Research outputs:

**Muscle fibre morphology and microarchitecture in cerebral palsy patients obtained by 3D synchrotron X-ray computed tomography**
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

**Development and metrological validation of a new automated scanner system for freeform measurements on wind turbine blades in the production**
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

**Process characterization for molding of paper bottles using computed tomography and structure tensor analysis**
Research output: Contribution to journal › Conference article – 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

**Zonohedral Approximation of Spherical Structuring Element for Volumetric Morphology**
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2019 › Research › peer-review

**Integrated Brain Atlas for Unbiased Mapping of Nervous System Effects Following Liraglutide Treatment**
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

**Investigation of pausing fermentation of salamis with multispectral imaging for optimal sensory evaluations**
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

**A multimodal data-set of a unidirectional glass fibre reinforced polymer composite**
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

**Analysis of MRI by fractals for prediction of sensory attributes: A case study in loin**
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

**Comparison of different image analysis algorithms on MRI to predict physico-chemical and sensory attributes of loin**
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

**Computing segmentations directly from x-ray projection data via parametric deformable curves: Paper**
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review
Deformable Curves for Outlining Objects Directly From Projections
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2018 › Research › peer-review

From detection of individual metastases to classification of lymph node status at the patient level: the CAMELYON17 challenge
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

Guest Editorial: Scale Space and Variational Methods
Research output: Contribution to journal › Editorial – Annual report year: 2018 › Research › peer-review

Investigation of a Monturaquil Impactite by Means of Bi-Modal X-ray and Neutron Tomography
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Layered Surface Detection for Virtual Unrolling
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2018 › Research › peer-review

Quantifying fibre reorientation during axial compression of a composite through time-lapse X-ray imaging and individual fibre tracking
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Statistical validation of individual fibre segmentation from tomograms and microscopy
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Three Dimensional Polarimetric Neutron Tomography of Magnetic Fields
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Understanding UD Fibre-reinforced Polymers through X-ray Imaging and Individual Fibre Tracking
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2018 › Research › peer-review

A method to characterize the roughness of 2-D line features: recrystallization boundaries
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

A Probabilistic Framework for Curve Evolution
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2017 › Research › peer-review

A variational study on BRDF reconstruction in a structured light scanner
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2017 › Research › peer-review

Characterization of the glucagon-like peptide-1 receptor in male mouse brain using a novel antibody and in situ hybridization
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Development of a New Fractal Algorithm to Predict Quality Traits of MRI Loins
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – 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

Geometrical Characterisation of Individual Fibres From X-Ray Tomograms
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2017 › Research › peer-review

Graphite nodules in fatigue-tested cast iron characterized in 2D and 3D
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Individual fibre segmentation from 3D X-ray computed tomography for characterising the fibre orientation in unidirectional composite materials
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Multispectral x-ray CT: multivariate statistical analysis for efficient reconstruction
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2017 › Research › peer-review

New approach for validating the segmentation of 3D data applied to individual fibre extraction
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2017 › Research › peer-review

Prediction of pork quality parameters by applying fractals and data mining on MRI
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Scene reassembly after multimodal digitization and pipeline evaluation using photorealistic rendering
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Unidirectional Fibre Composite Characterisation from X-ray Tomography
Research output: Contribution to conference › Poster – Annual report year: 2017 › Research

Active Appearance Segmentation for Intensity Inhomogeneity in Light Sheet Fluorescence Microscopy
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2016 › Research › peer-review

Automatic measurement of orbital volume in unilateral coronal synostosis
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2016 › Research › peer-review

Large-Scale Data for Multiple-View Stereopsis
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Noninvasive particle sizing using camera-based diffuse reflectance spectroscopy
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Segmentation of individual fibres in a uni-directional composite from 3D X-ray computed tomography data
Research output: Contribution to conference › Poster – Annual report year: 2016 › Research › peer-review

