

Senior Autonomous Driving Systems Engineer (car)

Embotech is an award-winning software scale-up developing cutting edge autonomous driving technology and solutions for autonomous vehicles, with focus on private ground applications such as logistics yards, Autonomous Valet Parking (AVP) and mining. We are accelerating the transition towards safe autonomous transportation by leveraging the real-time optimization technology that we have been developing since 2012.

The recently established Safety & Systems Engineering (SSE) team is looking for an experienced engineer with robotics or AD background to lead the design, development and safety certification of an infrastructure-based autonomous driving system. In such a system, the sensing and computation are located off-board the vehicle, mounted in the infrastructure. Use cases include car logistics, where modification of vehicles is kept to the minimum.

The key challenges addressed by the Technical Lead Infrastructure-based AD System are:

- System design & implementation of safe autonomous driving systems for automated car logistics, or “Type-2 AVP”, where the car has little or no intelligence or sensing onboard
- Vehicles need to be remote-controlled through smart infrastructure
- Distributed system architecture for safety-critical autonomous driving applications
- Definition of items, units, components, and their respective safety goals
- Certification up to ASIL B / PL d / SIL 2
- Documentation for safety audits
- Supplier management, for sensors, computational platforms and low-level control systems.
- Delivery of highly available, safe, and efficient automation systems to customers world-wide

As announced at IAA 2021 in Munich, Embotech is closely working with Valeo (perception, safety) and NTT Data (IT infrastructure, connectivity, operations) on the topic of AVP Type-2. This position entails leading the cooperation with the technical teams of these partners.

Responsibilities

- Design a safe autonomous driving system for world-wide deployment
- System-wide hazard and risk analysis
- Safety concept according to ISO 26262, 13849 or 61508 (together with safety experts)
- Requirements management for components
- Define requirements for suppliers and Embotech-internal SW teams
- Key technical contact towards key accounts, customers and partners
- Participation in customer meetings during sales process

Basic Requirements

- Master’s degree in electrical, mechanical, aerospace or similar

- At least 5 years of experience with robotics/ autonomous systems, from perception to controls in an industrial environment
- Experience with high-availability, resilient systems
- Exposure to software-defined systems
- Experience in leading project teams and organizing large development projects
- Evidence of successful customer deliveries of critical systems (e.g. a rover to NASA)

As a PLUS, you have experience with:

- Perception algorithms and their implementation
- Safety concepts & certification and validation
- Systems engineering and requirements management
- Safety-critical systems in regulated industries