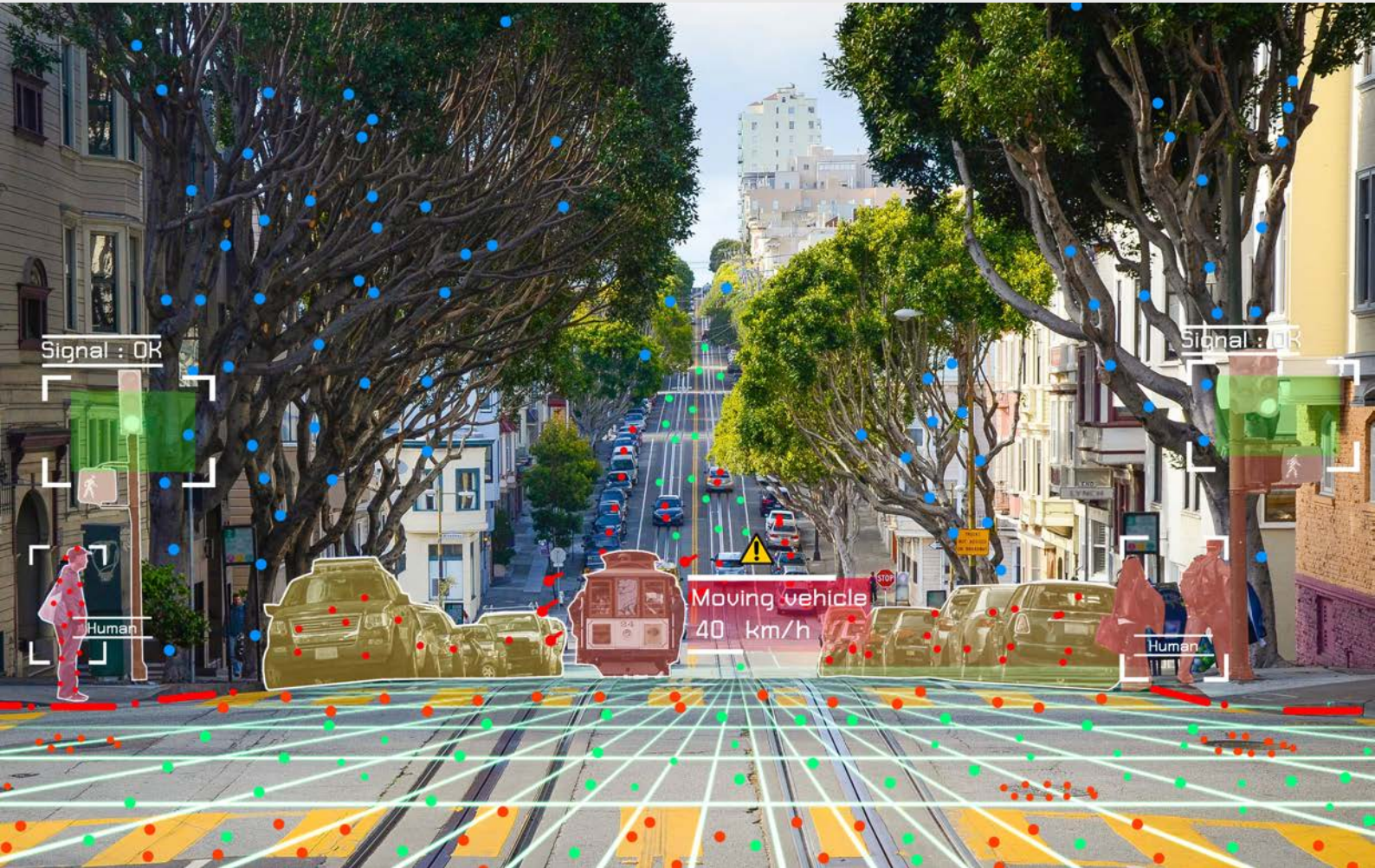


X SERIES



Visual intelligence

analysing video

AVUTECH
computer vision systems & sensors

COMPLETE AI SOLUTIONS

AVUTEC AI solutions automate repetitive tasks, generate alarms and notifications, collect interpreted visual data and offer convenience for end users by analysing video and understanding images. AVUTEC translates smart technology into practical applications, making visual AI solutions accessible for businesses, governmental organisations and institutes.

