

QCAV2025 Program (General Session)

Day1 Session 1 10:00-12:00

S1-1	Shiryu Ueno, Yoshikazu Hayashi, Shunsuke Nakatsuka, Hiroaki Aizawa, Kunihiro Kato: Boosting Explainability of Visual Inspection via Multi-Head Vision Language Model
S1-2	F. Niget: A Visual Effector and AI-Driven Detection System for Surface Cosmetic Defects with Augmented Reality Integration
S1-3	Velibor Došljak, Igor Jovančević, Jean-José Orteu, Romain Brault, Zakaria Belbacha: Airplane Panels Inspection via 3D Point Cloud Segmentation on Low-volume Training Dataset
S1-4	Oussama Messai, Abbass Zein-Eddine, Abdelouahid Bentamou, Mickaël Picq, Nicolas Duquesne, Stéphane Puydarrieux, Yann Gavet: Enhancing Image Quality and Anomaly Detection for Small and Dense Industrial Objects in Nuclear Recycling
S1-5	Juraj Fulir, Petra Gospodnetić, Christoph Garth: Framework for development of perceptual defect visibility models
S1-6	Cancelled

Day1 Session 2 13:30-14:50

S2-1	Reimmer Meldrick, Chatoux Hermine, Aubreton Olivier: Spectral Learning-Based Artificial Vision for Quality Control
S2-2	Nikola Pižurica, Bilal Karabagli, Igor Jovančević, Jean-José Orteu: Utilizing large pre-trained monocular depth models for machining setup inspection and measurement
S2-3	Omar El Assal, Flavien David, Carlos M. Mateo, Sébastien Ciron, David Fofi: Welding process analysis through sequential classification of process images
S2-4	Hayami Shotts, Shigeki Yumoto, Kazuma Miura, Sarthak Pathak, Alessandro Moro, Kazunori Umeda: Assembly Progress Estimation using Instance Segmentation with Data Augmentation considering Annotation Data

Day1 Session 3 16:20-17:40

S3-1	F. Niget: AI-driven surface defect detection in aerospace manufacturing as part of the CASPR cobotized NDT platform, FANTOM project
S3-2	F. Ababsa, M.A. Nouredine, M. Bouali, R. EL Meouche, M. A. Sammuneh, F. De Martin, Mickael Beaufis, F. Viguier, B. Salvati: Digital Twins for Predictive Monitoring and Anomaly Detection: Application to Seismic and Railway Infrastructures
S3-3	Marija Džaković, Velibor Došljak, Igor Jovančević, Jean-José Orteu: Detection and characterization of damages on mechanical parts via 3D point cloud processing
S3-4	Zheng Liu: Industrial Inspection: The Mission of Machine Vision

Day2 Session 4 9:35-10:35

S4-1	Reiya Katsuragi, Mizuki Fukasawa, Tetsuya Matsuda, Shinsuke Shimojo, Takuya Akashi: The Relationship between Human Body Keypoints and Psychological States with Machine Learning: A Pilot Study
S4-2	Hiroyuki Ukida, Taiki Yokomi, Masahide Tominaga, Tomoyo Sasao, Kenji Terada: Ningyo Joruri Puppeteer Motion Measurement using Two Types of Motion Capture Devices
S4-3	Mizuki Fukasawa, Kazuma Fujimori, Yoshitaka Endo, Takuya Akashi, Yukie Arahata: Automatic sleep database generation using frame subtraction and machine learning

Day2 Session 5 10:50-12:10

S5-1	Junya Sato, Masahiko Tsuji: Differential Evolution-Based Parameter Optimization for Circle Detection by Hough Transform
S5-2	Zi Wang, Katsuya Hotta, Yu Ding, Ryusuke Takada, Chao Zhang, Jun Yu: Improving Subspace Clustering by Combining Self-Expressive and Greedy Models
S5-3	Wenqi Cai, Jun Yu, Yawen Zou, Chao Zhang: Improving the Explainability of Neural Network by Downstream Post-Optimization
S5-4	Yu Ding, Koichiro Kamide, Jun Yu, Chao Zhang: Dynamically Adaptive Negative Pairs for Contrastive Multi-View Clustering

