Chair for Integrated Systems
TUM Department of Electrical and Computer Engineering
Technical University of Munich

Master's Thesis

Interference Channel Analysis (at GE Aviation)

This work is an offer of **General Electric Aviation** supervised at TUM LIS.

About GE Aviation

GE Aviation Munich is a R&D center of excellence and is in the heart of southern Germany, on the Garching campus of the Technical University of Munich. This creates a unique blend for our engineers to be in a university setting, while performing research and development in a world-class industrial environment that is dedicated to bringing innovative technologies to market. Within the R&D community, the center maintains close partnerships with numerous universities, research institutions and technology companies in Germany and abroad.

Role summary

GE Aviation is investigating the use of modern multi-core architectures. You will characterize the interference channels of two different multi-core architectures (NXP T1040 and Xilinx Zynq Ultrascale+). The former is a quadcore Power PC built around the e5500 core, the latter a quad-core ARM built around the A53 core. This work can be done either as a student job or for your master thesis.

Responsibilities

- Enhance an existing bare-metal test suite
- Develop a test plan
- Characterize interference channels by investigating performance and determinism
- Develop and implement mitigation concepts

Expected Qualifications

- Good C/C++ Skills
- Good understanding of MPSoCs and CPU architectures
- Experience with embedded software development
- Self-motivated, structured work style and good communication skills
- Fluency in English
- Good academic track record

Contact

Supervisor at GE Aviation: Alexander Walsch

Online application form

Advisors

Thomas Wild
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