International Workshop on Frontiers of Computer Vision 2025

J302 International Conference Room, JeongHaSang Building

Sogang University, Seoul, Korea

Feb. 10 – 12, 2025

Sponsored by

Korean Computer Vision Society

Co-Sponsored by

The Institute of Electrical Engineers of Japan, Industry Applications Society

Venue

J302 International Conference Room, JeongHaSang Building

Sogang University, Seoul, Korea

J302 국제회의실, 정하상 빌딩, 서강대학교

Direction Maps are available at https://iwfcv2025.github.io/program.html
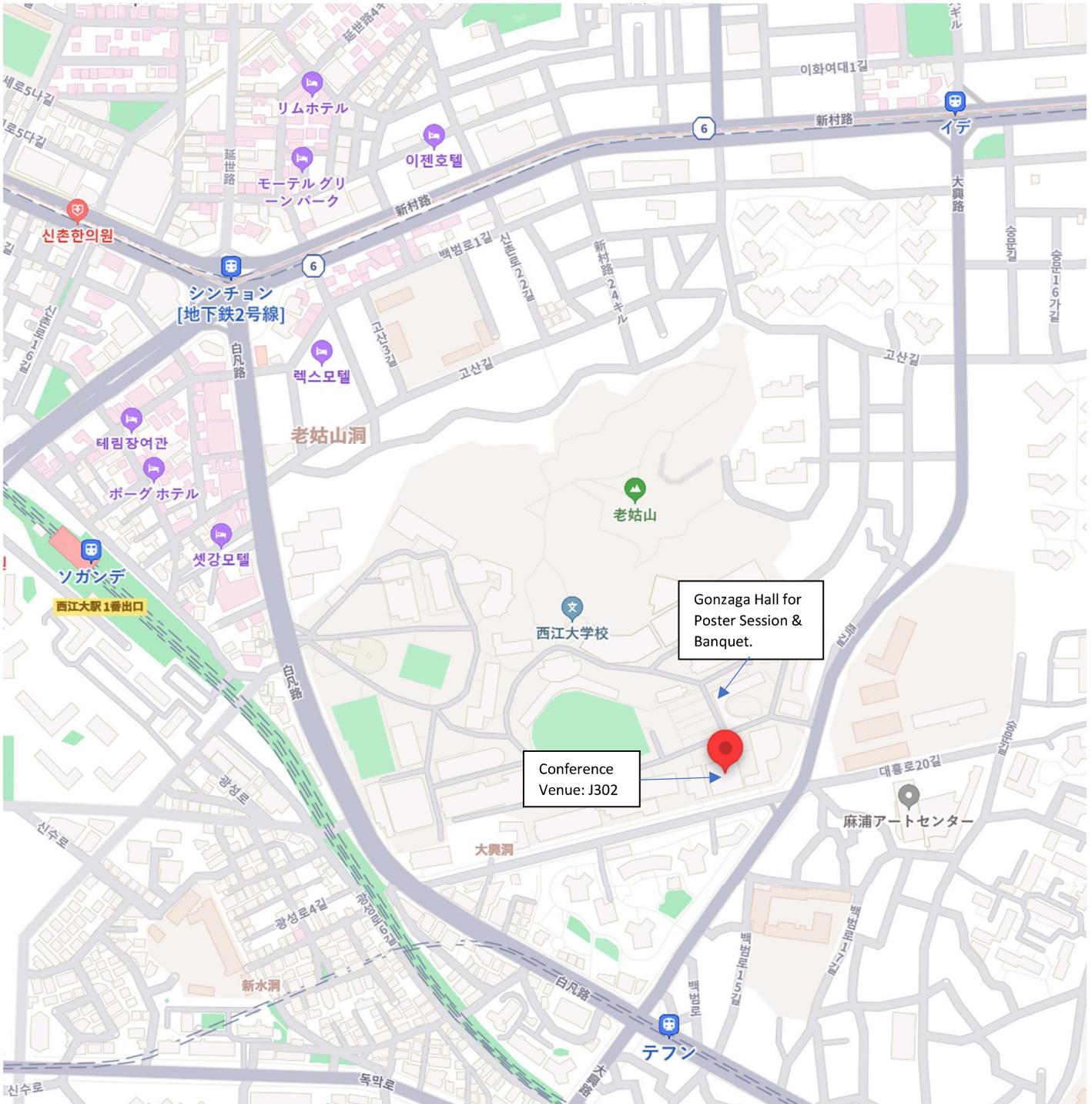
Organizing Committee

