

2025 IEEE/ACM Conference on Connected Health: Applications, Systems and Engineering Technologies (CHASE 2025)

**New York, New York, USA
24-26 June 2025**



**IEEE Catalog Number: CFP25D42-POD
ISBN: 979-8-3315-2482-1**

**Copyright © 2025, Association for Computing Machinery
All Rights Reserved**

****** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP25D42-POD
ISBN (Print-On-Demand):	979-8-3315-2482-1
ISBN (Online):	979-8-4007-1539-6
ISSN:	2832-2967

Additional Copies of This Publication Are Available From:

Curran Associates, Inc
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: (845) 758-0400
Fax: (845) 758-2633
E-mail: curran@proceedings.com
Web: www.proceedings.com

CURRAN ASSOCIATES INC.
proceedings
.com

2025 IEEE/ACM Conference on Connected Health: Applications, Systems and Engineering Technologies (CHASE) **CHASE 2025**

Table of Contents

Preface	xvi
Organizing Committee	xvii
Steering Committee	xix
Technical Program Committee	xx

Conference Session I

Trigger-Finder: A Real-Time Freezing-of-Gait Trigger Detection System Using an Instruction-Tuned Multimodal Large Language Model	1
<i>Chen Qian (William & Mary, USA), Chuntian Chi (William & Mary, Virginia, USA), John Clapham (William & Mary, Virginia, USA), Jiarui Qi (William & Mary, Virginia, USA), Zherui Zhang (William & Mary, Virginia, USA), GinaMari Blackwell (Virginia Commonwealth University, USA), Ingrid Pretzer-Aboff (Virginia Commonwealth University, USA), Leslie Cloud (Virginia Commonwealth University, USA), Meiyi Ma (Vanderbilt University, USA), Gang Zhou (William & Mary, Virginia, USA), and Huajie Shao (William & Mary, USA)</i>	
RRPIPS: Respiratory Waveform Reconstruction using Persistent Independent Particles Tracking from Video	13
<i>Zahid Hasan (University of Maryland, Baltimore County), Masud Ahmed (University of Maryland, Baltimore County), Shadman Sakib (University of Maryland, Baltimore County), Snehalraj Chugh (University of Maryland, Baltimore County), Md Azim Khan (University of Maryland, Baltimore County), Abu Zaher MD Faridee (University of Maryland, Baltimore County), and Nirmalya Roy (University of Maryland, Baltimore County)</i>	
PolypSEAG-Net: Enhanced Polyp Segmentation with Attention Gates and Squeeze-and-Excitation ..	25
<i>Dengyi Liu (Yeshiva University), Ming Ma (Yeshiva University), Hua Fang (University of Massachusetts Dartmouth), and Honggang Wang (Yeshiva University)</i>	
Personalized Eating Detection From Wrist Motion	37
<i>Yu Xuan (Clemson University, USA) and Adam Hoover (Clemson University, USA)</i>	

