IEEE COMPUTER SOCIETY

IEEE Biometrics Council

İTÜ

2024

The 18th IEEE International Conference on

Automatic Face and Gesture Recognition

27-31 May 2024

SDKM, ITU Campus, Istanbul, Turkey

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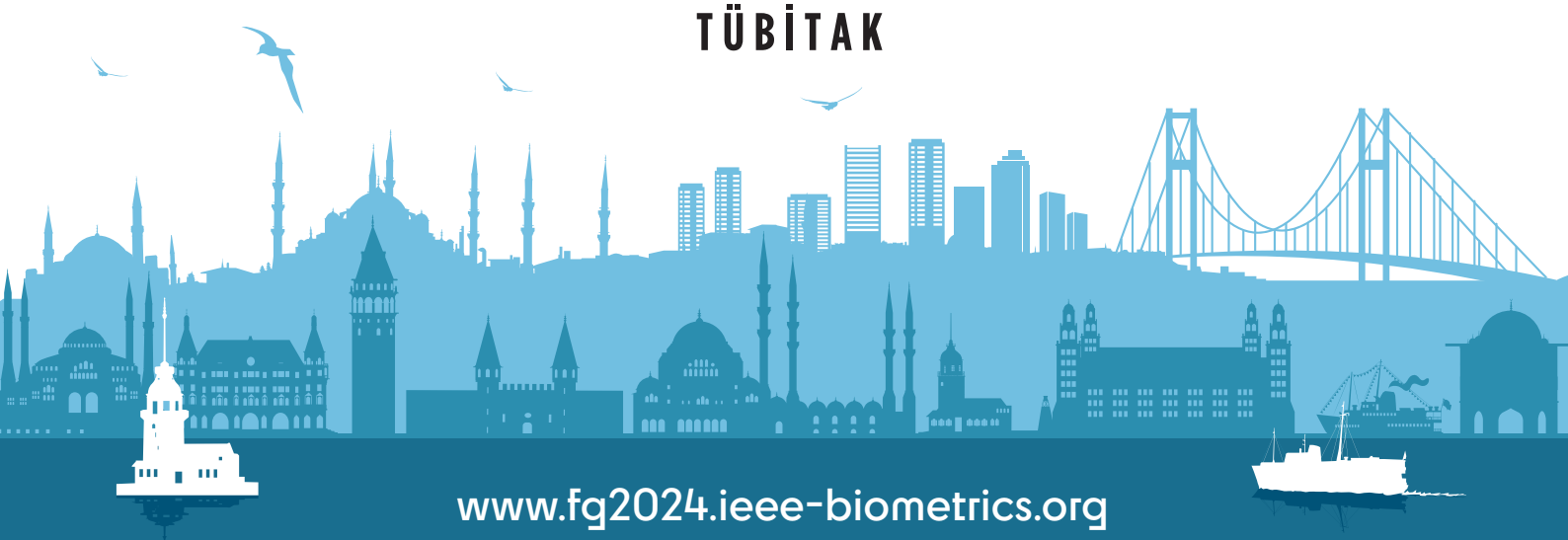

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Welcome

It is our pleasure and privilege to welcome you to Istanbul for the 18th IEEE International Conference on Automatic Face and Gesture Recognition (FG 2024). We hope your experience at FG is rewarding both professionally and personally!

Computer analysis of humans progressed into a mainstream tool with many real-time applications in biometrics, clinical and healthcare systems, entertainment, marketing, and more. Core advances in pattern recognition, computer vision and machine learning, particularly the advances in deep learning and GPU-based coding enabled real-time possibilities. The raising awareness of the risks of automatic human monitoring and surveillance resulted in regulations like GDPR and the AI Act, as well as more research on the ethical and privacy-aware use of face and gesture analysis.

FG attracts high quality papers covering a broad range of topics, including all these and more. This year, we have continued the two-stage reviewing process that was started in 2019. Across both submission rounds, FG received a total of 299 submissions. Authors had the possibility to submit papers in the first round and receive comments that could be addressed during a revision if the paper was judged to be close to acceptance. Final decisions were rendered after the revisions. Alternatively, authors could also submit in the second round, during which a final accept or reject decision was made. The paper selection process was coordinated by four Program Chairs and 33 Area Chairs, who oversaw a rigorous double-blind reviewing process. The Technical Program Committee consisted of over 190 experts who conducted the reviews. Each submission was reviewed by at least three experts who were asked to comment on the strengths, weaknesses, novelty and impact of the work. The reviewers were also asked to justify their recommendation for accepting or rejecting a submission. The Program Chairs used the recommendation and consolidation reports of the Area Chairs and the reviewers' comments to render a final decision on each paper. As a result of this well-organized process, 32 submissions (10.7%) were selected for presentation in the Oral track, and 86 for presentation in the Poster track. The final acceptance rate for the IEEE FG 2024 this year was 39.4%. The selected papers will be presented in 8 oral sessions and 3 poster sessions. In addition, each poster session will be preceded by a spotlight session, during which the authors will have two minutes to highlight the contents of their posters. We anticipate many intense, productive, and enlightening discussions at the oral and poster sessions.

The conference features exciting plenary lectures by three prominent researchers: (i) Prof. Shiguang Shan from the Chinese Academy of Sciences will give a talk on "Gaze analysis and applications"; (ii) Prof. Beatrice de Gelder from Maastricht University will elaborate on "Linking body movement analysis and brain activity" and (iii) Prof. Mohamed Daoudi from IMT Lille Nord Europe will provide a keynote on "Learning to synthesis 3D face and human interactions." In addition, F 2024 will also feature an "Ask me Anything" session with Prof. Takeo Kanade, who will share his insights and experience from his professional life.

FG 2024 hosts several workshops. On Monday, participants will have the opportunity to participate in the "1st workshop on Synthetic Data for Face and Gesture Analysis" and in the afternoon in the workshop on "Advancements in Facial Expression Analysis and Synthesis: Past, Present, and Future". The Friday program will feature four diverse workshops. The workshops on "Responsible Face Image Processing" and "Privacy-aware and Accept-

Welcome

able Video-based Assistive Technologies" will be held during the morning sessions, while the workshops on "Learning with Few or without Annotated Face, Body and Gesture Data" and "SkatingVerse: Segmentation and Assessment of Continuous Video in Figure Skating Workshop & Challenge" will be held in the afternoon. Collectively, these workshops will touch on different areas relevant to the FG community and should feature topics of interest for everyone.

Grand challenges are important drivers of research in focused areas. FG 2024 hosted three such challenges: (i) the "Synthetic Data for Face Recognition Competition"; (ii) the "Second REACT Challenge"; and (iii) the "Brain Responses to Emotional Avatars Challenge". The results of these challenges will be presented at the competition workshop that will give the audience the chance to learn about the top performers, tasks and issues addressed as part of the challenges as well as discuss with the participants about future solutions and pertaining problems.

Two tutorials are organized on the first day of the conference: (i) the morning tutorial on "Bias Assessment, Explanation, and Mitigation in Deep Face Recognition" will elaborate on important issues related to face recognition and beyond, whereas (ii) the afternoon tutorial will provide insights on "Generation of Synthetic Data for Remote Verification System". These tutorials will enable participants to gain new perspectives on topics of immense interest to the broad FG community.

The Doctoral Consortium allows junior researchers to meet with a panel of distinguished scientists and leaders from academia and industry who share their workplace experiences, and discuss challenges and mechanisms for career advancement. This year, it is complemented by an Associate Editor training for IEEE Trans. Biometrics, Behavior, and Identity Science (T-BIOM), prepared by the IEEE Biometrics Council. This session is open to all interested participants.

In order to acknowledge excellence, FG 2024 has four awards: (i) the Best Paper Award, (ii) the Best Student Paper Award, (iii) the Test of Time Award and the (iv) Best Demo Award. For the Best Paper and Best Student Paper Awards, a candidate list of papers was selected by the Program Chairs based on (i) the ratings and reviews provided by the reviewers, and (ii) recommendations provided by the Area Chairs. Papers co-authored by the Program Chairs were ineligible for these awards. The candidate list of papers, along with the reviews, was then sent to the Awards Committee for determining the best paper. The Test of Time Award recognizes an outstanding and influential paper that was published in the FG conference in the past 15-20 years. The Awards Chairs appointed a committee for generating a shortlist of candidate papers. The recipient of this prestigious award was selected from this shortlist based on a rigorous process instituted by the Awards Committee. In addition to these four awards, FG 2024 also recognized the efforts of diligent reviewers by giving them Outstanding Reviewer Awards.

FG benefits significantly from its industrial sponsorships. We want to acknowledge and thank them for their generous contributions. Our Platinum Sponsor Turkcell, our Silver Sponsors TUBITAK BILGEM and Syntonym, and Bronze Sponsor Odec have contributed to the success of the conference. Istanbul Technical University opened its doors to the conference, and Turkish Airlines provided support to our delegates. To all the sponsors and their representatives in attendance, thank you!

Our conference was managed by BROS,

Welcome

whose professional support and domain expertise was essential in providing a smooth experience to our delegates. Finally, we would like to express our sincere appreciation to all the committee members and volunteers for their service. Without them, FG'24 would not have been possible!

As an IEEE conference, FG is co-sponsored by the IEEE Biometrics Council and IEEE Computer Society. If this is your first FG meeting, welcome! If you are a FG veteran, welcome back! In either case, we hope you have a productive and enjoyable meeting, and that FG continues to capture the most exciting contributions from our talented research community.

Hazım Kemal Ekenel, Albert Ali Salah, Arun Ross; **General Chairs**
Vitomir Struč, Lale Akarun, Xilin Chen, Shaun Canavan; **Program Chairs**

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Mohamed Daoudi, Kevin Bowyer, Mark Nixon, Jeff Cohn, and Guoying Zhao

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General Information

Welcome Reception

Location: ITU AYAZAGA CAMPUS

Date: 28 May 2024

Time: 18:00

Banquet and award ceremony

Date: 29 May, 2024

Time: 19:00

Gala Dinner Program will be held on the boat on the Bosphorus. After the congress program ends on Wednesday, buses will be used in front of the congress center to go to the port where the boat will depart.

Contact information: Dr. Behçet Uğur Töreyin +90(533)634-3764

General Information

Social Excursions

You can review the Pre-congress tour & Post congress tour page and register on the congress website.

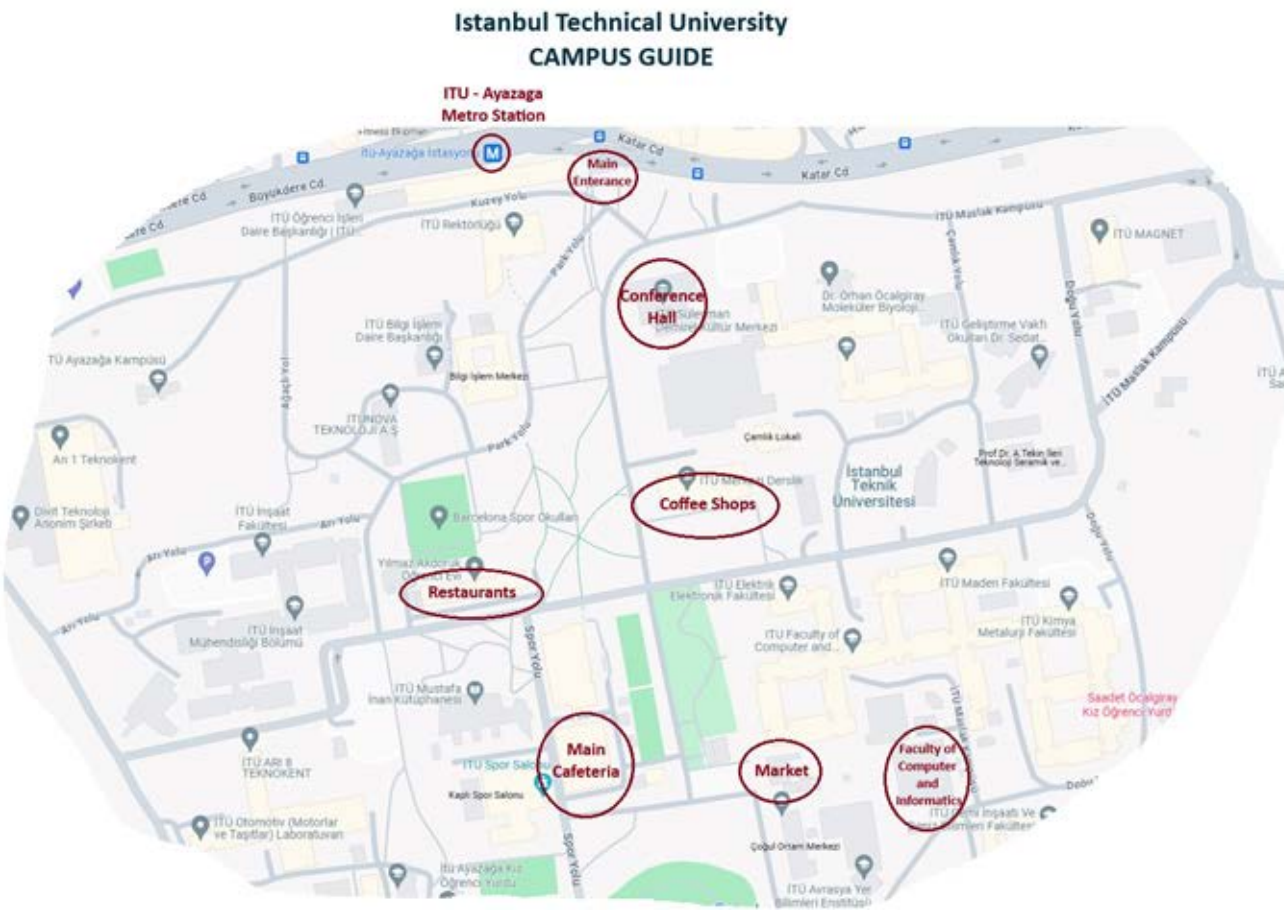
Registration

Monday:	8:00 – 15:00
Tuesday:	8:00 – 15:00
Wednesday:	8:00 – 15:00
Thursday:	8:00 – 15:00
Friday:	8:00 – 15:00

