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Wenbin Zhao, Wuhan University of Technology, China; Qing Xie, Yanchun Ma, Yongjian Liu, Shengwu Xiong, Wuhan University of Technology, China

ARS-03.2: ACTIONET: AN INTERACTIVE END-TO-END PLATFORM FOR TASK-BASED DATA COLLECTION AND AUGMENTATION IN 3D ENVIRONMENT 1566
*Jiafei Duan, A*STAR Artificial Intelligence Initiative, A*STAR; Nanyang Technological University, Singapore; Samson Yu, A*STAR Artificial Intelligence Initiative, A*STAR; Singapore University of Technology and Design, Singapore; Hui Li Tan, Institute for Infocomm Research, A*STAR, Singapore; Cheston Tan, A*STAR Artificial Intelligence Initiative, A*STAR; Institute for Infocomm Research, A*STAR, Singapore*

ARS-03.3: EXTRAPOLATIVE-INTERPOLATIVE CYCLE-CONSISTENCY LEARNING FOR VIDEO FRAME EXTRAPOLATION 1571
Sangjin Lee, Hyeongmin Lee, Taeoh Kim, Sangyoun Lee, Yonsei University, Republic of Korea

ARS-03.4: UNSUPERVISED IMAGE DECOMPOSITION IN VECTOR LAYERS **1576**
Othman Sbai, Université Paris Est and Facebook, France; Camille Couprie, Facebook, France; Mathieu Aubry, Ecole des Ponts, France

ARS-03.5: REALISTIC TALKING FACE SYNTHESIS WITH GEOMETRY-AWARE FEATURE TRANSFORMATION **1581**
Han Xue, Jun Ling, Li Song, Rong Xie, Wenjun Zhang, Shanghai Jiao Tong University, China

ARS-03.6: SINGLE IMAGE SUPER-RESOLUTION VIA RESIDUAL NEURON ATTENTION NETWORKS **1586**
Wenjie Ai, Xiaoguang Tu, Shilei Cheng, Mei Xie, University of Electronic Science and Technology of China, China

ARS-03.7: GAIT: GRADIENT ADJUSTED UNSUPERVISED IMAGE-TO-IMAGE TRANSLATION **1591**
Ibrahim Batuhan AKKAYA, Aselsan Inc., Turkey; Ugur HALICI, Middle East Technical University, Turkey

ARS-03.8: ARBITRARY STYLE TRANSFER USING GRAPH INSTANCE NORMALIZATION **1596**
Dongki Jung, Seunghan Yang, Jaehoon Choi, Changick Kim, Korea Advanced Institute of Science and Technology, Republic of Korea

ARS-03.9: LEARNING CROSS-MODAL REPRESENTATIONS FOR LANGUAGE-BASED IMAGE MANIPULATION **1601**
*Kenan Emir Ak, Ying Sun, Joo Hwee Lim, Institute for Infocomm Research, A*STAR, Singapore*

ARS-03.10: HANDLOOM DESIGN GENERATION USING GENERATIVE NETWORKS **1606**
Rajat Kanti Bhattacharjee, Meghali Nandi, Amrit Jha, Gunajit Kalita, Assam Engineering College, India; Ferdous A. Barbhuiya, Indian Institute of Information Technology, India

ARS-03.11: SDT: A SYNTHETIC MULTI-MODAL DATASET FOR PERSON DETECTION AND POSE CLASSIFICATION **1611**
Christopher Pramerdorfer, Julian Strohmayer, Martin Kampel, TU Wien, Austria

ARS-03.12: NOVEL VIEW SYNTHESIS WITH SKIP CONNECTIONS **1616**
Juhyeon Kim, Young Min Kim, Seoul National University, Republic of Korea

ARS-03.13: PARALLAX MOTION EFFECT GENERATION THROUGH INSTANCE SEGMENTATION AND DEPTH ESTIMATION **1621**
Allan Pinto, Manuel A. Córdova, Luis G. L. Decker, Jose L. Flores-Campana, Marcos R. Souza, Andreza A. dos Santos, Jhonatas S. Conceição, University of Campinas (Unicamp), Brazil; Henrique F. Gagliardi, Diogo C. Luvizon, Samsung R&D Institute Brazil, Brazil; Ricardo da S. Torres, Norwegian University of Science and Technology (NTNU), Norway; Helio Pedrini, University of Campinas (Unicamp), Brazil

