

PRESS RELEASE

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October 19th, 2023

Review of the 6th European Machine Vision Forum in Wageningen, Netherlands

Event will take place again in 2024

Barcelona/Wageningen, October 19th, 2023. The European Machine Vision Forum offers a unique platform in Europe for machine vision researchers and industry representatives to exchange ideas and discuss possible collaboration. More than 100 participants gathered at the 6th European Machine Vision Forum 2023 in Wageningen on October 12th and 13th.

The three keynotes at the event each highlighted a scientific image processing sub-discipline. Amongst them, the presentation by Christophe Cudel, professor at the Université de Haute Alsace, on light field cameras for visual navigation showed the maturity and suitability of light field cameras, despite all the technological challenges. The keynote by Alfred M. Bruckstein, professor at the Technion - Israel Institute of Technology, on 'Random Dot Videos' illustrated how powerful the human visual system is and how this can trigger technical implementation using machine vision technology. The presentation by Albert Theuwissen, CEO & founder of Harvest Imaging, on 'Stacked Image Sensors' demonstrated very clearly how image sensors, and probably soon also machine vision applications, benefit from the technical progress of the semiconductor industry.

Machine Learning has been a frequently addressed technology at the European Machine Vision Forum this year. Particularly in unstructured environments, such as in agriculture or industrial production, machine learning methods help to deal with variability. However, the presentations on machine learning also made very clear what prerequisites must be in place for its use. First and foremost, this includes suitable training data, which can now also be generated with the help of artificial intelligence, but which requires corresponding (human) expertise. All these contributions were particularly relevant to this year's focus topic '*Real-world Machine Vision Challenges - Coping with Variability and Uncontrolled Environments*'.

Of central importance at this annual gathering of academic research and industry is the content quality of the lecture program. *'All speakers excelled with methodologically interesting, novel contributions. The program included diverse methods, from sensor technology to mathematical modeling and machine learning to robotics integration. In addition, a wide variety of applications were addressed, including automation technology, agriculture and food production, logistics and traffic'*, confirms Prof. Dr.-Ing. Michael Heizmann, Chairman of the European Machine Vision Forum and Head of the Institute for Industrial Information Technology at the Karlsruhe Institute of Technology (KIT).

In addition, this year's host - Wageningen University & Research - provided a deep insight into the wide range of machine vision developments in the field of agriculture, such as in large-scale plant growth monitoring and state-of-the-art 3D crop detection, or the hands-on demonstration of quality inspection of fruits such as apples. The insight into the laboratories and short presentations of companies located on the WUR Campus became another enrichment of the European Machine Vision Forum 2023.

Following the great success of the event format, 'Research Meets Industry' will be repeated next year. Location and date for the 7th European Machine Vision Forum will be announced soon.

Participants' feedback on the European Machine Vision Forum 2023 in Wageningen:

- ❖ 'A professionally organized event with high-tech topics about everything that is related to perfect image acquisition, analysis and interpretation and how the technology is evolving. Besides, this year's location in Wageningen was a unique deep dive into top notch research about vision tech in the agricultural sector and meeting the people behind it.'
- ❖ 'I learned of machine vision research and applications I was not really aware of, so this is an excellent opportunity to brainstorm and to target new application fields. We already look forward to participating in the European Machine Vision Forum next year.'

About the European Machine Vision Forum

The European Machine Vision Forum is an annual event of the European Machine Vision Association - EMVA. The aim is to foster interaction between the machine vision industry and academic research to learn from each other, discuss the newest research results as well as challenges from applications, learn about emerging application fields, and to discuss research cooperation between industry and academic institutes. The overall aim is to accelerate innovation by translating new re-search results faster into practice. The forum is directed to scientists, development engineers, software and hardware engineers, and programmers both from research and industry.

About EMVA

Founded in 2003, the European Machine Vision Association (EMVA) is a non-for-profit and non-commercial association representing the Machine Vision industry in Europe that is open for all types of organizations having a stake in machine vision, computer vision, embedded vision or imaging technologies: manufacturers, system and machine builders, integrators, distributors, consultancies, research organizations and academia. The EMVA hosts four international vision standards, and all members – as the 100% owners of the association – benefit from the dedicated networking, standardization, and cooperation activities of the EMVA.

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