Gala dinner and tours

Extra gala dinner tickets or social tour packages can be purchased at the registration desk.

General Information



FG 2024 Keynotes

Keynotes at a Glance

Tuesday, 28 May, 2024, 9:00 – 10:00:

Prof. Shiguang Shan

"Gaze analysis and applications"

Tuesday, 28 May, 2024, 10:30 – 11:30:

Prof. Takeo Kanade

Ask Me Anything Session

Wednesday, 29 May 2024, 9:00 – 10:00:

Prof. Beatrice de Gelder

"Linking body movement analysis and brain activity"

Thursday, 30 May 2024, 9:00 – 10:00:

Prof. Mohamed Daoudi

"Learning to Synthesize 3D Faces and Human Interactions"

FG 2024 Keynotes

Prof. Shiguang Shan

Title: Gaze analysis and applications

Abstract

Eyes are the window to the soul. But we are still far from developed techniques reading the mind from the eye. In this talk, I will introduce our attempts in analyzing the eyes including 3D gaze estimation, 2D/3D gaze following, and dyadic gaze pattern analysis. Finally, how gaze analysis may help to diagnose Autism Spectrum Disorder (ASD) will also be introduced.

Biography

Shiguang Shan received his M.S. degree in computer science from the Harbin Institute of Technology, Harbin, China, in 1999, and his Ph.D. degree in computer science from the Institute of Computing Technology (ICT), Chinese Academy of Sciences (CAS), Beijing, China, in 2004. After graduation, he joined ICT, CAS in 2002 and became a full Professor in 2010. He is now the deputy director of the Key Lab of Intelligent Information Processing of CAS. His research interests cover computer vision, pattern recognition, and machine learning (deep learning). He especially focuses on face recognition related research topics, and machine learning with little data or weakly-supervised data. He has published more than 200 papers in refereed journals and proceedings in the areas of computer vision and pattern recognition. He has served as Area Chair for many international conferences including ICCV11, ICPR12, ACCV12, FG13, ICPR14, ICASSP14, ACCV16, ACCV18, FG18, and BTAS18. He is(/was) Associate Editors of several international journals including IEEE Trans. on Image Processing, Computer Vision and Image Understanding, Neurocomputing, and Pattern Recognition Letters. He is a recipient of the China's State Natural Science Award in 2015, and the China's State S&T Progress Award in 2005 for his research work. He is also personally interested in brain science, cognitive neuroscience, as well as their interdisciplinary research topics with AI.

FG 2024 Keynotes

Prof. Beatrice de Gelder

Title: Linking body movement analysis and brain activity

Abstract

Survival prompts organisms to rapidly prepare adaptive behavior in response to environmental and social circumstances, including threat. The rapidity and automaticity of those responses indicate that the brain is exquisitely tuned to extract social information online from ongoing observation of social behavior. This requires sorting out what to keep as critical information for adaptive action and what to disregard as of secondary importance. Such rapid analysis of perceptual input is presumably independent of higher-order cognition and consciousness. So far little is understood about what the specific features of the behavior of a conspecific are that are critical and that trigger, for example, defensive behavior. In this talk we will review recent studies that have attempted to use computational methods to analyses body posture and whole body movements. We will then illustrate how the results from the computational analyses and the features that are proposed may be related to brain activity. Our discussion will address the promises and limits of developing optimal measurement tools for social behavior that can be used for unravelling social brain processes and deficits in neurological populations.

Biography

Beatrice de Gelder is Professor of Cognitive Neuroscience in the Faculty of Psychology and Neuroscience at Maastricht University in the Netherlands, and a member of the Maastricht Brain Imaging Centre (M-BIC). Prior to her current assignments, she was a Senior Scientist at the Martinos Center for Biomedical Imaging, Harvard University. She received an MA in Philosophy, an MA in Experimental Psychology and a PhD in Philosophy from Louvain University in Belgium. Her current research focuses on face and body recognition and, recently, on the neuroscience of art. Her research has resulted in over 250 peer-reviewed articles and 25 invited chapters. She has authored or co-authored four professional books including her book on "Emotions and the Body", Oxford University Press (2016). Popular contributions include an invited article in Scientific American expanding on the broad impact of her work on unconscious vision (2010, updated in 2017) and in July 2011, Discovery Channel Science covered her work on nonconscious vision in the program "Through the Wormhole." She serves on the editorial board of several professional journals and is/has been a member of several advisory panels of the European Commission for FET, ICT and ERC programs, and the NIH and NSF. She coordinated various EC grants in FP6 and FP7 and is a partner in two H2020 consortia. She was the recipient of an ERC grant in 2012 and co-recipient of an ERC Synergy grant in 2019. Extensive documentation at www.beatrice-degelder.com.

FG 2024 Keynotes

Prof. Mohamed Daoudi

Title: Learning to synthesis 3D face and human interactions

Abstract

This talk summarizes a number of aspects of 3D human face generation and body motion generation. I will first present our recent results on 3D and 4D face synthesis. We propose a new model that generates transitions between different expressions, and synthesizes long and composed 4D expressions. Second, I will present results on two-person interactions synthesis, a crucial element for designing 3D human motion synthesis frameworks. it can open up a wide variety of new applications in entertainment media, interactive mixed and augmented reality, human-AI interaction, and social robotics.

Biography

Mohamed Daoudi is a Full Professor of Computer Science at IMT Nord Europe and the Head of Image group at CRIStAL Laboratory (UMR CNRS 9189). His research interests include computer vision and machine learning for human behavior understanding. He has published over 150 papers in some of the most distinguished scientific journals and international conferences. He is/was Associate Editor of Image and Vision Computing, IEEE Transactions on Multimedia, IEEE Trans. on Affective Computing and Computer Vision and Image Understanding, Computers & Graphics, Guest Editor for Computer Vision and Image Understanding Special Issue on "Special Issue-Eyes on People Recent Trends on Human Analysis, Perception and Generation-CVIU", Guest Editor for Image and Vision Computing On "Learning with Manifolds in Computer Vision", Guest Editor for Sensors "Computer Vision in Human Analysis: From Face and Body to Clothes", and Guest Editor for IEEE Transactions on Biometrics, Behavior and Identity Science on "Selected Best Works From Automated Face and Gesture Recognition 2019". He was General Chair of IEEE International Conference on Automatic Face and Gesture Recognition IEEE FG 2019 in Lille (France), 3D Object Retrieval Symposium (2010, 2022, 2023), Shape Modeling International Conference (2015), has organized successful workshops in Face and Gesture Analysis for Health Informatics (FGAHI at CVPR 2023, ICMI 2020, CVPR 2019, FG 2018), Learning with few or without annotated face, body and gesture data (LFA at WACV 2023, IEEE FG 2024), Generation of Human Face and Body Behavior (GHB at WACV 2021, ICIAP 2023), Towards a Complete Analysis of People: From Face and Body to Clothes (T-CAP at ICIAP 2022, ICPR 2022, ECCV 2022), Manifold Learning, From Euclid to Riemann (ManLearn at ICPR 2021, ICCV 2017), and has served as area chair at 3DV 2021, IEEE FG 2024, ACM Multimedia (2021, 2022, 2023, 2024), EUSIPCO (2013, 2015), and he will serve as General Chair for IEEE FG 2025. He is a Fellow of the International Association for Pattern Recognition, IEEE Senior member, ACM member.

FG 2024 Keynotes

Prof. Takeo Kanade

"Ask Me Anything" Session

Biography

Dr. Kanade was the U. A. and Helen Whitaker University Professor of Computer Science and Robotics and the director of Quality of Life Technology Engineering Research Center at Carnegie Mellon University.

He received his Doctoral degree in Electrical Engineering from Kyoto University, Japan, in 1974. After holding a faculty position in the Department of Information Science, Kyoto University, he joined Carnegie Mellon University in 1980. He was the Director of the Robotics Institute from 1992 to 2001. He also founded the Digital Human Research Center in Tokyo and served as founding director. He received the prestigious 2016 Kyoto Prize for Advanced Technology, presented by the Inamori Foundation to individuals such as Kanade who have contributed significantly to the scientific, cultural and spiritual betterment of humankind. Kanade's prize recognizes his pioneering contributions to computer vision and robotics. Dr. Kanade works in multiple areas of robotics: computer vision, multimedia, manipulators, autonomous mobile robots, medical robotics and sensors.

He has written more than 400 technical papers and reports in these areas, and holds more than 20 patents. He has been the principal investigator of more than a dozen major vision and robotics projects at Carnegie Mellon. Dr. Kanade's other professional honors include:

election to the National Academy of Engineering, the American Academy of Arts and Sciences, a Fellow of IEEE, a Fellow of ACM, and a Fellow of American Association of Artificial Intelligence; several awards including Kyoto Prize, the Benjamin Franklin Institute Medal and Bower Prize, C&C Award, Okawa Award, ACM/AAAI Allen Newell Award, Joseph Engelberger Award, IEEE Robotics and Automation Society Pioneer Award, IEEE Foundation Medal and ICCV Azriel Rosenfeld Lifetime Accomplishment Award. He was a keynote of IEEE FG in 2015, and published 14 papers in past editions of FG.

