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Multispectral Imaging Flow for Industrial Applications

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Multispectral imaging, enhanced by artificial intelligence (AI), is increasingly applied in industrial settings for quality control, defect detection, and process optimization. However, several challenges hinder its widespread adoption. The complexity and volume of multispectral data necessitate advanced algorithms for effective analysis, yet developing these algorithms is resource-intensive. Variability in imaging conditions, such as lighting and sensor noise, requires robust preprocessing techniques to ensure consistent results. Additionally, the integration of AI with existing industrial systems poses interoperability issues. Ensuring real-time processing capability is crucial for many applications but remains a technical hurdle due to the computational demands of AI models. We present here a Multispectral Imaging Flow that tackles these limitations and provide a usable solution for industrial applications. Validation in relevant use cases are presented.

Type of presentation

Talk

Classification

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AI, Industry, Logistics, Automation

Primary author: BEY-TEMSAMANI, Abdellatif (Flanders Make)

Co-author: DE GREVE, Lukas

Presenter: DE GREVE, Lukas

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