Conference Session II

A Genetic Neural Architecture Search Framework to Predict Biomarker Status in Cardiovascular Disease Patients during Pandemics	45
<i>Trusting Inekwe (Worcester Polytechnic Institute, USA), Emmanuel Agu (Worcester Polytechnic Institute, USA), Winnie Mkandawire (University of Massachusetts Chan Medical School, USA), and Andres Colubri (University of Massachusetts Chan Medical School, USA)</i>	
PulseRide: A Robotic Wheelchair for Personalized Exertion Control with Human-in-the-Loop Reinforcement Learning	57
<i>Azizul Zahid (University of Tennessee Knoxville, USA), Bibek Poudel (University of Tennessee Knoxville, USA), Danny Scott (University of Tennessee Knoxville, USA), Jason Scott (University of Tennessee Knoxville, USA), Scott Crouter (University of Tennessee Knoxville, USA), Weizi Li (University of Tennessee Knoxville, USA), and Sai Swaminathan (University of Tennessee Knoxville, USA)</i>	
State-Specific Explainable Machine Learning for Predicting Premature Dropout in Medication for Opioid Use Disorder	69
<i>Xiangxing Guo (University of Texas at San Antonio), Tongnian Wang (University of Texas at San Antonio), Yuanxiong Guo (University of Texas at San Antonio), Carolina Vivas-Valencia (University of Texas at San Antonio), Cici Bauer (University of Texas Health Science Center at Houston), and Yanmin Gong (University of Texas at San Antonio)</i>	
Predicting The Severity of Anxiety in Adolescents Through Passively Sensed Behaviors	81
<i>Elaine Zhang (University of Virginia), Matthew Clark (University of Virginia), and Afsaneh Doryab (University of Virginia)</i>	
Smartphone Data Gathered Early in Depression Treatment Predicts Treatment Outcome	93
<i>Soumyashree Sahoo (University of Connecticut, USA), Md Zakir Hossain (University of Connecticut, USA), Chinmaey Shende (University of Connecticut, USA), Parit Patel (University of Connecticut Health Center, USA), Xinyu Wang (University of Connecticut, USA), Jinbo Bi (University of Connecticut, USA), Jayesh Kamath (University of Connecticut Health Center, USA), Alexander Russell (University of Connecticut, USA), Dongjin Song (University of Connecticut, USA), and Bing Wang (University of Connecticut, USA)</i>	
Game Connect: A Middleware that Flexibly Connects Games to their Health Goals	105
<i>Grace Lee (The University of Texas at Austin) and Christine Julien (Virginia Tech University)</i>	
VIBRANT: Early Prediction of Life-Threatening Uterine Atony Using Maternal Heart Rate	117
<i>Kimberly Trout (Villanova University, USA), Stefanie Modri (University of Pennsylvania, USA), Amanda Watson (University of Virginia, USA), Insup Lee (University of Pennsylvania, USA), Harish Sehdev (University of Pennsylvania, USA), and James Weimer (Vanderbilt University, USA)</i>	

Short Paper Session I

PuffEM: An E-cigarette Sleeve for Estimating User Nicotine Intake	129
<i>Yiyang Wang (Georgia Institute of Technology), Rishabh Goel (Georgia Institute of Technology), Sheraz Hassan (Georgia Institute of Technology), Taegen Doscher (Georgia Institute of Technology), Shilin Wang (Georgia Institute of Technology), Lexington Whalen (Georgia Institute of Technology), Aditya Gandhi (Georgia Institute of Technology), Yaman Sangar (Georgia Institute of Technology), Alex Cabral (Georgia Institute of Technology), Xuhai Xu (Columbia University), Josiah Hester (Georgia Institute of Technology), and Alexander Adams (Georgia Institute of Technology)</i>	
Blood Pressure Estimation from Vibration Signals via Coarse-to-Fine Contrastive Learning, Feature Selection and Synthesis	134
<i>Yida Zhang (University of Georgia), Jiayu Chen (University of Georgia), Yingjian Song (University of Georgia), Zixuan Zeng (University of Georgia), Xiang Zhang (University of North Carolina at Charlotte), Qin Lu (University of Georgia), Bradley Phillips (University of Georgia), Zaipeng Xie (Hohai University), and Wenzhan Song (University of Georgia)</i>	
RAG Pipeline for Domain Specific Applications: A Case Study in Disseminating Dementia Care Practices	139
<i>Aaron Cummings (Kennesaw State University), Xinyue Zhang (Kennesaw State University), Mercy Olaniran (Kennesaw State University), and Modupe Adewuyi (Kennesaw State University)</i>	
OAAgent: Multimodal LLM Agent for Predicting Knee Osteoarthritis Progression	144
<i>Pegah Ahadian (Kent State University), Mingrui Yang (Cleveland Clinic), Eva Powlison (Kent State University), Xiaojuan Li (Cleveland Clinic), Wei Xu (Brookhaven National Laboratory), and Qiang Guan (Kent State University)</i>	

Short Paper Session II

Enhancing Respiratory Disease Diagnosis with Graph Convolutional Networks Through Non-Speech Audio Synthesis	149
<i>Raphael Anaadumba (University of Massachusetts Lowell), Nazim A. Belabbaci (University of Massachusetts Lowell), and Mohammad Arif Ul Alam (University of Massachusetts Lowell)</i>	
DietWatch: Towards Low-effort Fine-grained Dietary Monitoring via Smartwatch in Open-World Scenarios	154
<i>Zhen Hou (Indiana University-Purdue University Indianapolis, Indiana, USA), Yucheng Xie (Yeshiva University, New York, USA), and Feng Li (Purdue University, Indiana, USA)</i>	
Beyond the Diameter: 3D Surface Area Estimation for More Accurate Polyp Sizing	159
<i>Alimire Nabijiang (University of Massachusetts Lowell, USA), QiLei Chen (University of Massachusetts Lowell, USA), Yu Cao (University of Massachusetts Lowell, USA), and BenYuan Liu (University of Massachusetts Lowell, USA)</i>	

