

MSc-project

Title: Ultrasound Imaging using Synthetic Aperture Sequential Beamforming on Row-Column Addressed Arrays

Description: Row-Column Addressed arrays allow 3-D imaging with the simplicity of a 2-D system and are heavily researched in collaboration between Center for Fast Ultrasound Imaging (CFU) at DTU Elektro, DTU Nanotech, BK Ultrasound, and Rigshospitalet. Synthetic Aperture Sequential Beamforming (SASB) is a processing method pioneered at CFU that allows a vast reduction in data transfer rates in ultrasound system. Together, the two technologies enable wireless, portable, 3-D ultrasound imaging. This project seeks to explore and demonstrate the possibilities provided by combining these two technologies. A successful project will be publishable as a conference or journal paper.

Required qualifications: 31545

Responsible institution: DTU Elektro

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Allowed no of students per report: 1

DTU supervisor: Matthias Bo Stuart, co-supervision by PhD students Mikkel Schou, Kseniya Parkhomenko