General Schedule

All times are in Madrid, CET time.
Each talk is 10 minutes long (8 minutes + 2 minutes Q&A).
Zoom link will be emailed to the registered authors.

Tuesday, November 29 – DeepView Workshop

Web: https://sites.google.com/view/deepview2022/home
Important information: the DeepView workshop is **only remote, not physically at UAM**

Wednesday, November 30 – Main Track

11:00 – 12:30	Registration + COVID-19 Test at Building C, EPS
12:30 – 13:15	Lunch
13:15 – 13:30	Opening Session
13:30 – 14:30	Oral Session 1: Surveillance Systems and Applications
14:30 – 15:30	**Keynote: Vishal M. Patel**
15:30 – 16:00	Coffee Break
16:00 – 17:00	Oral Session 2: Anomaly Detection and Recognition
17:00 – 18:00	Oral Session 3: Biometrics and Person Re-Identification
18:00 – 20:00	Welcome Reception at Escuela Politecnica Superior

Thursday, December 1   –   Main Track

8:45 – 9:30	Chocolate and Churro Breakfast at Chocolateria 1902
9:30 – 11:30	Madrid City Tour (It starts at Chocolateria 1902)
12:00 – 12:30	Registration at Building C, EPS
12:30 – 13:30	Lunch
13:30 – 14:30	Oral Session 4: Detection and Tracking
14:30 – 15:30	**Keynote: Siwei Lyu**
15:30 – 16:00	Coffee Break
16:00 – 17:00	Oral Session 5: Segmentation and Estimation
17:00 – 18:00	Oral Session 6: Other Recognition Tasks in Computer Vision
19:30 – 23:00	Gala Dinner at Circulo de Bellas Artes

Friday, December 2   –   Main Track

12:00 – 12:30	Registration at Building C, EPS
12:30 – 13:30	Lunch
13:30 – 14:30	Oral Session 7: Sensor Processing and Data Generation
14:30 – 15:30	**Keynote: Julian Fierrez**
15:30 – 16:00	Coffee Break
16:00 – 17:00	Oral Session 8: Representation Learning
17:00 – 18:00	Oral Session 9: Audio-Visual Detection and Classification
18:00 – 18:15	Closing Ceremony

Wednesday, November 30, 2022 (18 papers)

11:00 – 12:30   Registration + COVID-19 Test

Place: Building C of Escuela Politecnica Superior
Important information: please, arrive with enough time as COVID-19 Test takes some minutes

12:30 – 13:15   Lunch

Place: Plaza Mayor de la UAM
Important information: you need to register first at Building C of Escuela Politecnica Superior

13:15 – 13:30   Opening Session

13:30 – 14:30   Oral Session 1: Surveillance Systems and Applications
Session Chair: Juan C. SanMiguel

13:30 – 13:40   **Paper ID 5 (in-site presentation)**: Height Normalizing Image Transform for Efficient Scene Specific Pedestrian Detection

13:40 – 13:50   **Paper ID 11 (remote presentation)**: Accelerated Blind Deblurring Method via Video-based Estimation in Next Point Spread Functions for Surveillance

13:50 – 14:00   **Paper ID 23 (in-site presentation)**: A Visual Surveillance System to Observe Realistic Road User Behavior for Improved Pedestrian and Cyclist Safety at Crossroads

14:00 – 14:10   **Paper ID 66 (in-site presentation)**: UPM-GTI-Face: A dataset for the evaluation of the impact of distance and masks in face detection and recognition systems

14:10 – 14:20   **Paper ID 72 (remote presentation)**: Impact of Video Compression on the Performance of Object Detection Systems for Surveillance Applications

14:20 – 14:30   **Paper ID 87 (remote presentation)**: Robust Unseen Video Understanding for Various Surveillance Environments

14:30 – 15:30   Keynote: Vishal M. Patel

Title: Domain Adaptive Object Detection
Session Chair: Javier Ortega-Garcia

15:30 – 16:00   Coffee Break

16:00 – 17:00   Oral Session 2: Anomaly Detection and Recognition
    Session Chair: Vishal M. Patel

16:00 – 16:10   **Paper ID 24 (in-site presentation)**: Simultaneous Localization and Anomaly Detection from First-Person Video Data through a Coupled Dynamic Bayesian Network Model

16:10 – 16:20   **Paper ID 32 (remote presentation)**: Spatial-Temporal Transformer for Crime Recognition in Surveillance Videos