FG 2024 Program

FG 2024 Program

Pre&Post-Workshops

Morning: from 9am to 1:30pm (end time fixed) Afternoon: from 2pm to 6pm (start time fixed)	
Monday, 27 May 2024	
Room 1	
Morning: 8:30 - 11:30	Doctoral Consortium (DC)
Noon: 11:30 - 12:30	IEEE Transactions Associate Editor Training for the Next Generation (AE)
Noon: 12:30 - 14:00	DC Lunch
Afternoon: 14:00 - 19:00	Advancements in Facial Expression Analysis and Synthesis: Past, Present, and Future (AFEAS)
Room 2	
Morning workshop	Synthetic Data for Face and Gesture Analysis (SDA-FGA)
Afternoon workshop	FG 2024 Competitions
Room 3	
Morning tutorial	Bias Assessment, Explanation, and Mitigation in Deep Face Recognition (BIAS)
Afternoon tutorial	Generation of Synthetic Data for Remote Verification System (SYNTH)
Friday, 31 May 2024	
Room 1	
Morning workshop	Responsible Face Image Processing (REFIP)
Afternoon workshop	Learning with Few or without Annotated Face, Body and Gesture Data (LFA)
Room 2	
Morning workshop	Privacy-aware and Acceptable Video-based Assistive Technologies (PrivAAL)
Afternoon workshop	Segmentation and Assessment of Continuous Video in Figure Skating Workshop & Challenge (SkatingVerse)
Room 3	
Morning workshop	Applied Multimodal Affect Recognition (AMAR)

FG 2024 Program

Tuesday, 28 May 2024

Tuesday, 28 May 2024		
8:00 - 8:45	Registration	
8:45 - 9:00	Opening session Chair: Vito Struc	
9:00 - 10:00	Keynote 1	
	Chair: Xilin Chen Speaker: Prof. Shiguang Shan Title: Gaze analysis and applications	
10:00 - 10:30	Coffee break	
10:30 - 11:30	Ask Me Anything Session	
	Chair: Laszlo Jeni Speaker: **Prof. Takeo Kanade**	
11:30 - 12:30	Poster Spotlights	
	Posters from Poster Session 1	
12:30 - 14:00	Lunch Break	
14:00 - 15:00	Oral Session 1 - Face biometrics Chair: Nuno Goncalves	
	Designing Cross-Race Tests for Forensic Facial Examiners, Super-recognizers, and Face Recognition Algorithm	Géraldine Jeckeln (The University of Texas at Dallas); Selin Yavuzcan (The University of Texas at Dallas); Kate A. Marquis (The University of Texas at Dallas); Prajay S. Mehta (The University of Texas at Dallas); Amy N. Yates (National Institute of Standards and Technology); P Jonathon Phillips (NIST); Alice O'Toole (University of Texas at Dallas)
	TetraLoss: Improving the Robustness of Face Recognition against Morphing Attacks	Mathias Ibsen (Hochschule Darmstadt); Lazaro Janier Gonzalez-Soler (Hochschule Darmstadt); Christian Rathgeb (Hochschule Darmstadt); Christoph Busch (Hochschule Darmstadt)
	Hierarchical Generative Network for Face Morphing Attacks	Zuyuan He (SiChuan University); Zongyong Deng (Sichuan University); qiaoyun He (Sichuan University); Qijun Zhao (Sichuan University)
	Face Anti-spoofing via Interaction Learning with Face Image Quality Alignment	Yongluo Liu (Beijing University of Technology); Zun Li (Beijing University of Technology); Shuyi Li (Beijing University of Technology); Zhuming Wang (Beijing University of Technology); Lifang Wu (Beijing University of Technology)
15:00 - 15:15	Break	
15:15 - 16:15	Oral Session 2 - Facial Expressions Chair: Lijun Yin	
	Multi-Scale Spatio-Temporal Graph Convolutional Network for Facial Expression Spotting	Yicheng Deng (Osaka University); Hideaki Hayashi (Osaka University); Hajime Nagahara (Osaka University)
	epsilon-Mesh Attack: A Surface-based Adversarial Point Cloud Attack for Facial Expression Recognition	Batuhan Cengiz (Istanbul Technical University); Mert Gülşen (Istanbul Technical University); Yusuf Hüseyin Şahin (İTÜ); Gozde Unal (Istanbul Technical University)
	Distilling Privileged Multimodal Information for Expression Recognition using Optimal Transport	Muhammad Haseeb Aslam (ETS); Muhammad Osama Zeeshan (École de technologie supérieure); Soufiane Belharbi (ÉTS Montreal); Marco Pedersoli (École de technologie supérieure); Alessandro Lameiras Koerich (École de technologie supérieure); Simon Bacon (Concordia University); Eric Granger (ETS Montreal)

FG 2024 Program

Tuesday, 28 May 2024

	CSTalk: Correlation Supervised Speech-driven 3D Emotional Facial Animation Generation	Xiangyu Liang (Southeast University); Wenlin Zhuang (Southeast University); Tianyong Wang (Southeast University); Guangxing Geng (Nanjing 8:8 Digital Technology Co., Ltd); Guangyue Geng (Nanjing 8:8 Digital Technology Co., Ltd); Haifeng Xia (Southeast University); Siyu Xia (Southeast University, China)
16:15 - 18:00	Poster session 1 + Coffee break	
Posters from Oral sessions 1 and 2		
1	Designing Cross-Race Tests for Forensic Facial Examiners, Super-recognizers, and Face Recognition Algorithm	Géraldine Jeckeln (The University of Texas at Dallas); Selin Yavuzcan (The University of Texas at Dallas); Kate A. Marquis (The University of Texas at Dallas); Prajay S. Mehta (The University of Texas at Dallas); Amy N. Yates (National Institute of Standards and Technology); P Jonathon Phillips (NIST); Alice O'Toole (University of Texas at Dallas)
2	TetraLoss: Improving the Robustness of Face Recognition against Morphing Attacks	Mathias Ibsen (Hochschule Darmstadt); Lazaro Janier Gonzalez-Soler (Hochschule Darmstadt); Christian Rathgeb (Hochschule Darmstadt); Christoph Busch (Hochschule Darmstadt)
3	Hierarchical Generative Network for Face Morphing Attacks	Zuyuan He (SiChuan University); Zongyong Deng (Sichuan University); qiaoyun He (Sichuan University); Qijun Zhao (Sichuan University)
4	Face Anti-spoofing via Interaction Learning with Face Image Quality Alignment	Yongluo Liu (Beijing University of Technology); Zun Li (Beijing University of Technology); Shuyi Li (Beijing University of Technology); Zhuming Wang (Beijing University of Technology); Lifang Wu (Beijing University of Technology)
5	Multi-Scale Spatio-Temporal Graph Convolutional Network for Facial Expression Spotting	Yicheng Deng (Osaka University); Hideaki Hayashi (Osaka University); Hajime Nagahara (Osaka University)
6	epsilon-Mesh Attack: A Surface-based Adversarial Point Cloud Attack for Facial Expression Recognition	Batuhan Cengiz (Istanbul Technical University); Mert Gülşen (Istanbul Technical University); Yusuf Hüseyin Şahin (İTÜ); Gozde Unal (Istanbul Technical University)
7	Distilling Privileged Multimodal Information for Expression Recognition using Optimal Transport	Muhammad Haseeb Aslam (ETS); Muhammad Osama Zeeshan (École de technologie supérieure); Soufiane Belharbi (ÉTS Montreal); Marco Pedersoli (École de technologie supérieure); Alessandro Lameiras Koerich (École de technologie supérieure); Simon Bacon (Concordia University); Eric Granger (ETS Montreal)
8	CSTalk: Correlation Supervised Speech-driven 3D Emotional Facial Animation Generation	Xiangyu Liang (Southeast University); Wenlin Zhuang (Southeast University); Tianyong Wang (Southeast University); Guangxing Geng (Nanjing 8:8 Digital Technology Co., Ltd); Guangyue Geng (Nanjing 8:8 Digital Technology Co., Ltd); Haifeng Xia (Southeast University); Siyu Xia (Southeast University, China)
Posters Only		
9	Efficient Verification-Based Face Identification	Barak Battash (Intel); Amit Rozner (Bar-Ilan University); Ofir Lindenbaum (Yale); Lior Wolf (Tel Aviv University, Israel)
10	Dataset Infant Anonymization with Pose and Emotion Retention	Mason Lary (SUNY Buffalo); Matthew M Klawonn (US Air Force Research Laboratory); Daniel Messinger (University of Miami); Ifeoma Nwogu (University at Buffalo, SUNY)
11	Face the Needle: Predicting risk of fear and fainting during blood donation through video analysis	Judita Rudokaite (Tilburg University); Itir Onal Ertugrul (Utrecht University); Sharon Ong (Tilburg University); Mart Janssen (Sanquin); Elisabeth Huis in 't Veld (Tilburg University)

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12	Intra-Person Camera Adversarial for Intra-Camera Supervised Person Re-identification	Ruochen Tang (Southwest Jiaotong University); Xun Gong (Southwest Jiaotong University)
13	Adaptive Cross-architecture Mutual Knowledge Distillation	Jianyuan Ni (Texas State University); Hao Tang (ETH Zurich & CMU); Yuzhang Shang (Illinois Institute of Technology); Bin Duan (Illinois Institute of Technology); Yan Yan (Illinois Institute of Technology)
14	ASPECD: Adaptable Soft-Biometric Privacy-Enhancement Using Centroid Decoding for Face Verification	Peter Rot (Univerza v Ljubljani, Fakulteta za Elektrotehniko); Philipp Terhörst (Paderborn University); Peter Peer (University of Ljubljana); Vitomir Struc (University of Ljubljana)
15	Young Labeled Faces in the Wild (YLFW): A Dataset for Children Faces Recognition	Iurii Medvedev (University of Coimbra); Farhad Shadmand (University of Coimbra); Nuno Gonçalves (University of Coimbra)
16	Deepfake: Classifiers, Fairness, and Demographically Robust Algorithm	Akshay Agarwal (IISER Bhopal); Nalini Ratha (SUNY Buffalo)
17	PointFaceFormer: local and global attention based transformer for 3D point cloud face recognition	Ziqi Gao (shenzhen university); Qiufu Li (shenzhen university); Gui Wang (WKU); Linlin Shen (Shenzhen University)
18	Subject-Based Domain Adaptation for Facial Expression Recognition	Muhammad Osama Zeeshan (École de technologie supérieure); Muhammad Haseeb Aslam (ETS); Soufiane Belharbi (ÉTS Montreal); Alessandro Lameiras Koerich (École de technologie supérieure); Marco Pedersoli (École de technologie supérieure); Simon Bacon (Concordia University); Eric Granger (ETS Montreal)
19	Efficient Detection of Disguised Faces using Photos/Sketches from Low-Quality Surveillance Footage	Nikhil Reddy Pottanigari (University of Montreal (MILA)); Rithin Pullela (Texas A&M University); Abdul kalam azad Shaik (university of florida); Rithik Reddy Katpally (San Jose State University)
20	Lip and speech synchronization using supervised contrastive learning and cross-modal attention	Munender Varshney (Hitachi Research and Development Center); Mayurakshi Mukherji (Hitachi India Pvt. Ltd.); Senthil raja G (Hitachi India Pvt. Ltd); Ananth Ganesh (Hitachi India); Kingshuk Banerjee (Hitachi India Pvt. Ltd)
21	If It's Not Enough, Make It So: Reducing Authentic Data Demand in Face Recognition through Synthetic Faces	Andrea Atzori (University of Cagliari); Fadi Boutros (Fraunhofer IGD); Naser Damer (Fraunhofer Institute for Computer Graphics Research IGD and TU Darmstadt); Gianni Fenu (University of Cagliari); Mirko Marras (University of Cagliari)
22	Data Augmentation Techniques for Enhanced Facial Landmarks Detection in Patients with Repaired Cleft Lip and Palate	Karen Rosero (University of Texas at Dallas); Ali N Salman (University of Texas at Dallas); Berrak Sisman (University of Texas at Dallas); Rami Hallac (University of Texas Southwestern Medical Center, Children's Medical Center); Carlos Busso (University of Texas at Dallas)
23	Deep adaptative spectral zoom for improved remote heart rate estimation	Joaquim Comas Martínez (Universitat Pompeu Fabra); Adria Ruiz (Pompeu Fabra University); Federico Sukno (Pompeu Fabra University)
24	Bridging the Gap: Protocol Towards Fair and Consistent Affect Analysis	Guanyu Hu (Xi'an Jiaotong University); Eleni Papadopoulou (NTUA); Dimitrios Kollias (Queen Mary University London); Paraskevi Tzouveli (NTUA); JIE WEI (Xi'an Jiaotong University); Xinyu Yang (Xi'an Jiaotong University)

