

Job Description



Role Title: Systems Architect

Reporting to: Chief Engineer - Systems Engineering

Role Purpose:

We are seeking a highly skilled and experienced System Architect, who will be an essential member of Lorillion's Systems Engineering team. The successful candidate will be responsible for shaping/refining the approach to Systems Engineering and ensuring the delivery and quality of Systems artefacts. Lorillion employs Systems Engineering as a backbone to all our external and internal projects and so following a well defined systems approach is essential to our business' success.

The successful applicant will be responsible for delivering our System Designs from Stakeholder Requirements Elicitation through to the cascade of a detailed system design to both internal and external delivery teams. The majority of Lorillion's projects are safety critical and so the ideal candidate will have a deep understanding of system architecture, high-integrity system requirements, and the ability to ensure the highest levels of safety, security, and reliability.

Key Responsibilities:

Organisational Activities

- Develop, apply and adapt systems engineering processes and methods to new and existing technical fields and applications.
- Mentor systems engineers in the application of the defined system architecture.
- Develop work packages for Systems Engineers and Supporting Business functions.
- Actively promote a systematic approach in and outside of the business.
- Align Systems Engineering processes and work products with adjacent teams.

Key Role Tasks

- Liaise with stakeholders to elicit system and architectural requirements.
- Define Logical architectures to define system features and functions and associated requirements.
- Propose, review, analyse and agree architectural options to document the most appropriate system architecture(s) according to the requirements.
- Analyse and define system features and attributes to inform the creation of the most appropriate system architecture.
- Conduct appropriate analysis (use cases, sequence diagrams, simulations, state machines etc.) for defining system behaviour and application to the system architecture.

- Ensure traceability within the Systems design activities and work output.
- Analyse and define physical architecture and interfaces.
- Support the system level fault response and reconfiguration activities.
- Support reliability and safety analysis (e.g. ITD, FMEA, FTA, HARA etc.)
- Use requirements management tools for capturing requirements at all levels and generating specification documents.
- Ensure that the system architecture effectively supports integration and test activities.
- Ensure project documentation is correctly managed, maintained and released in line with company processes and standards.
- Deliver engineering tasks in line with project milestones.
- Support the governance of requirements management processes, toolchain, and model ontology

Qualifications, Experience and Skills Required:

- A degree or similar qualification in an engineering discipline.
- At least 10 years relevant experience of system design at a senior level and a proven track record of delivering complex system architectures for high integrity software intensive systems.
- A sound understanding of engineering, physics and applied mathematics and their application to solving real world problems.
- Extensive use of SysML, and architecture modelling software.
- An in depth knowledge of requirements management processes, procedures and associated tools.
- Experience applying robustness processes such as FMEA, FTA, HARA, PHA etc.
- Practical experience in applying ISO/IEC/IEEE 15288.

Preferred:

- Degree with a strong systems engineering content
- Familiarity with process frameworks e.g. automotive spice and systems engineering processes from requirements validation, through to system verification.
- Experience of Business Management Systems including ISO9001.
- Familiar with delivering projects to APQP requirements or a similar quality driven system.
- Experience of electrical and electronic system design.
- Experience of Controls and Software development processes.

Personal Attributes:

- Self-motivated, creative and an adaptive team player.
- Willingness to take on roles, responsibilities and challenges required to achieve company goals and objectives.
- Excellent problem solving and analytical skills.
- Able to prioritise and organise multiple projects, workloads, schedules, and tasks.
- Strong presentation, report writing and communication skills.
- Strong interpersonal skills are essential in this role

System or Knowledge

- Deep understanding of system architecture principles and design patterns.
- Proficiency in systems engineering methodologies, including requirements management, risk analysis, and validation/verification.
- Strong knowledge of industry standards and regulatory requirements for high-integrity systems (e.g., ISO 26262, DO-178C, IEC 61508).

Location and Travel:

- You must be eligible to work in the **UK / Czech Republic** and have no restrictions for world-wide travel.
- This role is based at our Head Office in the **UK / Czech Republic**, with flexibility for remote working.
- Working hours are 0900 to 1700, including 30-minute paid break 5 days a week, however frequent travel is expected, and flexible working patterns are essential to the role.