

## **Position – Sensor System**

Qualification - Bachelor of Technology (B.Tech) / (B.E) in Mechatronics,ECE, EEE

Experience – 10 + Yrs

Location – Hosur

Company Name – India Nippon Electricals Ltd

## **Job Responsibilities**

- To define system level sensor architecture for Automotive and Non-Automotive segment
- Feasibility analysis of sensor interface and sensor design as per customer requirement and ISO26262
- Defining terminal diagram/ wiring harness diagram with relevant safety mechanism( Integrated coupler, Case, etc)
- Conducting system level DFMEA & FTA
- Capturing system level requirement receiving from customer and implementing it in-coordination with HW/SW
- Design, develop the hardware and software interfaces to integrate the system, instrumenting and troubleshooting system components for testing, analysing test data, and recommending solutions for test failures.
- Collaborate with mechanical engineers, firmware developers, product management and manufacturing operations for Develop and support integration of electronic and electrical systems.
- working with sensor element suppliers and chose the right sensor element for different sensor application. Work with purchase team for costing of the sensor elements and other child parts.
- System level testing and validation of the product both on the test bench and the vehicle.
- Market research of different sensor technologies and applications in Automotive and non-Automotive industry and define a roadmap for Sensor products for the organization.
- Writing and delivering technical documents and briefings to various audiences.
- EMC/EMI design practices and the relevant validation testing
- Optimization of Sensor designs to meet the target BoM cost. Working with the purchase teams for BoM cost optimization.
- Project Planning and execution to meet customer and internal schedules.

## **Technical Skills:**

- Understanding of different types of sensors applications & their control strategies. Temperature, Pressure, Speed and Hall effect based sensors in particular
- Micro-controller design/algorithm used for sensor design
- Circuit design & Power Electronics design for sensor design
- Knowledge of Automotive electronics or Mechatronics products
- System FMEA/FTA/Safety standards ISO 26262
- Packaging of sensor elements and circuitry. Packaging for reliability and robustness as per customer requirement. Knowledge of molding/welding/potting etc
- Understanding of Sensor manufacturing processes for different types of sensors. Defining EoL Specs. Support to process team to define process flow.
- Validation plan design for sensors