57: Sealed Bids/tenders invites from established and accredited Original Equipment Manufacturers (OEMs)/reputed and eligible authorized dealers for the purchase, installation, and commissioning of equipment and Infrastructure for establishing an Electric Vehicle (EV) Centre of Excellence at Government ITI, Khariar, Dist-Nuapada.

Issue date of Tender Paper: 21.02.2025 from 11:00 AM onwards Last date Submission of Bids: 10.03.2025 5:00 PM Bid opening Date: 11.03.2025 11:30 AM

For details of BID please visit our institute Website: https://www.govtitikhariar.org/. Bid documents may be sent through Speed post/Registered post or by hand at the office of the Principal Govt. ITI, At/Po-Badi, Via- Raj Khariar, Dist- Nuapada, PIN-766107, Odisha. The Authority reserves the right to cancel the Bid without any reason thereof.

OIPR- 14129/11/0001/2425

Sd/- Principal Govt ITI, Khariar, Dist- Nuapada



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TENDER FOR SETTING UP ELECTRIC VEHICLE LAB

Tender Notice No.: 01/ITI/Khariar

Date: 15-02-2025

Sealed tenders are invited from established and accredited Original Equipment Manufacturers (OEM)/authorized dealers having an annual turnover of more than **Rupees 50 Lakhs** for the supply, installation, and commissioning of the undermentioned items of the following specifications and quantities at the office of **The Principal, Government Industrial Training Institute, Khariar At/Po-Badi, Via-Raj Khariar, Dist-Nuapada, PIN-766107, Odisha.**

SI No.	Name of the Items	Specifications	Quantity
1	2 wheeler simulator with complete working model and data extraction	BLDC Out-runner Motor(HUB Motor) - 1kw 48v, Complete drive train fitted in a display board with chassis Smart controller- 48v/60v, Troubleshooting features Wire harness with extended secondaty harness to accomodate proper witring and facilitate training provision Dc/dc converter- 48v/60v to 12v instrument cluster Digital with problem detection Front light- 12v bulb Back light- 12v bulb Indicators Led Anti theft System- 12v with keyless system, Flashers- 12v Switches, Accelerator with forward/reverse and 3 speed Handle bar m/s jj Table size- 3ft*2.5ft*6ft	1
2	Electric Scooty Training Model with battery & Charger	Bldc Out-Runner Motor(Hub Motor) 1KW 48V Smart Controller 48V/60V Wire Harness 6mm Dc/DC Converter 48V / 60V to 12V Instrument Cluster Digital with Problem Detection	1

		Front Light 12V LED Back LIght 12V LED Indicators LED Anti-Theft System 12V with Keyless System Flashers 12V Switches Breaking System Drum Suspension Front: Telescpic Fork Rare- Coil Accelerator With forward/reverse and 3	
3	4-wheeler E- BUGGY 6 seater with complete working & EV training facility	 * A complete 4wheerer 6seater e BUGGY. * Complete assembly disassembly training of motor, wiring harness and other electrical components. * Know more about 4wheeler assembly. BLDC In-runner Motor 1kw 48v controller 48v Wire harness 10mm Dc/dc converter 48v to 12v instrument cluster Digital Front light 12v led Back light 12v led Indicators Led High break system Anti theft System 12v with key-less system Flashers 12v Switches Accelerator Steering System Drum Break Suspension Leaf Spring 3-Speed System Differential 35inch Chassis Dimension 300cm*100cm Body Part Glass Fibre Chassis & Frames Mild Steel Battery Lithium-ion Battery (48V- 30Ah) Range: 70-80km Lead-Acid Battery (48V- 100Ah) Range: 80-100Km Speed Max: 50Km/h Motor-BLDC In- runner Motor Voltage-48v RPM- 3200+50rpm Torque-300N-M Weight-7.3kg Max.power-5000w Current(no load)-60-100amp Losses-2- 4% Temp. Rise-≤120 ambient Temp20 deg c controller 48v 	1