16:20 – 16:30   **Paper ID 46 (in-site presentation)**: FPDM: Fisheye Panoptic segmentation dataset for Door Monitoring

16:30 – 16:40   **Paper ID 77 (in-site presentation)**: Spatio-temporal predictive tasks for abnormal event detection in videos

16:40 – 16:50   **Paper ID 84 (remote presentation)**: Violence Detection using 3D Convolutional Neural Networks

16:50 – 17:00   **Paper ID 94 (remote presentation)**: Utilizing Crowd Collectiveness to Enhance Bottleneck Detection Based on the Lagrangian Framework

17:00 – 18:00   Oral Session 3: Biometrics and Person Re-Identification
    Session Chair: Javier Ortega-Garcia

17:00 – 17:10   **Paper ID 35 (remote presentation)**: FRIDA: Fisheye Re-Identification Dataset with Annotations

17:10 – 17:20   **Paper ID 44 (remote presentation)**: Fast High-Resolution Fingerprint Recognition using Domain-Knowledge Infused Global Descriptors

17:20 – 17:30   **Paper ID 70 (in-site presentation)**: REET: Region Enhanced Transformer for Person Re-Identification

17:30 – 17:40   **Paper ID 80 (in-site presentation)**: MASK-MORPH: Does Morphing of Custom 3D Face Masks Threatens the Face Recognition Systems?

17:40 – 17:50   **Paper ID 96 (remote presentation)**: Exploring attention on faces: similarities between humans and Transformers

17:50 – 18:00   **Paper ID 97 (remote presentation)**: Attribute De-biased Vision Transformer (AD-ViT) for Long-Term Person Re-identification

18:00 – 20:00   Welcome Reception

Place: Building A of Escuela Politecnica Superior

Thursday, December 1, 2022 (18 papers)

8:45 – 9:30   Chocolate and Churro Breakfast

Place: Chocolateria 1902

9:30 – 11:30   Madrid City Tour

Place: It starts at Chocolateria 1902

12:00 – 12:30   Registration

Place: Building C of Escuela Politecnica Superior

12:30 – 13:30   Lunch

Place: Plaza Mayor de la UAM

13:30 – 14:30   Oral Session 4: Detection and Tracking
Session Chair: Álvaro García-Martín

13:30 – 13:40   **Paper ID 6 (remote presentation)**: FBMOT: Flow Bridges the Gap between Detection and Tracking in Multiple Object Tracking

13:40 – 13:50   **Paper ID 13 (remote presentation)**: A Ship Detection Model Based on YOLOX with Lightweight Adaptive Channel Feature Fusion and Sparse Data Augmentation

13:50 – 14:00   **Paper ID 15 (remote presentation)**: Fusion Tree Network for RGBT Tracking

14:00 – 14:10   **Paper ID 73 (remote presentation)**: Tracking Failure Prediction for Siamese Trackers Based on Channel Feature Statistics

14:10 – 14:20   **Paper ID 74 (in-site presentation)**: Refining Action Boundaries for One-stage Detection

14:20 – 14:30   **Paper ID 86 (remote presentation)**: Detection-aware multi-object tracking evaluation

14:30 – 15:30   Keynote: Siwei Lyu

Title: Combatting DeepFakes
Session Chair: Ruben Tolosana

15:30 – 16:00   **Coffee Break**

16:00 – 17:00   **Oral Session 5: Segmentation and Estimation**
             Session Chair: Lucio Marcenaro

16:00 – 16:10   **Paper ID 10 (remote presentation)**: Deep Learning and Computer Vision Techniques for Estimating Snow Coverage on Roads using Surveillance Cameras

16:10 – 16:20   **Paper ID 29 (remote presentation)**: Crowd counting Using DRL-based segmentation and RL-based density estimation

16:20 – 16:30   **Paper ID 31 (in-site presentation)**: A Data-Driven Approach for the Localization of Interacting Agents via a Multi-Modal Dynamic Bayesian Network Framework

16:30 – 16:40   **Paper ID 36 (remote presentation)**: Dynamic Background Subtraction by Generative Neural Networks

16:40 – 16:50   **Paper ID 69 (in-site presentation)**: Background Subtraction Network Module Ensemble for Background Scene Adaptation

16:50 – 17:00   **Paper ID 88 (remote presentation)**: Graph Structure Learning Boosted Neural Network for Image Segmentation

17:00 – 18:00   **Oral Session 6: Other Recognition Tasks in Computer Vision**
             Session Chair: Christian Micheloni

