Ajay Mankhair

Systems Engineer, ADAS, EPAS, Cluster, PSD, AD, ECFM.

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EXPERIENCE

PROFESSIONAL PROJECTS

Project Management

- Lead, Plan and design your Program Teams work to ensure successful program delivery.
- Proactively monitor programme health through the resolution of risks and issues within JIRA and take the lead to initiate corrective action where required.
- Maximize the efficient allocation of Global Procurement resources across the Internal Projects Programme's and within Agile
- To act as a lead for procurement on a day-to-day basis within the projects team
- Coordinate and deliver on Program objectives, ensuring deliverables are met on time in full and to the correct standards.
- Lead, plan and design your activities of work to ensure successful program delivery.
- Manage and develop internal and external relationships including suppliers within the projects.
- To effectively work and communicate with global partners across different markets.
- To lead, facilitate resolution of complex cross-functional issues through proven problem-solving methods.

Development of Electric Power Steering System and ADAS

- Design, engineering approval, and release of chassis system components/specifications of Electric Power Steering Systems and ADAS function (RAEB, AP, Parking Feature, LSS,AEB)
- Management of EPS, IDB and ADAS suppliers to complete development of new models, validation of component performance, validation of production.
- Working hand in hand with world's leading EPS and ADAS suppliers to realize the targets for Quality, Timing, and Conducting DFMEA, HARA.
- Designed and implemented jigs & fixtures for Electric Power Steering to test the software functionality.
- Design & Prototype Development of Electric Power Steering Module.

Development of Cluster and PSD

- Understanding & analyzing the Documents of Instrument panel cluster.
- Develop test cases & Simulation setup configuration in CANoe.
- Review the functional test cases developed by test engineers.
- Expertise in Requirement Analysis, Designing & Development of Manual Test Cases and Test case execution.
- Involved in Preparing Test Steps and Test Reports. Experience in Automation Testing (Test Case Creation, Test Execution, Collecting Test Data).

Development of AD and ECFM

- Understanding and analyzing AD and ECFM documents.
- Create test cases and configure the simulation setup in CANoe.
- Examine the functional test cases created by test engineers.
- Negotiating LKE and FM costs with suppliers.
- Getting ready for the Component level requirement.
- As a component manager, will be the point of contact for the AD and ECFM projects.
- Obtain the budget for the entire year for parts ordering, EC requests, and so on.

EDUCATION

Vel-Tech University with Collaboration of Automotive Research Association of India (ARAI), Chennai, Tamil Nadu — MTech,
Automotive Electronics and Embedded system.

AUGUST 20013 - MAY 2015

CGPA- 8.2

Shivaji University, Kolhapur, Maharashtra
B.E.-   Electronics and Communication.

AUGUST 2008 - MAY 2012

Aggregate- 65%

SKILLS

- ADAS technologies
- Senser technologies
- System integration
- Vehicle Dynamics
- Simulation and testing
- Time management
- Decision-making
- Team leadership
- Project management
- Strategic planning
- Verbal and written communication
- Cross-functional teamwork
- Documentation and reporting
- Performance evaluations
- Business development
- Complex Problem-solving
- Project planning
- Product management
- Change management
- Cross-functional team management
- Problem-solving abilities
- Multitasking Abilities
- Adaptability
- Problem-solving aptitude
- Agile development
- Software development
- Risk management.
- Effort estimation
- Team Utilization
- DV&R,
- CI/CD systems

- Performing both vehicle and bench level testing.
- Check for hardware compatibility in a new project.
- Checking quality front points with the QM team.
- Responsible for defining the releases and HW changes that apply to the vehicle build.

OVERALL EXPERIENCE:

FEV India, Pune: ADAS Manager
Team Size: 10 people
May 2024-Present

Working ADAS Manager for the ADAS feature development, System level architecture, Function ownership and interaction with stakeholder, baselining, traceability etc. Reviewing and guiding the Team. ADAS regulation, NCAP, homologation requirement. responsible for everything from development planning to environment construction for a new verification platform that automatically generates test scenarios. Parking feature, ACC, LKA ,LCeA, AEB, ELK,FCW,LDW etc. Conducting TDR, Design review, gap analysis, signal interface alignment, effort estimation for team.

VinFast, Hanoi, Vietnam — Sr. Principal Engineer System Safety.

AUG 2023 – May 2024

Working as Sr. Principal Engineer System Safety to ensure the failsafe error matrix for all Parking features. Function owner for the RAEB, ensuring all system specification is correct as well validating function at vehicle level. Responsible for the Homologation and NCAP (R152.R79, R158) testing documentation from ADAS team. Coordinating with multiple stake holders to ensure timeline and product quality for the vehicle level. Stakeholder requirement & SOR for new ADAS program, Sourcing and Supplier on board, System and interface requirement specification, System DVP management, System performance tuning and verification, Final assessment/user acceptance testing before launch (co-work with validation team), Homo/NCAP support, Jira issue resolution for full system., Stakeholder management. Sys req for IDB system.