		steering manual (rack & pinion) break manual drum break suspension leaf Spring with Shock Damper chassis powder coated mild- steel ladder Frame Range Customization(Based upon Power of Battery) max Speed 45- 50kmph seating Capacity 6 Rim & Tyres 12inch alloy rims turning Radius 3.5m ground Clearance 28cm body FRP(Glass Fiber) Length of Vehicle 340cm width of Vehicle 102cm weight of Vehicle 350kg Smart Controller with IoT facility for Data display, Auto Braking on Obstacles, Remote Switch on and Switch Off System, Anti Theft Braking system, Collision Alert Sensor and Alarm	
4	3- wheeler prime loader with open cargo with Battery and Charger	 A complete 3-Wheeler loader having an open cargo carrier. Complete assembly disassembly training of motor, wiring harness and other electrical components. Know more about front assembly and telescopic suspension. 	1
5	Battery DIY Kit	1. One set for compete assembly & testing of Battery pack 2 Two set of Soldering rod and Soldering Iron, Wires for practices, 2 set of BMS, Wrapping Material, Hot gun, Multimeter(2 Set), 2 set of Lithium-ion Phosphate Battery (one Set for Demo, 1 set for Practice), Consumables: extra cells incase of damage during practical with Table based Workstation (6ft with Racks) and 2 Movable Chair	1
6	Portable spot welding machine	High precision spot welding for nickel plate in battery pack.	1

7	Battery Pack testing Machine with charging & Dischanging System	 Power Supply: AC 220V±10% 50/60HZ Basic Function: Charge, Discharge, Auto-cycle, Test data analysis, Test data import & export Applicable Batteries: Lead-acid battery pack, Li-ion battery pack Battery Rated Voltage: 12V-84V Battery charge-discharge cycle test. Battery charging protection voltage, discharge protection voltage, capacity etc. The device has four test steps: charging, discharging, shelving, and cycling. Charge and discharge Function: With constant current and constant voltage charging function, Constant current discharge function. Check voltage protection: By charging and discharging the battery. Safety protection: Anti-reverse connection protection function. 	1
8	Charging Station Instruction and Training Kit (Basic Model)	3.3Kw AC Charger with BIE technology (1 Open Unit and 1 Working Model Connectivity: BLE 5.0 Smart LED Indicator Light MCB Auto Power Cut Off After Charging Session Auto Power Cut Off On No Load Data Management System APP Connectivity – Android And iOS Inbuilt Energy Meter	1
9	Regenerative Charging and Braking TRAINING SYSTEM	 Provided with built in DC power supply. Provided with digital tachometer for speed measurement. Control box consists of high grade FRP material. Provided with high quality meters. Diagrammatic representation for the ease of connections. Designed considering all safety standards 	1

10	Li-ion Battery Characteristics Training System	 Designed for Educational Use – Ideal for learning and analysing lithium-ion battery characteristics. Real-Time Monitoring – Displays Voltage, Current, Power, SoC, and DoD on an LCD screen. Load Section for Discharge Analysis – Includes three bulbs to study battery discharge behaviour. USB Data Acquisition – Connects to a PC via USB for real-time data visualization and logging. User Interface (UI) Software – Provides graphical representation and enables data download with timestamps. User friendly software. Facilitates the interfacing of real world signals with PC through USB bus. Real time and interactive training setup. Includes DC Power source for Battery charging. Built in Charge controller. Provided Li-ion Battery. Battery charge and discharge management techniques. Provided with high quality Meters. Battery Level Indicator to analyze battery capacity. Provided load for discharging characteristics 	1
11	Cut section & open models for hands-on training of EV equipments with stand, instruction board and table	BLDC in runner motor open section, Hub Motor Open Section, Diferential Cut Model, Controller Open Section, DC DC Converted Open Section, Instrucment cluster Open Model, Different Cells Cut and Open model, SMPS Charger Open Model, BMS Cut model with table and display	1
12	Basic IR Tester	18650/32700/Prismatic Lithium Cells IR Testing Machine, Internal Resistance	1