ARS-03.14: DISENTANGLING THE SPATIAL STRUCTURE AND STYLE IN CONDITIONAL VAE **1626**
Ziye Zhang, Li Sun, Zhilin Zheng, Qingli Li, East China Normal University, China

ARS-03.15: IMAGE COMPRESSION WITH LAPLACIAN GUIDED SCALE SPACE INPAINTING **1631**
Lingzhi Zhang, University of Pennsylvania, United States; Pujika Kumar, Birla Institute of Technology and Science, Pilani, India; Manuj Sabharwal, Andy Kuzma, Intel Corporation, United States; Jianbo Shi, University of Pennsylvania, United States

ARS-03.16: LSRAGAN: GENERATING MULTIFARIOUS COLOR PHOTOGRAPHES FROM SKETCH **1636**
Ke Zhang, University of Science and Technology of China, China; Wen-Li Huang, State Grid Power Research Institute, China; Peng-Cheng Wang, Si-Bao Chen, Anhui University, China

ARS-03.17: COMPREHENSIVE FACIAL EXPRESSION SYNTHESIS USING HUMAN-INTERPRETABLE LANGUAGE **1641**
Joanna Hong, Jung Uk Kim, Sangmin Lee, Yong Man Ro, Korea Advanced Institute of Science and Technology (KAIST), Republic of Korea

ARS-03.18: DEEP VIDEO PREDICTION THROUGH SPARSE MOTION REGULARIZATION 1646
Yung-Han Ho, Chih-Chun Chan, Wen-Hsiao Peng, NCTU, Taiwan

ARS-03.19: EMPIRICAL ANALYSIS OF OVERFITTING AND MODE DROP IN GAN TRAINING 1651
Yasin Yazici, Nanyang Technological University, Singapore; Chuan-Sheng Foo, Institute for Infocomm Research, Singapore; Stefan Winkler, National University of Singapore, Singapore; Kim-Hui Yap, Nanyang Technological University, Singapore; Vijay Chandrasekhar, Institute for Infocomm Research, Singapore

ARS-11: MACHINE LEARNING FOR IMAGE AND VIDEO CLASSIFICATION I

ARS-11.1: NEURAL DISCRIMINANT ANALYSIS FOR FINE-GRAINED CLASSIFICATION 1656
Mai Lan Ha, Volker Blanz, University of Siegen, Germany

ARS-11.2: TOWARDS MORE EFFICIENT AND EFFECTIVE INFERENCE: THE JOINT DECISION OF MULTI-PARTICIPANTS 1661
Hui Zhu, Zhulin An, Kaiqiang Xu, Xiaolong Hu, Yongjun Xu, Institute of Computing Technology, Chinese Academy of Sciences, China

ARS-11.3: FPB: IMPROVING MULTI-SCALE FEATURE REPRESENTATION INSIDE CONVOLUTIONAL LAYER VIA FEATURE PYRAMID BLOCK 1666
Zheng Cao, Kailai Zhang, Ji Wu, Tsinghua University, China

ARS-11.4: TRANSDUCTIVE PROTOTYPICAL NETWORK FOR FEW-SHOT CLASSIFICATION 1671
Xinyue Liu, Pengxin Liu, Linlin Zong, Dalian University of Technology, China

ARS-11.5: CIRCULAR SHIFT: AN EFFECTIVE DATA AUGMENTATION METHOD FOR CONVOLUTIONAL NEURAL NETWORK ON IMAGE CLASSIFICATION 1676
Kailai Zhang, Zheng Cao, Ji Wu, Tsinghua University, China

ARS-11.6: ENCRYPTION INSPIRED ADVERSARIAL DEFENSE FOR VISUAL CLASSIFICATION 1681
MaungMaung AprilPyone, Hitoshi Kiya, Tokyo Metropolitan University, Japan

ARS-11.7: FEW-SHOT LEARNING WITH ATTENTION-WEIGHTED GRAPH CONVOLUTIONAL NETWORKS FOR HYPERSPECTRAL IMAGE CLASSIFICATION 1686
Xinyi Tong, Jihao Yin, Bingnan Han, Hui Qv, Beihang University, China

ARS-11.8: CLASSIFYING DEGRADED IMAGES OVER VARIOUS LEVELS OF DEGRADATION 1691
Kazuki Endo, Masayuki Tanaka, Masatoshi Okutomi, Tokyo Institute of Technology, Japan

