

VISUAL ANALYSIS AND PERCEPTION (VAP)



THE VAP RESEARCH GROUP AT AALBORG UNIVERSITY

DEPARTMENT OF ARCHITECTURE, DESIGN AND MEDIA TECHNOLOGY
TECHNICAL FACULTY OF IT AND DESIGN

The research group works with creating algorithms that automatically understand the content of an image or video.

RESEARCH

KEY RESEARCH AREAS

The research group focuses on Computer Vision & AI/Machine Learning. Originally with a special focus on people.

Today we work with many different application areas, including:

- › Surveillance
- › Human-Robot interaction
- › Machine learning
- › Inspections
- › Robotic welfare technology
- › Computer vision in sports
- › Quality control
- › People tracking systems
- › Motion capture technology

WHAT WE DO

The overall aim of the research done by the Visual Analysis and Perception research group is to make robots and automatic systems smarter, better and faster.

EDUCATION

STUDY RELATED ACTIVITIES

The members of the VAP research group teach a number of different topics, including:

- › Computer vision
- › Machine learning
- › Deep learning
- › Image processing
- › Image analysis
- › Automatic perception
- › Robotics
- › Sensing
- › Camera technology

COLLABORATION

WHO BENEFITS FROM OUR RESEARCH

The research is potentially of interest to all industries where robotics and automation are relevant.

EXTERNAL PARTNERS

Over the years, the VAP group has worked with a large number of companies and organisations.

Selected current collaborations:

Milestone Systems, LEGO, B&O, Tiny-MobileRobots, Envidan, Danish Crown.

PUBLICATIONS

IMPORTANT PUBLICATIONS

- › [A survey of advances in vision-based human motion capture and analysis](#)
- › [A procedure for developing intuitive and ergonomic gesture interfaces for HCI](#)
- › [Vision-based traffic sign detection and analysis for intelligent driver assistance systems: Perspectives and survey](#)
- › [Building Brains for Visual Traffic Analysis](#)
- › [A Double-Deep Spatio-Angular Learning Framework for Light Field based Face Recognition](#)
- › [Detection of Marine Animals in a New Underwater Dataset with Varying Visibility](#)



AALBORG UNIVERSITY
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KEY PROJECTS

ASIR

Project with TinyMobileRobots to develop robotic sewerage inspection solutions.

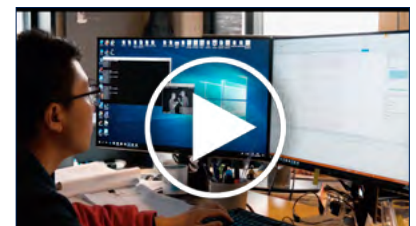
THE SAFE HARBOUR PROJECT

Project supported by TrygFonden that aims at using thermal cameras and intelligent software to detect and prevent accidents and deaths in harbours.

EXOTIC

Project that aims at developing an assistive personal exoskeleton that can be controlled using tongue movements.

VIDEO PRESENTATION



CONTACT

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