enatel

Position Description

Position: Senior Hardware Engineer (Level II)
Department: Engineering
Reports to: Power Conversion and Energy Storage Lead
Direct Reports: None

Position purpose:

As a Senior Hardware Engineer, you will leverage your specialised skills to work through multiple, simultaneous, complex, and unique product design and development situations that can have a high degree of uncertainty. You will play an active part in the planning of current and future products as well as relevant quality checks throughout the development process to verify they conform to specification.

You will also provide leadership, coaching, support, and development of team members across engineering at as technical level. This includes aligning, motivating, and inspiring our next generation of engineers.

Key responsibilities:

- Working with Internal and External Customers
    - Fully understand the internal and external customer relationships and requirements.
    - Understands stakeholder needs and expectations and monitors for changes in stakeholder requirements.
    - Manage stakeholder expectations at all levels of the business.
- Leadership
    - Lead team members through investigation, planning and implementation of design solutions that meet customer needs.
    - Provide leadership coaching, support, and development of other team members across engineering.
    - Identify and implement opportunities for improvement within the team.
- Product Design, Verification, and ongoing Support
    - Understand user needs, align with different stakeholders, study systems flow and integration, define required work processes, and investigate any problem areas.
    - Determine feasibility by evaluating analysis, problem definitions, requirements, and alternative solutions.
    - Support in the creation of high quality product design specifications.
    - Develop and maintain high quality designs and architecture across multiple products and product families, including product functionality, reliability, design for manufacture, test & compliance, ease of use and maintainability.
    - Develop and maintain cost-effective solutions by producing clean, efficient and value-orientated designs.
    - Identify, prioritise, and execute tasks across the entire development life cycle from requirements capture to design integration, verification, and customer validation.
    - Automate tasks through appropriate tools and scripting where appropriate.
    - Review and improve designs using data from multiple sources (e.g., RMA, production, and test yield etc.), ensuring all designs are up to date and aligned with the latest technologies.
    - Escalate issues and risks in a timely manner.
    - Work to plan and commit to schedule.
    - Support, modify, enhance, and maintain existing Enatel product designs including timely resolution of any Product Holds.
- Design Lifecycle Management

- Conform to hardware development processes, tools, and standards (including design, documentation, environment, change and configuration management standards) while continuously improving on them throughout the entire design lifecycle.
- Continually improve and review quality control processes, including relevant standards, peer review process, testing, and integration processes.

The Senior Hardware Engineer is a member of the Research and Development Team. As a member of this team, you are expected to take an interest and give significant input and advice into projects being worked on by other members of the team.

Other duties:

- Upholds the company values.
- Perform any other tasks as required by your Team Leader and/or the business.
- Contributes to the achievements of department goals and objectives.

Health & Safety:

- Ensuring all Health & Safety policies and rules are followed, with all tasks completed in a safety conscious manner.
- Maintaining a safe and clean working environment by complying with Enatel Policy and Procedures.
- Leads by example in all matters relating to Health & Safety.

Environmental:

Enatel is committed to minimising the environmental impact of our operations and products.

- Ensuring Environmental policies and processes are followed.

Key Relationships:

Internal	External
• Sales/Marketing team, Product Management	• Customers
• Project Management	• Third party manufacturers & other suppliers
• Engineering teams including Engineering Services, CAD Services, Systems Solutions and Power Management.	• Contractors
• Operations team including manufacturing, sourcing, logistics	
• Other Enatel departments as required	

Person Specification:

	Essential	**Desirable**
Competencies	• **Functional/Technical Skills** - has the functional and technical knowledge and skills to do the job at a high level of accomplishment. • **Action orientated** - enjoys working hard and is full of energy for the things he/she sees as challenging. • **Process Management** – good at figuring out the processes necessary to get things done. Can simplify complex processes. • **Learning Agility** - the ability to learn quickly in a new environment. • **Problem Solving** – looks for opportunities to resolve issues and solve problems. Learns quickly when facing new problems.	

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<tr><td></td><td colspan="2">• Integrity and Trust – is seen as a direct, truthful individual; is widely trusted.
• Ethics & Values - Has an appropriate and effective set of core values and beliefs, and acts in line with those values at all times.</td></tr>
<tr><td>Skills, Experience & Knowledge</td><td>8+ years proven experience in embedded hardware development.

Full competency, supported by deep knowledge and broad experience in the following:
• A Power electronics background, including experience with Buck-Boost, Flyback, SEPIC/Cuk, DAB and LLC.
• Further experience in Magnetic Design – Inductor, Transformer, Material Selection, Parametric Design.
• Designing and building multiple hardware solutions simultaneously that have been delivered to customers on time, to budget and to the required quality standards (includes scope).
• Simulation tools (LtSpice, Tina, Micro-Cap), Mathcad (Maxima, Scilab, Python), thermal, magnetic, and electric field FEA and project management techniques.
• National and international regulatory frameworks including UL, RCM, CE, CEC, FCC and CB as well European directives (low-voltage, EMC, RED).
• Altium.
• Design for EMC/EMI and design for manufacture.
• Hardware test and monitoring tools (oscilloscope, spectrum analyser and power meters).
• Differing SMPS topologies, PCB layout for power solutions (including creepage and clearance distances) and SMPS design (closed loop control, amplifier / magnetics design and noise control).</td><td>FPGA/CLPD design (VHDL or similar).

Battery and battery pack design using various battery technologies (including lithium cells).</td></tr>
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	• Agile development tools and techniques including scrum and Kanban. • Configuration management and change control. • Electronics design, including the ability to understand and navigate electrical schematics. The individual is regarded as a thought leader in their respective field. Ability to take a project from significant uncertainty in the early discovery phases through product launch. Strong commercial and business acumen. Good financial, reporting, and quantitative skills. Analytical mind with problem-solving aptitude. Ability to work independently. Excellent organizational and leadership skills.	
Qualification / Licenses	Degree in electrical / electronic engineering or equivalent vocational training.	Membership of a relevant industry body (e.g., IEEE)