



PRESS RELEASE

for immediate release

Andreas Breyer
Manager Media Relations

Mobile +49 151 1242 8585
E-Mail press@emva.org

March 1st, 2023

Call For Contributions: 6th European Machine Vision Forum

Focal topic

Real-world Machine Vision Challenges - Coping with Variability and Uncontrolled Environments

Barcelona, March 1st, 2023. The EMVA invites interested persons to submit their extended abstract via this **[Application Form](#)** for a contributed talk or poster during the 6th European Machine Vision Forum taking place October 12-13, 2023, in Wageningen, The Netherlands. Under the slogan “Research Meets Industry”, researchers and developers from machine vision, computer vision, machine learning, applied optics and photonics meet at the forum to exchange their newest ideas. Submission of extended abstracts for a contributed talk or poster shall be sent no later than **May 2nd, 2023**. All submissions are openly reviewed by the joint Scientific and Industrial Advisory Board of the forum.

Following some background on the forum’s focal topic in 2023 **Real-world Machine Vision Challenges - Coping with Variability and Uncontrolled Environments**:

Machine vision solutions provide great value to end-users, but also must function well in real-world environments like agriculture, environmental monitoring, industrial and medical applications. Depending on the application at hand, specific challenges arise which concern



the variability of the vision task as well as possible disturbances or operational conditions, for example:

- Large varieties of disturbances (e.g., vibrations, motion in the scene, variable illumination, ambient light variations of the background)
- Variations of the objects to be inspected (high inter-class variability, e.g. for fruits), which may lead to insufficient training data for machine learning
- Unknown camera poses (e.g., for moving imaging platforms)

In consequence, real-world machine vision systems must be able to deal with such undesired variability. Approaches which are conceivable to address the issues include questions regarding the hardware and software design of machine vision systems; what hardware combinations are robust to a large variety of disturbances or interference; suitable preprocessing and evaluation methods; but also how machine learning can be used and adapted in such cases. Furthermore, aspects such as whether simulations can be used to model the physics of real-world scenarios; the trade-off between robustness and accuracy; and how the reliability of machine vision systems can be assessed and specified when variabilities and disturbances are present could be taken into account as well.

The Call for Contributions and further details on the 2023 forum may be found at www.emva.org as well as at www.european-forum-emva.org.



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.

www.emva.org