Thesis work - Estimating ambient temperature using multi-internal temperature sensors and thermal flow models.

Who are we?
Our vision for Sony in Lund is to be a place where technology, creativity and boldness create a better future – for Sony, our customers and society. In Lund we mainly work with Research, specializing in 5G, 6G & IoT; Software Development for Sony products such as Xperia smartphones and Bravia TVs; New Business, e.g., the Sony Startup Acceleration Program Europe; and Design.

Description of assignment
The goal for this thesis is to create a model that using existing devices with many temperature sensors and estimate ambient temperature and its accuracy. The model should be simulated and a comparison with device in laboratory environment should be presented.

Background for thesis work
Temperature is an unwanted artefact on mobile phones, it has many sources. (CPU, battery, charging, camera, display etc) And temperature is putting constraints on how a device can operate. The ambient temperature has an impact on its performance. To be able to mitigate and optimize for present working conditions it would be beneficial to have some knowledge on ambient temperature. There are sensors that is mounted as far away from heat sources, but they still are affected by internal generated heat.

Competences needed
This in the area of automatic control, linear system modelling and Kalman filter. The targeting system is a mobile phone with complex software, and tools using Linux and requires skills in working in Linux/embedded environments.

Next step
Please provide us with your application explaining why you are a match. You are welcome to reach out to Rickard.Moller@sony.com in case of questions regarding the assignment.

Last day to apply:
Please send you application by **November 30** at the latest.
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