Master Thesis – Using Ericsson DSPs as Application Accelerator

Background
Mobile networks are used all over the world and are the cornerstone for the networked society, where everything shall be connected. To support the vast amount and diversity of data expected in future networks, Ericsson are developing products to drive and support the networked society. The subjects for Master Thesis are defined to investigate and develop algorithms, architecture, tools etc. to support huge increase of speech, data and massive IoT for Radio Access Networks.

Thesis Description
Ericsson uses its own DSPs for signal processing in radio base stations (EMCA Ericsson Multi Core Architecture).

Investigate how to use EMCA as accelerator for applications running on general purpose CPU. There are several possibilities and thesis work in this area:

- Machine Learning acceleration (for example tensor flow).
- User data Packet Processing acceleration.

The thesis will be concluded with a result presentation for the Ericsson team.

Qualifications
This project aims at students in electrical engineering, computer science, computer engineering or similar.

Extent
1-2 students, 30hp each

Location
Ericsson AB Mjärdevi, Linköping

Preferred Starting Date
Spring 2019

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