Research outputs:

**Markerless motion tracking and correction for PET, MRI, and simultaneous PET/MRI**
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

**Statistical Shape Clustering of Left Atrial Appendages**
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 2019 › Research › peer-review

**Wind Turbine Surface Damage Detection by Deep Learning Aided Drone Inspection Analysis**
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

**Can we train a single deep learning model to detect and segment nuclei images acquired with any microscope or staining modality?**
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2018 › Research › peer-review

**Computer Aided Identification of Motion Disturbances Related to Parkinson’s Disease**
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2018 › Research › peer-review

**Computerized feedback during colonoscopy training leads to improved performance: a randomized trial**
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

**FastSME: faster and smoother manifold extraction from 3D stack**
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2018 › Research › peer-review

**Patient-specific estimation of detailed cochlear shape from clinical CT images**
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

**Perceptually motivated analysis of numerically simulated head-related transfer functions generated by various 3D surface scanning systems**
Research output: Contribution to conference › Poster – Annual report year: 2018 › Research › peer-review
Creating Ultra Dense Point Correspondence Over the Entire Human Head
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2017 › Research › peer-review

Data Descriptor: A multiscale imaging and modelling dataset of the human inner ear
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Foreign object detection in multispectral X-ray images of food items using sparse discriminant analysis
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2017 › Research › peer-review

Medial structure generation for registration of anatomical structures
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 2017 › Research › peer-review

A framework for geometry acquisition, 3-D printing, simulation, and measurement of head-related transfer functions with a focus on hearing-assistive devices
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Automatic Model Generation Framework for Computational Simulation of Cochlear Implantation
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review

Cochlear Implant electrode localization in post-operative CT using a spherical measure
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2016 › Research › peer-review

Free-form image registration of human cochlear μCT data using skeleton similarity as anatomical prior
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review

Monopolar Stimulation of the Implanted Cochlea: A Synthetic Population-Based Study
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2016 › Research › peer-review

Special section on 19th Scandinavian conference on image analysis (SCIA 2015)
Research output: Contribution to journal › Editorial – Annual report year: 2016 › Research

Anatomically Correct Surface Recovery: A Statistical Approach
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review

Assisting doctors on assessing movements in infants using motion tracking
Research output: Contribution to journal › Conference abstract in journal – Annual report year: 2016 › Research › peer-review

Automatic Generation of a Computational Model for Monopolar Stimulation of Cochlear Implants
Research output: Contribution to journal › Conference abstract in journal – Annual report year: 2015 › Research › peer-review

Cochlear Implant Planning, Selection and Simulation with Patient Specific Data
Research output: Contribution to journal › Conference abstract in journal – Annual report year: 2015 › Research › peer-review
Correction of Motion Artifacts for Real-Time Structured Light
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review

Research output: Book/Report › Book – Annual report year: 2015 › Research › peer-review

Image Registration of Cochlear μCT Data Using Heat Distribution Similarity
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review

Predicting Detailed Inner Ear Anatomy from Pre-Operational CT for Cochlear Implant Surgery
Research output: Contribution to journal › Conference abstract in journal – Annual report year: 2015 › Research › peer-review

Predicting facial characteristics from complex polygenic variations
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review

Reliability in Measuring Head Related Transfer Functions of Hearing Aids
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review

Using Motion Tracking to Detect Spontaneous Movements in Infants
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review

VirtualTable: a projection augmented reality game
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2015 › Research › peer-review

3D facial landmarks: Inter-operator variability of manual annotation
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

Body-Part Tracking of Infants
Research output: Contribution to journal › Conference article – Annual report year: 2014 › Research › peer-review

DLP technology application: 3D head tracking and motion correction in medical brain imaging
Research output: Contribution to journal › Conference article – Annual report year: 2014 › Research › peer-review

Genus zero graph segmentation: Estimation of intracranial volume
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

Model-Based Motion Tracking of Infants
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

Patient Specific Simulation for Planning of Cochlear Implantation Surgery
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

Patient-Specific Simulation of Implant Placement and Function for Cochlear Implantation Surgery Planning
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review
Rapid Generation of Personalized HRTFs
Research output: Contribution to conference › Poster – Annual report year: 2014 › Research › peer-review

Shape modelling of the inner ear from micro-CT data
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2014 › Research › peer-review

The effect of gender on eye colour variation in European populations and an evaluation of the IrisPlex prediction model
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

3D gender recognition using cognitive modeling
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2013 › Research › peer-review

3D Surface Realignment Tracking for Medical Imaging: A Phantom Study with PET Motion Correction
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 2013 › Research › peer-review

Apparatus and method for motion tracking in brain imaging

A three dimensional children head database for acoustical research and development
Research output: Contribution to journal › Conference article – Annual report year: 2013 › Research › peer-review

Correlation of iris biometrics and DNA
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2013 › Research › peer-review

Genetic analyses of the human eye colours using a novel objective method for eye colour classification
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

Genus Zero Graph Segmentation: Estimation of Intracranial Volume
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2013 › Research › peer-review

List-Mode PET Motion Correction Using Markerless Head Tracking: Proof-of-Concept With Scans of Human Subject
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

The genetics of eye colours in an Italian population measured with an objective method for eye colour quantification
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

What Genes Tell about Iris Appearance
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2013 › Research › peer-review

Adaptive RT for H&N Cancer: The Usefulness of Deformable Image Registration
Research output: Contribution to conference › Poster – Annual report year: 2012 › Research

Adaptive RT for Head-and-Neck Cancer: The Usefulness of Deformable Image Registration
Research output: Contribution to journal › Conference abstract in journal – Annual report year: 2012 › Research › peer-review
Automatic quantification of iris color
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2012 › Research › peer-review

