



Pankaj

EV Powertrain Expert | Electrical & Electronics | Plant Engineering | Paint Shop

R&D Powertrain, Vehicle Integration, Electrical and electronics, Vehicle and components testing and Plant Mechatronic controls and engineering



+91-9418032894



pankaj27791@gmail.com



in.linkedin.com/in/pankaj27791

Professional Summary:

Accomplished Engineering Professional with over 15 years of experience in Electric Vehicle (EV) research and development, specializing in Powertrain Systems for two- and three-wheelers. Proficient in Plant Mechatronic controls and engineering, Installation and Commissioning, Process Improvements, and Team Management, with a strong foundation in Energy Conservation and Project Management. Demonstrated success in enhancing operational efficiencies and reducing costs through key projects like OPG new model bike FE650 Powertrain and electrical system integrations.

Core Competencies

EV R&D & Powertrain Engineering

Electrical & Automation Engineering

Plant Engineering & Maintenance

Project & Operations Management

Process Improvement & Quality

Technical Testing & Validation

Documentation & Reporting

Root Cause Analysis

Education

Mechanical Engineering (Polytechnic)

Lovely Institute of Tech. 2007-2010

Senior Secondary 12th (Arts)

NIOS Delhi 2011-2012

Matriculation 10th

HP Board, Dharamshala

Languages

English

Hindi

Punjabi

Gujarati

Skills

EV Powertrain Design & Integration

Electrical and Electronic

PLC Programming

Plant Mechatronic controls and Engineering

Testing and validations

Project Management

- Engineering principles
- Innovative thinking
- Project Coordination
- Installation & Commissioning
- Troubleshooting
- MS Office, Computer Software and Hardware

Notable Accomplishments

- Vehicle Retune and integration completed to increase the Range 127 to 198KM
- EV alteration to improve the quality of parts to reduce market failures.
- Startup of the new plant and purchase of the SPM machine at Low cost.
- Plant Cost Saving (30 Lacs) by Successfully Spray Booth Chain refurbishment.
- Energy saving projects.
- Several Notable Improvements in Paint Plant e.g., Transfer of ED paint from main tank to Dump tank and Dump tank to Main tank, Ultrafiltration Membrane Flushing and Box up.
- New Model Development and Delivery in EV & IC vehicles.
- UPS installation Project done in Essel Propack for Tubing line and Printing.
- Management of Shop floor by creating content & Providing Training to associate for problem solving

Work History:

1) Senior Manager, OPG Mobility (Known as Okaya EV), Baddi HP

May-2025 – Current

- Achieved optimal EV powertrain performance through calibration and optimization efforts.
- Finalized new motor and controller designs, integrating advanced technologies and product lines.
- Developed complete vehicle architecture, including electrical circuits and wire harnesses.
- Collaborated on battery chargers to support parallel and single battery charging.
- Executed in-house testing aligned with ICAT standards for validation and compliance.
- Trained cross-functional teams on vehicle integration and best practices.
- New Machine requirement finalizations, costing, installation and commissioning and documentation of set parameters and training

2) Deputy Manager Engineering – R&D, Revolt Motors Pvt Ltd, Manesar HR

Dec-2023 – May-2025

- Optimized and standardized EV powertrain systems by enhancing designs, integrating advanced motor technologies, and improving performance through calibration.
- Developed comprehensive vehicle architecture, electrical circuits, and wire harnesses.
- Conducted ICAT-compliant in-house model testing and trained cross-functional teams on powertrain calculations to enhance validation and collaboration.
- Finalized CAPEX specifications, negotiated, and commissioned purchases for successful trials.
- Developed new parts (Speedometer, DC-DC converts, controller etc.) for existing and upcoming models, ensuring feasibility and testing.
- Innovated existing models by evaluating new features with minimal modifications.
- Executed start-up and close-out verifications, ensured equipment safety standards while optimizing costs with suppliers, and enhanced future product safety and quality through PLC and equipment modifications.

3) Assistant Manager – Plant Maintenance, Powertrain, Gravton Motors Pvt Ltd, Hyderabad TS

Jul-2022 – Dec-2023

- Optimized and standardized EV powertrain systems by enhancing designs, integrating advanced motor technologies, and improving performance through calibration.
- Developed comprehensive vehicle architecture, electrical circuits, and wire harnesses.
- Conducted ICAT-compliant in-house model testing and trained cross-functional teams on powertrain calculations to enhance validation and collaboration.
- Finalized CAPEX specifications, negotiated, and commissioned purchases for successful trials.
- Developed new parts (Speedometer, DC-DC converts, controller etc.) for existing and upcoming models, ensuring feasibility and testing.
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4) Maintenance Engineer – Paint Shop & Powertrain, Ford India Pvt Ltd, Ahmadabad GJ

Sep-2013 – Jul-2022

- Ensured optimal operation of Pre-treatment and Electrocoat processes and rectifiers.
- Planned and executed preventive, autonomous, and predictive maintenance on critical equipment.
- Modified PLC controls to enhance safety, quality, and production efficiency.
- Performed start-up and close-out verifications to ensure quality part production.
- Conducted daily SQDCPME verifications, maintaining operational standards and protocols.
- Implemented global 4D problem-solving tools, reducing machine spare costs significantly.

5) Maintenance/Utility Engineer, Essel Propack Ltd, Nalagarh HP

Aug-2011 – Jul-2013

- Responsible for the running and maintenance of
- Managed chillers, air compressors (screw and reciprocating), AHUs, SPUs, air conditioning systems, diesel generators, and electrical operations.
- Documentation completion.

6) Maintenance Engineer, Sidwal Technologies, Kala Amb HP

Jun-2010 – Aug-2011

- Responsible to assembling, checking and repairing of Diesel Engines.
- Quality check of Engines and Compressors.
- Documentation completion.

Training/Workshop:

- Safety Orientation Training on ECPL (Energy Control and Power Lockout), Plant Safety Work Procedures, Work at Height etc. at Ford India Pvt Ltd, Sanand, Ahmedabad, Gujarat
- Training on PLC, Robotics, Hydraulics, Pneumatics, Mechatronics, Communication, Motors and Drives, SCADA at NTTF (Nettur Technical Training Foundation), Ahmedabad, Gujarat.
- Training on AB (Allen Bradley) PLC RS Logix 5000 (Control Logix) and Safety Guard Logix at Ford India Pvt Ltd, Sanand, Ahmedabad, Gujarat.
- EV powertrain
- PMSM and BLDC motor

DECLARATION: - I hereby declare that the information given above is true to the best of my knowledge and ability.

Place: - Chandigarh

Pankaj