

BSc/MSc-project

Title: Analyzing anterior segment optical coherence tomography images to improve corneal transplantation surgery.

Description:

Advances in optical coherence tomography (OCT) technology have improved visualization of the cornea and anterior segment of the eye. During the postoperative period after corneal transplantation surgery we track the ocular health of patients with OCT. To track ocular health parameters over time with OCT we need appropriate geometric transformations of the OCT scans so different patient visits can be compared. This project seeks to address this need and seeks to use quantitative measurements to make early predictions of which patients may need an altered course of treatment. Our goal is to improve patient vision from a deeper understanding of the anterior segment OCT images.

Required qualifications: Image Processing with Matlab (or similar programming environment)

Responsible institution: Dept. of Ophthalmology, Rigshospitalet / University of Copenhagen

Contact information:

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Allowed no of students per report: 1-2

KU supervisor: Javier Cabrerizo, MD PhD

DTU supervisor: Thomas Martini Jørgensen