For AVUTEC the definition for an intelligent application stretches beyond algorithms. Besides the neural nets and the computer vision routines, it embodies an AI integration platform, CortexFramework, to integrate AI in any third party system and CortexDashboard to visualize recognition results. AVUTEC AI solutions run in the cloud, on a server and what's more, they run on the AVUTEC AI driven embedded cameraline, the X-Series. Together, these building blocks create a perfectly tailored AI solution for any project.

The scope of the AVUTEC machine learning and computer vision solutions is wide. License plate recognition enforces low emission zones in cities, it enables contactless payment at parkings and it increases convenience for customers with a monthly subscription at a car wash, not having to leave their car to get it cleaned. Routines that analyse movement are used to detect undesirable behavior in city streets. Tracking and counting of people, vehicles or objects signals overly crowded city centers, roads, festivals and airports before it becomes problematic.



Visual AI consists of many different techniques, that AVUTEC specialists use and combine to deliver the best possible accuracy. All recognition routines are optimised for speed to perform real-time recognition in the cloud, on a server and on the edge. AVUTEC offers recognition routines, that can be used off-the shelf; for more specialised and complex tasks, the deep learning consultancy service opens up the opportunity to custom trained applications.

Custom trained algorithms

Artificial Intelligence inspires; it brings forth many innovative ideas and leads to new solutions. AVUTEC can be the partner to realise those ideas. AVUTEC trains networks and builds entire video analysis pipelines for its clients.

After defining the training procedure and the recognition objectives, the training process starts. By training recognition structures on a collected dataset of images or video material, the task-specific network is build. The trained model is tested and improved iteratively in the field, untill a satisfactory level of accuracy is achieved. The end result is a model or network, that is optimised for the predefined task.

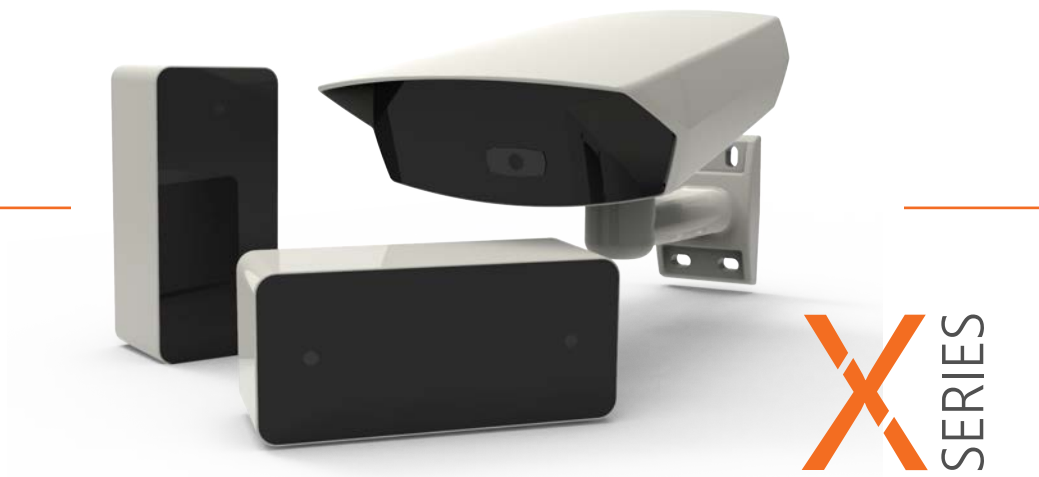
Off the shelf recognition

One of the AVUTEC flagship recognition applications is license plate recognition. Over the years the AI based ANPR engine has proven its worth in many projects. It combines image analysis to locate the license plate and an advanced character recognition engine to actually read the plates of the world.

Classification, detection, segmentation, tracking and counting of people and objects are off-the-shelf modules, that provide basic recognition tasks. Just like the default version of movement analysis. In order to respect privacy, blurring of faces is a built-in functionality that can be switched on. AVUTEC off-the-shelf modules often offer the recognition required in many projects.

Smart technology opens the door to new products and services. It creates new business opportunities or simply solves an urgent problem. AVUTEC is always interested to hear about your AI projects and likes to contribute to the realisation of your ideas.

Accurate, configurable and cost efficient IoT video detection technology



Powerful AI driven cameras with on board neural processing power to visually analyse video on the edge

CortexFramework

AI platform to integrate video analysis with any third party system

CortexClient

Windows client to remotely monitor, manage and configure all Cortex devices

CortexDetect

ANPR, off-the-shelf detection & recognition modules and custom trained deep learning networks

CortexDashboard

Dashboards for real time and historic recognition results and device performance