

CoreHW

HARD CORE
RF/MIXED SIGNAL IC DESIGN
EXPERTISE

Please email your application:
tomi.molananen@corehw.com

RF and Mixed Signal IC Thesis Positions

CoreHW is looking for RF and Mixed Signal IC M.Sc. Thesis workers. YOU have opportunity to grow your expertise to design advanced integrated circuits to customers worldwide. CoreHW is focused in the development of ICs for wireless data transmission, sensor interfaces and space applications in CMOS process. Thesis worker will be part of a IC design team which offers high quality full custom ICs and IPs with state of the art performance.

Responsibilities based on Your experience:

- Simulating & modeling RF/Mixed Signal integrated circuits at high level
- Implement specifications for the RFIC subsystems and circuits.
- Develop RF integrated circuits in state of the art processes.
- Performing IC floor planning and layout.
- Modeling of package and external parasitic components.
- Evaluate and characterize prototypes of the design.
- Characterize and analyze full IC design performance.
- Assist in the development of automated test equipment for lab measurements.

Qualifications:

- 3+ years University student with readiness to start MSc thesis in coming months
- Engineering discipline with an emphasis in integrated circuits design or analog IC design.
- Experience with simulation tools
- Experience with EM simulation tools
- Experience with radio related test equipment such as spectrum analyzers, vector signal analyzers, vector signal generator, network analyzers.
- Experience characterizing radio performance in RF.
- Experience in digital communication systems, spread spectrum, single and multi carrier techniques and modulation schemes.

Preferred Skills and Experience:

- Microwave circuit design skills, and have experience performing analysis and simulation of both linear and non-linear circuits such as phase-locked loops, modulators, oscillators, mixers, filters, low noise and power amplifiers.
- Data converters: AD/DA, delta-sigma modulation, error detection and error correction.
- Good understanding of semiconductor physics.
- Knowledge of RF transceiver architectures.
- Digital communication theory.
- Tools: Cadence, Keysight Momentum, Altium, Matlab, Simulink

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