



Israeli Innovation in Automotive Technologies



ADASXY
Driven to save lives

<http://www.adasky.com/>

Sensors/AV

The sensing solution consists of a far infrared camera and computer vision algorithms for autonomous vehicle systems. AdaSky's solution generates a new layer of information, originated from a different band of the electromagnetic spectrum. It significantly increases performance of classification, identification, and detection of the vehicle surroundings at near and far range and in any driving conditions. It also reliably detects pedestrians and animals during the day, night, and in all weather conditions.

Brodmann

www.brodmann17.com

Machine Learning/AI

Offers the industry's most efficient deep-learning algorithms for computer vision AI applications. We offer a software-only solution that delivers state of the art recognition accuracy - at a fraction of the computing power required by other methods (8% of the training effort, 1% of the model size, x20 computing efficiency) while maintaining deep-learning acclaimed accuracy and robustness. Applications include people detection, vehicle detection and behavior analytics.

 **cortica**TM
In Every Image

<http://www.cortica.com>

AI Image Identification Platform

A visual search platform that revolutionizes how computers understand images by simulating the workings of the human brain. Cortica's Image2Text technology automatically extracts the core concepts in photographs, illustrations, and videos and then maps these concepts to keywords and textual taxonomies. Cortica's technology reads and automatically associates images with relevant content in real time.

core | photonics

<http://corephotonics.com/>

Dual Camera Imaging Technologies

The combination of multiple cameras in the automated market has the potential to yield significant benefits for ADAS and autonomous driving applications. TransportEye is an automated front-facing stereoscopic camera system that provides the most accurate depth information in a small form factor that fits behind the rearview mirror. The TransportEye system operates at up to a 100m range, is remarkably compact, and fits conveniently behind the car's windshield and the rearview mirror without blocking the driver's field of view. The system was designed to meet automotive industry reliability standards, including vibrations and extreme temperature variance, and has gone through rigorous road testing.

 **eyeSight**

www.eyesight-tech.com

HMI/Gesture recognition

EyeSight's computer vision and deep learning solutions enhance the driving experience and safety by reducing cognitive load, alerting the driver when drowsiness or inattentiveness are detected and adjusting the in-car environment to the detected driver's preferences and needs. The solutions run locally and in real-time to enrich three main aspects of the driving experience; driver awareness, infotainment control, and driver monitoring.





<http://www.imagry.co/>

UI/Machine learning/Image recognition

Imagry is developing a cameras-only level 4/5 self-driving platform that amounts to a fraction of the cost of traditional LiDAR, Radar & HD GPS-based solutions. The AI technology is based on Deep Inverse Learning algorithms which accelerate the training and performance of its unified software solution (end-to-end perception, planning, and control), especially in complex unseen scenarios. Imagry's AI technology is based on Deep Inverse Reinforcement Learning algorithms, a new approach for training on large unlabeled data-set with minimal reward engineering. This method allows us to collect data from both real world and simulation without manual labeling. Imagry's algorithms train the driving model which controls the car, by extracting the most useful driving-parameters and abstract model of the road, utilizing data collected on simulators and on the road.



<http://www.innoviz.tech/>

ADAS

Innoviz Technologies develops cutting-edge LiDAR remote sensing solutions to enable the mass commercialization of autonomous vehicles. The company's LiDAR products, InnovizOne™ and InnovizPro™, offer solid-state design that uses patent-pending technology to deliver superior performance at the affordable costs and reduced sizes necessary for mass market adoption.



www.ionterra.com

Visual Analysis

IonTerra's rtCVI technology supports real-time analysis of visual information, by using low-computational resources, such as smartphones or a vehicle's CPU. IonTerra's cutting edge technology enables on-the-fly re-programing, allowing for detection of other/additional objects, as well as activating locations and performing time-dependent special tasks. These features are not found in any other present sensor system.



www.jungo.com

Connectivity/ADAS

CoDriver is the most advanced in-cabin computer vision solution available today. CoDriver enables the monitoring of drivers, passengers and the entire vehicle cabin, for the benefit of creating safer and smarter cars. CoDriver is based on the latest and greatest innovations in the field of computer vision and deep learning, and has been selected by various tier-1s and OEMs globally for their next generation vehicle models.



www.mobi-wize.com

Infotainment/Telematics

Offers a dynamic mapping solution for advanced driving assistance systems (ADAS) and autonomous driving functions that advance connectivity between a vehicle and impending road conditions. It is designed to stand alone or embedded within third-party solutions.

The solution complements vision-based sensor technologies (e.g. lidar, camera, radar) with non-vision-based sensors to provide real-time insights for better fuel efficiency and safety. With dynamic mapping of road characteristics through local- and crowd-sourced sensor fusion, MobiWize's solution models vehicle performance and generates small-footprint embedded maps.





<http://www.neteera.com/>

Sensors

Neteera is a sub-THz sensor technology company. Our first application is a contact-free vital signs monitoring system which can read a person's heart rate, respiration, HRV and eventually PWV from a distance through furniture and clothing. From this data we can glean if the subject is tired, stressed, not feeling well in addition to other factors. The application is appropriate for the automotive, well-being and IoT verticals.



<http://rfisee.com/>

ADAS/AV/Radar

RFISSE is a fabless semiconductor company that sells a low cost high reliability radar based car's active ADAS. The system includes 6-8 connected sensors (same sensor!) installed on car's encircling to form a 3D 360° view of car surrounding. The system analyzes the video and assists the driver not only by alerting from dangerous but also actively controlling safety devices (e.g. airbag, breaks boosting system, steering etc.).



<https://www.vayavision.com/>

Sensors /Autonomous vehicles

Our AI sensor fusion platform uses raw data samples from the various sensors to construct a high-resolution 3D model of the environment based on cameras, LiDARs and RADARs. Using combined AI algorithms on the 3D model we provide a full environmental model, with better detection and fewer false alarms, for a safe and comfortable driving experience.



<https://ridewithvia.com/>

Transit on Demand

A web and mobile app designed to make life easier for transportation managers by optimizing vehicle utilization, enhancing customer service, simplifying driver workflow, and improving cost control.

Via's technology allows passengers to conveniently share their ride, providing on-demand transportation on a mass scale. When users request a ride, Via's powerful algorithm matches them with cars going their way. Via makes sharing a car with other passengers a seamless experience that is nearly as fast as taking a taxi.



www.vocalzoom.com

HMI / Voice recognition

Vocalzoom delivers Human Machine Communication (HMC) sensors, for reliable and accurate Voice Authentication and Voice Control, in real life noisy environments. VocalZoom allows for voice-based virtual assistants to work accurately in the car, Authenticate the passenger's identity and unleash new opportunities to monetize data and services, personalized services, and make payments by voice.





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