13	Tool Panel trolley	Movable tool panel with wheeles for hanging tools, can be used for assembly and maintenance of vehicle to easy access of tools on a single platform	1
14	Safety Tool Kit	Holdall – High Vis Electrical Insulating Gloves – to BS EN 60903 Class 0 (1,000V) Cotton Under-Gloves Leather Over-Gloves – to BS EN 388 & BS EN-420 Safety Glove Storage Box ChemSafe Gloves – to BS EN 374- 1&5:2016 and BS EN 388:2016 Respirator Mask – Half Face to BS EN 405 ABEK1P3 Filters for Respirator Mask HMR7003 to BS EN 14387 (PAIR) Safety Goggles – Indirect Vent – to BS EN 166 First Aid Kit for Burns inc. H.F. Antidote Gel Digital InfraRed Thermometer 12:1 Insulating Shrouds for 12v Battery Earth EV Warning High Voltage Reusable Sticker – 140 x 100mm, Portable fire extinguisher= 5 Nos, EV Work Station Trolley, EHV Multimeter	1
15	Cooling System	Cooling System components arranged on a stand with electric motor. 85kW e-motor within 1500s run time •Actual cut section model •Working model •Different type of paint in different parts shows •Stand material :- mild steel (1.5 *1.5 inch square) •All parts assembled on a metal stand. •Operated by electrical motor with V belt. •Power supply required 230v This model show of different components. Radiator,Fan ,Motor,Water body	1
16	Lighting and Wiring System	Provided with Lithium-ion Battery. Controller- Its function is to transfer the direct flow of electricity to the alternate current. It controls the flow of power,	1

		speed, and performance. Wiring- Cables used for recharging and also transmitting electrical energy to various locations. Junction box- Serves as a distributor of electrical power to different parts. PDM- This is the composition of the DC converter, charger, and junction box. Charger for charging, DC for converting the high voltage to low, and junction box as a distributor of electrical power to different parts. Inverter- It controls the electrical current to prevent power from running at full speed. The smoother start of the electric vehicle is due to its inverter that saves energy. Additionally, automotive controls such horn, headlights, turn signals and brake light for safe and efficient operation. Modular control panel size (1000mm x 500mm x 810mm) made of aluminum profile 45mm x 45mm size. Panel will accommodate different unique interchangeable ABS plastic housing size (LxBXH) 300mm x 220mm x 130mm Approx. having (Digital meters, load devices etc) Symbol/ Circuit diagram printed on front panel. Shrouded socketsarrangements for the safety of the students. Multi color circuit diagram printed to better understand the working	
17	Tool kit for dismantling & assembly	All mechanical tools for assembly, dismantling	1
18	Wallchart for demonstration & training	6-10 wallcharts based on room capacity; Branding inside and 2 outside the lab; EV Tree with LED Light fitted arrangement explaining the details of the EV	1

Non-transferable tender documents will be available from the Office of The Principal, Government Industrial Training Institute, Khariar At/Po-Badi, Via-Raj Khariar, Dist-Nuapada, PIN-766107, Odisha on payment of Rs. 1000/- in the shape of a Demand Draft drawn in favor of:"Principal, Government Industrial **Training Institute, Khariar", Payable at Khariar, Nuapada Odisha.** "The tender document can also be downloaded from the website: https://www.govtitikhariar.org/ (under the tender section).

The downloaded tender document can also be used provided it is accompanied with a crossed Demand Draft of Rs. **1000/-** towards the cost of the tender document in favor of:"**Principal, Government Industrial Training Institute, Nuapada, Odisha.**"

N.B.: Participants are advised to visit the site before participating in the tender process.

The Principal, Govt. ITI, Khariar, Nuapada, Odisha

TERMS AND CONDITIONS

1. Eligibility Criteria:

- a. Preference will be given to companies having a service center facility in Odisha.
- b. Bidder must be a registered company and must produce a valid CIN certificate.
- c. Bidder must be GST-certified and provide a GST certificate, last year's GST filing document, and PAN card.
- d. The bidder required to furnish attested copies of the GST clearance certificate issued by the sales tax authority of any state as applicable along with the tender.
- e. Bidder must submit IT Returns data sheets for the last three years.
- f. Bidder must have a turnover of at least Rs. 50 Lakhs in the last three years, certified by a Chartered Accountant.

2. Experience and Capability:

- a. Bidders must have signed a MoU with at least 3 Government institutions for training and placement purposes.
- b. Bidder/OEM must have supplied similar lab equipment to Govt. ITI and polytechnics inside Odisha and produce minimum 4 Purchase Orders along with Work Completion Reports must be submitted.
- c. Bidders/ OEM must be affiliated with the relevant Sector Skill Council (SSC) in India related to the specific skill development program or training initiative. They need to produce true copy of Bid specific authorization from Sector Skill Council or authorization letter from ASDC.
- d. Bidder must provide detailed OEM authorization certificates along with CE and RoHS certifications for all equipment.

e. Trainers must be available to visit the campus for training purposes as and when needed. The bidder must publish at least 1 training study material, and at least 4 patent designs of the product, including hands-on training for students.

