Contents

1. **Edge Shape Pattern for Background Modeling based on Hybrid Local Codes** Seokjin Hong, Jaemyun Kim, Ad’in Ram’irez Rivera, Gihun Song, Oksam Chae

2. **Robust Discriminative Tracking via Query-by-Committee** Kourosh Meshgi, Shigeyuki Oba, Shin Ishii; Kyoto University

3. **Ensemble Of Adaptive Correlation Filters For Robust Visual Tracking** Erhan Gundogdu, Huseyin Ozkan, A. Aydin Alatan

4. **Multi-Object Tracking of Pedestrian Driven by Context** NGUYEN ANH*, INRIA Sophia-Antipolis; Francois Bremond, Inria Sophia Antipolis, France; Jana Trojanova, Honeywell

5. **Human Violence Recognition and Detection in Surveillance Videos** PIOTR BILINSKI*, Inria Sophia Antipolis, France; FRANCOIS

6. **A Hybrid Framework for Online Recognition of Activities of Daily Living In Real-World Settings** farhood negin*, INRIA sophia antipolis; Serhan Cosar, University of Lincoln; Michal Koperski, INRIA; Konstantinos Avgerinakis, Information Technologies Institute Centre for Research and Technology Hellas; Carlos Crispim-Junior, INRIA; FRANCOIS BREMOND, Inria Sophia Antipolis, France
7. **Modeling Spatial Layout of Features for Real World Scenario RGB-D Action Recognition**  
Michal Koperski*, INRIA; FRANCOIS BREMOND, Inria Sophia Antipolis, France

8. **A Flexible Ensemble-SVM for Computer Vision Tasks**  
Remi trichet*, DCU; Noel O'Connor, DCU

9. **Group Activity Recognition on Outdoor Scenes**  
Kyle Stephens*, University of York; Adrian Bors, University of York

10. **An In-depth Study of Sparse Codes on Abnormality Detection**  
Huamin Ren*, Aalborg University; Hong Pan, University of Copenhagen; Søren Ingvar Olsen, University of Copenhagen; Thomas Moeslund, Aalborg University

11. **Generalized Activity Recognition Using Accelerometer in Wearable Devices for IoT Applications**  
Enrahim Safadi, Intel; Fahim Mohammad*, Intel; Darshan Iyer, Intel; Benjamin Smiley, Intel; Nilesh Jain, Intel

12. **Second-order temporal concept composites for complex activity understanding**  
Carlos Crispim-Junior*, INRIA; Michal Koperski, INRIA; Serhan Cosar, University of Lincoln; FRANCOIS BREMOND, Inria Sophia Antipolis, France

13. **Detecting threat behaviours**  
Luis Patino*, University of Reading; James Ferryman, UNIV. OF READING, UK

14. **A Multi-Class Dataset for Abnormal Behavior Understanding in Crowd**  
Hamidreza Rabiee, Department of
15. **Crowd Semantic Segmentation Based on Spatial-temporal Dynamics** Jijia Li*, Shanghai Jiao Tong University; Hua Yang, Shanghai Jiao Tong University; Shuang Wu, Shanghai Jiao Tong University

16. **Improving Surface Normals Based Action Recognition in Depth Images** Xuan Son Nguyen*, Université de Lorraine, Loria, Inria; Thanh Phuong Nguyen, Southern University of Toulon Var; François Charpillet, Loria, Inria, Nancy

17. **Towards semantic context-aware drones for aerial scenes understanding** Sabrina Senatore*, University of Salerno; MARIO VENTO, University of Salerno, Italy; Vincenzo Loia, University of Salerno; Danilo Cavaliere, University of Salerno

18. **Online Multi-Person Tracking using Integral Channel Features** Hilke Kieritz*, Fraunhofer IOSB; Stefan Becker, Fraunhofer IOSB; Wolfgang Hübner, Fraunhofer IOSB; Michael Arens, Fraunhofer IOSB

19. **Prioritized target tracking with active collaborative cameras** Yiming Wang*, Queen Mary University of London; ANDREA CAVALLARO, Queen Mary University of London, UK

20. **An Energy-Efficient Wireless Video Sensor Node with a Region-of-Interest Based Multi-Parameter** Jong Hwan Ko*, Georgia Tech; Taesik Na, Georgia Tech; Saibal Mukhopadhyay, Georgia Tech
21. **Visual Tracking based on Object Appearance and Structure Preserved Local Patches Matching**  Wei Wang*, University of Tennessee-Knoxville; Kun Duan, Snapchat Inc.; Tai-Peng Tian, GE Global Research; Ting Yu, Alphabet Inc.; Ser Nam Lim, GE Global Research; Hairong Qi.

22. **Ear in the sky: ego-noise reduction for auditory micro aerial vehicles**  Lin Wang*, Centre for Intelligent Sensing, Queen Mary University of London; Andrea Cavallaro, Queen Mary University of London, UK

23. **Design Space Exploration for Adaptive Privacy Protection in Airborne Images**  omair sarwar*, Alpen-Adria-Universität Klagenfurt; Bernhard Rinner, Klagenfurt University; ANDREA CAVALARO, Queen Mary University of London, UK

24. **Autonomous Altitude Measurement and Landing Area Detection for Indoor UAV Applications**  Burak Kakillioglu*, Syracuse University; Senem Velipasalar, Syracuse University

25. **Multimodal Weighted Dictionary Learning**  Ali Taalimi*, University of Tennessee-Knoxville; Hesam Shams, University of Tennessee-Knoxville; Alireza Rahimpour, University of Tennessee-Knoxville; Rahman Khorsandi, University of Miami; Wei Wang, University of Tennessee-Knoxville; Rui Guo, University of Tennessee-Knoxville; Hairong Qi, University of Tennessee-Knoxville