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25	ONOT: a High-Quality ICAO-compliant Synthetic Mugshot Dataset	Nicolò Di Domenico (University of Bologna); Guido Borghi (University of Bologna); Annalisa Franco (University of Bologna); Davide Maltoni (University of Bologna)
26	RFIS-FPI: Reversible Face Image Steganography Neural Network for Face Privacy Interactions	Yubo Huang (Southwest Jiaotong Unverisity); Anran Zhu (Southwest Jiaotong University); Cheng Zeng (Southwest Jiaotong University); Cong Hu (Southwest Jiaotong University); Xin Lai (Southwest Jiaotong University); Wenhao Feng (Southwest Jiaotong University); Fan Chen (Southwest Jiaotong University)
27	Unlocking the Black Box: Concept-Based Modeling for Interpretable Affective Computing Applications	Xinyu Li (University of Glasgow); Marwa Mahmoud (University of Glasgow)
28	Social-MAE: A Transformer-Based Multimodal Autoencoder for Face and Voice	Hugo Bohy (University of Mons); Kevin El Haddad (University of Mons/The Big Projects); Minh Tran (ICT, USC); Thierry Dutoit (University of Mons); Mohammad Soleymani (University of Southern California)
29	Guided Interpretable Facial Expression Recognition via Spatial Action Unit Cues	Soufiane Belharbi (ÉTS Montreal); Marco Pedersoli (École de technologie supérieure); Alessandro Lameiras Koerich (École de technologie supérieure); Simon Bacon (Concordia University); Eric Granger (ETS Montreal)
30	AerialFace: A Light Weight Framework for Unmanned Aerial Vehicle Face Recognition	zhiquan ou (Hohai University); Liang Yao (Hohai University); Ting Wu (Hohai University); Fan Liu (Hohai University)
31	QGFace: Quality-Guided Joint Training for Mixed Quality Face Recognition	Youzhe Song (East China Normal University); Feng Wang (East China Normal University)
32	EmoCLIP: A Vision-Language Method for Zero-Shot Video Facial Expression Recognition	Niki M Foteinopoulou (SnT, University of Luxembourg); Ioannis Patras (Queen Mary University of London)
33	In-Domain Inversion for Improved 3D Face Alignment on Asymmetrical Expressions	Jilliam M. Diaz Barros (German Research Center for Artificial Intelligence); Jason Rambach (DFKI); Pramod Murthy (DFKI); Didier Stricker (DFKI)
34	3D Face Modeling via Weakly-supervised Disentanglement Network joint Identity-consistency Prior	Guohao Li (BUAA); Hongyu Yang (Beihang University); Di Huang (Beihang University, China); Yunhong Wang (State Key Laboratory of Virtual Reality Technology and System, Beihang University, Beijing 100191, China)
35	Expression-aware Masking and Progressive Decoupling for Cross-database Facial Expression Recognition	Tao Zhong (Shenzhen University); Xiaole Xian (Shenzhen University); Zihan Wang (Shenzhen University); Weicheng Xie (Shenzhen University); Linlin Shen (Shenzhen University)
36	Explainable Face Verification via Feature-Guided Gradient Backpropagation	Yuhang Lu (EPFL); Zewei Xu (EPFL); Touradj Ebrahimi (EPFL)
Demo presentation		
	Russian sign language learning simulator	Maxim Novopoltsev (SberAI), Aleksandr Tulenkov (SberAI), Roman Akhidov (SberAI), Ruslan Murtazin (SberAI), Dmitriy Milevich (SberAI), Iuliia Zemtsova (SberAI)
18:00	Welcome Reception	

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Wednesday, 29 May 2024		
8:00 - 9:00	Registration	
9:00 - 10:00	Keynote 2	
	Chair: Lale Akarun Speaker: Prof. Beatrice de Gelder Title: Linking body movement analysis and brain activity	
10:00 - 10:30	Coffee break	
10:30 - 11:30	Oral Session 3 - Human pose and motion Chair: Martin Kampel	
	Uncalibrated Multi-view 3D Human Pose Estimation with Geometry Driven Attention	Victor Galizzi (CEA); Bertrand Luvison (CEA LIST)
	Geometry-Biased Transformer for Robust Multi-View 3D Human Pose Reconstruction	Olivier Moliner (Lund University); Sangxia Huang (Sony Research); Kalle Åström (Lund University)
	One-Stage Open-Vocabulary Temporal Action Detection Leveraging Temporal Multi-scale and Action Label Features	Trung Thanh NGUYEN (Nagoya Univeristy); Yasutomo Kawanishi (RIKEN); Takahiro Komamizu (Nagoya University); Ichiro Ide (Nagoya University)
	CasCalib: Cascaded Calibration for Motion Capture from Sparse Unsynchronized Cameras	James Y Tang (University of British Columbia, Department of Computer Science); Shashwat Suri (University of British Columbia); Daniel Abidemi Ajisafe (The University of British Columbia); Bastian Wandt (Linköping University); Helge Rhodin (UBC)
11:30 - 12:30	Poster Spotlights	
	Posters from Poster Session 2	
12:30 - 14:00	Lunch Break	
14:00 - 15:00	Oral Session 4 - Gait and Action Chair: Yan Yan	
	Unveiling Gender Effects in Gait Recognition using Conditional-Matched Bootstrap Analysis	Azim Ibragimov (University of Florida); Mauricio Pamplona Segundo (University of South Florida); Sudeep Sarkar (University of South Florida, Tampa); Kevin W Bowyer (University of Notre Dame)
	GaitPT: Skeletons Are All You Need For Gait Recognition	Andy Eduard Catruna (University Politehnica Of Bucharest); Adrian Cosma (University Politehnica of Bucharest); Emilian Radoi (Politehnica University of Bucharest)
	Attention Prompt Tuning: Parameter-efficient Adaptation of Pre-trained Models for Action Recognition	Wele Gedara Chaminda Bandara (Apple Inc); Vishal Patel (Johns Hopkins University)
	ViewDiffGait: View Pyramid Diffusion for Gait Recognition	Rijun Liao (University of Missouri-Kansas City); Zhu Li (University of Missouri-Kansas City); Shuvra Bhattacharyya (University of Maryland); George York (US Air Force Academy)
15:00 - 15:15	Break	

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15:15 - 16:15	Oral Session 5 - Hand and Sign Language Chair: Hazem Wannous	
	Two Hands Are Better Than One: Resolving Hand to Hand Intersections via Occupancy Networks	Maksym Ivashechkin (University of Surrey); Richard Bowden (University of Surrey); Oscar Mendez (University of Surrey)
	SynthSL: Expressive Humans for Sign Language Image Synthesis	Jilliam M. Diaz Barros (German Research Center for Artificial Intelligence); Chen-Yu Wang (DFKI); Jameel Malik (DFKI); Abdalla Arafa (DFKI); Didier Stricker (DFKI)
	A Gloss-free Sign Language Production with Discrete Representation	Eui Jun Hwang (KAIST); Huije Lee (Korea Advanced Institute of Science and Technology); Jong C. Park (KAIST)
	In My Perspective, In My Hands: Accurate Egocentric 2D Hand Pose and Action Recognition	Wiktor Mucha (Vienna University of Technology, Computer Vision Lab); Martin Kampel (Vienna University of Technology, Computer Vision Lab)
16:15 - 18:00	Poster session 2 + Coffee	
Posters from Oral sessions 2, 3 and 4		
1	Uncalibrated Multi-view 3D Human Pose Estimation with Geometry Driven Attention	Victor Galizzi (CEA); Bertrand Luvison (CEA LIST)
2	Geometry-Biased Transformer for Robust Multi-View 3D Human Pose Reconstruction	Olivier Moliner (Lund University); Sangxia Huang (Sony Research); Kalle Åström (Lund University)
3	One-Stage Open-Vocabulary Temporal Action Detection Leveraging Temporal Multi-scale and Action Label Features	Trung Thanh NGUYEN (Nagoya Univeristy); Yasutomo Kawanishi (RIKEN); Takahiro Komamizu (Nagoya University); Ichiro Ide (Nagoya University)
4	CasCalib: Cascaded Calibration for Motion Capture from Sparse Unsynchronized Cameras	James Y Tang (University of British Columbia, Department of Computer Science); Shashwat Suri (University of British Columbia); Daniel Abidemi Ajisafe (The University of British Columbia); Bastian Wandt (Linköping University); Helge Rhodin (UBC)
5	Unveiling Gender Effects in Gait Recognition using Conditional-Matched Bootstrap Analysis	Azim Ibragimov (University of Florida); Mauricio Pamplona Segundo (University of South Florida); Sudeep Sarkar (University of South Florida, Tampa); Kevin W Bowyer (University of Notre Dame)
6	GaitPT: Skeletons Are All You Need For Gait Recognition	Andy Eduard Catruna (University Politehnica Of Bucharest); Adrian Cosma (University Politehnica of Bucharest); Emilian Radoi (Politehnica University of Bucharest)
7	Attention Prompt Tuning: Parameter-efficient Adaptation of Pre-trained Models for Action Recognition	Wele Gedara Chaminda Bandara (Apple Inc); Vishal Patel (Johns Hopkins University)
8	ViewDiffGait: View Pyramid Diffusion for Gait Recognition	Rijun Liao (University of Missouri-Kansas City); Zhu Li (university of missouri-kansas city); Shuvra Bhattacharyya (University of Maryland); George York (US Air Force Academy)

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9	Two Hands Are Better Than One: Resolving Hand to Hand Intersections via Occupancy Networks	Maksym Ivashechkin (University of Surrey); Richard Bowden (University of Surrey); Oscar Mendez (University of Surrey)
10	SynthSL: Expressive Humans for Sign Language Image Synthesis	Jilliam M. Diaz Barros (German Research Center for Artificial Intelligence); Chen-Yu Wang (DFKI); Jameel Malik (DFKI); Abdalla Arafa (DFKI); Didier Stricker (DFKI)
11	A Gloss-free Sign Language Production with Discrete Representation	Eui Jun Hwang (KAIST); Huije Lee (Korea Advanced Institute of Science and Technology); Jong C. Park (KAIST)
12	In My Perspective, In My Hands: Accurate Egocentric 2D Hand Pose and Action Recognition	Wiktor Mucha (Vienna University of Technology, Computer Vision Lab); Martin Kampel (Vienna University of Technology, Computer Vision Lab)
Posters Only		
13	BEAVP: A Bidirectional Enhanced Adversarial Model for Video Prediction	Peiyuan Zhu (Tongji University); Fengxia Han (Tongji University); Shengjie Zhao (Tongji University); Hao Deng (Tongji Universtiy)
14	Skeleton-based Self-Supervised Feature Extraction for Improved Dynamic Hand Gesture Recognition	Omar Ikne (IMT Nord Europe); Benjamin Allaert (IMT Nord Europe); Hazem Wannous (IMT Nord Europe, CRIStAL UMR 9189)
15	Human Action Recognition with Multi-Level Granularity and Pair-wise Hyper GCN	Tamam Alsarhan (Khalifa University); Tamam Alsarhan (The university of Jordan); Ayoub Alsarhan (Hashemite university); Syed Sadaf Ali (Khalifa University); Iyyakutti Iyappan Ganapathi (Khalifa University); Naoufel Werghi (Khalifa University of Science and Technology)
16	MGRFormer: A Multimodal Transformer Approach for Surgical Gesture Recognition	Kevin Feghoul (University of Lille); Deise S Maia (Université de Lille); Mehdi Elamrani (CHU Lille); Mohamed Daoudi (IMT Nord Europe); Ali Amad (University of Lille)
17	CCDb-HG: Novel Annotations and Gaze-Aware Representations for Head Gesture Recognition	Pierre Vuillecard (Idiap); Arya Farkhondeh (Idiap Research Institute, EPFL); Michael Villamizar (Idiap Research Institute); Jean-Marc ODOBEZ (IDIAP/EPFL, SWITZERLAND)
18	GestSpoof: Gesture Based Spatio-Temporal Representation Learning For Robust Fingerprint Presentation Attack Detection.	Bhavin Jawade (University at Buffalo); Shreeram Gudemaranahalli Subramanya (University at Buffalo); Atharv Dabhade (University at Buffalo, SUNY); Srirangaraj Setlur (University at Buffalo, SUNY); Venu Govindaraju (University at Buffalo, SUNY)
19	Spatio Temporal Sparse Graph Convolution Network for Hand Gesture Recognition	Omar Ikne (IMT Nord Europe); Rim Slama (CESI LINEACT); Hichem Saoudi (IMT Nord Europe); Hazem Wannous (IMT Nord Europe, CRIStAL UMR 9189)
20	Crowd Detection via Point Localization with Diffusion Models	Don Yasiru L Ranasinghe (Johns Hopkins University); Vishal Patel (Johns Hopkins University)
21	MIMIC-Pose: Implicit Membership Discrimination of Body Joints for Human Pose Estimation	Ying Huang (Hangzhou Normal University); Shanfeng Hu (Northumbria University)