ARS-11.9: DEFORMABLE QUATERNION GABOR CONVOLUTIONAL NEURAL NETWORK FOR COLOR FACIAL EXPRESSION RECOGNITION 1696
Lianghai Jin, Yu Zhou, Hong Liu, Enmin Song, HuaZhong University of Science and Technology, China

ARS-11.10: DEEP SUBCLASS LINEAR DISCRIMINANT ANALYSIS FOR MULTIMODAL FEATURE SPACE LEARNING 1701
Abin Jose, RWTH Aachen, Germany; Shen Yan, Mi Zhang, Michigan State University, United States; Jens-Rainer Ohm, RWTH Aachen, Germany

ARS-11.11: ONE-TO-ONE PERSON RE-IDENTIFICATION FOR QUEUE TIME ESTIMATION 1706
Aske R. Lejbølle, Aalborg University / Veovo Denmark, Denmark; Benjamin Krogh, Veovo Denmark, Denmark; Kamal Nasrollahi, Aalborg University / Milestone Systems A/S, Denmark; Thomas Moeslund, Aalborg University, Denmark

ARS-12: MACHINE LEARNING FOR IMAGE AND VIDEO CLASSIFICATION II

ARS-12.1: DEEP ADVERSARIAL ACTIVE LEARNING WITH MODEL UNCERTAINTY FOR IMAGE CLASSIFICATION 1711
Zheng Zhu, Hongxing Wang, Chong Qing University, China

ARS-12.2: COLLABORATIVE LEARNING OF SEMI-SUPERVISED CLUSTERING AND CLASSIFICATION FOR LABELING UNCURATED DATA 1716
Sara Mousavi, Dylan Lee, Tatianna Griffin, Dawnie Steadman, Audris Mockus, University of Tennessee, Knoxville, United States

ARS-12.3: M-SOSANET : AN EFFICIENT CONVOLUTION NETWORK BACKBONE FOR EMBEDDING DEVICES 1721
Tangkun Zhang, Jichao Jiao, Chengkai Zhang, Yaxin Zhao, Chenxu Wang, Wei Cui, Xinping Chen, Beijing University of Posts and Telecommunications, China

ARS-12.4: EMOTION TRANSFORMATION FEATURE: NOVEL FEATURE FOR DECEPTION DETECTION IN VIDEOS 1726
Jun-Teng Yang, Guei-Ming Liu, Scott C.-H Huang, National Tsing Hua University, Taiwan

ARS-12.5: UNKNOWN CLASS LABEL CLEANING FOR LEARNING WITH OPEN-SET NOISY LABELS 1731
Qing Yu, Kiyoharu Aizawa, The University of Tokyo, Japan

ARS-12.6: CONTINUAL LOCAL TRAINING FOR BETTER INITIALIZATION OF FEDERATED MODELS 1736
Xin Yao, Lifeng Sun, Tsinghua University, China

ARS-12.7: CASCADED CONTEXT DEPENDENCY: AN EXTREMELY LIGHTWEIGHT MODULE FOR DEEP CONVOLUTIONAL NEURAL NETWORKS 1741
Xu Ma, Zhinan Qiao, Jingda Guo, Sihai Tang, Qi Chen, Qing Yang, Song Fu, University of North Texas, United States

ARS-12.8: SCW-SGD: STOCHASTICALLY CONFIDENCE-WEIGHTED SGD 1746
Takumi Kobayashi, National Institute of Advanced Industrial Science and Technology, Japan

ARS-12.9: CHANNEL PRUNING VIA GRADIENT OF MUTUAL INFORMATION FOR LIGHT-WEIGHT CONVOLUTIONAL NEURAL NETWORKS 1751
Min Kyu Lee, Seung Hyeon Lee, Sang Hyuk Lee, Byung Cheol Song, Inha University, Republic of Korea

ARS-12.10: GOING DEEPER WITH NEURAL NETWORKS WITHOUT SKIP CONNECTIONS 1756
Oyebade Oyedotun, Abdelrahman Shabayek, Djamila Aouada, Bjorn Ottersten, University of Luxembourg, Luxembourg