3. Certifications:

- a. Bidder/ OEM must produce the following certifications:
 - i. ISO 9001:2015
 - ii. ISO 14001:2015
 - iii. ISO 45001:2018

4. Scope of Supply:

- Bid price must include all cost components, including supply, installation, demonstration, testing, commissioning of goods, and training of operators.
- b. All items supplied must meet the Institute's requirements. Any violations will result in disqualification.
- c. Bidder must submit CAD designs, technical specifications, diagrams, and a product catalog as per the Institute's requirements before the technical evaluation.

5. Financial Compliance:

- a. All installation costs must be included in the bid, and no additional charges will be entertained post-contract.
- b. Bidders are required to deposit ₹20,000 (Rupees Twenty Thousand only) as Earnest Money Deposit (EMD) in the form of a Bank Draft payable at Khariar, Nuapada, drawn in favor of "Principal, Government Industrial Training Institute, Khariar, Nuapada, Odisha", Payable at Nuapada.

c. MSME/Startups are exempted from the EMD requirement, provided they submit valid startup credentials.

d. The successful Bidder must deposit 5% of the contract value as Performance Security in the form of a Bank Guarantee.

6. Documentation and Verification:

- a. Bidder/ OEM must submit last 3 years' turnover details certified by a Charted Accountant.
- b. All relevant certifications, including GMP (Good Manufacturing Practices), must be submitted.
- c. The tender should be submitted after due compliance with guidelines given in the tender documents under:
 - i. Schedule (A): Conditions of Contract
 - ii. Schedule (B): Technical Specifications
 - iii. Schedule (C): Delivery Destination
 - iv. Schedule (D): Tender Form
 - v. Schedule (E): Price Schedule
- d. Tenders submitted in incomplete form shall be rejected outright.
- e. The filled-in sealed tenders containing Techno-commercial tender and Price Tender in a double cover system as per instructions given in the tender documents shall be submitted to the: "Office of the Principal, Government Industrial Training Institute, At/Po- Badi, Via- Raj Khariar, Nuapada Odisha."

7. Disqualification Criteria:

- Bidders failing to comply with any of the above terms and conditions will be disqualified.
- Any deviation from the specifications provided by the Institute will result in rejection.

 The Bidder/OEM or their product has not been blacklisted by the government / any department / Authority / organization in India and abroad. An undertaking to be furnished with the tender document as per the below mentioned format.

Note: All bidders must ensure compliance with the above terms and conditions to qualify for the tender. Failure to meet any requirements will result in immediate disqualification.

The Principal Govt. ITI, Khariar Nuapada, Odisha

Schedule (A) - Conditions of Contract for

Tender Notice No.:01/ITI/Khariar

Date: 15-02-2025

1. The tender papers include instructions issued in the Tender Notice along with: Schedule (A): Conditions of Contract, Schedule (B): Technical Specifications, Schedule (C): Delivery Destination, Schedule (D): Tender Form, Schedule (E): Price Schedule

2. The tenderers shall submit the following documents and information along with the tender. Incomplete or inadequate information under any of the parameters may render the tender disqualified. The technical documents must be tagged and indexed properly to facilitate easy verification.

<u>a) Technical Documents</u>

i) Copy of Tender Notice.

ii) Acceptance of **Schedule (A)** - Conditions of Contract & **Schedule (B)** - Technical Specifications.

iii) Documentary evidence that the tenderer is either an **Original Equipment Manufacturer (OEM)** or an **authorized dealer** with **tender-specific authorization from the OEM**.

iv) Proof that the bidder (OEM or Dealer) has an **annual turnover of more than Rupees 50 Lakh**.

v) Declaration that all the offered materials have a **minimum one-year warranty**.

vi) Attested copies of **GST clearance certificate** issued by the Sales Tax Authority of Odisha/other states as applicable.

vii) Attested copies of **Income Tax Return (ITR)** certificates.

