



Venkataswamy B, Functional Safety Engineer/Manager

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Profile Summary

- Total 14.6 yrs. Of Professional experience in the Automotive functional safety, Avionics System Engineering and Vérification & Validation of safety Critical Products.
- ISO 26262 - TUV SUD - L1 Certified Functional Safety Engineer with 6+ yrs. Of expertise in Automotive Functional Safety in SERDES Chip, Lidar, ADAS, Vehicle chassis, Electric Vehicle and Cockpit Instrument cluster products.
- Hands-on experience in Creation of Safety work products, Safety Process as per ISO-26262 : 2018.

Skills set

- **Safety Work Products** Item Definition, HARA, FSR, TSR, SSR, FTA, FMEA, FMEDA, DFA, HSI, Safety Plan, Safety Case, DIA, Reviews
- **Tools** : Ansys Medini Analyzer, APIS IQRM, JIRA, DOORS, PTC integrity, MS Visio, Code Beamer, ISO Graph, MS- Office, MS-Excel
- **Standards** : ISO-26262, ISO-21434, ARP 4754A, DO-178B/C
- **Automotive Products** : Semiconductor (SERDES) chip, Lidar Sensor, Digital Cockpit Cluster (Teltales), ADAS (VDM), PIU Controller.

Education Details

- 2002 - 2006 B. Tech, Electronics & communication Engg, Aggregate 65.7%, JNTU, Hyderabad

Certification Details

- ISO 26262 : 2018 – Level 1 FUSA Certification by TÜV SÜD India Private Limited.
- ISO 21434 : 2021 – Cyber Security Certification by TÜV SÜD India Private Limited.
- Six Sigma Green Belt Certification

Language Proficiency

- English - C1, German - A1

Professional Experience

Nov 2022 – Sep 2024 Spyro-soft India Private Ltd, Senior Functional Safety Engineer

Bangalore

- Responbile for defining FUSA scope, Safety plan and DIA agreement with OEMS/Tier1 for camera SERDES Chip,
- Leading and Tracking of FUSA activistas for Camera SERDES Chip as per defined FS milestone Gates.
- Responsible & creation of Safety process documentación (i.e Cheklist, Template .). as per ISO 26262 standards.
- Developing and Technical Review of various Functional Safety work Products (i.e HARA, SG, FSC. TSC, FMEDA...).
- Managing Technical discussion with internal Teams, external suppliers and chip Safety IPS Vendors.
- Provided Technical Support for all the safety queries coming from stakeholders across the project Team.
- Participating into internal and external Quality Team, Safety Team audit & assesments process.

Nov 2021 – Oct 2022 Velodyne Lidar India Private Ltd, Sr. Staff Engineer (Functional safety)

Bengaluru

- Creation of Functional safety work products for LIDAR product as per Fusa Standards.
- Updating Item definition, HARA, Safety Goals, Functional Safety concept & requirements
- Developed the Technical safety concept documents & safety requirements for M1600 Lidar.
- Created FUSA checklist and templates w.r.t Part - 4, 8, and 9 as per ISO: 26262-2018.
- Performed Safety Analysis i.e., FMEA, FTA in Medini at the system level.
- Involved in technical discussions with System, S/W, H/W, external 3rd party consults, & end customers
- Supported the safety case and DIA document updating along with the FUSA manager.
- Directly Reporting work status to VP Engineering director and FUSA manager.

May 2020 – Oct 2021 Harman International, Senior Engineer (Functional Safety)

Bengaluru

- Participated in Technical review of Item Definition, SG, Hazard Analysis, and risk assessment (HARA) of Digital cockpit safety features like “Safety Telltales” and “Audio chime”.
- Developing Technical safety Concepts (TSC) and technical Safety Requirements (TSR).
- Performed the System FTA, FMEA analysis on Digital cockpit safety components/features.
- Performed SW HAZOP analysis for SOC, IOC SW components for Digital cockpit Platform.
- Participating in technical reviews of System Architecture design, Safety analysis, Safety requirements, and stakeholders’ meetings.
- Involved in discussion with global customers (Europe, India) regarding ICC safety Feature.
- Presented Functional safety topics in weekly global FUSA team meetings.
- Involved in internal technical reviews and audit & assessments for ICC safety Feature.

Jan 2019 – Apr 2020 KPIT Technologies, Technical Lead (Functional safety Engineer)

Bengaluru

- Involved in analyzing Item Definition, HARA. Functional Safety Concept and FSC, FSRs.
- Developing technical safety Concepts (TSC), technical Safety Req’s (TSR) from FSC, FSR, SG.
- Performed S/W FMEA and System FTA analysis for the VDMSW module.
- Derived the S/W Safety Requirements (SSR) for Vehicle Chassis system (VDM) from TSC, TSR.
- Participating in project technical-related reviews meetings and stakeholders’ meetings.
- Involved in Customer technical discussion and review discussions, Audit & assessments.
- Successfully handled Work products coordination for customers in Europe, Japan, and China.

Mar 2017 – Oct 2018 AXISCADES Technologies Limited, Technical Lead (V&V Engineer)

Bengaluru

- Analysis and understanding of FMS Low level design documents & Low-Level Requirements.
- Created the Unit test strategy, Unit case development, and Execution for FMS modules.
- Understanding the work package description and providing an estimation w.r.t Unit testing.
- Planning, Designing, creation and verification of Unit test cases using Vector cast tool.
- Collaborated with the System, S/W teams to address technical problems raised by the team.
- Involved in setting up Test Environment by coordinating with the other team members.
- Participated in project-related reviews of requirements and stakeholders’ meetings.

Nov 2009 – Jan 2017 Honeywell International, Senior Engineer (System Engineering, V&V)

Bengaluru

- Analyzing OEM customers Req’s and developed corresponding system-level Req’s for D&G systems.
 - Developed the MATLAB models for various display pages (Electrical, Hydraulics.) using Honeywell proprietary tool HAM and generated the software code.
 - Performed validation of System-level requirements related to GGF models (i.e. Electrical, Hydraulics, Electrical, and ECS systems) for MFD displays.
 - Analysis and Understanding of Low-Level Requirements related to FMS functionality.
 - Executed the Functional Test Cases and Unit & Integration Test Cases both in a PC environment and SBC (H/W) target Environment.
 - Preparing the traceability between Test cases and the Requirements.
 - Performed Unit, Integration Testing, Regression testing, and Structural Coverage Analysis (SCA) for FMS Modules.
 - Logging the Technical Defects/Problem Reports in the JIRA Tool.
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