

Rakesh K

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Experienced professional having led multi-disciplinary R&D teams in mechanical, electrical, electronics, software projects. Skilled in power train calibration, diagnostics, verification & validation and leading cross-functional teams to deliver innovative solutions in diverse industries. Continuous learner, open to learn and work on new technologies.

Education

BE (Mechanical Engineering),
Sri Krishna College of Engineering &
Technology, Anna University 2002-2006 First
Class 75.11%

MBA, School of Management Studies,
Cochin University of Science & Technology,
2010-2012 CGPA 7.45

Skills

- New Product Development
- Power Train /ECU Calibration
- Onboard Diagnostics Calibration
- Model Based System Engineering
- Cross-Functional Collaboration
- Validation, and Testing
(product, software, vehicle, HIL, etc.)
- Root Cause Analysis
- Risk Management
- Project Management
- FMEA
- Generative AI
- Functional Safety (ISO 26262)

Experience

Consultant, 05/23 – Present

- Leveraging expertise in engineering
- Continuously expanding skill-set through upskilling in Generative AI, Functional Safety (ISO 26262), ADAS

Project Manager, FW Tech Pvt Ltd. 11/21 – 04/23

- Led cross-functional teams as Project Manager for software development & testing
- Managed teams of varying sizes, ensuring efficient project delivery through budget planning, cost tracking, and performance monitoring.
- Oversaw the entire development lifecycle, including simulation activities, analysis, testing, user acceptance testing, and code reviews.

Summary

14+ years in research, new product design, development, verification, validation and delivery.

Delivered projects for diverse clients, enhancing safety, efficiency, and performance with innovative solutions.

Skilled in new platform ideation and facilitating delivery from concept to launch.

Strong background in research, data analysis, problem solving, team leadership, and communication.

Experience in complete software development lifecycle, Scrum etc.

Other Courses

- Certified Scrum Master Scrum Alliance 2022
- Design Thinking Practitioner IBM 2022
- AI for beginners NASSCOM 2021
- Introduction to self driving cars Udacity 2018
- Data Science Simplilearn 2017
- Predictive Analytics IIT Hyderabad 2016

- Facilitated Scrum ceremonies and mentored team members, fostering collaboration and knowledge transfer.
- Estimated activity effort accurately, ensuring project deliverables were met on time and within budget.
- Sub contractor for Accenture(Government of Singapore project) Team Size Handled: 25 + members

Deputy Manager (R&D), TAFE Motors and Tractors Limited, 07/18 – 10/21

- Successfully led projects on emissions, onboard diagnostics, functional safety (TREM4/5, CPCB2/4 emission norms)
- DOE based calibration for performance , hardware selection, emission optimization
- Collaborated on electronic cluster, telematics, & mobile app development with vendors & cross-functional teams.
- Managed & mentored 10+ engineers in power-train calibration, development, testing, certification at government agencies.
- In-house diagnostic calibration, 50% cost saving & faster lead times.
- Trained team on ECU calibration & automated testing process (70% efficiency gain).
- Contributed to technology strategy & cost-effective emission conversions.
- Managed technical & commercial aspects of diverse calibration projects.
- Directly involved in NVH testing on engine and vehicle level, calibration for Noise control.
- Supported vehicle integration team in prototype assembly, field validation , assessments etc.
- Hands on expertise on various engine map preparation, FMTC calibration ,RPG, cold start optimization, DSM calibration, error handling, speed governing etc.
- Handled Capex planning (Rs. 1.5 crores / Instrumental in upgradation, modernization of department)
- Resolved long pending technical hurdles in a strategic project enabling synchronization of multiple gensets for single-unit operation,
- Conceptualized and implemented telematics working jointly with vendor, saving 50% on travel costs and speeding up development

Engineer (Research, Testing), Start up, 11/16 – 06/18

- Led EV validation at a startup, providing technical R&D expertise in battery performance, diagnostics, testing, and benchmarking trials.
- Collaborated with cross-functional teams to ensure seamless integration of battery systems into the vehicle.

Technical Manager Specialist , CB, 08/14 – 10/16

- Conducted technical feasibility studies for diverse projects, evaluating potential risks and opportunities
- Leveraged data analysis and financial modelling skills to assess project proposals
- Researched emerging technologies, documentation, reporting SWOT analysis etc.

Assistant Manager, Kirloskar Brothers Limited, 10/12 – 06/14

- Drove successful new product development through comprehensive research (data, benchmarking), rigorous testing, and collaborative FEA analysis, resulting in significant reduction in component failures
- Field failure analysis , improvement using CAE
- Mentored junior engineers, sharing technical expertise and best practices to enhance team

capabilities.

- Providing training, conducting workshops for high profile executives

Engineer (R&D) Bosch India 08/07 – 08/10

- Led the implementation of common rail fuel injection technology for passenger cars and light commercial vehicles across major Indian manufacturers
- Developed expertise in system engineering for this technology, ensuring optimal performance and fuel efficiency.
- Utilized data logging and analysis techniques to diagnose and troubleshoot vehicle issues, improving customer satisfaction
- Contributed to project management activities, including assisting with departmental budget planning and monitoring
- Played a key role in two successful project cycles, optimizing BS4/EURO4 emissions standards for single and multi-cylinder engines.
- Supported the development of a low-cost, advanced fuel injection system for a leading OEM contributing to increased affordability and fuel efficiency.
- Part of various new platform development for various Indian OEMs-System Engineering, Verification, Validation
- Special appreciation for role as SAP key user (SAP implementation)

Tools

ETAS INCA, MDA, AVL Concerto, Cameo, Matlab Simulink, SPSS, Jira, Figma, Office tools, Miro, Wrike, etc.

Awards/ Recognition

- ✓ Best Innovative Project Award IIT Roorkee 2006
- ✓ Employee Recognition award Bosch 2009
- ✓ Runners Up State Level Quizzing NIPM Kerala Chapter 2012
- ✓ Employee Award R&D TAFE 2018