Masterthesis within Electrical Engineering: Implementation of an image processing algorithm

Reference Code 10343262 SH EN EXT 1

- Site:	Airbus Defence & Space Munich (ex Astrium SL)
- Target Group:	Student
- Work Contract Type / Working Time:	Final-year thesis / Full time
- Start Date / Duration:	09.01.2017 / 6 MONTHS
- Work Experience:	Not specified
- Functional Area:	ENGINEERING / Design & Development
- Education:	Apprentice, Student / Engineering / Electrical Engineering Apprentice, Student / Engineering / Electrotechnics, Hyperfrequency

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Our people work with passion and determination to make the world a more connected, safer and smarter place. Taking pride in our work, we draw on each other's expertise and experience to achieve excellence. Our diversity and teamwork culture propel us to accomplish the extraordinary - on the ground, in the sky and in space.

Description of the job

Are you looking for a final year project? Would you like to discover the work of a engineer? Then apply now! We look forward to you joining us at the Design and Development department.

Location: Ottobrunn
Start: 09.01.2017
Duration: 6 months

You will write your masterthesis in the Engineering/Design and Development department which is specialise in the development of On-board FPGA/ASIC logic and processor solutions for satellite subsystems and on-board scientific instruments. In this scope, in particular for an image processing project, there is an opportunity to implement and test a given algorithm into a new generation of processors, such as ARM Cortex R5, LEON2 or 3FT.

Tasks

Your exciting topic:
- Performing an architecture evaluation and trade-off of the named processors w.r.t. to overall performance by taking into account characteristics like cache, clocks, speed, etc. Assess the need for a co-processor for acceleration of certain algorithm parts.
- Evaluating algorithm portability into the new processor, especially considering what difficulties might appear w.r.t. the same implementation in Matlab or C/C++
- Performing all steps to implement and test the algorithm into the processor (in C or C++) and analyse results (image compression rate/data reduction, image SNR, streak detection results)
- Documentation of all the evaluation, implementation, various analysis and test results

Skills

You offer:
- Enrolled student (m/f) within Electrical Engineering, Electrotechnics or similar field of study
- good knowledge within Matlab, C/C++
- Experience and being amazed by processor architectures
- English: advanced

You are a good team player, have excellent communication skills, and are able to work independently.

Contact

Does this job description fit your objectives and profile? Take the next step in your career and come and join us!

How to apply:
Online via www.jobs.airbusgroup.com
Reference number 10343262
Please provide the following documents: cover letter, C.V., relevant certificates, current certificate of enrolment

You can direct your cover letter to: Mrs. Hansen
Should you have general questions regarding this position you can write an E-Mail to: students.germany@airbus.com

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