AVSS 2021 Program Overview

All times are in Washington, DC time (EST)
Each talk is 15 mins long (12 mins + 3 min Q&A)
Zoom link will be emailed to the registered authors shortly.

Tuesday, November 16, 2021 (13 papers)
8:00am-8:15am: Welcome, Announcements, Awards
8:15am-9:15am: Session 1 (4 orals)
9:15am-10:15am: Session 2 (4 orals)
10:15am-10:30am: Break
10:30am-11:45am: Session 3 (5 orals)

Wednesday, November 17, 2021 (12 papers)
8:00am-9am: Session 4 (4 orals)
9:00am-10:00am: Keynote 1
10:00am-10:15am: Break
10:15am-11:15am: Session 5 (4 orals)
11:15am-12:00pm: Session 6 (4 orals)

Thursday, November 18, 2021 (12 papers)
8:00am-9:30am: Session 7 (6 orals)
9:30am-10:30am: Keynote 2
10:30am-10:45am: Break
10:45am-12:15pm: Session 8 (6 orals)

Friday, November 19, 2021 (10 papers)
8:00am-9:30am: Session 7 (6 orals)
9:30am-9:45am: Break
9:45am-12:15pm: Session 8 (Challenge Session)

Tuesday, November 16, 2021 (13 papers)

8:00am - 8:15am Welcome, Announcements, Awards

8:15am - 9:15am Session 1: Anomaly Detection (4 orals)

(8:15am-8:30am) Paper 85: DAM : Dissimilarity Attention Module for Weakly supervised Video Anomaly Detection

(8:30am-8:45am) Paper 29: CPNet: Cross-Parallel Network for Efficient Anomaly Detection

(8:45am-9:00am) Paper 33: Injecting Sparsity in Anomaly Detection for Efficient Inference

(9:00-9:15am) Paper 22: Moving-Object-Aware Anomaly Detection in Surveillance Videos

9:15am - 10:15am Session 2: Action and Activity Recognition (4 orals)

(9:15am-9:30am) Paper 23: Action Recognition with Fusion of Multiple Graph Convolutional Networks

(9:30am-9:45am) Paper 58: Action Recognition with Domain Invariant Features of Skeleton Image

(9:45am-10:00am) Paper 72: A Seismic Sensor based Human Activity Recognition Framework using Deep Learning

(10:00am-10:15am) Paper 24: PIDLNet: A Physics-Induced Deep Learning Network for Characterization of Crowd Videos

10:15am-10:30am Break

10:30am - 11:45am Session 3: Detection (5 orals)

(10:30am-10:45am) Paper 26: Deep Learning for Body Parts Detection using HRNet and EfficientNet

(10:45am-11:00am) Paper 32: A comprehensive maritime benchmark dataset for detection, tracking and threat recognition

(11:00am-11:15am) Paper 68: ARPD: Anchor-free Rotation-aware People Detection using Topview Fisheye Camera

(11:15am-11:30am) Paper 77: FlagDetSeg: Multi-Nation Flag Detection and Segmentation in the Wild

(11:30am-11:45am) Paper 82: Hazardous Events Detection in Automatic Train Doors Vicinity Using Deep Neural Networks

Wednesday, November 17, 2021 (12 papers)

8:00am-9:00am Session 4: Biometrics (4 orals)

(8:00am-8:15am) Paper 6: DSA-PR: Discrete Soft Biometric Attribute-Based Person Retrieval in Surveillance Videos

(8:15am-8:30am) Paper 42: D4FLY Multimodal Biometric Database: multimodal fusion evaluation envisaging biometrics on-the-move for border control

(8:30am-8:45am) Paper 7: Attribute-Based Facial Image Manipulation on Latent Space

(8:45am-9:00am) Paper 50: FLAME: Facial Landmark Heatmap Activated Multimodal Gaze Estimation

9:00am-10:00am Keynote 1

Speaker: Prof. Xiaoming Liu, Michigan State University
Title: Toward 3D Visual Perception and Trustworthy Biometrics