ARS-12.11: ATTENTION BOOSTED DEEP NETWORKS FOR VIDEO CLASSIFICATION 1761
Junyong You, Norwegian Research Centre (NORCE), Norway; Jari Korhonen, Shenzhen University, China

ARS-12.12: SKETCHED SPARSE SUBSPACE CLUSTERING FOR LARGE-SCALE HYPERSPECTRAL IMAGES 1766
Shaoguang Huang, Ghent University, Belgium; Hongyan Zhang, Wuhan University, China; Aleksandra Pizurica, Ghent University, Belgium

ARS-12.13: INCREMENTAL FAST SUBCLASS DISCRIMINANT ANALYSIS 1771
Kateryna Chumachenko, Jenni Raitoharju, Moncef Gabbouj, Tampere University, Finland; Alexandros Iosifidis, Aarhus University, Denmark

ARS-12.14: FEATURE COMPARISON BASED CHANNEL ATTENTION FOR FINE-GRAINED VISUAL CLASSIFICATION 1776
Shukun Jia, Yan Bai, Jing Zhang, Kaiqi Huang, CRISE, Institute of Automation, Chinese Academy of Sciences, China

ARS-13: MACHINE LEARNING FOR IMAGE AND VIDEO CLASSIFICATION III

ARS-13.1: MULTI-MODAL FUSION WITH OBSERVATION POINTS FOR SKELETON ACTION RECOGNITION 1781
Iqbal Singh, Xiaodan Zhu, Michael Greenspan, Queen's University, Canada

ARS-13.2: MOTION REPRESENTATION USING RESIDUAL FRAMES WITH 3D CNN 1786
Li Tao, Xueting Wang, Toshihiko Yamasaki, The University of Tokyo, Japan

ARS-13.3: LEARNING STYLE CORRELATION FOR ELABORATE FEW-SHOT CLASSIFICATION 1791
Junho Kim, Minsu Kim, Jung Uk Kim, Hong Joo Lee, Sangmin Lee, Joanna Hong, Yong Man Ro, Korea Advanced Institute of Science and Technology (KAIST), Republic of Korea

ARS-13.4: DIMENSIONALITY REDUCTION VIA DIFFUSION MAP IMPROVED WITH SUPERVISED LINEAR PROJECTION 1796
Bowen Jiang, Maohao Shen, University of Illinois Urbana-Champaign, United States

ARS-13.5: GROUPED TEMPORAL ENHANCEMENT MODULE FOR HUMAN ACTION RECOGNITION 1801
Hong Liu, Bin Ren, Peking University, China; Mengyuan Liu, Tencent Research, China; Runwei Ding, Peking University, China

ARS-13.6: STYLE EXTRACTOR FOR FACIAL EXPRESSION RECOGNITION IN THE PRESENCE OF SPEECH 1806
Ali N. Salman, Carlos Busso, The University of Texas at Dallas, United States

ARS-13.7: TRANSFER LEARNING FOR VIDEOS: FROM ACTION RECOGNITION TO SIGN LANGUAGE RECOGNITION 1811
Noha Sarhan, Simone Frintrop, Universität Hamburg, Germany

ARS-13.8: A STUDY OF ALIGNMENT MECHANISMS IN ADVERSARIAL DOMAIN ADAPTATION 1816
Rodrigue Siry, Université de Caen Normandie, Safran Electronics and Defense, France; Loic Simon, Frederic Jurie, Université de Caen Normandie, France

ARS-13.9: EXTRACTING DEEP LOCAL FEATURES TO DETECT MANIPULATED IMAGES OF HUMAN FACES 1821
Michail Tarasiou, Stefanos Zafeiriou, Imperial College London, United Kingdom

ARS-13.10: ADAPTIVE CONVOLUTIONALLY ENCHANCED BI-DIRECTIONAL LSTM NETWORKS FOR CHOREOGRAPHIC MODELING 1826
Nikolaos Bakalos, Ioannis Rallis, Nikolaos Doulamis, Anastasios Doulamis, National Technical University of Athens, Greece; Athanasios Voulodimos, Univertsity of West Attica, Greece; Eftychios Protopapadakis, National Technical University of Athens, Greece

ARS-13.11: SKELETON ACTION RECOGNITION BASED ON SINGULAR VALUE DECOMPOSITION 1831
Radek Simkanič, VŠB - Technical University of Ostrava, Czech Republic