Conference Session III

ElectroMeter: The Practical Electrolyte Measurement System	164
<i>John Clapham (William & Mary, USA), Michelle Zhou (Jamestown High School, USA), Collin MacDonald (William & Mary, USA), Kenneth Koltermann (William & Mary, USA), Ye Gao (William & Mary, USA), and Huajie Shao (William & Mary, USA)</i>	
Task as Context Prompting for Accurate Medical Symptom Coding Using Large Language Models	176
<i>Chengyang He (Stevens Institute of Technology), Wenlong Zhang (Stevens Institute of Technology), Violet Chen (Stevens Institute of Technology), Yue Ning (Stevens Institute of Technology), and Ping Wang (Stevens Institute of Technology)</i>	
HALO: Hallucination Analysis and Learning Optimization to Empower LLMs with Retrieval-Augmented Context for Guided Clinical Decision Making	187
<i>Sumera Anjum (University of North Texas), Hanzhi Zhang (University of North Texas), Wenjun Zhou (University of Tennessee), Eun Jin Paek (University of Tennessee Health Science Center), Xiaopeng Zhao (University of Tennessee), and Yunhe Feng (University of North Texas)</i>	
Explainable Feature Engineering in Health Data Science: Empirical Comparison of ChatGPT-4o and Classical Machine Learning Methods	199
<i>Behshid Behkamal (Western University), Amin Rezaei (University of Pittsburgh), Nickolas Littlefield (University of Pittsburgh), Samarth Bhardwaj (University of Pittsburgh), Leah Reid (University of Pittsburgh), Nicole Myers (University of Pittsburgh), Soheyla Amirian (University of Pittsburgh), and Ahmad P. Tafti (University of Pittsburgh)</i>	

Conference Session IV

Matching-Based Off-Policy Evaluation for Reinforcement Learning Applied to Mechanical Ventilation	211
<i>Joo Seung Lee (University of California, Berkeley, USA), Malini Mahendra (University of California, San Francisco, USA), and Anil Aswani (University of California, Berkeley)</i>	
Ethical AI for Healthcare Systems: Uncertainty-Aware, Fair Federated Learning	222
<i>Dian Chen (Virginia Tech, USA), Qi Zhang (Virginia Tech, USA), Lance Kaplan (US DEVCOM Army Research Laboratory, USA), Audun Josang (University of Oslo, USA), Donghyun Jeong (University of the District of Columbia, USA), Feng Chen (The University of Texas at Dallas, USA), and Jin-Hee Cho (Virginia Tech, USA)</i>	
Fairness-Optimized Synthetic EHR Generation for Arbitrary Downstream Predictive Tasks	234
<i>Mirza Farhan Bin Tarek (University of Delaware), Raphael Poulain (University of Delaware), and Rahmatollah Beheshti (University of Delaware)</i>	

MedLeak: Multimodal Medical Data Leakage in Secure Federated Learning with Crafted Models ..	245
<i>Shanghao Shi (Virginia Tech), Md Shahedul Haque (Virginia Tech), Abhijeet Parida (Children’s National Hospital), Chaoyu Zhang (Virginia Tech), Marius George Linguraru (Children’s National Hospital, George Washington University), Y. Thomas Hou (Virginia Tech), Syed Muhammad Anwar (Children’s National Hospital, George Washington University), and Wenjing Lou (Virginia Tech)</i>	
Predicting and Understanding College Student Mental Health with Interpretable Machine Learning	257
<i>Meghna Roy Chowdhury (Purdue University, USA), Wei Xuan (University of Southern California, USA), Shreyas Sen (Purdue University, USA), Yixue Zhao (USC Information Sciences Institute, USA), and Yi Ding (Purdue University, USA)</i>	

