Traco Power Solutions Limited
Whitemill Industrial Estate
Whitemill Road
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Ireland

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Traco Power Solutions are developing power supplies for Industrial, IT, Household, Medical, Electro-mobility and Solar Applications in Wexford and Cork (Ireland) and our manufacturing facilities are in Asia and Ireland. We want to strengthen our R&D. We offer a dynamic and challenging work environment. If you're a highly motivated individual with a passion for R&D, Technology, Power Electronics, Lean Manufacturing, this role offers an exciting opportunity to be at the forefront of Digital Power supply design and contribute to innovative solutions for diverse applications. If you are passionate about Power Electronics, have the necessary qualifications, and are eager to work on safety certification, DfM, DtC, FMEA, troubleshooting, and innovation, we encourage you to apply and become a valuable part of our team in Cork or Wexford, Ireland.

Job Title: **R&D Power Electronics Engineer**

Location: Wexford or Cork

Report to: R&D Manager

Location: Cork or Wexford, Ireland

Job Description:

As a Power Electronics engineer in Cork or Wexford, Ireland, you will be a key player in designing or supporting the Lead designer and optimizing digitally controlled power supply systems. Your knowledge in power electronics and control theory will be helpful in developing cutting-edge solutions for a wide range of applications. While firmware design is not required, a basic understanding of control theory is highly advantageous. Furthermore, this position is ideal for individuals who need a mentor to develop their knowledge by shadowing an Expert.

Key Responsibilities:

- **Power Supply Design**: Design or support the design and development of advanced digitally controlled power supply systems tailored to meet specific customer requirements and industry standards.
- **Component Selection**: Help to Identify and select key components, such as semiconductors, transformers, and capacitors, to achieve optimal performance and efficiency.
- **Control Theory Application**: Apply your knowledge of control theory to implement and fine-tune control algorithms for power supply systems, ensuring stable and precise operation.
- **Efficiency Optimization**: Focus on maximizing power conversion efficiency while minimizing losses to deliver energy-efficient solutions.
- **Electromagnetic Compatibility (EMC):** Address EMC considerations to ensure that power supplies comply with electromagnetic interference (EMI) and electromagnetic compatibility (EMC) standards.
- **Safety Certification**: Ensure that power supply designs meet relevant safety standards and work on obtaining necessary certifications.
- **Design-for-Manufacturing (DfM**): Collaborate with manufacturing teams to design products that are optimized for efficient and cost-effective production.
- **Design-to-Cost (DtC):** Work to meet cost targets while maintaining quality and performance standards.
- **Failure Modes and Effects Analysis (FMEA)**: Conduct FMEA assessments to identify potential failure modes and develop mitigation strategies.
- **Troubleshooting**: Investigate and resolve technical issues during the design and testing phases.
- **Innovation:** Stay current with emerging technologies and trends in power electronics and bring innovative ideas to enhance product performance and features.

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Qualifications:

- PhD, Master degree in Electrical Engineering or a related field
- Graduates are accepted.
- 1 experience in power electronics or power supply design.
- Small signal analog electronics
- Good understanding of control theory and its application in power electronics.
- Electronic laboratory equipment
- Strong analytical and problem-solving skills.
- Excellent communication and teamwork skills.
- Experience with simulation tools (e.g., SPICE, SIMETRIX, FEMM).
- Prior experience working in power electronics or related industries in Ireland is advantageous.

Personality

- Autonomous and self-motivated
- Attention to detail
- Effective and pleasant communication skills
- High flexibility
- Teamwork
- Resilient
- Speak with data
- San Gen Shugi attitude

Why to join Traco Power Solutions?

- Competitive salary and bonus system
- Good work-life balance with flexible working hours
- Flat and small size organization
- Empowerment of employees
- Unique opportunity to learn technical subjects in depth
- Make tangible things with visible results quickly
- Contribute to sustainable development through technology
- International and multicultural environment

Please send your application documents to admin@tracopower.ie