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22	DPA-2D: Depth Propagation and Alignment with 2D Observations Guidance for Human Mesh Recovery	Weihao You (Tomorrow Advancing Life); Pengcheng Wang (Tomorrow Advancing Life); Jinfeng Bai (Tomorrow Advance Life); zhilong ji (Tomorrow Advancing Life)
23	Evaluating Recent 2D Human Pose Estimators for 2D-3D Pose Lifting	Soroush Mehraban (University of Toronto); Yiqian Qin (University of Toronto); Babak Taati (University Health Network)
24	The Paradox of Motion: Evidence for Spurious Correlations in Skeleton-based Gait Recognition Models	Andy Eduard Catruna (University Politehnica Of Bucharest); Adrian Cosma (University Politehnica of Bucharest); Emilian Radoi (Politehnica University of Bucharest)
25	Improving 2D Human Pose Estimation in Unseen Camera Views with Synthetic Data	Miroslav Purkrabek (Czech Technical University, Prague); Jiri Matas (Czech Technical University, Prague)
26	DualH: A Dual Hierarchical Model for Temporal Action Localization	Zejian Zhang (Universitat de Barcelona); Cristina Palmero (Universitat de Barcelona); Sergio Escalera (Universitat de Barcelona)
27	HR-xNet: A Novel High-Resolution Network for Human Pose Estimation with Low Resource Consumption	cun feng (Ningbo University); Rong Zhang (Ningbo University); Lijun Guo (Ningbo University)
28	Cross-Block Fine-Grained Semantic Cascade for Skeleton-Based Sports Action Recognition	zhendong liu (Southeast University); Haifeng Xia (Southeast University); Tong Guo (Southeast University); Libo Sun (Southeast University); Ming Shao (University of Massachusetts Dartmouth); Siyu Xia (Southeast University, China)
29	HM-Auth: Redefining User Authentication in Immersive Virtual World through Hand Movement Signatures	Sindhu Reddy Kalathur Gopal (University of Wyoming); Paul S Gyreyiri (University of Wyoming); Diksha Shukla (University of Wyoming)
30	A Data-Driven Representation for Sign Language Production	Harry Walsh (University of Surrey); Abolfazl Zargari Khuzani (Intel); Mariam Rahmani (Intel Corporation); Richard Bowden (University of Surrey)
31	Diversity-Aware Sign Language Production through a Pose Encoding Variational Autoencoder	Mohamed I Lakhal (University of Surrey); Richard Bowden (University of Surrey)
32	Resource-Efficient Gesture Recognition using Low-Resolution Thermal Camera via Spiking Neural Networks and Sparse Segmentation	Ali Safa (KU Leuven - IMEC); Wout Mommen (VUB - IMEC); Piet Wambacq (IMEC -VUB); Lars Keuninckx (imec)
33	The Seven Faces of Stress: Understanding Facial Activity Patterns during Cognitive Stress	Carla Viegas (Carnegie Mellon University); Roy A Maxion (Carnegie Mellon University, USA); Alexander Hauptmann (Carnegie Mellon University); Joao Magalhaes (Universidade NOVA Lisboa)
34	Transfer Learning for Cross-dataset Isolated Sign Language Recognition in Under-Resourced Datasets	Ahmet Alp Kindiroglu (Huawei); Ozgur Kara (Georgia Institute of Technology); Oğulcan Özdemir (Bogazici University); Lale Akarun (Bogazici University)

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35	Patch-based Privacy Attention for Weakly-supervised Privacy-Preserving Action Recognition	Xiao Li (Sun Yat-sen University); Yukun Qiu (Sun Yat-sen University); Yi-Xing Peng (Sun Yat-sen University, China); WEI-SHI ZHENG (Sun Yat-sen University, China)
36	Boosting Gesture Recognition with an Automatic Gesture Annotation Framework	Junxiao Shen (University of Cambridge); Xuhai Xu (Meta Reality Lab Research); Ran Tan (Meta Reality Labs Research); Amy Karlson (Meta Reality Labs Research); Evan Strasnick (Meta Reality Labs Research)
37	Towards Better Communication: Refining Hand Pose Estimation in Low-Resolution Sign Language Videos	Sümeyye M Taşyürek (Hacettepe University); Tuğçe Kızıltepe (Hacettepe University); Hacer Yalim Keles (Hacettepe University)
38	Quantifying Biometric Characteristics of Hand Gestures through Feature Space Probing and Identity-Level Cross-Gesture Disentanglement	Aman Verma (Indian Institute of Technology Delhi); Gaurav Jaswal (Indian Institute of Technology Delhi); Seshan Srirangarajan (Indian Institute of Technology Delhi); Sumantra Dutta Roy (Indian Institute of Technology Delhi)
39	Hand Graph Topology Selection for Skeleton-based Sign Language Recognition	Oğulcan Özdemir (Bogazici University); Inci M. Baytas (Bogazici University); Lale Akarun (Bogazici University)
40	Unconstrained Hand Recognition using Thermal Infrared Sensing of Dorsal Veins	Wallace Lawson (Naval Research Laboratory); Grant Daneils (Naval Research Laboratory); Daniel Steinhurst (Nova Research); David Kidwell (Naval Research Laboratory)
DC Posters		
	Integrating a hierarchical structure of situated human motion in Multi-task learning for professional gesture recognition	Gavriela Senteri (ARMINES)
	Towards High Fidelity and Accurate Face Swapping	Phyo Yee (IIT Ropar)
	Face-based Strategies for Evaluating Asymmetry and Speech Articulation in Patients with Craniofacial Anomalies	Karen Rosero (University of Texas at Dallas)
Demo presentation		
	Expanding PyAFAR: A Novel Privacy-Preserving Infant AU Detector	Itir Onal Ertugrul (Utrecht University), Saurabh Hinduja (University of Pittsburgh), Maneesh Bilalpur (University of Pittsburgh), Daniel Messinger (University of Miami), Jeffrey Cohn (University of Pittsburgh).
19:00-23:00	Gala Dinner (Boat)	

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Thursday, 30 May 2024		
8:00 - 9:00	Registration	
9:00 - 10:00	Keynote 3	
	Chair: Shaun Canavan Speaker: Prof. Mohamed Daoudi Title: Learning to Synthesize 3D Faces and Human Interactions	
10:00 - 10:30	Coffee break	
10:30 - 11:30	Oral Session 6 - Animation, Synthesis and Self-Supervision Chair: Raghavendra Ramachandra	
	Multi-View Consistent 3D GAN Inversion via Bidirectional Encoder	Haozhan Wu (Institute of Computing Technology, Chinese Academy of Sciences); Hu Han (Institute of Computing Technology, Chinese Academy of Sciences); Shiguang Shan (Institute of Computing Technology, Chinese Academy of Sciences); Xilin Chen (Institute of Computing Technology, Chinese Academy of Sciences)
	Embedded Representation Learning Network for Animating Styled Video Portrait	Tianyong Wang (Southeast University); Xiangyu Liang (Southeast University); wangguandong zheng (Southeast University); Dan Niu (Southeast University); Haifeng Xia (Southeast University); Siyu Xia (Southeast University, China)
	Giving a Hand to Diffusion Models: a Two-Stage Approach to Improving Conditional Human Image Generation	Anton Pelykh (University of Surrey); Ozge Mercanoglu Sincan (University of Surrey); Richard Bowden (University of Surrey)
	RS-rPPG: Robust Self-Supervised Learning for rPPG	Marko Radisa Savic (University of Oulu); Guoying Zhao (University of Oulu)
11:30 - 12:30	Poster Spotlights	
	Posters from Poster Session 3	
12:30 - 13:45	Lunch Break	
13:45 - 15:30	Poster session 3	
Posters from Oral sessions 6, 7 and 8		
1	Multi-View Consistent 3D GAN Inversion via Bidirectional Encoder	Haozhan Wu (Institute of Computing Technology, Chinese Academy of Sciences); Hu Han (Institute of Computing Technology, Chinese Academy of Sciences); Shiguang Shan (Institute of Computing Technology, Chinese Academy of Sciences); Xilin Chen (Institute of Computing Technology, Chinese Academy of Sciences)
2	Embedded Representation Learning Network for Animating Styled Video Portrait	Tianyong Wang (Southeast University); Xiangyu Liang (Southeast University); wangguandong zheng (Southeast University); Dan Niu (Southeast University); Haifeng Xia (Southeast University); Siyu Xia (Southeast University, China)
3	Giving a Hand to Diffusion Models: a Two-Stage Approach to Improving Conditional Human Image Generation	Anton Pelykh (University of Surrey); Ozge Mercanoglu Sincan (University of Surrey); Richard Bowden (University of Surrey)
4	RS-rPPG: Robust Self-Supervised Learning for rPPG	Marko Radisa Savic (University of Oulu); Guoying Zhao (University of Oulu)
5	An Active-gaze Morphable Model for 3D Gaze Estimation	Hao Sun (University of York); Nick E. Pears (University of York, UK); William Smith (University of York)

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6	Occluded Person Retrieval with Hierarchical Feature Optimization	Yang Zhao (La Trobe University); Pengcheng Zhang (Beihang University); Xiaohan Yu (Griffith University); Zhibin Liao (University of Adelaide); Johan Verjans (SAHMRI); Xiao Bai (Beihang University); Wei Xiang (La Trobe University)
7	High-resolution Image Enumeration for Low-resolution Face Recognition	Can Chen (Kitware Inc.); Scott McCloskey (Kitware)
8	OpenThermalPose: An Open-Source Annotated Thermal Human Pose Dataset and Initial YOLOv8-Pose Baselines	Askat Kuzdeuov (Nazarbayev University); Darya Taratynova (Nazarbayev University); Alim Tleuliyev (Nazarbayev University); Huseyin Atakan Varol (Nazarbayev University)
9	A Unified Model for Gaze Following and Social Gaze Prediction	Anshul Gupta (Idiap Research Institute, EPFL); Samy Tafasca (Idiap Research Institute, EPFL); Naravich Chutisilp (EPFL); Jean-Marc ODOBEZ (IDIAP/EPFL, SWITZERLAND)
10	DrFER: Learning Disentangled Representations for 3D Facial Expression Recognition	Hebeizi Li (Beihang University); Hongyu Yang (Beihang University); Di Huang (Beihang University, China)
11	ClipSwap: Towards High Fidelity Face Swapping via Attribute and CLIP-Informed Loss	Phyo Thet Yee (IIT Ropar); Sudeepta Mishra (IIT Ropar); Abhinav Dhall (Flinders University)
12	Multi-modal Human Behaviour Graph Representation Learning for Automatic Depression Assessment	Haotian Shen (University of Cambridge); Siyang Song (University of Cambridge); Hatice Gunes (University of Cambridge)
Posters Only		
13	Audio-Visual Person Verification based on Recursive Fusion of Joint Cross-Attention	Gnana Praveen Rajasekhar (Computer Research Institute of Montreal); Jahangir Alam (Computer Research Institute of Montreal (CRIM), Montreal (Quebec) Canada)
14	VoxAtnNet: A 3D Point Clouds Convolutional Neural Network for Generalizable Face Presentation Attack Detection	Raghavendra Ramachandra (NTNU, Norway); Narayan Vetrekar (Goa University); Sushma Krupa Venkatesh (Aiba); Savita Nageshker (Goa University); Jag Mohan Singh (Norwegian University of Science and Technology (NTNU) Gjøvik); Rajendra Gad (UoG, India)
15	EAT-Face: Emotion-Controllable Audio-Driven Talking Face Generation via Diffusion Model	Haodi Wang (School of Computer Science and Engineering, Sun Yat-sen University); Xiaojun Jia (Nanyang Technological University); Xiaochun Cao (Sun Yat-sen University)
16	Context-based Dataset for Analysis of Videos of Autistic Children	Sk Rahatul Jannat (University of South Florida); Heather Agazzi (University of South Florida); Shaun Canavan (University of South Florida)
17	Seeing and hearing what has not been said; A multimodal client behavior classifier in Motivational Interviewing with interpretable fusion	Lucie Galland (ISIR); Catherine Pelachaud (CNRS, Sorbonne Université); Florian Pecune (Bordeaux University)
18	SignAvatar: Sign Language 3D Motion Reconstruction and Generation	Lu Dong (University at Buffalo); Lipisha Chaudhary (University at Buffalo, SUNY); Fei Xu (University at Buffalo, SUNY); Xiao Wang (Syracuse University); Mason Lary (SUNY Buffalo); Ifeoma Nwogu (University at Buffalo, SUNY)