viii) **Technical product information** released by the OEM (Original Catalog).

ix) Documentary proof of **similar supplies or any Past Experiences** made during the **last 2 years** to Government or Public Sector Undertakings.

x) An undertaking from the firm for providing **maintenance and warranty services** during the warranty period, effective from the date of commissioning, along with terms and conditions.

xi) Bank Draft of **Rs. 1000/-** (Rupees one Thousand only) towards the **tender cost**.

xii) Attested copies of **Audited Balance Sheets** for the **last 3 years**, showing the turnover.

xiii) Proof of Service Center availability in Odisha.

xiv) Bank Draft of **Rs. 20,000/-** (Rupees Twenty Thousand only) drawn in favor of: "**Principal, Government Industrial Training Institute, Nuapada**", **Payable at Nuapada, Odisha**" towards **EMD** (Earnest Money Deposit).

b) Price Tender Documents

- i) Acceptance of **Schedule (C)** Delivery Destination.
- ii) Filled-up **Schedule (D)** Tender Form.
- iii) Filled-up **Schedule (E)** Price Schedule.

3. The quoted rates shall be inclusive of all Taxes, Duties, Levies, Labor costs, Packaging and forwarding charges, Transportation costs.

The quoted rates shall remain **valid until the delivery of materials in good condition** at the designated location.

4. The validity of the quoted rates shall be 90 days **from the date of opening of the bid.**

5. The items are to be delivered in good condition and verification by the competent authority.

6. The materials supplied shall be subject to **verification by the competent authority** at the delivery destination, as specified in **Schedule (C)**

7. All materials supplied shall be **new and unused**, The items must be from a **reputed Original Equipment Manufacturer (OEM)**, The supplied items shall conform to the **latest models**, **designs**, **and standards** as per **Schedule (B)**.

8. If any item **fails to satisfy the required standards**, the item shall be **rejected** and must be removed by the tenderer, at their **own cost**, from the point of delivery.

9. All items are to be delivered within **30 days** from the date of issue of the purchase order.

10. The tenderer shall provide a minimum warranty period of 1 year from the date of commissioning of the items at the delivery destination. A declaration from the OEM regarding the warranty must be submitted by the tenderer.

11. The tenderer shall rectify any defects in the supplied items within **7 days** of receiving intimation during the warranty period. Failure to rectify the defect within the specified timeframe shall result in the forfeiture of **1% of the performance security** for each day of delay.

12. If the tenderer fails to supply the items within the **prescribed time period**, it shall be treated as a **breach of contract**.

In such a case: The **EMD will be forfeited**, the **supply order will be cancelled**. The tenderer shall remain **fully responsible** for the breach without any liability on the part of the tender-calling authority. 13. Tenders must be submitted in a **double-cover system**: First Sealed Envelope: Marked as "Technical Tender", containing all technical documents. Second Sealed Envelope: Marked as "Price Tender", containing the price bid. Both the above envelopes are to be placed in a third sealed envelope, clearly marked: "Tender for Setting up Electric Vehicle Lab".

The **From** and **To** addresses must be written on each of the envelopes.

14. Tenders must be submitted by Registered Post, courier service, or handed over to an authorized person. The tender-calling authority shall not be responsible for any: Delays <u>caused by postal or courier services, Missing documents during</u> <u>transit.</u>

Tenders received **late** (as per the time mentioned in the Tender Notice) shall **not be considered**.

15. Conditional Tenders may be rejected outright. The decision of the **Technical Committee** and **Purchase Committee** regarding tender evaluation shall be **final and binding**.

16. 100% Payment shall be made to the successful tenderer only after:

Items are received in **good/serviceable condition**, Successful **installation and commissioning**. Submission of **Performance Security** as a Bank Guarantee amounting to **5% of the total order value**, valid for **14 months**. Submission of the following documents: Triple copy of **TAX Bill**, Warranty certificates, Installation certificate duly signed by the competent authority.

The tenderer shall **not raise any claims** of any nature after the **bill amounts** are cleared against the purchase order.

17. In the event of any **dispute** between the tenderer and the buyer regarding the interpretation of tender document conditions, the decision of the **tender-calling authority** shall be **final and binding** on all parties.

