

WE ARE OFFERING AN EXCITING POSITION IN THE **DIGITAL SYSTEMS** GROUP AT OUR ERLANGEN LOCATION, LOOKING FOR A:

# HARDWARE AND SYSTEM ARCHITECT FOR DIGITAL CIRCUIT TECHNOLOGY FOR ASIC AND SYSTEM-ON-CHIP (SOC)

As a hardware and system architect, you will specify, design and verify hardware components for complex ASICs and SoCs with embedded microprocessors in SystemVerilog / Verilog as well as for firmware components in C(++) or Assembler. In addition, you will develop SoC microarchitectures and hardware/software partitioning algorithms, and analyze them for efficiency. You will also construct and assess FPGA-based prototypes. Other duties include providing support for project planning and cost estimates.

## Required

- A degree in electrical engineering, IT, physics, or similar subject with above-average grades
- Deep knowledge of digital circuit design
- Experience with Verilog / SystemVerilog / (VHDL) modeling and verification
- Experience working with simulation and synthesis tools
- Experience with coding, debugging and optimization in C(++) and Assembler
- Interest in having contact with customers
- Excellent written and spoken English

## Preferred

- Project experience in low-power or high-speed ASIC design
- Familiarity with industry standards
- Ethernet 10/100/1000/10000 Base-T
- PCIe, MIPI CSIx
- DDRx, LPDDRx
- AHB, AXI, APB
- Knowledge of Network on Chip (NoC) technology
- Experience with embedded microprocessors such as RISC-V, MIPS or ARM
- A high degree of creativity, independence and individual responsibility
- A structured, team-oriented way of working

The position is also suitable for those just **beginning their careers** with appropriate **knowledge and experience from internships, their studies or dissertations**. Suitable candidates may have the option of working towards their doctorate.

## What you can expect from us

- **Multifaceted projects** with high **relevance for practical application**, featuring **interdisciplinary system aspects**
- **Teams** that work on a broad range of **design activities**, from **industrial advances** to the development of **scientific prototypes in cutting-edge technologies**
- An **open, communicative and collegial working environment**
- **Freedom** to exercise a high degree of **independence and individual responsibility** in organizing work
- Professional development through **further training/education**
- A good **work-life balance** thanks to flexible working hours and support offers that help in balancing private life and career
- **Equal opportunity** employer of both men and women

Employment, salary and social benefits are in line with the labor contract for the public sector (TVöD). The position is initially limited to two years.

We are one of Europe's leaders in IC design, specializing in the development of innovative systems. Our many years of design experience are supplemented by deep systems expertise in multimedia, digital communications, image processing and sensor systems. Our scientists develop solutions that flow into applications in the automotive sector, industrial electronics, data transmission and processing, plus lifestyle and medical technology products, where they enjoy widespread use. At the core of our research and development activities is the design of digital and mixed-signal circuits and systems.

Fraunhofer is the largest organization for applied research in Europe. Our research areas focus on people's needs: health, safety, security, communication, mobility, energy and the environment. We are creative, we shape technology, we design products, we improve processes, we open up new paths.

**Please submit your complete written application (cover letter, CV, references all as PDFs) with reference number IIS-2018-106et**

**to: Meike Hillenbrand, <https://recruiting.fraunhofer.de/Vacancies/40422/Description/1>**

**Fraunhofer Institute for Integrated Circuits IIS**