- Yongduek Seo (General Chair: Sogang University, Korea)

- Hiroyuki Ukida (General Chair: Tokushima University, Japan)

- Choonsung Shin (Program Chair: Chonnam National University, Korea)

- Go Irie (Program Chair: Tokyo University of Science, Japan)

Technical Program Committee

- Akinori Hidaka (Tokyo Denki University)

- Atsushi Shimada (Kyushu University)

- Chansoo Lee (Youngnam University, Korea)

- Eiichiro Momma (Nihon University)

- Gou Koutaki (Kumamoto University)

- Hideo Saito (Keio University)

- Hidehiro Ohki (Oita University)

- Hiroaki Aizawa (Hiroshima University)

- Hirooki Aoki (Chitose University)

- Hironobu Fujiyoshi (Chubu University)

- Hiroshi Tanaka (Fujitsu Limited)

- Hitoshi Habe (Kinki University)

- Hyun-Deok Kang (UNIST, Korea)

- In Kyu Park (Inha University, Korea)

- Inseop Na (Chonnam National University, Korea)

- Jae-Ho Lee (ETRI, Korea)

- Jaeil Kim (Kyungpook National University, Korea)

- Ji-Yun Cheon (SMIT, Korea)

- Keiji Yanai (The University of Electro-Communications)

- Kazuaki Nakamura (Tokyo University of Science)

- Kenji Terada (Tokushima University)

- Kengo Terasawa (Future University Hakodate)

- Kyoung Ho Choi (Mokpo National University, Korea)

- Kuryong Kwon (Pukyong National University, Korea)

- Maiya Hori (Kyushu University)

- Manabu Hashimoto (Chukyo University)

- Masashi Nishiyama (Tottori University)

- Masashi Toda (Kumamoto University)

- Min-Jeong Oh (Chungang University, Korea)

- Minoru Mori (Kanagawa Institute of Technology)

- Minsu Cho (POSTECH, Korea)

- Moon-Ho Jeong (Kwangwoon University, Korea)

- Naoshi Kaneko (Tokyo Denki University)

- Namho Hur (ETRI, Korea)

- Rui Ishiyama (NEC Corporation)

- Seiya Ito (National Institute of Information and Communications Technology)

- Soo Hyung Kim (Chonnam National University, Korea)

- Soon Ki Jung (Kyungpook National University, Korea)

- Soon-Yong Park (Kyungpook National University, Korea)

- Shuichi Akizuki (Chukyo University)

- Suk Hwan Lee (Tong Myong University, Korea)

- Takayoshi Yamashita (Chubu University)

- Takahiro Okabe (Okayama University)

- Takashi Shibata (NEC Corporation)

- Takayuki Fujiwara (Hokkaido Information University)

- Toru Tamaki (Nagoya Institute of Technology)

- Tsubasa Minematsu (Kyushu University)

- Wonjun Kim (Konkuk University, Korea)

- Wataru Ohyama (Tokyo Denki University)

- Yoshinori Kuno (Saitama University)

- Youngho Lee (Mokpo National University, Korea)

- Yuji Oyamada (Tottori University)

- Yusuke Kameda (Sophia University)

Steering Committee

- Jong-Il Park (Hanyang University, Korea)

- Junichiro Hayashi(Kagawa University)

- Kazuhiko Sumi (Aoyama Gakuin University)

- Kanghyun Jo (University of Ulsan, Korea)

- Kiryong Kwon (Pukyong National University, Korea)

- Kunihito Kato (Gifu University)

- Makoto Niwakawa (Meidensha)

- Soon Ki Jung (Kyungpook National University, Korea)

- Yoshimitu Aoki (Keio University)

Advisory Committee

- Chilwoo Lee (Chonnam National University, Korea)

- Hiroyasu Koshimizu (Chukyo University / YYC-Solution)

- Kazuhiko Yamamoto (Gifu University)

- Rin-ichiro Taniguchi (Kyusyu University)

- Takio Kurita (Hiroshima University)

- Weon-Geun Oh (ETRI, Korea)

