

Ketki Jitendra Prasade

+91 9503409993 • ketkiprasade@gmail.com • [Ketki Prasade | LinkedIn](#) • Pune, India

Professional Summary

Innovative and results-driven Electrical/Systems Engineer with strong experience in Advanced Driver Assistance Systems (ADAS) feature development, software testing, data analysis, and functional safety. Proven track record with Tier 1 OEMs in verification and validation (V&V), FMEA, system integration, and troubleshooting. Skilled in both hardware (ECUs, sensors) and software tools with hands-on expertise in radar/camera systems and vector tools.

Professional Experience

LHP Engineering Solutions – Systems Engineer

Raymond, OH, US | February 2022 – April 2025

- Tested software for ADAS features: Collision Mitigation and Braking System, Adaptive Cruise Control, Traffic Sign Recognition, Road Departure Mitigation, Lane Keep Assist System for Tier 1 OEMs.
- Performed field data collection during testing and data analysis for system verification and validation (V&V).
- Created and maintained documentation, configurations, and test cases.
- Conducted Hardware-in-Loop testing and ECU flashing on test benches.
- Performed ADAS troubleshooting by diagnosing DTC, verifying sensor communication and isolating faults using calibration checks.
- Managed pre-testing activities like instrumentation setup, wiring, flashing and aiming for cameras and radars.
- Performed fault injection testing using FMEA toolbox.
- Led benchmarking analysis and supported feature optimization based on customer feedback.
- Collaborated cross-functionally with suppliers to ensure timely delivery of project milestones.
- Successfully trained and certified for Class C driver's license to execute on-road test cases.

Tata Consultancy Services – Software Engineer

Remote, MI, US | May 2021 – February 2022

- Developed Driver Alert System (DAS) architecture using MBSE in Cameo Systems Modeler.
- Generated functional, context, and scenario-based diagrams from specifications.
- Executed V&V of work products post-software release; conducted FMEA as per handbook.
- Gained hands-on training in Java programming and SQL during the Initial Learning Program.

Education

M.S. in Electrical Engineering – Western Michigan University, Kalamazoo, MI

August 2018 – December 2020 | GPA: 3.5

B.E in Electronics and Telecommunication – Savitribai Phule Pune University, India

August 2014 – May 2018

Academic Projects

Pedestrian Detection System (August 2020):

Developed an ADAS-based Pedestrian Detection System using YOLO v3 for real-time object recognition via radar and camera input. Tested performance across various weather, lighting, and angle conditions. Achieved image processing times of ~0.66–0.89 seconds with 87.5% detection accuracy.

Wireless EV Charging & EMI Mitigation (August 2019):

Researched wireless power transfer (WPT) for EVs using RF, solar, and wind energy. Simulated a magnetically coupled WPT system achieving 94.6% efficiency. Analysed primary and secondary coil currents and examined electromagnetic interference (EMI) impact on passenger safety. Evaluated compliance with SAE-recommended EMC standards across WPT classes.

Three-Phase Resonant DC Link Inverter (August 2019):

Designed and simulated a three-phase resonant DC Link Inverter in MATLAB/Simulink. Calculated and validated output voltage, resonance frequency, and clamping parameters. Analysed system performance through waveform plots of diode, output, and clamping capacitor voltages and currents.

Image-Based Door Locking System (June 2017):

Built a smart access control system for high-security environments using camera input and Eigenface recognition algorithms. System captured and processed facial images to lock/unlock doors. Presented research findings and published in *International Research Journal of Engineering and Technology (IRJET)*.

Skills

Programming Languages: C, Python, Java, SQL, SysML (MBSE)

Software Tools: MATLAB, Simulink, Tableau, Jira, Cameo Systems Modeler (MagicDraw)

Automotive Tools: CANape, CANoe, CANalyzer, INCA, Vector Logger Suite, ISO 26262

Hardware & ECUs: Vector GL3400, Cancase, Oxford RT, Radar, Camera sensors

PCB & Circuit Design: PSpice, LT Spice, ETAP, EAGLE, MultiSim, Proteus

Platforms: Windows, MS Office Suite (Word, Excel, PowerPoint, Visio)