



Research & Development Engineer

About us

Centiel SA is a technology company based in Switzerland that designs, manufactures, and delivers industry-leading power protection solutions for critical infrastructure. Our range of class-leading, high-efficiency UPS systems provides maximum availability and reliability, and has been developed by the innovators of the first transformerless UPS and the world's first three-phase modular UPS.

Centiel operates in over 50 countries, with more than 80 partners and 8 subsidiaries worldwide. This rapidly expanding network delivers best-in-class power protection solutions across the globe.

Note: In line with our strategic growth, we are proactively collecting applications for this position as part of a forward-looking recruiting initiative. This means we are evaluating candidate profiles today to anticipate future hiring needs aligned with our development plans.

Who we are looking for

To strengthen our product innovation, we are seeking a **Research & Development Engineer** with solid expertise in power electronics control and embedded systems for high-reliability industrial products (UPS or similar).

You are a hands-on engineer with strong analytical skills and lab practice, able to design, implement, and validate control algorithms and embedded firmware/hardware, collaborating closely with Production, Quality, and After-Sales to deliver robust features to market.

- Workplace: Cadro (Lugano), Switzerland
- Reporting to: Head of R&D
- Working rate: 100%

Role purpose

The **Research & Development Engineer** will contribute to the design, development, and validation of Centiel's UPS technologies, focusing on power conversion control, development of power HW for converters, development of electronic boards and the engineering of the entire system (UPS).

You will play a key role in advancing our UPS platform architecture by implementing new technologies for converters, supporting hardware/firmware implementation, and ensuring robust system performance through laboratory testing, simulation, and field-issue analysis.

Your work will directly support product innovation, industrialization, and continuous improvement across the company.

Key responsibilities

- Design, model, and tune control algorithms for AC/DC, DC/AC and DC/DC power converters
- Development of power HW for converters
- Collaborate on the design and improvement of control electronics and associated peripherals
- Execute laboratory testing, simulation, and validation of power conversion systems
- Perform root-cause analysis (RCA) and support resolution of field and production issues
- Ensure design for reliability, manufacturability, and serviceability (DfX)
- Create and maintain technical documentation, test reports, and release notes
- Support industrialization and product lifecycle maintenance for existing platforms
- Work cross-functionally with Production, Quality, After-Sales and Product Management
- Ensure compliance with internal quality processes, safety standards, and EMC best practices

Qualifications & experience

- Degree in Electrical / Electronic Engineering (or equivalent technical field)
- Experience in power electronics for industrial or high-reliability systems (UPS, drives, converters, energy storage, power systems)
- Knowledge of power converter topologies (AC/DC, DC/AC, DC/DC), modulation and protection strategies
- Experience with laboratory measurement equipment (oscilloscope, power analyzers, electronic loads)
- Familiarity with simulation environments (e.g., MATLAB/Simulink or equivalent)
- Understanding of electronics design fundamentals, schematics and PCB basics
- Experience in debug, validation and problem-solving on hardware/firmware systems
- Ability to produce technical documentation, test reports and validation procedures
- Strong analytical mindset and structured engineering approach
- Fluency in English; Italian or another European language is an advantage
- Eligible to work in Switzerland / EU

Nice to have

- Hands-on experience with DSP/MCU-based real-time control and C/C++ embedded programming
- Experience with EMC considerations, safety standards and certification processes
- Knowledge of CAN / Modbus / Ethernet-based protocols
- Experience in industrialization or DfX (design for manufacturing/serviceability/reliability)

Skills & competencies

- Strong analytical and problem-solving mindset with attention to technical detail
- Ability to work methodically in a lab environment and validate solutions experimentally
- Structured and autonomous approach to engineering tasks and documentation
- Ability to collaborate effectively with cross-functional teams (Production, Quality, After-Sales)
- Clear and effective technical communication, written and verbal
- Proactive, curious, and improvement-driven attitude
- Ability to prioritize tasks and manage deliverables within defined timelines
- Hands-on, pragmatic, and solution-oriented approach under pressure

Company values & behavioural competencies

At Centiel, our values guide both our decisions and our daily behaviour.

They define who we are and how we act — shaping the way we work together, serve our customers, and drive innovation.

- Safety, integrity, respect, teamwork – act with honesty and care for people and the environment.
- Own it – act with urgency – take responsibility, make things happen, and deliver with commitment.
- Foster a customer-first mindset – listen, anticipate needs, and create lasting value through service excellence.
- Lead by example – drive continuous improvement – challenge the status quo and share knowledge to grow together.
- Think big and execute – combine ambition and discipline to turn ideas into tangible results.

Every Centiel employee is expected to embody these values through proactive problem-solving, transparent collaboration, and a continuous desire to learn, improve, and contribute positively to our culture and brand.

Expected results in the first 6–12 months

- Demonstrate successful lab validation of converters used in UPS, and of control electronics and associated peripherals
- Support resolution of field and production technical issues through corrective actions
- Produce clear and complete technical documentation (test plans, reports, release notes) ready for audit
- Collaborate effectively with Production, Quality, and After-Sales to support product reliability and deployment
- Contribute to performance improvements and feature enhancements on existing UPS platforms

Contract details

- Permanent full-time contract (100%)
- Start date: TBD

What we offer

- Competitive salary aligned with responsibilities
- High degree of autonomy and trust
- Inclusive and dynamic work environment
- Free parking, showers, and locker rooms
- Close to public transport and nature trails
- Support for work-life balance and wellbeing

How to apply

If you identify with this role and are interested in joining us, please send your application, indicating **“Research & Development Engineer”** in the subject line, and include your CV and relevant certificates to:

hr@hq.centiel.com.