



Shashidhar Akhil Aithal

Electrical Engineer

Electrical Engineer driven by hands-on hardware innovation and complex problem solving. With more than four years of professional experience, I specialize in **circuit** and **PCB design**, **laboratory instrumentation** and embedded programming (**C/C++** and **Python**). I thrive in challenging environments that demand conceptual thinking, rapid prototyping and continuous learning - especially where technology shapes the future.

✉ akhil.aithal@outlook.com

☎ +49 176 87969695

📍 Stuttgart, Germany

🌐 [linkedin.com/in/akhil-aithal](https://www.linkedin.com/in/akhil-aithal)

WORK EXPERIENCE

Research Assistant

Institute of Robust Power Semiconductor Systems (ILH)

01/2025 - 03/2025

Stuttgart, Germany

- Performed **RF and microwave port simulations** using **Keysight EMPro** to analyze electromagnetic behavior of high-frequency structures
- Supported **design validation and performance evaluation** through simulation-driven insights
- Contributed to **research-grade modeling workflows**, improving confidence in early-stage hardware designs

Working Student – Hardware & System Architecture

Robert Bosch GmbH

12/2022 - 12/2024

Stuttgart / Abstatt, Germany

- Supported **radar and next-generation automotive system development**, contributing across **hardware engineering and system architecture** activities
- Created and maintained **hardware and system requirements with end-to-end traceability** using **IBM DOORS**, ensuring alignment between design and system specifications
- Provided **hands-on laboratory support**, including **test sample preparation, validation, debugging, and circuit board bring-up**
- Automated **data extraction, analysis, and reporting** using **Python** and **Splunk**, reducing manual effort and improving engineering insight
- Coordinated **issue tracking, sprint planning, and cross-functional collaboration** via **JIRA**, supporting efficient system integration

Hardware Design Engineer

Bosch Global Software Technologies Pvt. Ltd.

01/2021 - 09/2022

Bangalore, India

- Designed and developed **electronic modules for Fuel Cell Electric Vehicle (FCEV) applications**, including **Interlock systems, Low-Voltage DC-DC converters, CAN interfaces, and crash signal circuits**
- Executed **end-to-end hardware development**, covering **circuit design, simulation, schematic review, and hardware testing**
- Automated **test workflows using Python** and enhanced reporting efficiency through **VBA scripting**, improving test repeatability and documentation quality
- Owned **module lifecycle management**, including technical documentation, design reviews, and cross-team coordination
- Led **component procurement and traceability**, contributing to improved cost efficiency and supply-chain visibility

EDUCATION

Master of Science in Electrical Engineering

University of Stuttgart

10/2022 - 03/2025

Stuttgart, Germany

Bachelor of Engineering in Electronics and Instrumentation

B.M.S. College of Engineering

08/2016 - 08/2016

Bangalore, India

SKILLS

PCB Design

Circuit Design

Circuit Simulation

Hardware Prototyping

Hardware Validation

Laboratory Testing

C/C++

Python

Worst-Case Analysis

RF

Soldering

Requirements Engineering

Test Automation

ACHIEVEMENTS

Hackathon Winner – “Two-Wheeler Overtake Assist”

Awarded for developing an **innovative safety-focused concept** addressing real-world riding scenarios through technical problem-solving.

Department Excellence Award

Recognized for delivering **exceptional project value** through high-impact technical contributions.

Extra Miler Award

Awarded for **introducing test automation** and proactively coordinating **component procurement**, improving efficiency and delivery timelines.

CERTIFICATES

Altium - PCB Design Course

Nordic Semiconductor - Bluetooth Low Energy Fundamentals

Nordic Semiconductor - nRF Connect SDK Intermediate

LANGUAGES

English

Native or Bilingual Proficiency

German

Professional Working Proficiency

Hindi

Professional Working Proficiency

Kannada

Native or Bilingual Proficiency

INTERESTS

Travelling

Volunteering

Sports

Technology