

SCHEDULE

of the

11TH ANNUAL CONFERENCE
ON COMPUTER VISION
AND INTELLIGENT SYSTEMS

on

DECEMBER 15TH AND 16TH, 2025

DAY 1 — MONDAY, DECEMBER 15, IN PSE (E7)-2317 & PSE (E7)-2357 (ONLINE / IN-PERSON HYBRID).

TIME	EVENT	TITLE / AUTHOR(S)
08:30 – 08:50	Registration & Coffee	
08:50 – 09:00	Opening Remarks	Fernando J. Pena Cantu , CVIS 2025 Chair, PhD.
09:00 – 10:00	Oral Presentations	<i>Towards Maximizing Storage Efficiency in Pathological Whole Slide Imaging: ROI-Based Hybrid Image Compression</i> by Faruk, Omor* ; Hasan, Mahmud .
		<i>Real-Time Physics Simulation with Dynamic Mesh-Gaussian Reconstructions</i> by Adrian, Ramlal* ; Zelek, John S .
		<i>Video-Based Player Re-Identification in Ice Hockey via Non-Contextual Implicit Features</i> by Iaboni, Evan* ; Nazemi, Amir ; Chen, Yuhao ; Clausi, David A .
10:00 – 11:00	Academic Keynote	<i>Conformal Prediction: From Images to Agents</i> . Dr. Jesse Cresswell , Staff Machine Learning Scientist, Layer 6 AI, Toronto.
11:00 – 11:20	Oral Presentations	<i>A Physics-Informed Digital Twin Framework for Calibrated Sim-to-Real FMCW Radar Occupancy Estimation</i> by Trinh, Huy* ; Ratto V., Sebastian ; Creager, Elliot ; Shaker, George .
11:20 – 11:40	Industry Lightning Talk	Eaigle
11:00 – 12:00	Oral Presentations	<i>Pre-train to Gain: Robust Learning Without Clean Labels</i> by Szczecina, David* ; Pellegrino, Nicholas ; Fieguth, Paul W .
12:00 – 13:00	Lunch	
13:00 – 14:00	Oral Presentations	<i>Real-Time Food Instance Segmentation for Assistive Robotic Feeding: A Comparative Study</i> by Ghulam, Zeyad* ; Abdullah, Hussein .
		<i>Learning Where the Manifold Ends: Contrastive Flow Matching with Negative Examples</i> by Pena Cantu, Fernando Jose* ; Chen, Yuhao ; Wong, Alexander .
		<i>Temporally Stable Rink Homography Estimation via 3D Reconstruction and Segmentation Fusion</i> by Salass, Liam* ; Dai, Bowen ; Chen, Yuhao ; Clausi, David A. ; Zelek, John S .
14:00 – 15:00	Academic Keynote	<i>Artificial Intelligence for Music, from Audio to Video, from Cyber to Physical</i> . Prof. Yung-Hsiang Lu , Professor, Purdue University, and Prof. Kristen Yeon-Ji Yun , Clinical Associate Professor, Purdue University.
15:00 – 17:00	Poster Session & Industrial Showcase	

*Indicates the first author of the paper.

DAY 2 — TUESDAY, DECEMBER 16, IN PSE (E7)-2317 & PSE (E7)-2357 (ONLINE / IN-PERSON HYBRID).

TIME	EVENT	TITLE / AUTHOR(S)
09:30 – 09:45	Registration & Coffee	
09:45 – 10:00	Opening Remarks & Welcome	Fernando J. Pena Cantu , CVIS 2025 Chair, PhD.
10:00 – 11:00	Oral Presentations	<i>Explainable Chain-of-Thought Object Counting in Vision-Language Models using Reinforcement Learning</i> by Zeng, E. Zhixuan* ; Saejith, Nair; Lei, Junfeng .
		<i>Anisotropic Kernels for Neural Implicit Surface Reconstruction</i> by Jang, Soyeon* ; Ramlal, Adrian; Fieguth, Paul W.; Chen, Yuhao ; .
		<i>Lightweight Range-Angle Imaging Based Algorithm for Quasi-Static Human Detection on Low-Cost FMCW Radar</i> by Trinh, Huy* ; Shaker, George .
11:00 – 12:00	Oral Presentations	<i>Player Pose-Driven Handedness Prediction for Ice Hockey</i> by Kevin, Wei* ; Evan, Iaboni; Amir, Nazemi; Clausi, David A .
		<i>GC360IQ: Gradient-Detail Consistency Model for 360-degree Stitched Image Quality Assessment</i> by Zhou, Jinghan* ; Wang, Zhou .
		<i>Optical Flow-Enhanced Thermal Targeting for Real-Time UAV Interception from Mobile Platforms</i> by Bob, Maser* ; Zelek, John S; Khan, Areel .
12:00 – 13:00	Lunch	
13:00 – 14:00	Academic Keynote	Dr. Wojtek Fedorko , Deputy Department Head of Scientific Computing, Triumph.
14:00 – 15:00	Academic Keynote	<i>From Research to Reality: Four Lessons for Lasting Impact in Robotics.</i> Ryan Gariepy , Vice President, Robotics for Rockwell Automation.
15:00 – 15:30	Awards Ceremony & Closing Remarks	