26. **Efficient Large-scale Photometric Reconstruction Using Divide-Recon-Fuse 3D Structure from Motion**  Yueming Yang*, SUNY Albany; Ming-Ching Chang, GE Research;
27. **A Two-Stage Foreground Propagation for Moving Object Detection in a Non-Stationary Camera** WonTaek Chung*, Pohang University of Science and Technology; YongHyun Kim, POSTECH; Yong-Joong Kim, Pohang University of Science and Technology; Daijin Kim, Pohang University of Science and Technology

28. **Improving Reliability of People Tracking by Adding Semantic Reasoning** Pierluigi Ritrovato*, DIEM; Luca Greco, DIEM; Alessia Saggese, University of Salerno; MARIO VENTO, University of Salerno, Italy

29. **Multiple Object Tracking based on Motion Segmentation of Point Trajectories** Nikolaos Dimitriou*, CERTH/ITI; Georgios Stavropoulos, ECE/UPATRAS; Konstantinos Moustakas, ECE/UPATRAS; DIMITRIOS TZOVARAS, IT Institute, Centre for Research and Technology Hellas, Greece

30. **Robust Vehicle Tracking for Urban Traffic Videos at Intersections** Chenge Li*, New York University; An-ji Chiang, New York University; Gregory Dobler, New York University; Yao Wang, New York University; Kun Xie, New York University; Kaan Ozbay, New York University; Masoud Ghandehari, New York University; Jiaxu Zhou, New York University; Danni Wang, New York University

31. **Privacy-Preserving, Indoor Occupant Localization Using a Network of Single-Pixel Sensors** Douglas Roeppe, Electrical and Computer Engineering Department, Boston University; Jiawei Chen*, Electrical and Computer Engineering
32. **Low-Resolution Convolutional Neural Networks for Video Face Recognition** Christian Herrmann*, KIT; Dieter Willersinn, Fraunhofer IOSB; Jürgen Beyerer, Fraunhofer IOSB

33. **Exploring Depth Information for Head Detection with Depth Images** Siyuan Chen*, Inria Sophia Antipolis, France; FRANCOIS BREMOND, Inria Sophia Antipolis, France; Hung Nguyen, Inria Sophia Antipolis, France; Hugues Thomas, Inria Sophia Antipolis, France

34. **Gender recognition from face images with trainable COSFIRE filters** Antonio Greco*, University of Salerno; MARIO VENTO, University of Salerno, Italy; George Azzopardi, University of Malta

35. **Fast CNN Surveillance Pipeline for Fine-Grained Vessel Classification and Detection in Maritime Scenarios** fouad bousetouane*, RTIS-Lab; Brendan Morris, UNLV

36. **Kernel Partial Least Squares for Person Re-Identification** Raphael Prates*, Universidade Federal de Minas Gerais (UFMG); Marina Santos Oliveira, Universidade Federal de Minas Gerais (UFMG); William Schwartz, Federal University of Minas Gerais

37. **Unsupervised data association for Metric Learning in the context of Multi-shot Person Re-identification** Furqan Khan*, INRIA; FRANCOIS BREMOND, Inria Sophia Antipolis, France
38. **Bidirectional Sparse Representations for Multi-shot Person Re-identification** Solène CHAN-LANG*, CEA; Quoc-Cuong Pham, CEA; Catherine Achard, UPMC

39. **Assessment of Deep Learning for Gender Classification on Traditional Datasets** Marco Del Coco*, National Research Council of Italy - Institute of Applied Sciences & Intelligent Systems; Pierluigi Carcagni’, National Research Council of Italy - Institute of Applied Sciences & Intelligent Systems; Marco Leo, Cnr; Pier Luigi Mazzeo, CNR; Paolo Spagnolo, CNR; Cosimo Distante, National Research Council of Italy - Institute of Applied Sciences & Intelligent Systems

40. **Training a Convolutional Neural Network for Multi-Class Object Detection Using Solely Virtual World Data** Erik Bochinski*, TU Berlin; Volker Eiselein, Technische Universität Berlin, Communication Systems Group; Thomas Sikora, TU Berlin

41. **Video Summarization of Surveillance Cameras** Po Lai*, University of Ottawa; Marc Decombas, Télécom ParisTech; Kelvin Moutet, Télécom ParisTech; Robert Laganiere, University of Ottawa

42. **ViTBAT: Video Tracking and Behavior Annotation Tool** Tewodros Biresaw*, NGRREC - USA, and WUSTL - USA; Tahir Nawaz, University of Reading, UK; James Ferryman, UNIV. OF READING, UK; Anthony Dell, NGRREC - USA, and WUSTL - USA

**Workshops**
43. **TREAT: Terse Rapid Edge-Anchored Tracklets** Remi Trichet, Noel O'Connor

44. **HoG Based Real-Time Multi-Target Tracking in Bayesian Framework** Mohib Ullah, Faouzi Alaya-Chek, Ali Shariq Imran)

45. **Tracking-Based Detection of Driving Distraction from Vehicular Interior Video** S. M. Mahbubur Rahman, Tashrif Billah)

46. **Visual SLAM-Based Approach for Calibration of Distributed Camera Networks** Eduardo Monari, Thomas Pollok

47. **Time-frequency analysis for audio event detection in real scenarios** Alessia Saggese, Nicola Strisciuglio, Mario Vento, Nicolai Petkov)

48. **Single Object Tracking based on Active and Passive Detection Information in Distributed Heterogeneous Sensor Network** Hyunhak Shin, Chul Jin Cho, Hanseok Ko