FG 2024 Program

Thursday, 30 May 2024

19	PortraitDAE: Line-Drawing Portraits Style Transfer from Photos via Diffusion Autoencoder with Meaningful Encoded Noise	Yexiang Liu (Institute of Automation, Chinese Academy of Sciences); Jin Liu (Shanghaitech University); Jie Cao (Institute of Automation, Chinese Academy of Sciences); Junxian Duan (National Laboratory of Pattern Recognition); Ran He (Institute of Automation, Chinese Academy of Sciences)
20	FE-Adapter: Adapting Image-based Emotion Classifiers to Videos	Shreyank N Gowda (University of Oxford); Boyan Gao (University of Oxford); David A Clifton (University of Oxford)
21	Latent Embedding Clustering for Occlusion Robust Head Pose Estimation	José Carlos Celestino (Instituto Superior Técnico); Manuel Marques (Institute for Systems and Robotics (ISR/LARSyS), DEEC, Instituto Superior Tecnico, Portugal); Jacinto C. Nascimento (Instituto Superior Tecnico de Lisboa)
22	Pivotal Tuning Editing: Towards Disentangled Wrinkle Editing with GANs	Neil Farmer (CentraleSupelec); Catherine SOLADIE (CentraleSupelec); Gabriel CAZORLA (Chanel); Renaud SEGUIER (CENTRALESUPELEC)
23	Data-Driven but Privacy-Conscious: Pedestrian Dataset De-identification via Full-Body Person Synthesis	Maxim Maximov (TUM); Tim Meinhardt (TUM); Caner Hazirbas (Meta AI); Zoe Papakipos (Meta); Canton Cristian (Meta AI); Laura Leal-Taixé (NVIDIA)
24	CrossGaze: A Strong Method for 3D Gaze Estimation in the Wild	Andy Eduard Catruna (University Politehnica Of Bucharest); Adrian Cosma (University Politehnica of Bucharest); Emilian Radoi (Politehnica University of Bucharest)
25	Survey of Automated Methods for Nonverbal Behavior Analysis in Parent-Child Interactions	Berfu Karaca (Utrecht University); Albert Ali Salah (Utrecht University); Jaap Denissen (Utrecht University); Ronald Poppe (Utrecht University); Sonja de Zwarte (Utrecht University)
26	Naive Data Augmentation Might Be Toxic: Data-prior Guided Self-supervised Representation Learning for Micro-gesture Recognition	Atif Shah (University of Oulu); Haoyu Chen (University of Oulu); Guoying Zhao (University of Oulu)
27	SMCTL: Subcarrier Masking Contrastive Transfer Learning For Human Gesture Recognition With Passive Wi-Fi Sensing	Hojjat Salehinejad (Mayo Clinic); Radomir Djogo (University of Toronto); Navid Hasanzadeh (University of Toronto); Shahrokh Valaee (University of Toronto)
28	Semantic-Aware Detail Enhancement for Blind Face Restoration	Huimin Zhao (Anhui University); Jie Cao (Institute of Automation, Chinese Academy of Sciences); Huaibo Huang (Institute of Automation, Chinese Academy of Sciences); Xiaoqiang Zhou (University of Science and Technology of China); Aihua Zheng (Anhui University); Ran He (Institute of Automation, Chinese Academy of Sciences)
30	Discovering Interpretable Directions in the Semantic Latent Space of Diffusion Models	René Haas (IT University of Copehagen); Inbar Huberman-Spiegelglas (Technion); Rotem Mulayoff (Technion); Stella Graßhof (IT University of Copenhagen); Sami S Brandt (IT University of Copenhagen); Tomer Michaeli (Technion)
31	Breaking Template Protection: Reconstruction of Face Images from Protected Facial Templates	Hatef Otroshi Shahreza (Idiap Research Institute); Sebastien Marcel (Idiap Research Institute)

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Thursday, 30 May 2024

32	Benchmarking Skeleton-based Motion Encoder Models for Clinical Applications: Estimating Parkinson's Disease Severity in Walking Sequences	Vida Adeli (University of Toronto); Soroush Mehraban (University of Toronto); Irene Ballester (TU Wien); Yasamin Zarghami (University of Toronto); Andrea Sabo (University of Toronto); Andrea Iaboni (Toronto Rehabilitation Institute); Babak Taati (University Health Network)
34	Visual Coherence Face Anonymization Algorithm Based on Dynamic Identity Perception	Xuan Tan (Hangzhou Dianzi University); Shanqing Zhang (Hangzhou Dianzi University); Yixuan Ju (University of Yamanashi); Xiaoyang mao (University of Yamanashi); Jiayi Xu (Hangzhou Dianzi University)
35	PyraMoT: A Novel Framework for Enhanced Facial Thermal Landmarks Detection	Kais Riani (University of Michigan); Salem Sharak (University Of Michigan); Mohamed Abouelenien (University of Michigan)
36	Visual Saliency Guided Gaze Target Estimation with Limited Labels	Cheng Peng (King's College London); Oya Celiktutan (King's College London)
37	Hyp-OC: Hyperbolic One Class Classifier for Face Anti-Spoofing	Kartik Narayan (Johns Hopkins University); Vishal Patel (Johns Hopkins University)
38	Dynamic Cross Attention for Audio-Visual Person Verification	Gnana Praveen Rajasekhar (Computer Research Institute of Montreal); Jahangir Alam (Computer Research Institute of Montreal (CRIM), Montreal (Quebec) Canada)
39	Enhancing Privacy in Face Analytics Using Fully Homomorphic Encryption	Bharat Yalavarthi (University at Buffalo); Arjun Ramesh Kaushik (University at Buffalo, The State University of New York); Arun Ross (Michigan State University); Vishnu Boddeti (Michigan State University); Nalini Ratha (SUNY Buffalo)
40	CribNet: Enhancing Infant Safety in Cribs through Vision-based Hazard Detection	Shaotong Zhu (Northeastern University); Amal Mathew (Northeastern University); Elaheh Hatamimajoumerd (Northeastern University); Michael Wan (Northeastern University); Briana Taylor (The Roux Institute at Northeastern University); Rajagopal Venkatesaramani (Northeastern University); Sarah Ostadabbas (Northeastern University)
41	3D Face Morphing Attack Generation using Non-Rigid Registration	Jag Mohan Singh (Norwegian University of Science and Technology (NTNU) Gjøvik); Raghavendra Ramachandra (NTNU, Norway)
42	BTVSL: A Novel Sentence-Level Annotated Dataset for Bangla Sign Language Translation	Iftekhar E Mahbub Zeeon (Bangladesh University of Engineering and Technology); Mir Mahathir Mohammad (University of Utah); Muhammad Abdullah Adnan (University of California San Diego)
15:30- 16:30	Oral Session 7 - Best Reviewed Papers Chair: Carlos Busso	
	An Active-gaze Morphable Model for 3D Gaze Estimation	Hao Sun (University of York); Nick E. Pears (University of York, UK); William Smith (University of York)
	Occluded Person Retrieval with Hierarchical Feature Optimization	Yang Zhao (La Trobe University); Pengcheng Zhang (Beihang University); Xiaohan Yu (Griffith University); Zhibin Liao (University of Adelaide); Johan Verjans (SAHMRI); Xiao Bai (Beihang University); Wei Xiang (La Trobe University)
	High-resolution Image Enumeration for Low-resolution Face Recognition	Can Chen (Kitware Inc.); Scott McCloskey (Kitware)

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	OpenThermalPose: An Open-Source Annotated Thermal Human Pose Dataset and Initial YOLOv8-Pose Baselines	Askat Kuzdeuov (Nazarbayev University); Darya Taratynova (Nazarbayev University); Alim Tleuliyev (Nazarbayev University); Huseyin Atakan Varol (Nazarbayev University)
16:30 - 17:00	Coffee break	
17:00 - 18:00	Oral Session 8 - Best reviewed Student Papers Chair: Itir Onal Ertugrul	
	A Unified Model for Gaze Following and Social Gaze Prediction	Anshul Gupta (Idiap Research Institute, EPFL); Samy Tafasca (Idiap Research Institute, EPFL); Naravich Chutisilp (EPFL); Jean-Marc ODOBEZ (IDIAP/EPFL, SWITZERLAND)
	DrFER: Learning Disentangled Representations for 3D Facial Expression Recognition	Hebeizi Li (Beihang University); Hongyu Yang (Beihang University); Di Huang (Beihang University, China)
	ClipSwap: Towards High Fidelity Face Swapping via Attribute and CLIP-Informed Loss	Phyo Thet Yee (IIT Ropar); Abhinav Dhall (Indian Institute of Technology Ropar)
	Multi-modal Human Behaviour Graph Representation Learning for Automatic Depression Assessment	Haotian Shen (University of Cambridge); Siyang Song (University of Cambridge); Hatice Gunes (University of Cambridge)
18:00 - 18:10	Closing session	

FG 2024 Workshop Programs

FG 2024 Program

Pre&Post-Workshops

Seven workshops will be organized at FG'24. More details about each workshop are found below:

Synthetic Data for Face and Gesture Analysis

Organizers: Deepak Kumar Jain (Dalian University of Technology), Pourya Shamsolmoali (East China Normal University), Fadi Boutros (Fraunhofer IGD), Naser Damer (Fraunhofer Institute for Computer Graphics Research IGD and TU Darmstadt), Vitomir Struc (University of Ljubljana)

Abstract: Recent advancements in generative models within the realms of computer vision and artificial intelligence have revolutionized the way researchers approach data-driven tasks. The advent of sophisticated generative models, such as GANs (Generative Adversarial Networks), VAEs (Variational Autoencoders), or more recently, diffusion models, has empowered practitioners to create synthetic data that closely mirrors real-world scenarios. These models enable the generation of high-fidelity images and sequences, laying the foundation for groundbreaking applications in face and gesture analysis. The significance of these generative models lies in their ability to produce synthetic data that is remarkably realistic, thereby mitigating challenges associated with data scarcity and privacy concerns. As a result, the utilization of synthetic data has become increasingly prevalent in various research domains, offering a versatile and ethical alternative for training and testing machine learning algorithms. This workshop aims to delve into the diverse applications of synthetic data in the realm of face and gesture analysis. Participants will explore how synthetic datasets have been instrumental in training facial recognition systems, enhancing emotion detection models, and refining gesture recognition algorithms. The workshop will showcase exemplary use cases where the integration of synthetic data has not only overcome data limitations but has also fostered the development of more robust and accurate models.

Website: https://sites.google.com/view/sd-fga2024/

Program (May 27 Morning, Room 2):

9:00 – 9:00

Opening Session

9:05 – 10:00

Keynote talk: Prof. Rama Chellappa

10:00 – 10:45

Session 1 – Applications of Synthetic Data

A Study of Video-based Human Representation for American Sign Language Alphabet Generation
Fei Xu; Lipisha Chaudhary; Lu Dong; Srirangaraj Setlur; Venu Govindaraju; Ifeoma Nwogu

Training Against Disguises: Addressing and Mitigating Bias in Facial Emotion Recognition with Synthetic Data
AAdith Sukumar; Aditya Desai; Peeyush Singhal ; Sai Gokhale; Deepak Kumar Jain; Rahee Walambe; Ketan V Kotecha

DiCTI: Diffusion-based Clothing Designer via Text-guided Input
Ajda Lampe; Julija Stopar; Deepak Kumar Jain; Shinichiro Omachi; Peter Peer; Vitomir Štruc

10:45 – 11:00

Coffee Break

11:00 – 12:15

Session 2 – Generation and Detection of Synthetic Data

Towards Inclusive Face Recognition Through Synthetic Ethnicity Alteration
Praveen Kumar Chandaliya; Kiran Raja; Raghavendra Ramachandra; Zahid Akhtar; Christoph Busch

Massively Annotated Datasets for Assessment of Synthetic and Real Data in Face Recognition
Pedro C. Neto; Rafael M Mamede; Carolina Albuquerque; Tiago FS Gonçalves; Ana F. Sequeira

Analyzing the Feature Extractor Networks for Face Image Synthesis
Erdi Sarıtaş; Hazim Kemal Ekenel

INDIFACE: Illuminating India's Deepfake Landscape with a Comprehensive Dataset
Kartik Kuckreja; Ximi Hoque; Nishit Nilesh Poddar; Shukesh G Reddy; Abhinav Dhall; Abhijit Das

Real, fake and synthetic faces – does the coin have three sides?
Shahzeb Naeem; Ramzi Al-Sharawi; Muhammad Riyyan Khan; Usman Tariq*; Abhinav Dhall; Hasan Al-Nashash

12:15 – 12:20

Closing session

FG 2024 Program

Advancements in Facial Expression Analysis and Synthesis: Past, Present, and Future

Organizers: Itir Onal Ertugrul (Utrecht University), Laszlo A Jeni (Carnegie Mellon University)

Abstract: This workshop aims to bring together computer scientists, psychologists and behavioral scientists who have been working on automated analysis and synthesis of facial expressions and their application in several domains including assessment of pain, mental health, personality, and emotion among others. With the invited talks by distinguished researchers in the field, we aim to shed light on the past, present, and future of face analysis and synthesis. The workshop will conclude with a dynamic panel discussion, featuring interdisciplinary researchers and their valuable insights into the multidimensional aspects of facial expression analysis and synthesis.

