

Embedded Systems Engineer

Company Overview: Sentek Instrument LLC is a high-tech company specializing in developing and manufacturing unique sensor instruments to meet critical and long-standing sensing needs unmet by other commercial offerings. Operating within the Virginia Tech Corporate Research Center, we are at the forefront of innovation across multiple fast-growing industries.

Position Overview:

We are seeking a highly skilled and motivated Embedded Systems Engineer to join our dynamic team. In this role, you will play a key part in the research, development, and production of advanced sensor technologies, contributing to innovative solutions with real-world impact.

Responsibilities:

- Design PCBs.
- Code custom FPGA systems.
- Collaborate with cross-functional teams to integrate FPGA solutions into complete sensor systems.
- Build and optimize sensor interrogation instruments.

Qualifications:

- Bachelor's or advanced degree in Computer Engineering, Electrical Engineering, or a related field.
- Strong foundation in digital design principles and FPGA architectures.
- Proven experience with Zynq FPGA development for:
 - High-speed (>100 MHz) ADC data acquisition
 - Complex signal processing
 - USB 3.0 data transmission to a PC
- Prior experience in PCB layout and RF electronics.
- Knowledge of high-speed analog electronic design.
- Skills in C coding TMS320 MCU a plus.
- Strong problem-solving skills and the ability to work independently or collaboratively.
- Goal-oriented mindset with excellent communication skills.

Benefits:

- Competitive compensation package.
- 401(k) matching and retirement plan.
- Paid time off (PTO) and health benefits.
- Opportunities for professional growth in a fast-paced, innovative environment.

Location: Blacksburg, Virginia—a college town offering a high quality of life, excellent schools, and ample outdoor activities. It's a welcoming community ideal for both individuals and families.

Equal Opportunity Employer: Sentek Instrument LLC is an equal opportunity employer committed to creating an inclusive workplace for all employees regardless of background.

How to Apply: To apply, please send your resume and cover letter to hr@sentekinstrument.com. We look forward to exploring how you can contribute to our team's success.