

Press release

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STANDARDS FOR THE IMAGE PROCESSING INDUSTRY

AIT hosts the International Vision Standards Meeting, which sets global standards for the interoperability of cameras and computers in image processing.

Rund Around 100 machine vision experts from all over the world gathered at the AIT Austrian Institute of Technology from 17-20 April for the International Vision Standards Meeting (IVSM) to further develop the various standards in the machine vision industry and thus promote the worldwide interoperability of cameras, systems and software applications. The organising association was the European Machine Vision Association (EMVA). The event was hosted by AIT, which is a member of EMVA.

Standards for a multi-billion dollar machine vision market

"In Europe and North America alone, the vision tech industry has a turnover of around 3.8 billion euros and 3.1 billion US dollars respectively in 2022. The standards that are being worked on here at the IVSM form the basis for this. They create compatibility between products. The technical value created at the IVSM for the entire industry cannot be overestimated," says EMVA standardisation manager Werner Feith about the importance of the event for the entire industry.

Representatives from the GeniCam, CoaXPress, GigE Vision, Camera Link HS, OOCI, OPC UA, USB3 Vision and EMVA 1288 standards meet at the IVSM. Each image processing standard has its own working group that continuously works on the further development of the standard. The members of these working groups are experts from image processing companies as well as from science. A summary of the results with an outlook and strategic recommendations for the further development of the standards is given by the experts of the working groups in the joint Future Standards Forum (FSF), quasi the general assembly of the meeting.

Live testing of camera and software interfaces to improve the customer experience

A special highlight at each meeting is the so-called plugfest, where the experts apply the standards and connect a wide range of products, some of which are new. The products go through a strict validation process. Their compatibility, functionality and technical performance are tested. The ultimate goal is to improve the customer experience and to strengthen the market's confidence in the respective standard. To achieve this, the standards are moving even closer together. "GeniCam is the basis for plug-and-play operation of cameras and devices in machine vision. All hardware interface standards represented at the IVSM build on this standard. Close cooperation was agreed between GeniCam and EMVA1288 here in Vienna in a joint working meeting of both standards committees," says Vice-Chairman of the GeniCam standard Christoph Zierl (MVTec Software GmbH).

For the first time, the Plugfest was opened to the professional world outside of the companies and institutions involved in the standards working groups. This is because companies, science and the working groups should be more closely networked and current issues discussed right on the spot.

New impulses for the industry

The event was a complete success for both EMVA and AIT. Markus Clabian, head of the High-Performance Vision Systems research group at the Center for Vision, Automation & Control (VAC) comments: "For us, it was a strategic decision to bring the IVSM to AIT. On the one hand, we have deep expertise in the field of image processing at the AIT Center for Vision, Automation & Control (VAC). We would like to further expand our leadership in this field and with this event we were able to significantly increase the visibility of the AIT and our latest technologies in the professional community. Secondly, we were able to show exemplary innovative applications, which all use the standards as a basis, within the framework of organised tours through various AIT Labs. And thirdly, we were able to exchange ideas directly with international experts and companies from China, Japan, Canada, the USA, Belgium, Germany and many more and discuss possibilities for cooperation with them."

The IVSM meeting takes place twice a year and is supported by the international machine vision associations A3 (North America), CMVU (China), EMVA (Europe), JIA (Japan) and VDMA (Germany).

About EMVA

Founded in 2003, the European Machine Vision Association (EMVA) is a non-profit and non-commercial association representing the machine vision industry in Europe. It is open to all organisations involved in machine vision, computer vision, embedded vision or vision technologies, such as manufacturers, system and machine builders, integrators, distributors, consultancies, research institutes and universities.

The EMVA hosts four international machine vision standards and is 100% owner of the association. Members benefit from the EMVA's networking, standardisation and cooperation activities.

www.emva.org

<https://www.emva.org/news-media/press/>

About the AIT Center for Vision, Automation & Control

The AIT Austrian Institute of Technology, Austria's largest non-university research institution. At European level, it plays a key role as the research and technology institution that deals with the central infrastructure topics of the future.

The Center for Vision, Automation & Control (VAC) is one of a total of 7 research units at the AIT. It is dedicated to industrial automation and digitalisation and uses the opportunities they offer to initiate and drive innovations for industry. The centre conducts research in the areas of image processing, automation and control, as well as the use of artificial intelligence methods. The centre covers the entire automation chain, from the acquisition of information by intelligent sensor systems to AI-based decision-making by autonomous systems. The research work at the centre results in innovations to increase the flexibility, adaptivity and resilience of companies while simultaneously improving energy and resource efficiency and minimising production costs.

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