Dosimetric- and geometric evaluation of adaptive H&N IMRT using deformable image registration
Research output: Contribution to conference › Poster – Annual report year: 2012 › Research › peer-review

Dosimetric- and Geometric Evaluation of Adaptive H&N IMRT Using Deformable Image Registration
Research output: Contribution to journal › Conference abstract in journal – Annual report year: 2012 › Research › peer-review

Gender Recognition Using Cognitive Modeling
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2012 › Research › peer-review

Mesh Processing in Medical Image Analysis: MeshMed 2012 Proceedings
Research output: Book/Report › Book – Annual report year: 2012 › Research › peer-review

Mesh Processing in Medical Image Analysis-a Tutorial
Research output: Contribution to journal › Journal article – Annual report year: 2012 › Research › peer-review

Motion Tracking for Medical Imaging: A Non-Visible Structured Light Tracking Approach
Research output: Contribution to journal › Conference abstract in journal – Annual report year: 2012 › Research › peer-review

Optimized Acquisition Parameters for MRI Only RT Using Ultrashort Echo Times
Research output: Contribution to journal › Conference abstract in journal – Annual report year: 2012 › Research › peer-review

Statistical analysis of MRI-only based dose planning
Research output: Contribution to journal › Conference abstract in journal – Annual report year: 2012 › Research › peer-review

Statistical analysis of MRI-only based dose planning
Research output: Contribution to conference › Poster – Annual report year: 2012 › Research › peer-review

Statistical Surface Recovery: A Study on Ear Canals
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2012 › Research › peer-review

3D Surface Realignment Tracking for Medical Imaging: A Phantom Study with PET Motion Correction
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2011 › Research › peer-review

Comparison of external motion tracking systems for PET list-mode reconstruction
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2011 › Research › peer-review

Geometric calibration between PET scanner and structured light scanner
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2011 › Research › peer-review
Introduction to Medical Image Analysis
Research output: Book/Report › Book – Annual report year: 2011 › Education

Project Supervision - An Engineering Approach
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2011 › Research › peer-review

Project Supervision – An Engineering Approach
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2011 › Research › peer-review

Real Time Surface Registration for PET Motion Tracking
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2011 › Research › peer-review

Sparse Similarity-Based Fisherfaces
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2011 › Research › peer-review

Ultra Fast Optical Sectioning: Signal preserving filtering and surface reconstruction
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2011 › Research › peer-review

Anatomically Plausible Surface Alignment and Reconstruction
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2010 › Research › peer-review

Dealing with difficult deformations: Construction of a knowledge-based deformation atlas
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 2010 › Research › peer-review

External motion tracking for brain imaging: structured light tracking with invisible light
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2010 › Research

Markov Random Field Surface Reconstruction
Research output: Contribution to journal › Journal article – Annual report year: 2010 › Research › peer-review

Motion tracking in narrow spaces: A structured light approach
Research output: Contribution to journal › Conference article – Annual report year: 2010 › Research › peer-review

Multivariate Analysis of Variance: Finding significant growth in mice with craniofacial dysmorphology caused by the Crouzon mutation
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2010 › Research › peer-review

Project supervision - an engineering approach
Research output: Book/Report › Report – Annual report year: 2010 › Research

Semi-automated tracking of behaviour of Betta splendens
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2010 › Research
Shape Modelling Using Markov Random Field Restoration of Point Correspondences
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2003 › Research › peer-review

Some Issues of Biological Shape Modelling with Applications
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2003 › Research › peer-review

Building and Testing a Statistical Shape Model of the Human Ear Canal
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2002 › Research › peer-review

Testing for Gender Related Size and Shape Differences of the Human Ear canal using Statistical methods
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2002 › Research › peer-review

Projects:

Deep learning methods for otoscopy and wideband tympanometry for the diagnosis of otitis media with effusion and acute otitis media
Project: PhD

IMOS: Intelligent Motion Sensing during neuro imaging using machine learning
Project: PhD

Deep Learning Methods for Cardiac CT analysis
Project: PhD

Formanalyse af ørekanaler
Project: PhD

Image Base Tracking and 3D Content Generation
Project: PhD

Computerised Quantification of Motions Associated with Psychiatric Disorders
Project: PhD

Motion Correction on High resolution Brain PET Imaging
Project: PhD

Shape Analysis of the Dynamics of the Human Ear Canal
Project: PhD

Statistical Shape Modelling of the Human Cochlear with Application to Cochlear Implant Surgical Procedures
Project: PhD

Motion Tracking of Children in Risk of Cerebral Palsy
Project: PhD

Advanced Methods for Biological Shape Analysis
Project: PhD
3D Shape Modelling using High Level Descriptors
Project: PhD

Computing pseudo-CT from MR: Towards MR-only based radiation therapy
Project: PhD

Computer Vision Assisted Motion Correction in Medical Imaging
Project: PhD

Individualized directional microphone optimization in hearing aids based on reconstructing 3D geometry of the head and ear from 2D photos
Project: PhD

Facial recognition
Project: PhD

Planning and evaluation of radio-therapeutic treatment of head-and-neck cancer using PET/CT scanning
Project: PhD

Determination of magnetic resonance imaging biomarkers for multiple sclerosis treatment effects
Project: PhD

Cranio-facial growth modelling
Project: PhD

A Neuroimaging study: Consequences of physical exercise on regional brain structure and connectivity in AD
Project: PhD

Computational Analysis of Brain Images: Towards a Useful Tool in Clinical Practice
Project: PhD

Anatomical surface reconstruction and optimization
Project: PhD

Image Analysis for X-ray Imaging of Food
Project: PhD

Neuro-morphological Interpretation of Clinical Outcome
Project: PhD

Image Reconstruction under Non-Gaussian Noise
Project: PhD

An open database of 3D scans of the human head, ear, and torso
Project: Research