Session	Start	End	Paper ID	Paper Title & Authors
2/10/2025 Opening	9:25 -	9:30		
	9:30 -	9:45	18	Visual Feedback Control of an Underactuated Hand for Grasping Objects of Varying Stiffness, Ryogo Kai (Chuo University)*; Yuzuka Isobe (Chuo University); Sarthal Pathak (Chuo University); Kazunori Umeda (Chuo University)
Oral Session 1	9:45 -	10:00	10	Relation Boosting for Unbiased PSG with Vision-Language Model, JINGBIN XU (The University of Electro-Communications)*; JUNWEN CHEN (The University of Electro-Communications); KEIJI YANAI (The University of Electro-Communications)
	10:00 -	10:15	40	Personal Protective Equipment Detection Based on Improved YOLO11-Nano using Multi-Perspective Attention, Adri Priadana (University of Ulsan)*; Duy-Linh Nguyen (University of Ulsan); Xuan-Thuy Vo (University of Ulsan); Jehwan Choi (University of Ulsan); Ge Cao (University of Ulsan); Kanghyun Jo (University of Ulsan)
tea break	10:15 -	10:35		
	10:35 -	10:50	6	A Cross-Modal Knowledge Distillation Approach for RGB-to-Infrared Video Action Recognition, Zhenzhen Quan (Shandong University)*; Daisuke Deguchi (Nagoya University); Jialei Chen (Nagoya University); Chenkai Zhang (Nagoya University); Yujun Li (Shandong University); Seigo Ito (Nagoya University); Hiroshi Murase (Nagoya University)
Oral Session 2	10:50 -	11:05	8	Drunken Person Recognition Considering Privacy Protection in the Learning Process, Ruka Murai (Ritsumeikan University)*; Yu Wang (Hitotsubashi University); Jiaqing Liu (Ritsumeikan University); Wei Zhou (Beijing Jiaotong University); Jien Kato (Kochi University of Technology)
	11:05 -	11:20	20	Implementing GANs to Simulate Ukiyo-e Coloring Styles, Song Jie (University of Aizu)*
tea break	11:20 -	11:35		
Invited Talk	11:35 -	12:25		Visualization of the Invisible: Programmable Light Transport Acquisition and Analysis by Professor Hiroyuki Kubo, Chiba University
lunch break	12:25 -	14:00		
	14:00 -	14:15 Online	9	A Human Posture Detection Method Based on Hausdorff Disatance, SHANQIAN SUN (Kyushu Univ.)*; KOHEI INOUE (Kyushu Univ.)
	14:15 -	14:30	23	Robot Arm Autonomous Control via Imitation Learning with Mamba, Hiroki Sakai (Gifu University)*; Masato Hayazaki (Gifu University); Kunihito Kato (Gifu University)
Oral Session 3	14:30 -	14:45	4	Enhancing Segmentation Performance through Synthetic Defect Generation, Hyunwook Jo (Inha University); JunHyung Park (Inha University); In Kyu Park (Inha University)*

5

Time	No.	Title / Authors
14:45 - 15:00	11	Automating Wood Grain Sensory Evaluation via Image Feature Fusion Approach using Vision-Language Models , Haruto Yoshida (Gifu University)*; Kunihito Kato (Gifu University); Dan Sasai (Yamaha Corporation); Yasuo Shiozawa (Yamaha Corporation); Kazunori Terada (Gifu University); Yoshikazu Hayashi (Gifu University)
15:00 - 15:15	17	Cherry Packing Skill Proficiency Classification Using Hand Motion Analysis, Ricardo Cerrud (University of Yamanashi)*