ARS-13.12: GENDER RECOGNITION ON RGB-D IMAGE 1836
Xiaoxiong Zhang, Sajid Javed, Ahmad Obeid, Jorge Dias, Naoufel Werghi, Khalifa University, United Arab Emirates

ARS-13.13: MODEL UNCERTAINTY FOR UNSUPERVISED DOMAIN ADAPTATION 1841
JoonHo Lee, Gyemin Lee, Seoul National University of Science and Technology, Republic of Korea

ARS-13.14: CLASS INCREMENTAL LEARNING WITH TASK-SELECTION 1846
Eun Sung Kim, Jung Uk Kim, Sangmin Lee, Korea Advanced Institute of Science and Technology (KAIST), Republic of Korea; Sang-Keun Moon, Korea Electric Power Corporation (KEPCO) Research Institute, Republic of Korea; Yong Man Ro, Korea Advanced Institute of Science and Technology (KAIST), Republic of Korea

ARS-13.15: ASSOCIATING MULTI-SCALE RECEPTIVE FIELDS FOR FINE-GRAINED RECOGNITION 1851
Zihan Ye, Fuyuan Hu, Suzhou University of Science and Technology, China; Ying Liu, Shanghai Institute of Technology, China; Zhenping Xia, Suzhou University of Science and Technology, China; Fan Lyu, Tianjin University, China; Pengqing Liu, Suzhou University of Science and Technology, China

ARS-14: MACHINE LEARNING FOR IMAGE AND VIDEO CLASSIFICATION IV

ARS-14.1: REVISITING ROLE OF AUTOENCODERS IN ADVERSARIAL SETTINGS 1856
Byeong Cheon Kim, Jung Uk Kim, Hakmin Lee, Yong Man Ro, Korea Advanced Institute of Science and Technology (KAIST), Republic of Korea

ARS-14.2: S6: SEMI-SUPERVISED SELF-SUPERVISED SEMANTIC SEGMENTATION 1861
Moamen Soliman, Charles Lehman, Ghassan AlRegib, Georgia Institute of Technology, United States

ARS-14.3: GRADIENT DECONFLICTION-BASED TRAINING FOR MULTI-EXIT ARCHITECTURES 1866
Xinglu Wang, Yingming Li, Zhejiang University, China

ARS-14.4: AN IMAGE-BASED METHOD TO PREDICT SURFACE ENHANCED RAMAN SPECTROSCOPY SENSOR QUALITY 1871
Yiming Zuo, Yang Lei, Steven Barcelo, HP Inc., United States

ARS-14.5: KNOWLEDGE DISTILLATION INSPIRED FINE-TUNING OF TUCKER DECOMPOSED CNNS AND ADVERSARIAL ROBUSTNESS ANALYSIS 1876
Ranajoy Sadhukhan, Avinab Saha, Jayanta Mukhopadhyay, Amit Patra, Indian Institute of Technology Kharagpur, India

ARS-14.6: SEMI-SUPERVISED MULTI-SPECTRAL LAND COVER CLASSIFICATION WITH MULTI-ATTENTION AND ADAPTIVE KERNEL 1881
Kexin Zhang, Hua Yang, Shanghai Jiao Tong University, China

ARS-14.7: WHERE IS THE EMOTION? DISSECTING A MULTI-GAP NETWORK FOR IMAGE EMOTION CLASSIFICATION 1886
Lucinda Lim, Huai-Qian Khor, Phatcharawat Chaemchoy, John See, Lai-Kuan Wong, Multimedia University, Malaysia

ARS-14.8: MULTILEVEL INTERACTION REASONING FOR COMPLEX EVENT RECOGNITION 1891
Shicheng Li, Hua Yang, Jun Sun, Shanghai Jiao Tong University, China

ARS-14.9: THE GOOD, THE BAD, AND THE UGLY: NEURAL NETWORKS STRAIGHT FROM JPEG 1896
Samuel Felipe dos Santos, Universidade Federal de São Paulo, Brazil; Nicu Sebe, University of Trento, Italy; Jurandy Almeida, Universidade Federal de São Paulo, Brazil

ARS-14.10: ANOMALOUS MOTION DETECTION ON HIGHWAY USING DEEP LEARNING 1901
Harpreet Singh, Emily Hand, Kostas Alexis, University of Nevada, Reno, United States