*Indicates the first author of the paper.

**DAY 1 — POSTER SESSIONS, IN PSE (E7)-EVENT SPACE (IN-PERSON ONLY),
15:00 – 17:00.**

- 1. BASTE: Baybayin Scene Text Detection and Recognition based on CRAFT and CRNN by Aggarao, John Eric; Tomas, Rock Christian V.**
- 2. A Physics-Informed Digital Twin Framework for Calibrated Sim-to-Real FMCW Radar Occupancy Estimation by Trinh, Huy; Ratto V., Sebastian; Creager, Elliot; Shaker, George.**
- 3. GC360IQ: Gradient-Detail Consistency Model for 360-degree Stitched Image Quality Assessment by Zhou, Jinghan; Wang, Zhou.**
- 4. Whole-Slide Image Compression and On-Demand Viewing using Reference-Based Super-Resolution by Yang, Wenbo; Shin, Seungho; Zhu, Richard Y.; Wang, Zhou.**
- 5. Tracking the Untrackable: Failure Modes of Object Trackers on Ice Hockey Puck by Salass, Liam; Clausi, David A.; Zelek, John S.**
- 6. Event Detection in Ice Hockey Using Game-Aware Representations: A Dataset and Baseline Study by Nsiempba, Ken Mangouh; Nazemi, Amir; Zelek, John S.; Clausi, David A.**
- 7. Effects of Initialization Biases on Deep Neural Network Training Dynamics by Pellegrino, Nicholas; Szczecina, David; Fieguth, Paul W.**
- 8. Structured Clinical Interpretation of Lung Computed Tomography Using Florence-2: A Post-Detection Application of Vision Language Models by Dutta, Pramit; Manokaran, Jenita; Mittal, Richa; Ukwatta, Eranga.**
- 9. PortionNet: Distilling 3D Geometric Knowledge for Food Nutrition Estimation by Bright, Darrin; Raj, Rakshith; Keisham, Kanchan.**
- 10. Severity-Aware Multimodal Network for Chest X-Ray Triage and Disease Captioning by Ghulam, Zinah; Mittal, Richa; Ukwatta, Eranga.**
- 11. Self-Supervised Learning by Curvature Alignment by Ghojogh, Benyamin; Sepanj, M.Hadi; Fieguth, Paul W.**
- 12. AI Sensor Interfaces: Modern Architectures Enabling Intelligent Perception by Ojha, Anjan Kumar.**
- 13. Spatial Refinement for 3D Human Mesh Recovery in Ice Hockey Broadcast Videos by Wang, Zhibo; Rambhatla, Sirisha; Chen, Yuhao; Clausi, David A.**
- 14. Object ReID in an office environment: An empirical study by Klepachevskyi, Dmytro; Rambhatla, Sirisha; Chen, Yuhao.**
- 15. Dissecting the Trade-offs between accuracy and completeness in SLAM for Large Outdoor Scenes: A Comparative Study of Pi-Long and VGGT-Long by Wu, Quanyun; Mao, Dayou; Chen, Yuhao; Clausi, David A.; Li, Jonathan.**
- 16. Pre-train to Gain: Robust Learning Without Clean Labels by Szczecina, David; Pellegrino, Nicholas;**

Fieguth, Paul W.

17. *Beyond Static Gaussians: An Empirical Investigation of Architectural Paradigms for Dynamic 3D Scene Reconstruction* by Ramlal, Adrian; Zelek, John S.

18. *Anisotropic Kernels for Neural Implicit Surface Reconstruction* by Jang, Soyeon; Ramlal, Adrian; Chen, Yuhao; Fieguth, Paul W.

19. *Neuro-Symbolic Reasoning: A Roadmap of Unsolved Core Questions* by Dhayalkar, Sahil Rajesh.

20. *ZoomGate: Scale-Aware Action Recognition Across Mixed Zoom Levels* by Buzko, Kseniia; Clausi, David A.; Zelek, John S.; Chen, Yuhao.

