

Faculty of Technology, Natural Sciences and Maritime Sciences, Campus Porsgrunn

FMH606 Master's Thesis

<u>Title</u>: Implementation of Accurate Temperature Controller for Pressure and Gravity Sensors

Supervisor: Hans-Petter Halvorsen

External Partner: Octio

Task Description:

Implementation of a PID temperature controller in a SmartFusion2 SoC FPGA device, and verifying performance, temperature stability for use with a subsea pressure and gravity monitoring system.

This is a preliminary draft of content and tasks; more specific contents and tasks will be made towards the project start.

Task Background:

Physical prototype of regulator has been designed and tested.

Student Category: IIA students.

<u>Practical Arrangements</u>: The project is reserved for a student that already has a collaboration with the company in question.

Lab space will be available, also physical prototype for testing and SmartFusion2 based system for implementation of algorithm.

The student will be located in Bergen, Norway.

Signatures:

Supervisor (date and signature): Students (date and signature):