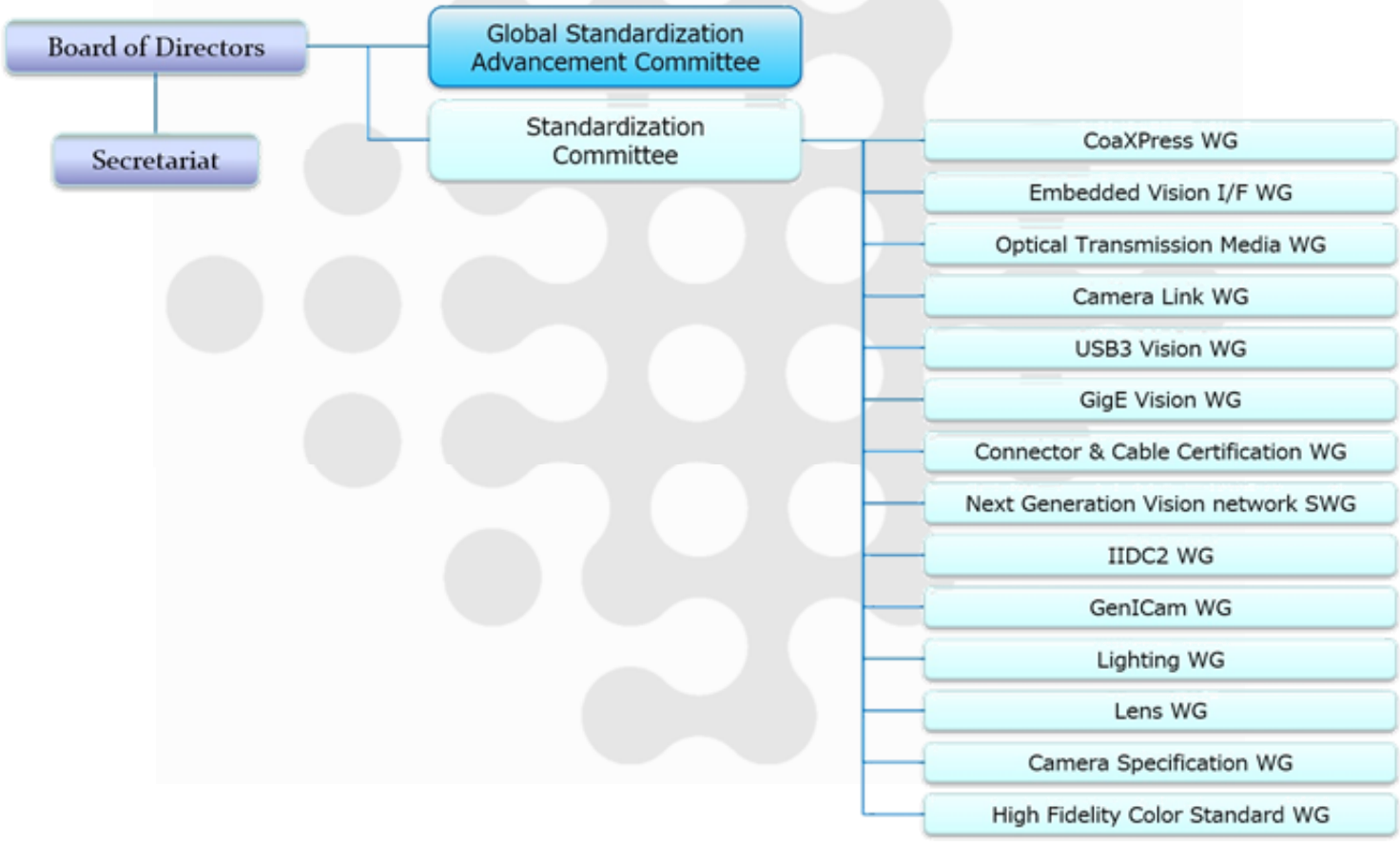
# Japan Industrial Imaging Association

## Activity of JIIA

Japan Industrial Imaging Association (JIIA) is a Japan-based organization fostering technological innovation of industrial imaging, thereby contributing to development of industrial imaging worldwide.

1. To establish and foster standards of advanced industrial imaging technology.
2. To study and research international, cross-sectional standardization of industrial imaging technology.
3. To conduct seminars and lectures and exchange information on industrial imaging.
4. To disseminate information from meetings related to standardization.
5. To conduct market and technical trend analyses of the industrial imaging industry.
6. To organize and support conferences and other events related to industrial imaging.
7. To engage in activities ancillary to the foregoing.

## Organization of JIIA




## Joining to JIIA

Please refer “Invitation to JIIA” on JIIA’s website. You can apply from the website.

**Japan Industrial Imaging Association**

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# Machine Vision Standards


https://www.emva.org/standards-technology/emva-standardization-philosophy/

## HFCS

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This standard stipulates Measurement Methods for color capturing accuracy of industrial camera. It is an evaluation method for selecting and evaluating industrial cameras used in inspection equipment.

## SLVS-EC

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SLVS-EC is a high speed interface between image sensor and processor. 8B10B architecture allows easy to assemble and therefore suitable for high speed and long distance transmission. Multi lane function supports various applications.

## Optical Transmission Media

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High speed imagers like the CMOS sensor are well adopted in the MV market. The Optical Transmission Media WG has three types of the optical media to offer the suitable solution.

## CoaXPress

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CoaXPress is a scalable interface to connect devices to hosts. It combines the simplicity of 75 ohm coaxial cable with serial data transfer upto 12.5 Gbps, plus camera control and power in the same cable. Now Optical fiber option is available.

## IIDC2

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IIDC2 offers common method for controlling cameras with various kinds of interfaces and models. IIDC2 standard uses a flexible-fixed camera control register layout. It is a very simple approach for controlling cameras.

## USB3 VISION

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USB3 Vision standard is a camera standard using USB 3.0 interface. This standard offers high speed of 5Gbps and a low-cost solution by the PC standard interface.

## GenICam

emva

GenICam provides the common application programming interface (API) for all kinds of cameras, no matter what hardware interface technology is used or what features are implemented.

## GigE VISION

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GigE Vision standard uses the Ethernet (IEEE802.3) communication standard. GigE Vision supports multiple stream channels and allows for fast error-free image transfer over very long distances.

## 1288 EMVA Standard Compliant

emva

The EMVA1288 Standard is an electronic measurement standard to meet a need for a more uniform and standardized way of specifying the performance of image sensors and cameras.

## Camera Link

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Camera Link® is a high speed digital IF standard since 2000. Currently, many choices are possible as needed and PoCL also allows one cable system.

## Lighting Standard

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Lighting standards are covering the methodology of lighting design, performance measurement, specification notation and other technical items. Our team is also involved in activities of GenICam SFNC for Machine Vision Lighting.

## Camera Link HS

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Camera Link HS supports the extra high speed data transmission using 2 types of protocol: M-Protocol for 3 Gbps over copper cable, X-protocol for 10 Gbps over fiber cable. It supports the real time trigger with low jitter.

## Standards of LENS MOUNT for Vision Systems

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JIIA Lens Working Group has enacted 7 lens mount Standards for high resolution MV cameras.
Currently, the standards are enacted as S mount, NF/NF-J mount, TFL/TFL-II mount, and CFL/CFL-II/CFL-III mount.