10:00am-10:15am Break

10:15am - 11:15am Session 5: Video analytics (4 orals)

(10:15am-10:30am) Paper 5: Virtual Inductive Loop: Real time video analytics for vehicular access control

(10:30am-10:45am) Paper 45: MultAV: Multiplicative Adversarial Videos

(10:45am-11:00am) Paper 53: Position-aware Location Regression Network for Temporal Video Grounding

(11:00am-11:15am) Paper 78: A Video Analytic System for Rail Crossing Point Protection

11:15am-12:15pm Session 6: Thermal & Multimodal Systems (4 orals)

(11:15am-11:30am) Paper 49: A Real-time Super-Resolution for Surveillance Thermal Cameras using optimized pipeline on Embedded Edge Device

(11:30am-11:45am) Paper 81: Bridging the Invisible and Visible World: Translation between RGB and IR Images through Contour Cycle GAN

(11:45am-12:00pm) Paper 30: From Multimodal to Unimodal Attention in Transformers using Knowledge Distillation

(12:00pm-12:15pm) Paper 11: ZSpeedL - Evaluating the Performance of Zero-Shot Learning Methods using Low-Power Devices

Thursday, November 18, 2021 (12 papers)

8:00am-9:30am Session 7: Tracking and Re-identification (6 orals)

(8:00am-8:15am) Paper 52: TrichTrack: Multi-Object Tracking of Small-Scale Trichogramma Wasps

(8:00am-8:15am) Paper 80: Learning Sequential Visual Appearance Transformation for Online Multi-Object Tracking

(8:00am-8:15am) Paper 101: Multi-Pedestrian Tracking with Clusters

(8:00am-8:15am) Paper 102: On the Performance of Crowd-Specific Detectors in Multi-Pedestrian Tracking

(8:00am-8:15am) Paper 79: Oriented Splits Network to Distill Background for Vehicle Re-Identification

(8:00am-8:15am) Paper 87: Geometry-Based Person Re-Identification in Fisheye Stereo

9:30am - 10:30am Keynote 2

Speaker: Prof. Shaogang Gong, Queen Mary University of London

Title: Learning from Small Data and Without Labels

10:30am-10:45am Break

10:45am - 12:15pm - Session 8: Miscellaneous (6 orals)

(10:45am-11:00am) Paper 2: Learning Temporal 3D Human Pose Estimation with Pseudo-Labels

(11:00am-11:15am) Paper 3: A Multi-Stream Approach for Seizure Classification with Knowledge Distillation

(11:15am-11:30am) Paper 8: A Sample Weighting and Score Aggregation Method for Multi-query Object Matching

(11:30am-11:45am) Paper 15: Introspective Closed-Loop Perception for Energy-efficient Sensors

(11:45am-12:00pm) Paper 44: Person Localisation under Fragmented Occlusion

(12:00pm-12:15pm) Paper 56: Far-Sighted BiSeNet V2 for Real-time Semantic Segmentation

Friday, November 19, 2021 (10 papers)

8:00am - 9:30am	**Session 7: Miscellaneous (6 orals)**
(8:00am-8:15am)	Paper 21: Fine-grained anomaly detection via multi-task self-supervision
(8:15am-8:30am)	Paper 93: Bayesian Personalized-Wardrobe Model (BP-WM) for Long-Term Person Re-Identification
(8:30am-8:45am)	Paper 94: A Splittable DNN-Based Object Detector for Edge-Cloud Collaborative Real-Time Video Inference
(8:45am-9:00am)	Paper 83: A Fire Detection Model Based on Tiny-YOLOv3 with Hyperparameters Improvement
(9:15am-9:30am)	Paper 36: An Efficient and Tobust Framework For Collaborative Monocular Visual SLAM
(9:30am-9:45am)	Paper 71: The Dataset and Baseline Models to Detect Human Postural States Robustly against Irregular Postures

9:30am-9:45am **Break**

9:45am-12:15pm **Session 8: Challenge Session**