18. Any **civil suits** arising out of this contract shall be filed at **Nuapada District**, **Odisha**. **Writ petitions** (civil or criminal) shall be filed in the **High Court of Orissa**, **Cuttack**, **Odisha**.

19. The **EMD amount** shall be returned to the **successful bidder** after the submission of **Performance Security** in the form of a Bank Guarantee.

Acceptance of Conditions

I/We hereby accept the above **Conditions of Contract** under **Schedule (A)** of the tender.

(Signature of the Tenderer)

Name:
Address:
Contact Number:
Date:

SCHEDULE (C) - DELIVERY DESTINATIONS

1. Place of Delivery, Supply and installed at:

Government Industrial Training Institute, Khariar, Nuapada, Odisha.

 Installation and Operation: All the items must be supplied and installed in a professional manner, adhering to standard industry practices. The tenderer is required to provide training to the purchaser on the safe operation of the equipment, if required.

Acceptance of Delivery Terms

I/We hereby accept the above-mentioned conditions under **Schedule (C)** of the tender for our item of supply.

(Signature of the Tenderer)

Name:	 	
Address:	 	·····
Contact Number:	 	
Date:	 	·····

SCHEDULE (D) - TENDER FORM

То

The Principal Office of the Principal Government Industrial Training Institute, Khariar, Nuapada Odisha.

Sir,

I/We have gone through the **Tender Notice** relating to **Tender for Setting up Electric Vehicle Lab** at **Government Industrial Training Institute, Khariar, Dist-Nuapada, Odisha**, and the **Schedule (A)**, **(B)**, **(C)**, **(D)**, and **(E)** of the Tender document.

A sum of **Rs. 20,000/- (Rupees Twenty Thousand only)** is hereby tendered in the shape of Demand Draft, duly pledged as **Earnest Money Deposit (EMD)**. I/We also agree that I/We will pay **Five percent (5%)** towards **Performance Security** as **Bank Guarantee**.

I/We agree that the **Govt. ITI, Khariar, Dist- Nuapada, Odisha** shall be at liberty to forfeit the **EMD** or **Performance Security** as per the conditions of the contract in case of defaults on my/our part in fulfilling contractual obligations.

I/We have gone through all terms and conditions stated in the Tender documents and agree to all the terms and conditions.

(Signature of Tenderer)

Name:	 	 .
Address:	 	
Contact Number:	 	 .
Date:	 	 .

SCHEDULE (E) –Price Schedule

SI.	Name of the Items and Detailed	Unit Price with	Total Price
No.	Specifications of the Equipments	GST Quantity	with GST

(Insert the equipment details here)

(Signature of Tenderer)

Name:
Address:
Contact Number:
Date:

(USE SEPARATE SHEET or SCHEDULE-E- PRICE SCHEDULE FORMAT ATTACHED BELOW)

UNDERTAKING

To, **The Principal, Government Industrial Training Institute, Khariar, Dist-Nuapada, Odisha.**

Sir,

1. I / we the undersigned, certify that I/we have gone through the terms and conditions mentioned in the tender documents and undertake to comply with them.

2. It is further certified that our firm has not been blacklisted by any agency in India or abroad.

Dated:

Signature of the Tenderer with Seal

NAME OF THE TENDERER WITH COMPLETE ADDRESS

SI No.	Name of the Items	Specifications	Quantity	Price	Price with
					GST
1	2 wheeler simulator with complete working model and data extraction	BLDC Out-runner Motor(HUB Motor) - 1kw 48v, Complete drive train fitted in a display board with chassis Smart controller- 48v/60v, Troubleshooting features Wire harness with extended secondary harness to accommodate proper wiring and facilitate training provision Dc/dc converter- 48v/60v to 12v instrument cluster Digital with problem detection Front light- 12v bulb Back light- 12v bulb Indicators Led Anti theft System- 12v with keyless system, Flashers- 12v Switches, Accelerator with forward/reverse and 3 speed Handle bar m/s jj	1		
2	Electric Scooty Training Model with battery & Charger	BLDC Out-Runner Motor(Hub Motor) 1KW 48V Smart Controller 48V/60V Wire Harness 6mm Dc/DC Converter 48V / 60V to 12V Instrument Cluster Digital with Problem Detection Front Light 12V LED Back LIght 12V LED Indicators LED Anti-Theft System 12V with Keyless System Flashers 12V Switches Breaking System Drum Suspension Front: Telescopic Fork Rare- Coil Accelerator With forward/reverse and 3 Speed	1		

