

Electronic System Design Group

Bengt Oelmann, Mattias O'Nils, Shang Xue, Håkan Norell, Benny Thörnberg, Cao Cao, Jon Alfredsson, Jan Lundgren

GROUP DESCRIPTION

The group focuses on research problems in electronic systems design where there are requirements on:

- High complexity
- High performance
- Low power consumption
- Low noise
- High design efficiency

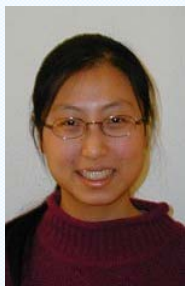
GROUP MEMBERS



Bengt Oelmann



Mattias O'Nils



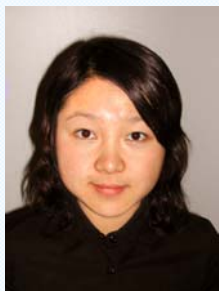
Shang Xue



Håkan Norell



Benny Thörnberg



Cao Cao



Jon Alfredsson



Jan Lundgren

RESEARCH ACTIVITIES

The group is developing design methods and CAD-tools for:

- Rapid prototyping for systems handling real-time video processing
- Memory modelling of video processing systems
- Low-power design
- Embedded system design
- Modelling of noise coupling in mixed-signal systems

The group is also developing:

- Efficient architectures for VLSI implementation of CODECs for robust video coding
- Low noise/low power digital circuits for pixel array image sensors
- Real time video processing for error concealment.
- Design techniques for low substrate noise in mixed analogue/digital systems

The group is responsible for courses in:

- Digital Electronics
- Microprocessor design
- VLSI Design
- Embedded Systems Design