

ABHISHEK NEMA

AUTOMOTIVE DIGITAL COCKPIT & AI LEADER

AUTOMOTIVE ARCHITECTURE | GENAI TRANSFORMATION | ENGINEERING EXCELLENCE

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EXECUTIVE PROFILE

Automotive architecture and AI transformation leader with 21+ years across embedded systems, digital cockpit, and connected-vehicle platforms. Progressed from hands-on DSP, C/C++ and IVI delivery to leading 30+ architects within a 100+ person global architecture ecosystem and helping deliver in-market platforms and capabilities for Stellantis, Mitsubishi/Melco, and Audi programs. Combines deep Android/Linux IVI, customer-aligned platform architecture and ASPICE expertise with practical leadership of GenAI engineering workflows, knowledge systems, and responsible AI adoption across the Automotive Business Group.

21+ YEARS

Automotive engineering

30+

Architects directly led

3 PROGRAMS

Stellantis IVI platforms in market

200+

Global colleagues engaged in AI adoption

LEADERSHIP & PLATFORM SCOPE

Digital Cockpit: Android/Linux IVI, headless IVI, digital clusters, RSE, HMI, audio, OTA, connectivity, CAN/LIN diagnostics

Architecture Leadership: SoC/MCU selection, HW/SW partitioning, technology roadmaps, customer workshops, technical proposals, ASPICE SWE.2

AI-Enabled Engineering: GenAI requirements engineering, connector-based RAG knowledge platforms, AI pilots, adoption, security and governance

PROFESSIONAL EXPERIENCE

FORVIA INDIA PVT. LIMITED | Pune, India

AI Leader, Automotive Business Group

Apr 2025 - Present

- Built and leads a six-person India AI team and guides GenAI transformation for the Automotive Business Group, from use-case qualification and solution design through pilots and deployment planning.
- Led a GenAI requirements-engineering pilot with 20+ global system and software engineers; participants reported 20% quality improvement and approximately 30% time reduction. The capability is moving toward deployment.
- Advanced requirements engineering and system-level test-case generation from system requirements, and supported a technical RFI/RFQ engagement.
- Developed KnowTrack, a knowledge-tracking tool using Sinequa and connectors to enable chat across engineering and process sources including Confluence, SharePoint, AWM and Jira.
- Works with 200+ global colleagues across engineering, operations, and HR through AI-enabler sessions that surface pain points and promote fit-for-purpose use of in-house, external, and hybrid AI tools.
- Participated in AI security review activities as part of GenAI transformation work; presented an automotive GenAI demonstration to the Group CEO.

Lead - GenAI | Concurrent transformation assignment

Oct 2023 - Mar 2025

- Led early GenAI use-case discovery and feasibility work for automotive engineering, selecting LLM, prompt and RAG approaches appropriate to requirements and process-knowledge workflows.

Software Manager - Global Architecture Leader

Apr 2022 - Mar 2025

- Directly led 30+ architects across Forvia employees and partner consultants within a 100+ person architecture ecosystem; partnered with developers and requirements engineers on customer-aligned automotive platforms.
- Led global architecture for three successful Stellantis IVI and headless-IVI programs, all delivered to customers and in market; owned SoC/MCU architecture, HW/SW partitioning and delivery approach.
- Developed technical proposals and architecture options and led internal and customer technical workshops; defined eCockpit technology direction and strengthened ASPICE SWE.2, CI/CD and architecture practices.

FORVIA INDIA PVT. LIMITED / MINDA INDUSTRIES LIMITED | Pune, India

Software Architect

Aug 2018 - Mar 2022

- Designed IVI and digital-cluster architectures spanning HMI, connectivity and audio; developed an NXP i.MX6 touch-display driver and contributed hands-on platform integration expertise.
- Architected the BIS 16833-compliant MOBITS connected-fleet system with CAN/LIN-based vehicle display, passenger information, vehicle tracking and cloud-connected video streaming.

SASKEN COMMUNICATIONS PVT. LIMITED

Technical Lead

Dec 2010 - Aug 2018

- Served as Technical Lead on a 50+ person Mitsubishi/Melco customer program, delivering streaming capability that reached the market and coordinating architecture, integration and quality improvement.
- Led a low-disruption platform migration from TI Jacinto 4 to Jacinto 6 and designed and implemented the C++ architecture for configurable, concurrent DLNA and Miracast instances on a shared IVI platform.
- Contributed technical proposals for Mitsubishi rear-seat entertainment; drove toolchain choices, CI/CD and automated testing.

WIPRO TECHNOLOGIES / TATA CONSULTANCY SERVICES

Project Engineer / IT Analyst

Mar 2005 - Dec 2010

- At Wipro, designed automotive audio architectures and optimized DSP software on ADSP BlackFin 537 and SHARC 21365 platforms, including delivery for Audi B8/R8 Hi-Fi IVI systems.
- At TCS, developed Battery Controller ECU firmware for EV/HEV Li-ion packs, covering requirements, embedded control, test planning and cross-team delivery coordination.

CUSTOMER, PROPOSAL & PRE-DEVELOPMENT EXPOSURE

Produced technical proposals, architecture options and delivery approaches for global and Indian OEM opportunities, including Mitsubishi rear-seat entertainment and cost-conscious sub-\$100 IVI concepts for MSIL. Experience includes RFI/RFQ technical support, SoC/MCU trade-offs, delivery approaches and customer workshops.

EDUCATION & EXECUTIVE DEVELOPMENT

Chief Technology Officer Executive Programme | IIT Kanpur | Apr 2025 - Dec 2025

M.Tech., Data Science and Engineering | BITS Pilani | 2020 - 2022

B.E., Electronics and Communication | RGPV, Bhopal | 2000 - 2004

SELECTED CREDENTIALS & INDUSTRY CONTRIBUTION

International keynote | Automotive Cyber Security, Connectivity & SDV Week, Berlin (2025) - AI integration in secure SDV development

AI development | Generative AI for Software Development (2024); Generative AI with Large Language Models (2023); Deep Learning Specialization (2021); Machine Learning (2018)

TECHNOLOGY FOUNDATION

Automotive platforms | Android, Linux, FreeRTOS, AUTOSAR; TCC 803x/805x, NXP i.MX6/i.MXRT117x, TI Jacinto 4/6; embedded C/C++, Python, DSP

AI and knowledge systems | LLMs, RAG, LangChain, LlamaIndex, Azure AI Studio, Hugging Face, Ollama, Chroma vector database, MLOps

AI adoption tools | Copilot, GitHub Copilot, Devin Desktop, Confluence agents and AI-assisted bug-resolution tools - selected by use case and deployment constraints