SCHEDULE-E- PRICE SCHEDULE FORMAT

3	4-wheeler E- BUGGY 6- seater with complete working & EV training facility	 * A complete 4wheerer 6seater e BUGGY. * Complete assembly disassembly training of motor, wiring harness and other electrical components. * Know more about 4wheeler assembly. BLDC In-runner Motor 1kw 48v controller 48v Wire harness 10mm Dc/dc converter 48v to 12v instrument cluster Digital Front light 12v led Back light 12v led Indicators Led High brake system Anti-theft System 12v with key- less system Flashers 12v Switches Accelerator Steering System Rack and Pinion Breaking System Drum Break Suspension Leaf Spring 3-Speed System Differential 35inch Chassis Dimension 300cm*100cm Body Part Glass Fibre Chassis & Frames Mild Steel Battery Lithium-ion Battery (48V- 30Ah) Range: 70-80km Lead-Acid Battery (48V- 100Ah) Range: 80-100Km Speed Max: 50Km/h Motor-BLDC In-runner Motor Voltage-48v RPM- 3200+50rpm Torque-300N-M Weight-7.3kg Max.power-5000w Current (no load)-60-100amp Losses-2-4% Temp. Rise-≤120 ambient Temp -20 deg c controller 48v steering manual (rack & pinion) break manual drum break suspension leaf Spring with Shock Damper chassis powder coated mild-steel ladder Frame Range Customization (Based upon Power of Battery) max Speed 45- 50kmph 	1		
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		seating Capacity 6 Rim & Tyres 12inch alloy rims turning Radius 3.5m ground Clearance 28cm body FRP(Glass Fiber) Length of Vehicle 340cm width of Vehicle 102cm weight of Vehicle 350kg Smart Controller with IoT facility for Data display, Auto Braking on Obstacles, Remote Switch on and Switch Off System, Anti-Theft Braking system, Collision Alert Sensor and Alarm		
4	3- wheeler prime loader with open cargo with Battery and Charger	 A complete 3-Wheeler loader having an open cargo carrier. Complete assembly disassembly training of motor, wiring harness and other electrical components. Know more about front assembly and telescopic suspension. 	1	
5	Battery DIY Kit	1. One set for compete assembly & testing of Battery pack 2 Two set of Soldering rod and Soldering Iron, Wires for practices, 2 set of BMS, Wrapping Material, Hot gun, Multimeter (2 Set), 2 set of Lithium-ion Phosphate Battery (one Set for Demo, 1 set for Practice), Consumables: extra cells incase of damage during practical with Table based Workstation (6ft with Racks) and 2 Movable Chair	1	
6	Portable spot welding machine	High precision spot welding for nickel plate in battery pack.	1	

7	Battery Pack testing Machine with charging & Dischanging System	 Power Supply: AC 220V±10% 50/60HZ Basic Function: Charge, Discharge, Auto-cycle, Test data analysis, Test data import & export Applicable Batteries: Lead-acid battery pack, Li-ion battery pack Battery Rated Voltage: 12V-84V Battery charge-discharge cycle test. Battery charging protection voltage, discharge protection voltage, capacity etc. The device has four test steps: charging, discharging, shelving, and cycling. Charge and discharge Function: With constant current and constant voltage charging function, Constant current discharge function. Check voltage protection: By charging and discharging the battery. Safety protection: Anti-reverse connection protection function. 	1	
8	Charging Station Instruction and Training Kit (Basic Model)	3.3Kw AC Charger with BIE technology (1 Open Unit and 1 Working Model Connectivity: BLE 5.0 Smart LED Indicator Light MCB Auto Power Cut Off After Charging Session Auto Power Cut Off On No Load Data Management System APP Connectivity – Android And iOS Inbuilt Energy Meter	1	