21. *Temporally Stable Rink Homography Estimation via 3D Reconstruction and Segmentation Fusion* by Salass, Liam; Dai, Bowen; Chen, Yuhao; Clausi, David A.; Zelek, John S.

22. *Lightweight Range-Angle Imaging Based Algorithm for Quasi-Static Human Detection on Low-Cost FMCW Radar* by Trinh, Huy; Shaker, George.

23. *Player Pose-Driven Handedness Prediction for Ice Hockey* by Wei, Kevin; Iaboni, Evan; Nazemi, Amir; Clausi, David A.

24. *Understanding vision transformer quantization robustness through the lens of out-of-distribution detection* by Kuang, Joey; Wong, Alexander.

25. *Video-Based Player Re-Identification in Ice Hockey via Non-Contextual Implicit Features* by Iaboni, Evan; Nazemi, Amir; Chen, Yuhao; Clausi, David A.

26. *Evaluating the Gemini 2.5 Flash Model for Use in Dietary Monitoring* by Tamlin, Anna-Margret; Chen, Yuhao.

27. *Explainable Chain-of-Thought Object Counting in Vision-Language Models using Reinforcement Learning* by Zeng, E. Zhixuan; Nair, Saejith; Lei, Junfeng.

28. *Reducing Closeup Frequency Artifacts for Level-of-Detail 3D Gaussian Splatting* by Zhou, Leonardo; Mao, Dayou; Lin, Yuchen; Ebadi, Ashkan; Wong, Alexander; Chen, Yuhao.

29. *Towards Maximizing Storage Efficiency in Pathological Whole Slide Imaging: ROI-Based Hybrid Image Compression* by Faruk, Omor; Hasan, Mahmud.

30. *Deep Learning-Based Nuclei Segmentation for Label-Free Histology Using Photon Absorption Remote Sensing Microscopy* by So, Gloria J.; Ali, Umar; Tummon Simmons, James A.; Tweel, James E.D.; Ecclestone, Benjamin R.; Haji Reza, Parsin.

31. *An Empirical Study of Attention-Based and LLM-Enhanced Approaches for Large-Scale Floorplan Recognition* by Lin, Yuchen; Mao, Dayou; Chen, Yuhao; Ebadi, Ashkan.

32. *Automated Gas Identification from Long-Wavelength Infrared Spectra using a Convolutional Neural Network* by Gulsayin, Ozge; Singh, Arpan R; Itheme, Kenneth K.; Daun, Kyle J.

33. *Optical Flow-Enhanced Thermal Targeting for Real-Time UAV Interception from Mobile Platforms* by **Maser, Bob; Zelek, John S.**
34. *End-to-End BraTS Segmentation Pipeline with Advanced Architectures, ET-Focused Fine-Tuning, and Ensemble Optimization* by **Riyazat, Mohammadreza; Ukwatta, Eranga.**
35. *PMAF Loss: Probabilistic Margin-Aware Focal Loss for Robust Medical Image Classification* by **Sagar, Abhinav.**
36. *Learning Where the Manifold Ends: Contrastive Flow Matching with Negative Examples* by **Pena Cantu, Fernando Jose; Chen, Yuhao; Wong, Alexander.**
37. *From Regression to Classification: Exploring the Benefits of Distributional Representations of Energy in MLIPs* by **Ali, Ahmad.**
38. *Training-Free Robot Pose Estimation using Off-the-Shelf Foundational Models* by **Liang, Laurence.**
39. *Deep Sequence Model for Genome Wide Discovery of Coding and Regulatory Element Signatures* by **Shabani Nia, Rayhaneh; Karkehabadi, Ali.**
40. *AnytimeGS: Controllable Sized Frequency Ordered Gaussians for Compact Levels-of-Detail Representation* by **Mao, Dayou; Zhou, Leonardo; Ebadi, Ashkan; Wong, Alexander; Chen, Yuhao.**
41. *Real-Time Food Instance Segmentation for Assistive Robotic Feeding: A Comparative Study* by **Ghulam, Zeyad; Abdullah, Hussein.**
42. *Modeling Football Player Trajectories During Passes Using Graph-Structured Recurrent Networks* by **McGuigan, Kiernan; Hsiao, Jayden; Scott, K. Andrea; Rambhatla, Sirisha; Clausi, David A.; Xu, Lincoln Linlin.**
43. *Real-Time Physics Simulation with Dynamic Mesh-Gaussian Reconstructions* by **Ramlal, Adrian; Zelek, John S.**