ARS-14.11: FEW SHOT LEARNING FOR POINT CLOUD DATA USING MODEL AGNOSTIC META LEARNING 1906
Rishi Puri, Avideh Zakhor, Raul Puri, UC Berkeley, United States

ARS-14.12: DEEP LEARNING BASED LANDMARK MATCHING FOR AERIAL GEOLOCALIZATION 1911
Koundinya Nouduri, Filiz Bunyak, Shizeng Yao, Hadi Aliakbarpour, University of Missouri, Columbia, United States; Sanjeev Agarwal, U.S Army Combat Capabilities Development Command, United States; Kannappan Palaniappan, University of Missouri, Columbia, United States

ARS-09: EXPLAINABLE MACHINE LEARNING FOR COMPUTER VISION

ARS-09.1: HRINET: ALTERNATIVE SUPERVISION NETWORK FOR HIGH-RESOLUTION CT IMAGE INTERPOLATION 1916
Jiawei Li, University of Ottawa, Canada; Jae Chul Koh, the Korea University Anam Hospital, Republic of Korea; Won-Sook Lee, University of Ottawa, Canada

ARS-09.2: INTERPRETABLE SYNTHETIC REDUCED NEAREST NEIGHBOR: AN EXPECTATION MAXIMIZATION APPROACH 1921
Pooya Tavallali, University of California, Merced, United States; Peyman Tavallali, Independet Researcher, United States; Mohammad Reza Khosravi, Shiraz University of Technology, Iran; Mukesh Singhal, University of California, Merced, United States

ARS-09.3: AIM-NET: BRING IMPLICIT EULER TO NETWORK DESIGN 1926
Qiongwen Yuan, Jingwei He, Lei Yu, Wuhan University, China; Gang Zheng, INRIA Lille, France

ARS-09.4: MULTI-SCALE EXPLAINABLE FEATURE LEARNING FOR PATHOLOGICAL IMAGE ANALYSIS USING CONVOLUTIONAL NEURAL NETWORKS 1931
Kazuki Uehara, Masahiro Murakawa, Hirokazu Nosato, Hidenori Sakanashi, National Institute of Advanced Industrial Science and Technology, Japan

ARS-09.5: SALIENCY-DRIVEN CLASS IMPRESSIONS FOR FEATURE VISUALIZATION OF DEEP NEURAL NETWORKS 1936
Sravanti Addepalli, Indian Institute of Science, India; Dipesh Tamboli, Indian Institute of Technology Bombay, India; Venkatesh Babu Radhakrishnan, Indian Institute of Science, India; Biplab Banerjee, Indian Institute of Technology Bombay, India

ARS-09.6: VARIATIONAL ENCODER-BASED RELIABLE CLASSIFICATION 1941
Chitresh Bhushan, Zhaoyuan Yang, Nurali Virani, Naresh Iyer, GE Research, United States

ARS-09.7: HOUGHENCODER: NEURAL NETWORK ARCHITECTURE FOR DOCUMENT IMAGE SEMANTIC SEGMENTATION 1946
Alexander Sheshkus, Smart Engines Service LLC, Russian Federation; Dmitry Nikolaev, Institute for Information Transmission Problems (Kharkevich Institute) Russian Academy of Sciences, Russian Federation; Vladimir L Arlazarov, Federal Research Center "Computer Science and Control" of Russian Academy of Sciences, Russian Federation

ARS-10: GRAPH SIGNAL PROCESSING FOR IMAGE AND VIDEO ANALYSIS

ARS-10.1: SELF-TRAINING OF GRAPH NEURAL NETWORKS USING SIMILARITY REFERENCE FOR ROBUST TRAINING WITH NOISY LABELS 1951
Hyoungseob Park, Minki Jeong, Youngeun Kim, Changick Kim, Korea Advanced Institute of Science and Technology (KAIST), Daejeon, Korea, Republic of Korea

ARS-10.2: EFFICIENT GRAPH CONSTRUCTION FOR IMAGE REPRESENTATION 1956
Sarath Shekkizhar, Antonio Ortega, University of Southern California, United States

ARS-10.3: FACIAL EXPRESSION RECOGNITION USING SPATIAL-TEMPORAL SEMANTIC GRAPH NETWORK 1961
Jinzhao Zhou, Xingming Zhang, Yang Liu, South China University of Technology, China; Xiangyuan Lan, Hong Kong Baptist University, Hong Kong SAR of China

