

Mr. Amar Awale is a Senior Staff Consultant with over 24 years of experience in the automotive industry, including one of the Big Three automotive companies and the world's largest Tier-I automotive supplier. He brings insight into advanced driver assistance systems (ADAS)/Autonomous Vehicle technologies.

Mr. Awale has deep technical expertise in the architecture, development, validation, and performance analysis of ADAS features, including Automatic Emergency Braking (AEB), Forward Collision Warning (FCW), Traffic Sign Recognition (TSR), Blind Spot Monitoring (BSM), Parking and Visualisation Systems, and sensor fusion technologies integrating cameras, radar, LiDAR, ultrasonic sensors, and vehicle networks.

Mr. Awale worked on the development of parking and visualization systems features for SAE Levels 2–3 of autonomous driving and Functional Safety Compliance (ISO 26262). He was responsible for delivering end-to-end feature functionality such as surround view camera (SVC) and base park assist (BPA) in compliance with the ASPICE quality process. Mr. Awale worked on hardware-in-the-loop (HIL) simulation testing and validation. He was responsible for creating virtual simulation bench-top methods to support feature owners with test case creations and validations

Mr. Awale worked on human-machine interface (HMI) architecture, which includes service-oriented architecture (SOA) services creation in a software-defined vehicle (SDV) architecture and feature modeling with a model-based systems engineering (MBSE) approach.

Mr. Awale worked on CAE integration of autonomous vehicles, LiDAR, and camera's structural and dynamic stability analysis. He holds a master's degree in machine design from the Indian Institute of Technology (IIT) and a bachelor's degree in mechanical engineering.

Education

MTech, Machine Design. Indian Institute of Technology. 2000

BTech, Mechanical Engineering. Walchand College of Engineering. 1997

Contact Information

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Areas of Specialization

- ADAS System Architecture and Functional Design
- Automatic Emergency Braking (AEB) Systems, Forward Collision Warning (FCW)
- Parking and Visualization Systems
- Camera, Radar, Ultrasonic, and LiDAR Integration, Fusion
- Human-Machine Interface (HMI) Design and Integration
- Vehicle Engineering
- Virtual Verification & Simulation
- Product Liability
- Failure Analysis
- Finite Element Analysis (FEA)

Licenses & Certifications

- Traffic Crash Reconstruction Course for Engineers. **Northwestern University**, Center of Public Safety, Chicago
- Six Sigma Green Belt Certification (DMAIC & DFSS Projects)

Positions Held

Engineering Systems Inc., Ann Arbor, Michigan

- Senior Staff Consultant, 2025 – Present

Robert Bosch, Plymouth, Michigan

- Senior Technical Project Manager, 2023–2025

Stoneridge, Novi, Michigan

- Senior System Test Engineer, ADAS, 2023–2023

Ford Motor Company, Dearborn, Michigan

- Product Owner, Human-Machine Interface (HMI) Architecture, 2022–2023
- ADAS Systems Architect, 2021–2022
- Hardware-in-the-loop (HIL) Test Management, 2020–2021
- Systems Engineering (MBSE) Integration Lead, 2018–2020
- CAE Integration Lead, Autonomous Vehicle, 2016–2018

Tata Consultancy Services, Warsaw, Indiana

- Program and Project Management, 2011–2015
- Technical Lead, Virtual Verification, 2007–2011
- Simulation/CAE, Durability, Thermal, Structural, 2003–2007

GE Power Systems, Schenectady, NY

- Assistant Systems Engineer, 2001 – 2003

Professional Affiliations/Honors

- Industry Advisory Board (IAB), Member Texas A&M University, Engineering Department, College Station, TX, July 2026 – Present
- Panelist on Sensing and Perception – Radar, Camera & LiDAR Fusion at ADAS Show organized by Automotive Research Association of India (ARAI), Feb 2026
- Session Chair/Judge - Reviewed and summarized SAE technical papers on Advanced Driver Assistance System (ADAS) and AV Technology, at SIAT 2026 organized by SAE International and SAE India, Jan 2026
- Recognized as Global Achiever in the field of Advanced Driver Assistance Technology (ADAS) by Graduate School Walchand College of Engineering (WCE), 2026
- Co-chair & Founding Member, NextGen Group, 2018 – 2020
- Recipient, Ford + Champion Award, 2022
- Panelist, NextGen Product Development Day, 2022
- Peer Reviewer & Selection Committee Member, NextGen Change Makers Awards, 2020

Publications

ISO 26262 - ADAS / AV Functional Safety Article published in the Global Safety Regulation book published at SIAT 2026 organized by SAE International and Automotive Research of India (ARAI), Jan 2026

Technical Paper: Cameras, Radar, LiDAR, and Ultrasonics: How Modern Vehicles See the World, DRI's 2026 Strictly Automotive Seminar, San Antonio, TX, Sep 2026

Presentations

Presentation and panel discussion at DRI's 2026 Strictly Automotive Seminar, San Antonio, TX, September 2026 along with Product Liability Attorneys and Industry expert on "Cameras, Radar, LiDAR, and Ultrasonics: How Modern Vehicles See the World"

Chair, Autonomous Driving Technologies Speakers Sessions at TECH.AD, Conference 2022

Roundtable discussion leader on AV, LiDAR and Camera testing at AV Sensors Expo, 2023

Instructor / Evaluator

- As a **faculty** performed low-speed Automatic Emergency Braking (**AEB**) demonstrations and discussed relevant vehicle sensing hardware to inform participants of how sensors work together to support vehicle perception, decision-making, and driver assistance functions, at DRI's 2026 Strictly Automotive Seminar, San Antonio, TX, Sep 2026.
- Guest Lecturer, Texas A&M University College of Engineering, *ADAS Fundamentals and Systems Engineering* to engineering students, sharing industry expertise in automotive safety technologies, systems architecture, sensor systems, functional safety, and multidisciplinary engineering practices, Sep 2026.
- Intern Mentor, ADAS Department, Ford Motor Company. 2021 – 2023.
- Ph.D. Student's Mentor, ADAS Features System Architecture and Member/Mentor, M-City Autonomy Project Research Team University of Michigan, Ann Arbor. 2024-2025.