

ABSTRACT PRESENTATION

Title: High Speed Interfaces for Machine Vision

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Abstract can be published on website: **YES** **NO**

Provide abstract of 500 words maximum. Use font ARIAL, size 11.

If figures are used, the text plus figures must stay within this one page.

The requirements from Machine Vision applications can vary in many aspects such as performance, cable reach, electromagnetic immunity, power consumption, determinism, system cost, etc. To cover all these aspects, different camera interface standards have been proposed by 5 international vision associations:

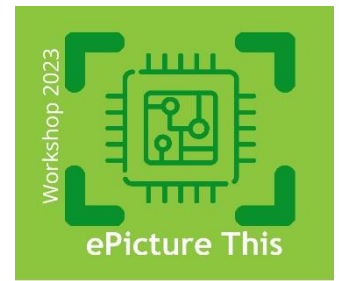
- A3 Vision & Imaging (A3, North America)
- European Machine Vision Association (EMVA, Europe)
- Japan Industrial Imaging Association (JIIA, Japan)
- VDMA Machine Vision (VDMA MV, Germany)
- China Machine Vision Union (CMVU, China)

A global initiative called G3 coordinates collaboration among the standardization committees to reduce competition between Machine Vision standards and maximize their adoption by the industry.

In the machine Vision context, the State of the Art of camera interfaces can be divided in two categories:

- Standard Host PC interfaces (GigE Vision and USB3 Vision)
- Dedicated frame grabber interfaces (Camera Link, Camera Link HS, and CoaXPress)

In this presentation we will review the key features of each standard, their applications and roadmap.



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