Short Paper Session III

Respiratory Rate and Heart Rate in Facial Videos through the Lens of Temporal Pixel Variation	269
<i>Zahid Hasan (University of Maryland, Baltimore County), Masud Ahmed (University of Maryland, Baltimore County), and Nirmalya Roy (University of Maryland, Baltimore County)</i>	
Deep Learning-Based Multi-Class Model in WSIs: Vision Transformer for Distinguishing Cancer, Tumor, Mitosis, Red Blood Cells, and Karyorrhexis	274
<i>Md Jobair Hossain Faruk (New York Institute of Technology), Bofan He (New York Institute of Technology), Jerry Q. Cheng (New York Institute of Technology), Huanying Gu (New York Institute of Technology), Louis P. Dehner (Washington University School of Medicine), and Mai He (Washington University School of Medicine)</i>	
Trustworthy AI for Early Dementia Detection: Robust Feature Masking and Clinical Interpretability	279
<i>Konstantinos Georgiou (The University of Tennessee, USA), Longjian Liu (Drexel University Dornsife School of Public Health, USA), Hairong Qi (The University of Tennessee, USA), and Xiaopeng Zhao (The University of Tennessee, USA)</i>	
Energy Efficiency and Communication Accuracy Tradeoff in Intra-body Networks	284
<i>Pramita Pandit (Temple University), Hirsia Kia (Temple University), and Krishna Kant (Temple University)</i>	

Short Paper Session IV

Optimizing Veterinary Language Modeling with Mamba Architecture for Long-Sequence Efficiency	289
<i>Lakshmi Priya Ramisetty (Yeshiva University) and Youshan Zhang (Yeshiva University)</i>	
Deep Learning for Non-Invasive Glucose Sensing in Synthetic Blood: an In-Vitro Study	294
<i>El Arbi Belfarsi (Kennesaw State University), Sophie Brubaker (Kennesaw State University), Maria Valero (Kennesaw State University), and Katherine Ingram (Kennesaw State University)</i>	

UniSegNet: A Unified Deep Learning Framework for Robust and Computationally Efficient Skin Lesion Segmentation	299
<i>Younes Shafter (University of Massachusetts, USA), Ishan Patel (University of Massachusetts, USA), and Mohammad Arif Ul Alam (University of Massachusetts, USA)</i>	

AffectEval: A Modular and Customizable Affective Computing Framework	304
<i>Emily Zhou (University of Southern California), Khushboo Khatrik (University of Southern California), Yixue Zhao (USC Information Sciences Institute), and Bhaskar Krishnamachari (University of Southern California, United States of America)</i>	

Short Paper Session V

WaveTremor: Tremor Detection for Parkinson’s Disease via Spatial-Temporal Learning	309
<i>Xinyu Chen (William & Mary), Kenneth Koltermann (William & Mary), John Clapham (William & Mary), GinaMari Blackwell (Virginia Commonwealth University), Leslie Cloud (Virginia Commonwealth University), Ingrid Pretzer-Aboff (Virginia Commonwealth University), Huajie Shao (William & Mary), and Gang Zhou (William & Mary)</i>	

Adaptive Eigen-Analysis using Game-Theoretic Strategies for Multi-Scale CNNs in Medical Imaging Applications	314
<i>Matthew Fried (Touro University and Yeshiva University), Honggang Wang (Yeshiva University), and Hua Fang (University of Massachusetts Dartmouth and Chan Medical School)</i>	

Exploring the Feasibility of Identifying Nutrition Misinformation on Social Media	319
<i>Prajwol Lamichhane (University of North Florida), Indika Kahanda (University of North Florida), Andrea Arikawa (University of North Florida), Charlotte Martin (University of North Florida), Maribel Garcia (University of North Florida), Camila Figueiredo (University of North Florida), and Haivan Benjamin (University of North Florida)</i>	

Sustainable Radon Mitigation through Optimized HVAC Scheduling	324
<i>Christopher Kitras (Brigham Young University), John Beard (Brigham Young University), James Johnston (Brigham Young University), and Philip Lundrigan (Brigham Young University)</i>	

Workshop 1

Advancing Data Quality for Healthcare AI: Integrating Google Earth and Community Data in Opioid Crisis Mitigation	329
<i>Xue Wu (PhD student at the University of Alabama) and Jiaqi Gong (Associate professor at the University of Alabama)</i>	