ARS-19: MACHINE LEARNING FOR OBJECT DETECTION

ARS-19.1: TRIPLE ATTENTION FOR ROBUST VIDEO CROWD COUNTING 1966
Qiyao Wu, Chongyang Zhang, Xiyu Kong, Muming Zhao, Yanjun Chen, Shanghai Jiao Tong University, China

ARS-19.2: TOWARDS DOMAIN GENERALIZATION IN UNDERWATER OBJECT DETECTION 1971
Hong Liu, Pinhao Song, Runwei Ding, Peking University, China

ARS-19.3: TRAINING WITH CACHE: SPECIALIZING OBJECT DETECTORS FROM LIVE STREAMS WITHOUT OVERFITTING **1976**
Hayato Itsumi, Florian Beye, Yusuke Shinohara, Takanori Iwai, NEC, Japan

ARS-19.4: MGPAN: MASK GUIDED PIXEL AGGREGATION NETWORK **1981**
Xijun Qian, Yifan Liu, Yubin Yang, Nanjing University, China

ARS-19.5: RADAR+RGB FUSION FOR ROBUST OBJECT DETECTION IN AUTONOMOUS VEHICLE **1986**
Ritu Yadav, Axel Vierling, Karsten Berns, Technical university of Kaiserslautern, Germany

ARS-19.6: INFRARED TARGET DETECTION USING INTENSITY SALIENCY AND SELF-ATTENTION **1991**
Ruiheng Zhang, Min Xu, Yaxin Shi, University of Technology Sydney, Australia; Jian Fan, Beihang University, China; Chengpo Mu, Lixin Xu, Beijing Institute of Technology, China

ARS-19.7: A CONVLSTM-COMBINED HIERARCHICAL ATTENTION NETWORK FOR SALIENCY DETECTION **1996**
Lei Wang, Liping Shen, Shanghai JiaoTong University, China

ARS-19.8: KL-DIVERGENCE-BASED REGION PROPOSAL NETWORK FOR OBJECT DETECTION **2001**
Geonseok Seo, Jaeyoung Yoo, Jaeseok Choi, Nojun Kwak, Seoul National University, Republic of Korea

ARS-19.9: NOISY LOCALIZATION ANNOTATION REFINEMENT FOR OBJECT DETECTION **2006**
Jiafeng Mao, Qing Yu, Kiyoharu Aizawa, The University of Tokyo, Japan

ARS-19.10: CONTEXT-AWARE HIERARCHICAL FEATURE ATTENTION NETWORK FOR MULTI-SCALE OBJECT DETECTION **2011**
Xuelong Xu, Xiangfeng Luo, Liyan Ma, Shanghai University, China

ARS-19.11: DETECTING PROHIBITED ITEMS IN X-RAY IMAGES: A CONTOUR PROPOSAL LEARNING APPROACH **2016**
Taimur Hassan, Meriem Bettayeb, Khalifa University, United Arab Emirates; Samet Akcay, Durham University, United Kingdom; Salman Khan, Inception Institute of Artificial Intelligence, United Arab Emirates; Mohammed Bennamoun, University of Western Australia, Australia; Naoufel Werghi, Khalifa University, United Arab Emirates

ARS-19.12: ILLUMINATING VEHICLES WITH MOTION PRIORS FOR SURVEILLANCE VEHICLE DETECTION **2021**
Xiaolian Wang, Xiyuan Hu, Chen Chen, Zhenfeng Fan, Silong Peng, University of Chinese Academy of Sciences, China

ARS-19.13: TARGET DETECTION IN CLUTTERED ENVIRONMENTS USING INFRA-RED IMAGES **2026**
Bruce McIntosh, Shashanka Venkataramanan, Abhijit Mahalanobis, University of Central Florida, United States

ARS-19.14: LOCALIZING FIREARM CARRIERS BY IDENTIFYING HUMAN-OBJECT PAIRS **2031**
Abdul Basit, Muhammad Akhtar Munir, Mohsen Ali, Arif Mahmood, Information Technology University, Pakistan