The Traveling Optical Scanner – Case Study on 3D Shape Models of Ancient Brazilian Skulls
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2016 › Research › peer-review
X-ray based micromechanical finite element modeling of composite materials
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2016 › Research › peer-review

Accuracy in Robot Generated Image Data Sets
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review

A Parameter Choice Method for Simultaneous Reconstruction and Segmentation
Research output: Book/Report › Report – Annual report year: 2015 › Research

Boundary Fractal Analysis of Two Cube-oriented Grains in Partly Recrystallized Copper
Research output: Contribution to journal › Conference article – Annual report year: 2015 › Research › peer-review

Characterization of boundary roughness of two cube grains in partly recrystallized copper
Research output: Contribution to journal › Conference article – Annual report year: 2015 › Research › peer-review

Comparison of a multispectral vision system and a colorimeter for the assessment of meat color
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review

Dictionary Based Image Segmentation
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review

Dictionary Based Segmentation in Volumes
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review

Dictionary Based Segmentation in Volumes
Research output: Contribution to conference › Poster – Annual report year: 2016 › Research › peer-review

Dictionary Based Segmentation in Volumes
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review

Discriminating Yogurt Microstructure Using Diffuse Reflectance Images
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review

Evaluation of Yogurt Microstructure Using Confocal Laser Scanning Microscopy and Image Analysis
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review

Non-Invasive Assessment of Dairy Products Using Spatially Resolved Diffuse Reflectance Spectroscopy
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review

Oriented Shape Index Histograms for Cell Classification
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review

Our 3D Vision Data-Sets in the Making
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2015 › Research › peer-review

Relaxed Simultaneous Tomographic Reconstruction and Segmentation with Class Priors for Poisson Noise
Research output: Book/Report › Report – Annual report year: 2015 › Research
Simultaneous tomographic reconstruction and segmentation with class priors
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review

Assessment of algorithms for mitosis detection in breast cancer histopathology images
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review

Broadband optical characterization of material properties

Characterization of graphite nodules in thick-walled ductile cast iron
Research output: Contribution to journal › Conference article – Annual report year: 2014 › Research › peer-review

Dictionary Snakes
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

Erratum to: Interesting Interest Points
Research output: Contribution to journal › Comment/debate – Annual report year: 2014 › Research

Evaluation of the ID220 single photon avalanche diode for extended spectral range of photon time-of-flight spectroscopy
Research output: Book/Report › Report – Annual report year: 2014 › Research

Large Scale Multi-view Stereopsis Evaluation
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

Pattern recognition approach to quantify the atomic structure of graphene
Research output: Contribution to journal › Letter – Annual report year: 2014 › Research › peer-review

Quantification Tools for Analyzing Tomograms of Energy Materials
Research output: Contribution to conference › Poster – Annual report year: 2014 › Research › peer-review

Structure Identification in High-Resolution Transmission Electron Microscopic Images: An Example on Graphene
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review

Surface Detection using Round Cut
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

Automated Structure Detection in HRTEM Images: An Example with Graphene
Research output: Contribution to conference › Conference abstract for conference – 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

Decomposition of Diffuse Reflectance Images - Features for Monitoring Structure in Turbid Media
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

Spectral characterisation of dairy products using photon time-of-flight spectroscopy
Research output: Contribution to journal › Journal article – Annual report year: 2014 › 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

Automatic quantification of iris color
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2012 › Research › peer-review

Classification of Polarimetric SAR Data Using Dictionary Learning
Research output: Contribution to journal › Journal article – Annual report year: 2012 › Research › peer-review

Digital Prototyping of Milk Products
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2012 › Research › peer-review

Interesting Interest Points: A Comparative Study of Interest Point Performance on a Unique Data Set
Research output: Contribution to journal › Journal article – Annual report year: 2011 › Research › peer-review

Jet-Based Local Image Descriptors
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2012 › Research › peer-review