tea break

Poster Session	16:00 - 18:00 Gonzaga Hall		
1	36	Small-Signal Image Normalization for Evaluating Detail Enhancement Methods, Soichiro Honda (Nagoya Institute of Technology)*; Norishige Fukushima (Nagoya Institute of Technology)
2	21	CATS+: Cultural heritage data Augmentation and Transformation System with Correlation Analysis, Hyerin Hwang (Electronics and Telecommunications Research Institute)*; Seohyun Baek (Electronics and Telecommunications Research Institute); Chan-Woo Park (Electronics and Telecommunications Research Institute); Hee-Kwon Kim (Electronics and Telecommunications Research Institute); Jae-Ho Lee (Electronics and Telecommunications Research Institute)
3	37	Fast Approximate Vector Computation of Generalized Gaussian Functions, Hirokazu Kamei (Nagoya Institute of Technology)*; Soichiro Honda (Nagoya Institute of Technology); Norishige Fukushima (Nagoya Institute of Technology)
4	38	Improving Impurity Detection in Laver Images through Data Augmentation, Byungjoon Kim (Sogang University)*
5	19	Human Pose Manifold Learning Driven by the Reconstruction Loss of Interpolated Embedding Variables, Jong Hoon Kim (Yeungnam University)*
6	29	Image Dataset Project for Non-destructive and Visual Inspection, Hiroyuki Ukida (Tokushima University)*; Toshihiko Tsukada (Aichi Institute of Technology); Kimiya Aoki (Chukyo University); Kenji Terada (Tokushima University); Minori Noguchi (Hitachi High-Tech Corporation); Hiroyasu Koshimizu (Chukyo University/(LLC)YYC Solution)
7	12	Behavior Analysis of Grokking with Flooding, Hiroto ITO (Kanagawa Institute of Technology); Minoru MORI (Kanagawa Institute of Technology)*
8	45	Multimodal AI Framework for Enhanced Image Synthesis and NFT Asset Management, SANIVARAPU JANARDHAN (Sathyabama Institute of Science & Technology)*
9	46	Semantic Visual Localization using 3D Gaussian Splatting, Soyoung Kang (Hanyang University)*

		#	Title
		10	Self-Supervised Learning to Rank for Multimodal Group Dance Skill Estimation, Yui Yoshida (Tokyo Denki University)*; Naoshi Kaneko (Tokyo Denki University)
		11	Player Position Tracking Through Bird's-Eye View Conversion of Handheld American Football Videos, Kazami Ishii (Keio University)*; Rintaro Otsubo (Keio University); Hideo Saito (Keio University)
		12	Jersey Number Recognition for American Football with SoccerNet Dataset, Rintaro Otsubo (Keio University)*; Kazami Ishii (Keio University); Hideo Saito (Keio University)
banquit	18:10		

11-Feb				
Oral Session 4	9:15 - 9:30	24	Mask-Guided Region-Specific Editing in Diffusion Models, Muhammad Shaheryar (Kyungpook National University); Jinhyeong Park (Kyungpook National University); Soon Ki Jung (Kyungpook National University)*
	9:30 - 9:45	25	Lightning Condition Discrimination Based on Hyperspectral Image, Shumpei Chochi (Tokyo Denki University)*; Youta Noboru (Tokyo Denki University); Yuko Ozasa (Tokyo Denki University)
	9:45 - 10:00	13	Proposal of an Artificial Intelligence Tool for Customer Harassment Training with Interactive Feedback, Shuji Awai (Fujitsu Limited)*; Takeshi Konno (Fujitsu Limited)
	10:00 - 10:15	27	Detection of Red Tide Plankton in Automatic Microscope System Imaging Using Deep Learning, Tomoka Kawano (Kumamoto University)*; Migita Masahiro (Kumamoto University); Tadashi Nakano (Fisheries Technology Institute); Akira Yamaguchi (Fisheries Technology Institute); Koki Yuasa (Fisheries Technology Institute); Masashi Toda (Kumamoto University)
tea break	10:15 - 10:35		,
	10:35 - 10:50	31	Character Restoration System for "Shihai-monjo" in Ancient Document Images Based on Image Inpainting Technique, Haruto Izumi (Kumamoto University)*; Masahiro Migita (Kumamoto University); Masashi Toda (Kumamoto University); Masahiko Itoh (Kumamoto University)