HealthLit: A Large Language Model Driven Health Literacy Fidelity Audit and Feedback System	335
<i>Hang Tran (University of North Texas, USA), Sammep Shah (Texas Christian University, USA), Donger Chen (University of North Texas, USA), Jixin Wang (University of North Texas, USA), YunHe Feng (University of North Texas, USA), Carol Howe (Texas Christian University, USA), Lindsey Patton (Children’s Health, USA), Liran Ma (Miami University, USA), and Song Fu (University of North Texas, USA)</i>	
Detecting Health Misinformation by Leveraging LLM Models and Debunk List	341
<i>Melika Rostami (University of North Texas, USA), K S M Tozammel Hossain (University of North Texas, USA), and Suliman Hawamdeh (University of North Texas, USA)</i>	
A Self-Supervised Learning Framework for Domain Invariant Early Prediction of Sepsis	347
<i>Neeresh Kumar Perla (University of Massachusetts Lowell, USA), Yingzhe Qin (University of Massachusetts Dartmouth, USA), Yu Shrike Zhang (Harvard Medical School, USA), and Ming Shao (University of Massachusetts Lowell, USA)</i>	
Stochastic Flow Inference for Medical Image Digital Twins	353
<i>Zihao Wang (University of Tennessee, Chattanooga), Yuzhou Chen (University of California, Riverside), and Herve Delingette (Inria Sophia-Antipolis)</i>	
DT4PCP: A Digital Twin Framework for Personalized Care Planning Applied to Type 2 Diabetes Management	358
<i>Javad Mohammad Alizadeh (College of Public Health, Temple University), Mukesh Kumar Patel (College of Public Health, Temple University), and Huanmei Wu (College of Public Health, Temple University)</i>	
Pathological Complete Response Classification on HER2-Positive Breast Cancer Patients with Double-View Graph Contrastive Learning	365
<i>Dechuang Jiao (The Affiliated Cancer Hospital of Zhengzhou University and Henan Cancer Hospital), Yanqiu Shao (Bristol Myers Squibb), Xiaohan Guo (Pfizer), Zihan Lin (Bristol Myers Squibb), Junchao Fei (Temple University), Chenguang Yang (University of California, Riverside), Yuzhou Chen (University of California, Riverside), and Huanmei Wu (Temple University)</i>	

Workshop 2

Optimizing IoMT Security Using Machine Learning: A Use Case-Based Scoping Review Toward Smart and Connected Health	371
<i>Md. Fazle Rabbi Rahat (Mawlana Bhashani Science and Technology University), Md Mehedi Hasan (Kennesaw State University, USA), Zongxing Xie (Kennesaw State University, USA), and Nazmus Sakib (Kennesaw State University, USA)</i>	
Cellular Data-Based Indoor Localization for Smart Health Applications	377
<i>Ying Wang (Stevens Institute of Technology), Ting Liao (Stevens Institute of Technology), and Eric Forbes (Stevens Institute of Technology)</i>	

Unraveling Racial Disparities in Critical Lifestyle Needs & Mental Health Outcomes: Toward Designing Smart & Connected Health Technologies for Mental Wellbeing	383
<i>Syeda Umme Salma (College of Computing and Software Engineering, Kennesaw State University), Evelina Sterling (Kennesaw State University), and Nazmus Sakib (Kennesaw State University)</i>	
ActDiffNet: Multisensor Affective State Recognition by Actively Synthesizing Minority Patterns via Conditional Diffusion	389
<i>Jatin Chabbria (University at Buffalo), Vamsi Kumar Naidu Pallapothula (University at Buffalo), and Sreyasee Das Bhattacharjee (University at Buffalo)</i>	
Cross-Dataset Validation of a Sensor Agnostic Seismocardiography Peak Detection Method	395
<i>Ismail Elnaggar (University of Turku, Finland), Sepehr Seifizarei (University of Turku, Finland), Jonas Sandelin (University of Turku, Finland), Olli Lahdenoja (University of Turku, Finland), Antti Airola (University of Turku, Finland), Matti Kaisti (University of Turku, Finland), and Tero Koivisto (University of Turku, Finland)</i>	
Personalized Neural Modeling for Daily Injury Risk Assessment via Wearable Health Data	401
<i>Melik Ozolcer (Stevens Institute of Technology, USA) and Sang Won Bae (Stevens Institute of Technology, USA)</i>	
Stride Length Estimation with Motion Data from the Contralateral Foot	407
<i>Stella Ansah (University of New Hampshire, USA) and Diliang Chen (University of New Hampshire, USA)</i>	

