

CAN I COMBINE SCIENCE AND BUSINESS IN A SINGLE JOB?

YES.

We'll show you how at Fraunhofer IIS.

For the »**Integrated Sensor Systems**« department in **Erlangen**, the Fraunhofer Institute for Integrated Circuits IIS is currently seeking

Intern/ Master Thesis Student (m/f) for the Research Area »Implementation and Development of Advanced Custom Signal Processing Architecture for Sensor nodes«

The »Integrated Sensor Systems« department develops mixed-signal ICs for sensing applications. Our expertise combines advanced IC design techniques, system and hardware development and sound knowledge of the transducer elements.

State of the art integrated circuits take advantage of CMOS technology scaling and achieve excellent performance through efficient partitioning of analog and digital integrated functions. Recent research in circuit design of sensor frontends is focusing on analog processing through mixed-signal feedbacks and spectral separation. In this internship/ Master Thesis- project, we are aiming to develop an optimized architecture for digital signal processing in low power sensor frontends, without compromising adaptability. Full custom digital and microcontroller integration will be evaluated to assess the most appropriate architecture.

Your task: You ...

- do system level design and verification
- implement digital filter algorithms
- measure implemented functionality

Your profile: You ...

should have a good understanding of digital design and practical knowledge with HDL (Verilog or VHDL) and MATLAB. Experience with FPGA programming and a basic understanding of analog IC design are of advantage.

What you can expect from us

- An open and cooperative working environment
- Collaboration in interesting and innovative projects
- Many opportunities to gain practical experience

If you are interested in a Master thesis: The topic will be assigned and carried out in accordance with the rules of your university. Please discuss the thesis with a professor who can advise you over the course of project.

Interested?

Please send your application in PDF, including cover letter, CV, latest transcripts of records, references and the date of your earliest possible start to Nina Wörlein (personalmarketing@iis.fraunhofer.de) and cite **ID number 692236**.

For more information about the institute and its products and services, please visit: www.iis.fraunhofer.de/en