ARS-19.15: AUTOMATED OBJECT LABELING FOR CNN-BASED IMAGE SEGMENTATION **2036**
Adam Novozamsky, The Czech Academy of Sciences, Institute of Information Theory and Automation, Czech Republic; Dominik Vit, Czech Technical University in Prague, Faculty of Nuclear Sciences and Physical Engineering, Czech Republic; Filip Sroubek, The Czech Academy of Sciences, Institute of Information Theory and Automation, Czech Republic; Jiri Franc, Milan Krbalek, Czech Technical University in Prague, Faculty of Nuclear Sciences and Physical Engineering, Czech Republic; Zuzana Bilkova, Barbara Zitova, The Czech Academy of Sciences, Institute of Information Theory and Automation, Czech Republic

ARS-19.16: SCALE-INVARIANT MULTI-ORIENTED TEXT DETECTION IN WILD SCENE IMAGE **2041**
Kinjal Dasgupta, Heritage Institute of Technology, India; Sudip Das, Ujjwal Bhattacharya, Indian Statistical Institute, India

ARS-19.17: SHAPE-ADAPTIVE KERNEL NETWORK FOR DENSE OBJECT DETECTION..... 2046
Hanjae Kim, Sunghun Joung, School of Electrical and Electronic Engineering, Republic of Korea; Ig-Jae Kim, Center for Imaging Media Research, Republic of Korea; Kwanghoon Sohn, School of Electrical and Electronic Engineering, Republic of Korea

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ARS-16.1: VISUAL TRACKING VIA TEMPORALLY-REGULARIZED CONTEXT-AWARE CORRELATION FILTERS 2051
Jiawen Liao, Xi'an Institute of Optics and Precision Mechanics, China; Chun Qi, Xi'an Jiaotong University, China; Jianzhong Cao, He Bian, Xi'an Institute of Optics and Precision Mechanics, China

ARS-16.2: END-TO-END TEMPORAL FEATURE AGGREGATION FOR SIAMESE TRACKERS 2056
Zhenbang Li, Qiang Wang, Jin Gao, Bing Li, Weiming Hu, Institute of Automation, Chinese Academy of Sciences, China

ARS-16.3: IOU - SIAMTRACK: IOU GUIDED SIAMESE NETWORK FOR VISUAL OBJECT TRACKING 2061
Mohana Murali Dasari, Rama Krishna Sai Subrahmanyam Gorthi, Indian Institute of Technology, Tirupati, India

ARS-16.4: GLOBALLY SPATIAL-TEMPORAL PERCEPTION: A LONG-TERM TRACKING SYSTEM 2066
Zhenbang Li, Qiang Wang, Jin Gao, Bing Li, Weiming Hu, Institute of Automation, Chinese Academy of Sciences, China

ARS-16.5: TRACKING HUNDREDS OF PEOPLE IN DENSELY CROWDED SCENES WITH PARTICLE FILTERING SUPERVISING DEEP CONVOLUTIONAL NEURAL NETWORKS 2071
Gianni Franchi, Emanuel Aldea, Université Paris Saclay, France; Séverine Dubuisson, Aix Marseille University, France; Isabelle Bloch, Institut polytechnique de Paris, France

ARS-16.6: AN EFFECTIVE HIERARCHICAL RESOLUTION LEARNING METHOD FOR LOW-RESOLUTION TARGETS TRACKING 2076
Runqing Zhang, Chunxiao Fan, Yue Ming, Hao Fu, Xuyang Meng, Beijing University of Posts and Telecommunications, China

ARS-16.7: RELIABLE TEMPORALLY CONSISTENT FEATURE ADAPTATION FOR VISUAL OBJECT TRACKING 2081
Goutam Yelluru Gopal, Maria A. Amer, Concordia University, Canada

ARS-16.8: HOW INCOMPLETELY SEGMENTED INFORMATION AFFECTS MULTI-OBJECT TRACKING AND SEGMENTATION (MOTS) 2086
Yu-Sheng Chou, National Taiwan University, Taiwan; Chien-Yao Wang, Academia Sinica, Taiwan; Shou-De Lin, National Taiwan University, Taiwan; Hong-Yuan Mark Liao, Academia Sinica, Taiwan

ARS-16.9: FUSION OF SALIENCY MAP AND DEEP FEATURE-BASED CORRELATION FILTER FOR ENHANCING TRACKING PERFORMANCES 2091
Hyemin Lee, Daijin Kim, POSTECH, Republic of Korea

ARS-16.10: PRIVACY-AWARE EDGE COMPUTING SYSTEM FOR PEOPLE TRACKING..... 2096
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