9 Rege Charg Braki TRAI SYST	erative ing and g ING M M erative ing add g ing and g ing and ing and g ing and g ing and ing and g ing and ing and g ing and ing	rith built in DC rith digital beed consists of high al. 1 rith high quality atic r the ease of considering all	
10 Li-ior Chara Train Syste	 Designed for Ed Ideal for learning lithium-ion batter Real-Time Moni Voltage, Current, DoD on an LCD s Load Section fo Analysis – Include study battery dise USB Data Acqui to a PC via USB for visualization and User Interface (Provides graphica and enables data timestamps. User friendly so Facilitates the in world signals with bus. Real time and in setup. Includes DC Por Battery charging. Built in Charge Provided Li-ion Battery charge management tech Provided with h Meters. Battery Level Ir analyze battery co Provided load for characteristics 	lucational Use – and analysing y characteristics. toring – Displays Power, SoC, and creen. r Discharge es three bulbs to charge behaviour. sition – Connects or real-time data logging. UI) Software – I representation download with ftware. nterfacing of real n PC through USB nteractive training wer source for controller. Battery. and discharge miques. igh quality dicator to apacity. or discharging	

11	Cut section & open models for hands-on training of EV equipments with stand, instruction board and table	BLDC in runner motor open section, Hub Motor Open Section, Differential Cut Model, Controller Open Section, DC DC Converted Open Section, Instrument cluster Open Model, Different Cells Cut and Open model, SMPS Charger Open Model, BMS Cut model with table and display	1	
12	Basic IR Tester	18650/32700/Prismatic Lithium Cells IR Testing Machine, Internal Resistance	1	
13	Tool Panel trolley	Movable tool panel with wheels for hanging tools, can be used for assembly and maintenance of vehicle to easy access of tools on a single platform	1	
14	Safety Tool Kit	Holdall – High Vis Electrical Insulating Gloves – to BS EN 60903 Class 0 (1,000V) Cotton Under-Gloves Leather Over-Gloves – to BS EN 388 & BS EN-420 Safety Glove Storage Box ChemSafe Gloves – to BS EN 374- 1&5:2016 and BS EN 388:2016 Respirator Mask – Half Face to BS EN 405 ABEK1P3 Filters for Respirator Mask HMR7003 to BS EN 14387 (PAIR) Safety Goggles – Indirect Vent – to BS EN 166 First Aid Kit for Burns inc. H.F. Antidote Gel Digital InfraRed Thermometer 12:1 Insulating Shrouds for 12v Battery Earth EV Warning High Voltage Reusable Sticker – 140 x 100mm, Portable fire extinguisher= 5 Nos, EV Work Station Trolley, EHV Multimeter	1	
15	Cooling System	Cooling System components arranged on a stand with electric motor. 85kW e-motor within 1500s run time	1	

		 Actual cut section model Working model Different type of paint in different parts shows Stand material :- mild steel (1.5 *1.5 inch square) All parts assembled on a metal stand. Operated by electrical motor with V belt. Power supply required 230v This model show of different components. Radiator, Fan, Motor, Water body 		
16	Lighting and Wiring System	Provided with Lithium-ion Battery. Controller- Its function is to transfer the direct flow of electricity to the alternate current. It controls the flow of power, speed, and performance. Wiring- Cables used for recharging and also transmitting electrical energy to various locations. Junction box- Serves as a distributor of electrical power to different parts. PDM- This is the composition of the DC converter, charger, and junction box. Charger for charging, DC for converting the high voltage to low, and junction box as a distributor of electrical power to different parts. Inverter- It controls the electrical current to prevent power from running at full speed. The smoother start of the electric vehicle is due to its inverter that saves energy. Additionally, automotive controls such horn, headlights, turn signals and brake light for safe and efficient operation. Modular control panel size (1000mm x 500mm x 810mm) made of aluminum profile 45mm x 45mm size. Panel will accommodate different unique interchangeable ABS plastic housing size (LxBXH) 300mm x	1	

		220mm x 130mm Approx. having (Digital meters, load devices etc) Symbol/ Circuit diagram printed on front panel. Shrouded sockets arrangements for the safety of the students. Multi color circuit diagram printed to better understand the working		
17	Tool kit for dismantling & assembly	All mechanical tools for assembly, dismantling	1	
18	Wallchart for demonstration & training	6-10 wallcharts based on room capacity; Branding inside and 2 outside the lab; EV Tree with LED Light fitted arrangement explaining the details of the EV	1	

Signature of tenderer with date and seal