Website: https://sites.google.com/view/afeas-24/home

Program (May 27 Afternoon, Room 2):

14:00 – 14:10
Opening

14:10 – 14:30
Keynote talk by Takeo Kanade

14:30 – 14:50
Keynote talk by Lijun Yin

14:50 – 15:10
Keynote talk by Carlos Busso

15:10 – 15:30
Keynote talk by Michel Valstar

15:30 – 16:10
Coffee Break

16:10 – 16:30
Keynote talk by Hamdi Dibeklioğlu

16:30 – 16:50
Keynote talk by Yingli Tian

17:00 – 17:20
Keynote talk by Iain Matthews

17:20 – 17:40
Keynote talk by Fernando De la Torre

17:40 – 17:50
Closing

FG 2024 Program

Pre&Post-Workshops

First International Workshop on Responsible Face Image Processing (ReFIP 2024)

Organizers: Andrea Atzori (University of Cagliari), Fadi Boutros (Fraunhofer IGD), Lucia Cascone (University of Salerno), Naser Damer (Fraunhofer Institute for Computer Graphics Research IGD and TU Darmstadt), Mirko Marras (University of Cagliari), Ruben Tolosana (Universidad Autonoma de Madrid), Ruben Vera-Rodriguez (Universidad Autónoma de Madrid)

Abstract: The consideration of ethical dimensions beyond mere accuracy is increasingly important in both industrial and academic spheres, given the pervasive influence of facial image processing systems in our daily lives. Despite this attention, crucial aspects such as fairness, accountability, transparency, and privacy remain under-explored in the domain of facial image processing systems. To have a better understanding of these aspects, our workshop on responsible face image processing (ReFIP) aims to gather high-quality, impactful, and original research in this emerging field, providing a shared platform for researchers and practitioners. This workshop seeks to go beyond domain-generic studies in the literature, fostering a deeper understanding of the ethical aspects associated with facial image processing, generating vivid community exchanges.

Website: https://responsiblefaceimageprocessing.github.io/fg2024/

Program (May 31 Morning, Room 1):

9:00 – 9:10

Workshop Presentation and Introduction

9:10 – 10:00

Keynote Speech (Vitomir Štruc: Face Image Quality Assessment (FIQA): Recent Advancements and Future Challenges)

10:00 – 10:15

Emircan Gündoğdu, Altay Ünal, Gozde Unal: "A Study Regarding Machine Unlearning on Facial Attribute Data"

10:15 – 10:30

Christian Rathgeb, Mathias Ibsen, Denise Hartmann, Simon Hradetzky, Berglind Ólafsdóttir: "Testing the Performance of Face Recognition for People with Down Syndrome"

10:30 – 11:00

Coffee Break

11:00 – 11:20

Pablo Augusto Negri, Isabelle Hupont, Emilia Gomez: "A Framework for Assessing Proportionate Intervention with Face Recognition Systems in Real-Life Scenarios"

11:20 – 11:40

Alaa Elobaid, Nathan Ramoly, Lara Younes, Symeon Papadopoulos, Eirini Ntoutsi, Yiannis Kompatsiaris: "Sum of Group Error Differences: A Critical Examination of Bias Evaluation Metrics in Biometric Verification and a Novel Dual-Metric Measure"

11:40 – 12:00

Marco Huber, Anh Thi Luu, Naser Damer: "Recognition Performance Variation Across Demographic Groups through the Eyes of Explainable Face Recognition"

12:00 – 12:20

Georgia Baltsou, Ioannis Sarridis, Christos Koutlis, Symeon Papadopoulos: "SDFD: Building a Versatile Synthetic Face Image Dataset with Diverse Attributes"

12:20 – 12:30

Final Remarks; End of the Workshop

FG 2024 Program

Pre&Post-Workshops

2nd Workshop on Learning with Few or without Annotated Face, Body and Gesture Data (LFA-FG2024)

Organizers: Maxime Devanne (Université de Haute Alsace), Mohamed Daoudi (IMT Nord Europe/CRIStAL (UMR 9189)), Germain Forestier (University of Haute Alsace), Jonathan Weber (University of Haute Alsace), Stefano Berretti (University of Florence, Italy)

Abstract: Since more than a decade, Deep Learning has been successfully employed for vision-based face, body and gesture analysis, both for static and dynamic granularities. This is particularly due to the development of effective deep architectures and the release of quite consequent datasets.

However, one of the main limitations of Deep Learning is that it requires large scale annotated datasets to train efficient models. Gathering such face, body or gesture data and annotating them can be time consuming and laborious. This is particularly the case in areas where experts from the field are required, like in the medical domain. In such a case, using crowdsourcing may not be suitable.

In addition, currently available face and/or gesture datasets cover a limited set of categories. This makes the adaptation of trained models to novel categories not straightforward. Finally, while most of the available datasets focus on classification problems with discretized labels, continuous annotations are required in many scenarios. Hence, this significantly complicates the annotation process.

The goal of this 2nd edition of the workshop is to explore approaches to overcome such limitations by investigating ways to learn from few annotated data, to transfer knowledge from similar domains or problems, to generate new data or to benefit from the community to gather novel large scale annotated datasets.

Website: https://sites.google.com/view/lfa-fg2024/home

Program (May 31 Afternoon, Room 1):

14:00 – 14:10

Opening session

14:10 – 14:30

Gait Recognition from Highly Compressed Videos
Andrei Niculae, Andy Catruna, Adrian Cosma, Daniel Rosner, Emilian Radoi

14:30 – 14:50

Aligning Actions and Walking to LLM-Generated Textual Descriptions
Radu Chivereanu, Adrian Cosma, Andy Catruna, Razvan Rughinis, Emilian Rado

14:50 – 15:10

Exploring Radar Capabilities to Support Gesture-Based Interaction in Smart Environments
Gonçalo Aguiar, Ana P. Rocha, Samuel Silva, António Teixeira

15:10 – 15:30

Interactive Visualization and Dexterity Analysis of Human Movement: AIMove Platform
Brenda Elizabeth Olivas Padilla, Sotiris Manitsaris, Alina Glushkova

15:30 – 16:00

Coffee break

16:00 – 16:20

ENTIRe-ID: An Extensive and Diverse Dataset for Person Re-Identification
Serdar Yıldız, Ahmet Nezih Kasim

16:20 – 16:40

IMEmo: An Interpersonal Relation Multi-Emotion Dataset
Hajer Guerdelli, Claudio Ferrari, Stefano Berretti, Alberto Del Bimbo

16:40 – 17:00

Self-supervised Variational Contrastive Learning with Applications to Face Understanding
Mehmet Can Yavuz, Berrin Yanikoglu

17:00

Closing session

FG 2024 Program

Pre&Post-Workshops

The Second Workshop on Privacy-aware and Acceptable Video-based Assistive Technologies

Organizers: Sara Colantonio (Institute of Information Science and Technologies of the National Research Council of Italy), Francisco Flórez-Revuelta (University of Alicante), Martin Kampel (Vienna University of Technology, Computer Vision Lab)

Abstract: The quest for responsible research is a cornerstone of an ethical, legal and social-aware approach to the development of assistive technologies. As technology advances – driven by the huge and rapidly evolving innovations through modern information and communication technologies – it penetrates private domains and interacts with personal, private, and intimate activities. It is a necessary requirement that any technology development should be carefully designed and balanced within societal, cultural and individual values, and norms.

Assistive technologies based on computer vision, multimedia data processing and understanding, and machine intelligence present several advantages in terms of unobtrusiveness and information richness. Indeed, camera sensors are far less obtrusive with respect to the hindrance that other wearable sensors may cause to people's activities. Currently, video-based applications are effective in recognising and monitoring face expressions, activities, movements, and overall conditions of the assisted individuals as well as to assess their vital parameters (e.g., heart rate, respiratory rate). However, cameras are often perceived as the most intrusive technologies from the viewpoint of the privacy of the monitored individuals. This is due to the richness of the information that this technology conveys and the intimate setting where it may be deployed in. Therefore, solutions able to ensure privacy preservation by context and design as well as to ensure high legal and ethical standards are in high demand.

This workshop aims to create a forum for contributions presenting and discussing image- and video-based applications for active assisted living as well as initiatives proposing ethical and privacy-aware solutions.

The workshop is supported by the visuAAL Marie Skłodowska-Curie Innovative Training Network and the GoodBrother COST Action, which aims to bridge the gap between users' requirements and the safe and secure use of video-based AAL.

Website: https://goodbrother.eu/conferences/privaal2024/

Program (May 31 Morning, Room 2):

09:00 – 10:30

Sessions

10:30 – 11:00

Coffee break

11:00 – 13:30

Sessions

What should we care about in AAL? Unveiling the main interests of the users in the legal context
Maksymilian Kuźmicz

Ethical Impact Identification of a Dementia Behaviour Monitoring System
Irene Ballester and Martin Kampel

Facial landmark identification and data preparation can significantly improve the extraction of newborns' facial features
Giulio Del Corso, Danila Germanese, Maria Antonietta Pascali, Serena Bardelli, Armando Cuttano, Fabrizia Festante, Andrea Guzzetta, Lucia Rocchitelli and Sara Colantonio

Evaluating Gaze Detection for Children with Autism Using the ChildPlay-Reduced Dataset
Nursena Boluk and Hatice Kose

LITE-FER: A lightweight facial expression recognition framework for children in resource-limited devices
Erhan Bicer and Hatice Kose

Analyzing the Effect of Combined Degradations on Face Recognition
Erdi Sarıtaş and Hazım Kemal Ekenel

FG 2024 Program

Pre&Post-Workshops

SkatingVerse: Segmentation and Assessment of Continuous Video in Figure Skating Competition and the 1st SkatingVerse Workshop & Challenge

Organizers: Jian Zhao (Institute of North Electronic Equipment), Lei Jin (Beijing University of Posts and Telecommunications), Zheng Zhu (Tsinghua University), Yinglei Teng (Beijing University of Posts and Telecommunications), Jiaojiao Zhao (University of Amsterdam), Sadaf Gulshad (University of Amsterdam), Zheng Wang (Wuhan University), Bo Zhao (Bank of Montreal), Xiangbo Shu (Nanjing University of Science and Technology), Xuecheng Nie (Meitu Inc.), Xiaojie Jin (Bytedance Inc. USA), Xiaodan Liang (Sun Yat-sen University), Yunchao Wei (UTS), Jianshu Li (Ant Group), Shin'ichi Satoh (National Institute of Informatics), Yandong Guo (AI^2 Robotics), Cewu Lu (Shanghai Jiao Tong University), Junliang Xing (Tsinghua University), Shen Jane (Pensees Technology)

Abstract: Human action understanding in computer vision focuses on locating, classifying, and assessing human actions in videos. However, the current tasks are inadequate for practical application such as fine-grained action segmentation and assessment. To address this, we construct a dataset comprising 1,687 continuous videos from figure skating competitions, encouraging the development of algorithms that can accurately analyze each action. We chose the figure skating task, because of its difficulty, presence of challenging actions, and availability of fine-grained labels. This workshop encourages participants to submit their contributions, surveys, and case studies that address human action perception and understanding problems.

Website: https://skatingverse.github.io/

Program (May 31 Afternoon, https://zoom.us/j/96879621760 projected in Room 2):

14:00 – 14:10

Opening session

14:15 – 14:30

1st place in Challenge Presentation: Beijing DeepGlint

14:35 – 14:45

2nd place in Challenge Presentation: China Mobile (Suzhou) Software Technology Co., Ltd.

14:50 – 14:55

3rd place in Challenge Presentation: Chengdu University of Technology

15:00 – 15:30

Keynote: Shanghang Zhang, Professor at Peking University, Embodied AI for Autonomous Driving

15:30 – 16:00

Coffee Break

16:00 – 16:20

Best Paper Presentation: DCAPose: Improve One-stage Multi-Person Pose Estimation with Dynamic Center Assignment, Wei Zhang, Huiru Xie , Qi Li, Zhenan Sun)

16:25 – 16:55

Keynote: Cewu Lu, Professor at Shanghai Jiaotong University, Action Recognition and Embodied AI.

