

# EV 2/3 WHEELER SERVICE SPECIALIST



**Eligibility:** Graduates and current final-year students from ITI (All trades) or 12<sup>th</sup> standard | Year of graduation 2021 - 2025

## Modules:

- 1. Introduction to EV & industrial safety**  
Workshop hazards, safety equipment usage, risk management tools, EV industry evolution, India's EV landscape, the EV ecosystem, and the environmental impact of EVs.
- 2. Basic electrical & electronics**  
The fundamentals of electricity cover principles, components, Ohm's and Kirchoff's laws, practical experiments, circuit analysis, measurement techniques, and safety protocols, with hands-on demonstrations to enhance comprehension.
- 3. Basics of architecture & components**  
Chassis, suspension, steering, transmission, braking, wheels, tires, mechanical/electrical interfacing, troubleshooting, powertrains, energy storage, charging systems, and communication protocols, with practical experiments for hands-on learning.
- 4. Main frame**  
Vehicle terminology, understanding main frame fundamentals, and identifying components like housings and storage compartments, throttle and brake lever operations, learn standard operating procedures for assembly/disassembly, and gain practical experience in hands-on vehicle assembly and disassembly processes.
- 5. Auxiliary circuit**  
The lighting system, conduct practical experiments on lighting circuits, and explore control interfaces, dashboard and media systems, ignition and alarm systems, as well as other auxiliary circuits, diagnose fault codes and errors, and develop skills in circuit fault finding.
- 6. Fault detection & tracing-1**  
Build and trace circuits, enhancing their fault detection skills, construct and troubleshoot auxiliary circuits, deepening their practical understanding of electrical systems and their operations.
- 7. Energy storage**  
Various battery types, benefits, attributes, safety parameters and layout, physical placement, handling, measuring battery health, addressing problems, understanding battery management systems, and gain practical experience in fault detection and troubleshooting.
- 8. Power train**  
Motor types, architecture, power transfer components, transmission, drive systems, power distribution units, and control units, regenerative braking, electric motors as generators, and troubleshooting faults in motors and controllers.
- 9. Charging infrastructure**  
Automobile fundamentals including chassis, suspension, steering, transmission, braking, wheels, and tyres, delve into mechanical and electrical interfacing, troubleshoot problems, study powertrains, controllers, energy storage, charging systems, and communication protocols, with practical experiments for hands-on learning.
- 10. Interlocks & control system**  
Systems that control vehicle operations, interfacing of the sensors with the control system and interlocks present for safety and performance.
- 11. Fault detection & tracing-2**  
Build and trace circuits, enhancing their fault detection skills, construct and troubleshoot auxiliary circuits, deepening their practical understanding of electrical systems and their operations.
- 12. Human skills**  
Interactive workshops, role-playing, and real-world simulations, fostering empathy, communication, adaptability, and leadership for holistic skill development.

Admission Confirmation Fee: ₹ 3,500

**COURSE FEES**

**₹ 22,000**

**DURATION**

**12 WEEKS**

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