



Lead Principal System Concept Engineer – Industrial Microcontrollers (f/m/div)*

Job description

We are growing! We are extending our activities at our site in Graz in the field of microcontroller applications for motor control, home appliances and factory automation in deep-submicron technologies. Therefore, we are establishing a new team and are looking for Lead Principal System Concept Engineer to join us. If you want to be part of our success story, apply now!

Our Development Center in Graz is working on leading edge security technologies for the connected world. Now we are growing in the field of microcontroller applications for motor control, home appliances and factory automation in deep-submicron technologies. Therefore we are establishing a new team and are looking for the best talents to join us.

This engineering position involves architecture and development of microcontroller (MCU) based embedded signal processing and control systems solutions for power conversion / motor control applications.

Your new role includes:

- **System Knowledge:** develop and apply system expertise in a given application area to define next generation MCU devices and associated enablement
- **Control Systems:** analyze and verify advanced control systems for target applications
- **Signal Processing:** understanding of algorithm requirements to estimate motor parameters from sensors (e.g. shunt resistors, hall effect sensors), acceleration sensors (e.g. accelerometers), flux sensors (e.g. flux gate) and to intelligently incorporate sensor data into embedded motor control application areas
- **Hardware Design:** define analog front end hardware requirements to interface sensor and gate driver signal paths to MCUs and work with board designers to develop prototype systems
- **Architecture:** provide HW/SW partitioning analysis for most efficient system implementation. Development of real-time MCU processor solutions, which include understanding of *MCU HW architectures to configure necessary HW components needed to implement a given solution
- **Customer Interactions:** work with business units to engage with customers, demonstrate system knowledge and provide system support
- **Intellectual Property :** generate patents to protect ICW Technology and Innovation position in the application areas
- **Emerging Technologies:** monitor competitive landscape for performance benchmark relative to competition and find new applications/opportunities

At a glance

Location: **Graz (Austria)**
Job ID: **324783**
Start date: **as soon as possible**
Entry level: **5+ years**
Type: **Full time**
Contract: **Permanent**

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Contact

Christina Walder
Talent Attraction Manager



- **Analyzation of competitor** landscape and identifying areas of differentiation

Profile

As a true **team player**, you treat your colleagues with respect and trust. You can convince with a **structured** and **precise way of working**. You are a **good networker** and have **strong communication** and solid **problem solving skills** and a strong **focus on quality**. You like to **collaborate** with **different stakeholders**.

You are best equipped for this task if you have:

- **University Degree (Master) Electrical or Computer Engineering** or comparable
- **Signal processing algorithm design experience** that uses electro-mechanical sensors (e.g. resistors, hall effect sensors, accelerometers, flux gate) or position sensors (e.g. encoders)
- Proficient knowledge of **Matlab/Simulink** to develop system simulations that include sensor models and circuit components to analyze the potential HWSW solutions that include analog to digital converters, digital to analog or PWM signals.
- Familiarity with **analog circuit simulation tools** (Spice, PLECS, etc) and basic **digital design principles** (RTL level gate simulations and design)
- Experience in resolving differences between simulation and real time prototype designs to demonstrate value in the proposed solution
- Proficient knowledge of **C programming language**, real-time embedded software /operating system and experience with **SW development tools** (e.g. CCS/Eclipse) and MCU programming environments
- Fluent **English** skills with **German** as a plus

This position is subject to the collective agreement for workers and employees in the electrical and electronics industry, employment group I-J (<https://www.feei.at/leistungen/informations-service/mindestloehne-und-gehalter-2020>). A higher payment is negotiable depending on your expertise and skills.

Benefits

- **Graz:** Coaching, mentoring networking possibilities; Wide range of training offers & planning of career development; International assignments; Different career paths: Project Management, Technical Ladder, Management & Individual Contributor; Flexible working conditions; Home office options; Part-time work possible (also during parental leave); Sabbatical; On-site social counselling and works doctor; Health promotion programs; Discounted lunch possibilities; Private insurance offers; Corporate pension benefits; Flexible transition into retirement; Performance bonus; Accessibility, access for wheelchairs

Why Us

Part of your life. Part of tomorrow.

We make life easier, safer and greener – with technology that achieves more, consumes less and is accessible to everyone. Microelectronics from Infineon is the key to a better future. Efficient use of energy, environmentally-friendly mobility and security in a connected world – we solve some of the most critical challenges that our society faces while taking a conscientious approach to the use of natural resources.

The **Development Center of Infineon in Graz** is working on leading edge contactless, security and sensor technologies. Whether we are talking about the Near Field Communication (NFC) transmission standard, vehicle components for Radar, optical distance measurements or 3D image sensor chips for Augmented Reality and Virtual Reality – our Development Center is a driving force in innovations in security, mobility, and the Internet of Things.



– Connected Secure Systems (CSS) delivers security for the connected world –

The Connected Secure Systems (CSS) segment offers comprehensive systems for a secure, networked world with a portfolio built around reliable, trendsetting microcontrollers as well as wireless connectivity and security solutions. Over the past decades, CSS has developed microcontroller, Wi-Fi, Bluetooth and combined connectivity solutions (known as connectivity combos) and hardware-based security technologies. The products are used in a broad range of applications: from consumer electronics, IoT and home appliances to IT equipment, cloud security and networked cars all the way to credit and debit cards, electronic passports and IDs. With its leading technologies in the areas of computing, connectivity and security, CSS makes a decisive contribution to protecting today's and tomorrow's networked systems.

For more information about working at CSS with interesting employee and management insights and an overview with more #CSSDreamJobs.

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**The term gender in the sense of the General Equal Treatment Act (GETA) or other national legislation refers to the biological assignment to a gender group. At Infineon we are proud to embrace (gender) diversity, including female, male and diverse.*