FG 2024 Program

Pre&Post-Workshops

Fourth Workshop on Applied Multimodal Affect Recognition (AMAR)

Organizers: Shaun Canavan (University of South Florida), Tempestt Neal (USF), Marvin Andujar (University of South Florida), Saurabh Hinduja (University of Pittsburgh), Lijun Yin (State University of New York at Binghamton)

Abstract: Novel applications of affective computing have emerged in recent years in domains ranging from health care to the 5th generation mobile network. Many of these have found improved emotion classification performance when fusing multiple sources of data (e.g., audio, video, brain, face, thermal, physiological, environmental, positional, text, etc.). Multimodal affect recognition has the potential to revolutionize the way various industries and sectors utilize information gained from recognition of a person's emotional state, particularly considering the flexibility in the choice of modalities and measurement tools (e.g., surveillance versus mobile device cameras). Multimodal classification methods have been proven highly effective at minimizing misclassification error in practice and in dynamic conditions. Further, multi-modal classification models tend to be more stable over time compared to relying on a single modality, increasing their reliability in sensitive applications such as mental health monitoring and automobile driver state recognition. To continue the trend of lab to practice within the field and encourage new applications of affective computing, this workshop will provide a forum for researchers to exchange ideas on future directions, including novel fusion methods and databases, innovations through interdisciplinary research, and emerging emotion sensing devices. Also, this workshop will address the ethical use of novel applications of affective computing in real world scenarios. More specifically, it will discuss topics including, but not limited to, privacy, manipulation of users, and public fears and misconceptions regarding affective computing.

Website: https://cse.usf.edu/~tjneal/AMAR2024/

Program (May 31 Morning, Room 3):

09:15 – 9:30

Welcome and Opening Remarks from Organizers

9:30 – 10:30

Keynote

10:30 – 10:45

Workshop Paper Presentation

10:45 – 11:00

Coffee Break

11:00 – 11:15

Workshop Paper Presentation

11:15 – 12:15

Keynote

12:15 – 12:30

Closing Remarks

Mitigating Class Imbalance for Facial Expression Recognition using SMOTE on Deep Features; Tara Nourivandi, Saurabh Hinduja, Shivam Srivastava, Jeffrey F. Cohn, Shaun Canavan

Toward Emotion Recognition and Person Identification Using Lip Movement from Wireless Signals: A Preliminary Study ; Sayde King, Mohamed Ebraheem, Phuong Dang, Tempestt Neal

FG 2024
Tutorials

FG 2024 Program

Tutorials

Two tutorials will be organized at FG'24. More details about each tutorial are found below:

Bias Assessment, Explanation, and Mitigation in Deep Face Recognition

Tutors: Andrea Atzori (University of Cagliari, Italy), Lucia Cascone (University of Salerno, Italy), Mirko Marras (University of Cagliari, Italy), Fabio Narducci (University of Salerno, Italy)

Abstract: This tutorial provides an interdisciplinary overview about the topic of bias in the context of face recognition systems. We begin by delving into the foundational principles that characterize the adoption of these systems, drawing upon insights from academic literature and real-world examples that highlight the imperative need of addressing bias issues. Our exploration then extends to presenting a taxonomy that encompasses various dimensions of bias, including those pertaining to social, ethical, legal, and regulatory points of views. Subsequently, we introduce recent methodologies developed for assessing and explaining bias, and relevant mitigation techniques specific to face recognition systems. We alternate between lecture slides and hands-on sessions to allow participants to gain practical experience through implementations using open-source tools and public datasets. The final segments shift focus towards analyzing emerging challenges and future trajectories, emphasizing the need for a responsible approach in the development of face recognition systems.

Program (May 27 Morning, Room 3):

09:00 – 10:30

Sessions

10:30 – 11:00

Coffee break

11:00 – 13:30

Sessions

Generation of Synthetic Data for Remote Verification System

Tutors: Juan Tapia (Hochschule Darmstadt, Germany), Naser Damer (Fraunhofer IGD, Germany), Juan M. Espín López (Facephi, Spain), Mario Nieto-Hidalgo (Facephi, Spain)

Abstract: Synthetic content creation has advanced in recent years with new deep-learning developments. Newer architectures like Generative Adversarial Networks (GAN) and diffusion models can now produce realistic face images with perceptually pleasing geometry and surface texture that challenge human perception. However, creating realistic images in other domains, such as remote verification systems, is still an open challenge.

Indeed, because of private concerns, access to bona fide ID cards and Selfies to train a robust fake-ID cards detection system is minimal. One solution is generating synthetic ID card images and Selfies in order to create faces, text and textures (colour and design) as a whole. This tutorial is an application complement for a workshop such as "Synthetic Data for Face and Gesture Analysis".

The tutorial will feature three presentations. The first will be focused on explaining the current challenge for biometrics companies in the remote verification system. The second talk will present a scientific point of view of how the researchers have explored this challenge, showing and summarizing the main work performed in the bona fide and attack ID-Cards scenarios related to databases, algorithms, and suggestions. The third talk also will present a scientific point, focusing on the Liveness Face Presentation Attack Detection to cover a whole remote verification system.

This tutorial is sponsored by Facephi company.

Program (May 27 Afternoon, Room 3):

14:00 – 15:30 Sessions

15:30 – 16:00 Coffee break

16:00 – 18:00 Sessions

FG 2024 Doctoral Consortium

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Doctoral Consortium

Chair: Oya Celiktutan

08:30 – 09:00	Opening Talk by Prof Bulent Sankur
09:00 – 10:00	Face Analysis, Synthesis, and Applications
09.00 – 09.10	328: **Phyo Yee (IIT Ropar),** Towards High Fidelity and Accurate Face Swapping
09.10 – 09.20	329: **Karen Rosero** (University of Texas at Dallas), Face-based Strategies for Evaluating Asymmetry and Speech Articulation in Patients with Craniofacial Anomalies
09.20 – 09.30	332: **Kais Riani** (University of Michigan), Facial Regions Of Interest Detection Using Thermal Imaging For Human Behavior Recognition
09.30 – 09.40	333: **Yicheng Deng** (Osaka University), Facial Expression Spotting Based on Frame-Level and Point-Level Supervision Signals
09.40 – 10.00	Q&A Session
10:00 – 10.30	**Invited Talk [TBC]**
10.30 – 10.45	**Coffee break**
10:45 – 11.30	**Beyond Face, Multimodal Bodily Cues for Identification and Behaviour Modelling**
10.45 – 10.55	327: **Gavriela Senteri** (Mines Paris – PSL University), Integrating a hierarchical structure of situated human motion in Multi-task learning for professional gesture recognition
10.55 – 11.05	335: **Cheng Peng** (King's College London), Human Behaviour Understanding in Small Group Interactions
11.05 – 11.15	**Rishabh Shukla** (Indian Institute of Technology Jammu), Generative Techniques for Biometric Restoration: Pushing the Boundaries of Realism
11.15 – 11.30	Q&A Session
11:30 – 12:30	**IEEE Transactions Associate Editor Training for the Next Generation (AE)**
12:30 – 14:00	**DC Lunch & Networking**

FG 2024 Competitions

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FG 2024 Competitions

SDFR: Synthetic Data for Face Recognition Competition	Hatef Otroshi Shahreza (Idiap Research Institute)*; Christophe Ecabert (Idiap); Anjith George (Idiap Research Institute); Alexander Unnervik (Idiap Research Institute); Sébastien Marcel (IDIAP); Nicolò Di Domenico (University of Bologna); Guido Borghi (University of Bologna); Davide Maltoni (University of Bologna); Fadi Boutros (Fraunhofer IGD); Julia Vogel (Fraunhofer IGD); Naser Damer (Fraunhofer Institute for Computer Graphics Research IGD and TU Darmstadt); Ángela Sánchez-Pérez (Facephi); Enrique Mas-Candela (Facephi); Jorge Calvo-Zaragoza (University of Alicante); Bernardo Biesseck (Federal University of Parana); Pedro Vidal (Federal University of Parana); Roger Granada (unico IDTech); David Menotti (Federal University of Paraná); Ivan DeAndres-Tame (Universidad Autonoma de Madrid); Simone Maurizio La Cava (University of Cagliari); Sara Concas (University of Cagliari); Pietro Melzi (Universidad Autonoma de Madrid); Ruben Tolosana (Universidad Autonoma de Madrid); Ruben Vera-Rodriguez (Universidad Autónoma de Madrid); Gianpaolo Perelli (University of Cagliari); Giulia Orrù (University of Cagliari); Gian Luca Marcialis (University of Cagliari); Julian Fierrez (Universidad Autonoma de Madrid)
Vector Quantized Diffusion Models for Multiple Appropriate Reactions Generation	Duc Minh Nguyen (Chonnam National University)*
One-to-Many Appropriate Reaction Mapping Modeling with Discrete Latent Variable	Zhenjie Liu (University of Science and Technology of China); Cong Liang (University of Science and Technology of China); Jiahe Wang (University of Science and Technology of China); Yadong Liu (University of Science and Technology of China); Zhang Haofan (university of science and technology of china); Caichao Zhang (University of Science and Technology of China); Jialin Gui (University of Science and Technology of China); Shangfei Wang (University of Science and Technology of China)*
Multiple Facial Reaction Generation using Gaussian Mixture of Models and Multimodal Bottleneck Transformer	Dang-Khanh Nguyen (Chonnam National University)*; Hyung-Jeong Yang (Chonnam National University); Seung-won Kim (Chonnam National University); Soo-Hyung Kim (Chonnam National University); Ji-eun Shin (Chonnam National University); Prabesh Paudel (Chonnam National University)
Finite Scalar Quantization as Facial Tokenizer for Dyadic Reaction Generation	Quang Tien Dam (Ritsumeikan University)*; Tri Tung Nguyen Nguyen (Ritsumeikan University); Tuan Dinh Tran (Ritsumeikan University); Joo-Ho Lee (Ritsumeikan University)
REACT 2024: the Second Multiple Appropriate Facial Reaction Generation Challenge	Siyang Song (University of Cambridge)*; Micol Spitale (University of Cambridge); Cheng Luo (Monash University); Cristina Palmero (Universitat de Barcelona); German Barquero (Universitat de Barcelona); Sergio Escalera (Universitat de Barcelona); Michel Valstar (University of Nottingham); Tobias Baur (Augsburg Univeristy); Fabien Ringeval (Université Grenoble Alpes); Elisabeth André (University of Augsburg, Germany); Hatice Gunes (University of Cambridge)
Brain Responses to Emotional Avatars Challenge: Dataset and Results	Agnieszka Dubiel (Lodz University of Technology); Dorota Kaminska (University of Lodz)*; Grzegorz Zwoliński (Lodz University of Technology); Akbar Anbar Jafari (University of Tartu); Prasoon Kumar Vinodkumar (University of Tartu); Egils Avots (University of Tartu); Julio C. S. Jacques Junior (University of Barcelona); Sergio Escalera (Universitat de Barcelona); Gholamreza Anbarjafari (University of Tartu)
Towards Bi-Hemispheric Emotion Mapping through EEG: A Dual-Stream Neural Network Approach	David Freire Obregon (Univesidad de Las Palmas de Gran Canaria)*; Daniel Hernandez-Sosa (University of Las Palmas de Gran Canaria); Oliverio J. Santana (University of Las Palmas de Gran Canaria); Javier Lorenzo-Navarro (Universidad de Las Palmas de Gran Canaria); Modesto Castrillón-Santana (Universidad de Las Palmas de Gran Canaria)

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Competitions

Neuro-Emotional Mapping of Human Emotions via EEG Signals	Deepak Kumar (Indian Institute of Technology, Roorkee, India)*; Pradeep Singh (Indian Institute of Technology Roorkee); Ashutosh Kumar (IIT Roorkee); Sutirtha Ghosh (IIT Roorkee); Balasubramanian Raman (Indian Institute of Technology Roorkee)
A Spectro-Statistical Approach for Emotion Identification from EEG Signals	Lownish R Sookha (Indian Institute of Technology Ropar)*; Gulshan Sharma (Indian Institute of Technology, Ropar); Mudasir Ganaie (Indian Institute of Technology Ropar); Abhinav Dhall (Flinders University)
Classifying Emotional States through EEG-Derived Spectrograms	Mahit Nandan A D (National Institute of Technology Karnataka)*; Dhiraj Choudhary D (National Institute of Technology Karnataka); Ishan Godbole (National Institute of Technology Karnataka); Anand Kumar M (National Institute of Technology Karnataka)