Session	Start		End	No.	Title / Authors
Oral Session 5	10:50	-	11:05	26	Reflectance and Illumination Estimation from An Known Reflectance for Classification, Yuma Mabuchi (Tokyo Denki Univercity)*; Takuma Kaneko (Tokyo Denki Univercity); Yuko Ozasa (Tokyo Denki Univercity)
	11:05	-	11:20	**34**	Occlusion Robust 2D Pose-Based Gait Recognition, Takeshi Konno (Fujitsu laboratories LTD.)*; Shuji Awai (Fujitsu laboratories LTD.); Takahiro Yoshioka (Fujitsu laboratories LTD.)
tea break	11:20	-	11:30		,
Invited Talk	11:30	-	12:20		,
lunch break	12:20	-	13:30		,
	13:30	-	13:45	28	Video Dataset Pruning with Dynamic and Inter-frame Uncertainties, Minako Yoshioka (Ritsumeikan)*; Yu Wang (Hitotsubashi University); Jiaqing Liu (Ritsumeikan University); Jien Kato (Kochi University of Technology)
Oral Session 6	13:45	-	14:00	35	Vision-based Human Fall Detection with Pre-trained YOLO Models: Comparison and Application, Duy-Linh Nguyen (University of Ulsan)*; Xuan-Thuy Vo (University of Ulsan); Adri Priadana (University of Ulsan); Jehwan Choi (University of Ulsan); Kang-Hyun Jo (University of Ulsan)
	14:00	-	14:15	30	Self Attention-Driven Refinements for Training-Free Segmentation in Diffusion Transformers, Rento Yamaguchi (The University of Electro-Communications)*; Keiji Yanai (The University of Electro-Communications)
tea break	14:15	-	14:35		,
	14:35	-	14:50	3	Extracting Temporal Features Robust to Headwear Variation from Video Sequences of Body Sway for Person Identification, Takuya Kamitani (Tottori University)*; Haruki Nakayama (Tottori University); Masashi Nishiyama (Tottori University)
Oral Session 7	14:50	-	15:05	14	Zero-shot Motion Control for Multiple Objects Using Video Diffusion Models, Ryota Kaji (The University of Electro-Communications); Keiji Yanai (The University of Electro-Communications)*
	15:05	-	15:20	5	Multi-group Vision Semantic Centroid for Semantic Segmentation, Jialei Chen (Nagoya University)*; Daisuke Deguchi (Nagoya University); Chenkai Zhang (Nagoya University); Zhenzhen Quan (Shandong University); Seigo Ito (Nagoya University); Hiroshi Murase (Nagoya University)
tea break	15:20	-	15:40		,

Session	Time	No.	Title, Authors
	15:40 - 15:55	39	3D Annotation System for Work Assistance in Living Environments, Haruya Ishigami (National Institute of Advanced Industrial Science and Technology)*; Tomomi Sato (National Institute of Advanced Industrial Science and Technology); Kenji Iwata (National Institute of Advanced Industrial Science and Technology); Yutaka Satoh (National Institute of Advanced Industrial Science and Technology)
Oral Session 8	15:55 - 16:10	16	Multi-View Images Acquisition for Digital Content Creation of Cultural Heritage, Keita Kano (University of Tsukuba)*; Chun Xie (Center for Computational Sciences, University of Tsukuba); Itaru Kitahara (Center for Computational Sciences, University of Tsukuba)
	16:10 - 16:25	41	Preliminary experiments for behavior log generation considering spatial relationship between actions and objects, Masae Yokota (Chuo University)*; Sarthak Pathak (Chuo University); Mihoko Niitsuma (Chuo University); Kazunori Umeda (Chuo University)
tea break	16:25 - 16:45	,	
	16:45 - 17:00	43	Two-Stream Network with Keyframe Sampling for Tennis Shot Classification, Kaito Saito (Tokyo Denki University)*; Naoshi Kaneko (Tokyo Denki University)
Oral Session 9	17:00 - 17:15	15	A Pseudo Optical-Axis-Matching Projector-Camera System by Using Intermediate Viewpoint Image Generation, Wataru Fujii (University of Tsukuba)*; Chun Xie (Center for Computational Sciences, University of Tsukuba); Itaru Kitahara (Center for Computational Sciences, University of Tsukuba)
	17:15 - 17:30	33	Conventional, Continual and Multi-Dataset Training: A Comparative Study on Abdominal Organ Segmentation, Asad Imam (Kyungpook National University); Iftikhar Ahmad (Kyungpook National University); Shahzad Ali (Kyungpook National University); Soon ki Jung (Kyungpook National University)*
	17:30 - 17:45	22	Domain-Adaptive Object Detection by Using Refined Pseudo-Labels via Segmentation, Juki Tanimoto (Chukyo University)*; Haruya Kyutoku (Aichi University of Technology); Keisuke Doman (Chukyo University); Yoshito Mekada (Chukyo University)
Concluding Remark	17:45 - 17:50		
12-Feb	Technical Tour		10AM