Day2 Session 6 14:55-16:15

S6-1	Flavie Duthay, Stéphane Bazeille, Salem Ait Messaoud, Jonathan Ledy, Christophe Cudel, Jean-Philippe Lauffenburger: Improving monocular visual odometry localization with wheel and inertial measurements
S6-2	Phan Trong Huy: Hierarchical Fine-grained Action Recognition for Manufacturing Applications
S6-3	Imtiaz Ur Rehman, Amine Abadi, Moussa Labbadi, Lew Lew Yan Voon: Safety and Control of Wheeled Mobile Robots Using Differential Flatness under Disturbances
S6-4	Anthony BURGHOFFER, Jérémy SEYSSAUD, Baptiste MAGNIER, Stefan JANAQI: A Multi-Criteria Navigation Framework for Robotic Missions in Complex Environments

Day3 Session 7 9:15-10:15

S7-1	Kakeru Ohkuchi, Tomoaki Yamazaki, Seiya Ito, Kouzou Ohara: Exploiting Class Vulnerabilities: Targeted Mislabeling Attack in Object Detection
S7-2	Walid Brahim, Theo Petitjean, Lew-Fock-Chong Lew-Yan-Voon: A Review of Real-Time Object Detection for Sustainable Edge Deployment in Waste Sorting Sites
S7-3	Cancelled

Day3 Session 8 10:30-11:50

S8-1	Tomoaki Kimura, Toshihiko Tsukada: A method for estimating egg weight using image processing
S8-2	Kenshin Saito, Kenji Terada, Akio Nakano, Shintaro Kobara: Early Control of Spodoptera Litura that Lotus Root Pest Using Image Processing
S8-3	Koki Sasho, Hirohisa Miyata, Jumpei Ueda, Yonghoon Ji: Optical camera-based Boltzmann luminescent thermometer in dark situations
S8-4	Yuki Fujita, Alessandro Moro, Sarthak Pathak, Kazunori Umeda: Danger Detection in Skiing using a Helmet-mounted 360-degree Camera

Day3 Session 9 13:20-15:00

S9-1	Haruhi Saitou, Kenta Fukasawa, Yasutake Haramiishi, Tsuyoshi Shimizu, Michiko Morimoto: Contamination of Hospital Environments Due to Droplet Dispersion During Coughing -Visualization of Over-table Wiping-
S9-2	Leroux A., Debayle J., Lherminier S., Gavet Y.: Digital twin for bin-picking: Bridging the gap between 2D image analysis and 3D simulation through stochastic geometry
S9-3	Shimpei Okado, Hirooki Aoki: Proposal for Volume Estimating of Cherry Tomatoes Based on 3D Point Cloud
S9-4	H. Aoki, N. Fujita: Identification of Steel Surgical Instruments Using RGB-D OrthoImages
S9-5	Kevin SECRET-MORLAND, Eric FAUVET, and Olivier LALIGANT: Multi-scale surface matching method for assembly or recognition of 3D archaeological objects

Day3 Session 10 15:15-16:35

S10-1	Augustin Borne, Christophe Hennequin, Stéphane Bazeille, Philippe De Faria, Franz Quint, Sébastien Changey, Christophe Cudel: Multi-modal Object Tracking using raw visible and thermal infrared data
S10-2	B. Rahou, K. Helvig, P. Trouvé-Peloux, B. Abeloos, T. Sentenac, L. Gaverina, J.-M. Roche, J.-C. Krapez: Image synthesis using a physics-informed diffusion model for crack detection with laser flying spot thermography
S10-3	KAWAMOTO Yuna, KATSUMATA Shuto, MURAKAMI Tomoya, TOU Ayaka, TOYOZAKI Miyu, SANO Misaki, SAITO Junna, HONDA Misaki, OIKAWA Kazato, KAWASHIMA Moe, et al.: Emotion estimation using Emotion maps by Generative AI
S10-4	Yoshitaka Endo, Mako Sasaki, Reiya Katsuragi, Min Zou, Takuya Akashi: Makeup Transfer Based on Non-Facial Area Transfer Suppression using Color Channel Information