Master's Thesis, HEVC Video Encoder Improvements

About Us

At Ericsson we innovate to empower people, business and society. We envisage a Networked Society that is sustainable, and where everything that can benefit from a connection will have one. Our mobile and fixed networks, TV & Media solutions, telecom and Broadcast/Media services make a real difference to people's lives, and the world we live in. We predict that by 2020 there will be 50 billion connected devices, and of these, more than 15 billion will be video enabled. Ericsson will enable this through its market leading digital TV and compression technology.

The Visual Technology unit at Ericsson Research is driving research, development and standardization of next generation video compression and media delivery technology. We work in teams of highly experienced researchers, software developers, and standardization experts, and everyone has a high degree of individual responsibility and authority.

The Thesis

We are now recruiting a master's thesis student to look into some of the challenges faced when designing a real-time encoder for the HEVC standard, today's most efficient video coding standard. The work will be based on an existing HEVC encoder, written in C++, and examine novel ways of increasing compression efficiency. We are looking for a student who has a genuine interest in learning what is likely a new area, and researching new and innovative solutions at the forefront of technology.

The work will start with reading up on the video compression area, and then focus on implementing and analyzing the performance of a suggested improvement to the existing encoder. Finally, there will be a possibility of coming up with and testing new approaches to the given problem.

Qualifications

We are looking for a bright individual with the following qualifications:
- Master's student with most courses completed and good grades
- Very good programming skills in C/C++
- Excellent communication and team working skills
- Excellent written and spoken English, ability to work as part of an international team
- Strong result orientation and thirst for knowledge

The work is research oriented, so the ability to learn quickly, work independently and identify problems and solutions is necessary. Knowledge of video and signal processing, and other programming languages (e.g. Python and Matlab) is a plus.

Applications should include a short motivation letter and a CV (in English), as well as transcripts of records. Candidates are invited to send their applications as soon as possible.

Apply online.

Contact	Per Wennersten, Senior Researcher; email: per.wennersten@ericsson.com
Primary Location	Stockholm, Kista, Sweden
Schedule	6 months, full time