17:00 – 17:10   **Paper ID 42 (remote presentation)**: Deep Network for Extremely Low-Resolution Human Action Recognition

17:10 – 17:20   **Paper ID 48 (in-site presentation)**: Reliability Scoring for the Recognition of Degraded License Plates

17:20 – 17:30   **Paper ID 49 (in-site presentation)**: Learning Occlusion-Aware Dense Correspondences for Multi-Modal Images

17:30 – 17:40   **Paper ID 60 (in-site presentation)**: Real time Vehicle Color Recognition on a budget: an investigation on the usage of CNN architectures

17:40 – 17:50   **Paper ID 62 (in-site presentation)**: Hand-Object Interaction Reasoning

17:50 – 18:00   **Paper ID 92 (in-site presentation)**: Customer Behavior Recognition Adaptable for Changing Targets in Retail Environments

19:30 – 23:00   **Gala Dinner**

Place: Circulo de Bellas Artes

Friday, December 2, 2022 (17 papers)

12:00 – 12:30   Registration

Place: Building C of Escuela Politecnica Superior

12:30 – 13:30   Lunch

Place: Plaza Mayor de la UAM

13:30 – 14:30   Oral Session 7: Sensor Processing and Data Generation
Session Chair: Pablo Carballeira

13:30 – 13:40   **Paper ID 4 (in-site presentation)**: Robust Camera Calibration with a Single Image by Planar Homography

13:40 – 13:50   **Paper ID 25 (remote presentation)**: SAR Image Denoising in High Dynamic Range with Speckle and Thermal Noise Refinement Modeling

13:50 – 14:00   **Paper ID 40 (remote presentation)**: Dual Camera Based High Spatio-Temporal Resolution Video Generation For Wide Area Surveillance

14:00 – 14:10   **Paper ID 45 (remote presentation)**: Real Image Super-Resolution using GAN through modeling of LR and HR process

14:10 – 14:20   **Paper ID 57 (remote presentation)**: FBMOT: Consolidated Adversarial Network for Video De-raining and De-hazing

14:20 – 14:30   **Paper ID 83 (remote presentation)**: Inception-based Deep Learning Architecture for 3D Point Cloud Completion

14:30 – 15:30   Keynote: Julian Fierrez

Title: Biases in Biometrics Recognition and Multimodal AI
Session Chair: Aythami Morales

15:30 – 16:00   Coffee Break

16:00 – 17:00   **Oral Session 8: Representation Learning**
Session Chair: Marcos Escudero-Viñolo

16:00 – 16:10   **Paper ID 20 (remote presentation)**: Distance-dependent Feature Alignment and Selection for Imbalance 3D Point Cloud Object Detection

16:10 – 16:20   **Paper ID 33 (remote presentation)**: Deformable Modules for Flexible Feature Sampling on Vision Transformer

16:20 – 16:30   **Paper ID 34 (remote presentation)**: Temporal-Invariant Video Representation Learning with Dynamic Temporal Resolutions

16:30 – 16:40   **Paper ID 37 (remote presentation)**: An End-to-End Encoder-Decoder Network with Multi-scale Feature Pulling for Detecting Local Changes From Video Scene

16:40 – 16:50   **Paper ID 99 (remote presentation)**: RCRL: Replay-based Continual Representation Learning in Multi-task Super-Resolution

17:00 – 18:00   **Oral Session 9: Audio-Visual Detection and Classification**
Session Chair: Alicia Lozano-Diez

17:00 – 17:10   **Paper ID 43 (remote presentation)**: Detection of birds in a 3D environment referring to audio-visual information

17:10 – 17:20   **Paper ID 59 (remote presentation)**: Improved Separation of Closely-spaced Speakers by Exploiting Auxiliary Direction of Arrival Information within a U-Net Architecture

17:20 – 17:30   **Paper ID 81 (remote presentation)**: A Spatio-temporal Deep Learning Approach for Underwater Acoustic Signals Classification

17:30 – 17:40   **Paper ID 85 (remote presentation)**: Dual-valued Neural Networks

17:40 – 17:50   **Paper ID 91 (remote presentation)**: 3D Object Detection of Cars and Pedestrians by Deep Neural Networks from Unit-Sharing One-Shot NAS

17:50 – 18:00   **Paper ID 93 (remote presentation)**: An Experimental Study of the Concept Drift Challenge in Farm Intrusion Detection using Audio

18:00 – 18:15   **Closing Ceremony**