

M.SC. THESIS: HEART TREATMENT DECISION SUPPORT

A research project to help guide heart ablation treatment of cardiac arrhythmia

Clinical problem

A number of cardiac arrhythmia referred to hospital ablation are challenging to treat successfully. Typical reported success rate after 1 year is only 50%, which is considered a big medical problem.

New tools are developed to help guide the doctor to the right spot for cardiac ablation.

Project Goal

The goal is to give the clinician a second opinion on whether his/her treatment probe is in the right position. The project will utilize biomedical signal processing and machine learning tools.

Software user interface

The company CathVision has developed a recording system software to stream heart information real-time. The master thesis student will help program a simple user interface, where the doctor will receive clinical decision support real-time.

Data fundament

We use expert doctors to help annotate which heart signals are characteristic for the right position for treatment. The data gathering has begun from the first hospital, and a number of other hospitals will be enrolled during the project. The CathVision team will work closely with the thesis student.

DTU contact person

Lars Kai Hansen, phone: 45 25 38 89.

Company profile

CathVision ApS is a 4-year-old company specializing in heart measurement systems and clinical decision support for cardiac ablation. CathVision has a core team of 3 employees, as well as development partners in Canada, Bosnia and Denmark, and active consultants in other countries. CathVision is funded by Vækstfonden Venture, Borean Innovation, Markedsmodningsfonden, Innovations-fonden, Dansk Industri and Nordea Iværksætterfond. CathVision has offices at COBIS, Ole Maaløes Vej 3, 2200 Copenhagen N. Contact person: Mads Emil Matthiesen, CEO, M.Sc. Medicine & Technology. M: 61305061, E: mem@cathvision.com.