Mercedes-Benz, Bangalore, India — Sr. Tech. Lead.
Team Size: 6 people

FEB 2022 – AUG 2023

Component Manager for AD and ECFM.

Working as component manager for the AD and Electric Charging Flap Module. Development and series support for EE components for Mercedes Benz cars, Writing requirements specification for components, integration of safety requirements. Creation, control and maintenance of a schedule. Budget planning for sample deliveries. To ensure documentation of the progress in development in the RD systems (EPDM, …). Assistance in the module strategy and in the module group. Participation and providing information for concept tests in E/E (design reviews and B sample tests). Assistance in complete supplier management, Development, Documentation, Testing, Support, Coordinating the development process with the supplier, Error analysis with supplier in case of anomalies in RD/plant/field. Change request, PPAP for the component. Coordination of ECU diagnosis in plant, aftersales, proto-build shop etc. Assistance in the creation and release of a test and commissioning regulation (PIV) for the components

KPIT, Pune, India — Sr. Tech. Lead

July 2021-FEB 2022

Functional safety, requirement engineer for powertrain component.

Magna Styer India, Pune, India — Sr. Engineer.

FEB 2019 – July 2021

Function Definition-EE-Sr. Engineer.
Preparing and reviewing systems documentation, including requirement, design, test procedure, and verification documents. Performing validation of customer requirements, System Requirements Specification, and assessment of feasibility via prototyping, and assessment of technical risk

Software
- MATLAB/Simulink,
- Working knowledge of Configuration Management (SVN etc.)
- MSVIsio, Draw.Io
- CANoe,
- dSPACE RCP and HIL software, ICD,
- PTC, Doors, Polarian, CodeBeamer, PreeVision.
- Calterm,

Hardware
- dSPACE tool chain,
- Vector tool chain,
- Calibration/Measurement tools,
- OBD Scanners,
- NI HW

Regulation
- R152
- R158
- R79
- ISO 26262

Root cause Analysis
- 8D analysis
- 5Why analysis
- Fishbone analysis
- After Sales failure analysis

LANGUAGES

English
Professional working proficiency

Hindi
Native proficiency

Marathi
Native proficiency

CERTIFICATIONS

- **Training of NI Labview at VelTech University Chennai, Nov 2013**

- **Functional Safety (as per ISO 26262) Certified ISO 14001:2015 Awareness Program)**

- **Mahindra Yellow Belt Training**.

- **PMP Certification** (in progress)

Cummins India, Pune, India — Sr. Engineer.

JULY 2018 – FEB 2019

PCD-Sr. Engineer for BSVI Engine.

Working on the BSVI project as a performance, calibration and diagnostic engineer. Responsible for the Electronics control, performance and calibration as well as Diagnosis the fault code like temperature sensor, Nox sensor, DEF tank calibration, Accuracy of dosing and verify all Controls are working correctly according to the calibration.

Mahindra Research Valley, Chennai, India — Sr. Engineer.

JULY 2016 – JULY2018

Systems Engineer for EPS,LKA, AP, AEB and Cluster.

Work closely with cross-functional teams to ensure the highest standards of safety and performance are met. Develop and integrate active safety systems for passenger vehicles, including advanced driver-assistance systems (ADAS) such as automatic emergency braking, lane-keeping assist, adaptive cruise control. Collaborate with hardware and software teams to ensure seamless integration of safety systems with the vehicle's overall architecture Collaborate with design, engineering, and manufacturing teams to address issues and ensure compliance with regulatory requirements and industry standards. Foster a collaborative environment and facilitate effective communication among team members.

Sona Koyo Steering System, Gurgaon, India — PGET

JUNE 2015 - JUNE 2016

Section Engineer (R&D) for Electric Power Steering.
- Design, Testing validation of Electric Power Steering Module and ADAS hardware and software.
- Development of EPAS ADAS module for off road Vehicle, sports vehicle & Tractors.
- Mat lab/Simulink Model development for EPAS Module.
- Motor Control Design and Testing for E-Auto.
- Complete EPAS Module performance testing at Bench level & On Vehicle Level.

Automotive Research Association of India, Pune, India — *Intern*

JANUARY 2015 - JUNE 2015

Completed the Master's project on Driver Intention Detection using Math Works in Automotive Electronics Department.

DECLARATION:

I hereby declare that all the information furnished above is true to the best of my knowledge.
Place :
Signature: Ajay Mankhair
Date :

PUBLICATIONS

Hybrid Controls an Advancement to Reduce Pollution Effectively by Using TI Nanotubes in Aqua Silencer", International Journal of engineering sciences & research Technology,

ISSN: 2277- 9655, Vol 3, No-3, Impact Factor (1.852).

Published Poster on "Drive by wire", *in SIMCOM in Chennai Trade Centre in2014*

Published Poster on "Miniature Prototype of Driverless Vehicle", *In International Conference On Automotive MATERIALS and Manufacturing 2014.*