Large scale tracking of stem cells using sparse coding and coupled graphs
Research output: Contribution to conference › Poster – Annual report year: 2012 › Research › peer-review

Monitoring structure development in milk acidification using diffuse reflectance profiles
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2012 › Research › peer-review

Multiple View Stereo by Reflectance Modeling
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2012 › Research › peer-review

Pipeline for Tracking Neural Progenitor Cells
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2012 › Research › peer-review

3D Surface Scanner Using Structured Light & Industrial Robot
Research output: Contribution to conference › Poster – Annual report year: 2011 › Research › peer-review

A Deformable Model for Bringing Particles in Focus
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2011 › Research › peer-review

Classification Methods for CT-Scanned Carcass Midsections: A Study of Noise Stability
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2011 › Research › peer-review
Finding the Best Feature Detector-Descriptor Combination
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2011 › Research › peer-review

In Depth Analysis of Food Structures: Hyperspectral Subsurface Laser Scattering
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2011 › Research › peer-review

Learning Dictionaries of Discriminative Image Patches
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2011 › Research › peer-review

Learning Histopathological Patterns
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2011 › Research › peer-review

On Inferring Image Label Information Using Rank Minimization for Supervised Concept Embedding
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2011 › Research › peer-review

Supercontinuum Light Sources for Hyperspectral Subsurface Laser Scattering: Applications for Food Inspection
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2011 › Research › peer-review

Geometric Total Variation for Texture Deformation
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2010 › Research › peer-review

On Recall Rate of Interest Point Detectors
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2010 › Research › peer-review

Segmentation by Large Scale Hypothesis Testing - Segmentation as Outlier Detection
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2010 › Research › peer-review

Shape and Size from the Mist: A Deformable Model for Particle Characterization
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2010 › Research › peer-review

Computer Vision for Timber Harvesting

Texture Segmentation by Contractive Decomposition and Planar Grouping
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2009 › Research › peer-review

Effective Image Database Search via Dimensionality Reduction
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2008 › Research › peer-review

Classification of Biological Objects Using Active Appearance Modelling and Color Cooccurrence Matrices
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 2007 › Research › peer-review
Projects:

Identification of new brain areas involved in body weight control and appetite regulation
Project: PhD

Tomographic Imaging of Flow in Porous Media
Project: PhD

Deep learning methods and tools for histology-based cancer research and diagnostics
Project: PhD

Segmentation from projections
Project: PhD

Machine Learning for Ultrasonic Fault Detection
Project: PhD

A Traceable 3D Scanning and Reconstruction Pipeline
Project: PhD

New Multi-Modal Registration Methods: Application in Fetal Image Reconstruction
Project: PhD

Godkendelse og sporing af tømmerstokke ved 3D-billedbehandling
Project: PhD

3D Shape Analysis for Morphometric Evolutionary Modelling- based on 3D X-ray Tomography and Optical Scanning
Project: PhD

CT metal artifact reduction using MRI for radiotherapy
Project: PhD

Big Data Modelling with Applications to Airports
Project: PhD

Verification of large scale surface geometry including shape and texture variation of injection molded surfaces
Project: PhD

Image analysis and segmentation using sparse coding dictionaries
Project: PhD

Quantitative evaluation of peptide analogue distribution in mouse tissue using 3D computer modelling
Project: PhD

Statistical Priors in Variational Reconstruction Methods
Project: PhD

Statistical Shape Modelling of the Human Cochlear with Application to Cochlear Implant Surgical Procedures
Project: PhD
Training sets in Large-Scale Reconstruction Methods
Project: PhD

Optimization of super continuum light sources for vision systems
Project: PhD

Control and Surveillance of Automated Production Steps using Computer Vision
Project: PhD

SLS based dairy process control systems
Project: PhD

Spectral imaging of meat quality - color, texture and structure
Project: PhD

3D imaging center
Project: Research

Alliance for Imaging and Modelling of Energy Applications
Project: Research