Workshop 3

Enhancing Non-English Conversational Agents Using Synthetic Data Generation	412
<i>Salar Hashemitaheeri (University of California-Irvine) and Ian Harris (University of California-Irvine)</i>	
DF-RAG: A Dual Federated Retrieval-Augmented Generation Framework for Collaborative Medical AI	418
<i>Jiaqi Gong (University of Alabama), Michal Zajac (University of Alabama), Andrew Hahn (University of Alabama), and Julian Garcia (University of Alabama)</i>	
Self-Healing Digital Twins: Hybrid Generative and Privacy-Preserving AI for Adaptive Wellness Platforms	424
<i>Nariman Mani (Nutrosal Inc., Canada) and Salma Attaranasl (Nutrosal Inc., Canada)</i>	
Leapfrog Latent Consistency Model (LLCM) for Medical Images Generation	430
<i>Lakshmikar Reddy Polamreddy (Yeshiva University), Kalyan Roy (Yeshiva University), Sheng-Han Yueh (Yeshiva University), Deepshikha Mahato (Yeshiva University), Shilpa Kuppili (Yeshiva University), Jialu Li (Yeshiva University), and Youshan Zhang (Yeshiva University)</i>	
Automatic Chest X-ray Image Caption for Report Generation	436
<i>Jialu Li (Yeshiva University) and Youshan Zhang (Yeshiva University)</i>	

MIA: Masked Inpainting-Based Image Augmentation with Diffusion Models for Enhanced Dermatology Image Classification	441
<i>Guohao Yang (University of Texas at San Antonio, USA), Yanmin Gong (University of Texas at San Antonio, USA), and Yuanxiong Guo (University of Texas at San Antonio, USA)</i>	
Privacy-Preserving Medical Advising System on Mobile Devices: On-Device PHI Anonymization, Medical Report Retrieval, and Cloud-Based RAG	447
<i>Thejan Bandara Weerasekara Weerasekara Mudiyansele (University of Moratuwa, Sri Lanka), Chinthani Chandeepea Edirisinghe Arachchige (University of Moratuwa, Sri Lanka), Oshan Sandeep Amarasuriya Hewa Anthonige (University of Moratuwa, Sri Lanka), and Chathuranga Hettiarachchi Hetti Arachchilage (University of Moratuwa, Sri Lanka)</i>	
Topology-Aware Conditional Latent Diffusion for Multi-View Fundus Image Synthesis	453
<i>Gozde Demirci (Graduate Center, CUNY, USA), Jiaqi Yang (Graduate Center, CUNY, USA), Hyun Sung Song (Queens College, CUNY, USA), Chao Chen (Stony Brook, SUNY, USA), Wei-Chi Wu (Chang Gung Memorial Hospital, Taiwan), and Chia-Ling Tsai (Queens College, CUNY, USA)</i>	

Workshop 4

Approximate Knowledge Graphs: Privacy-Preserving Healthcare Data Synthesis via LLM-Driven approximation	458
<i>Shenglin Li (University of Alabama), Abel Andrés Ramírez Molina (University of Alabama), and Jiaqi Gong (University of Alabama)</i>	
Extracting Causal Relational Rules for Medical Question-Answering Tasks using Large Language Models	464
<i>Md Sohanur Rahman (University of Texas at San Antonio, USA), Yuexia Zhang (University of Texas at San Antonio, USA), Anthony Rios (University of Texas at San Antonio, USA), and Ke Yang (University of Texas at San Antonio, USA)</i>	
A Dual-Modality Approach for Contactless Vital Sign Monitoring Using Camera and Wi-Fi CSI	470
<i>Kavya Gopireddy (California State University, Sacramento), Yiting Wang (Florida International University), Jingzhou Shen (Florida International University), Jason Jiang (Florida International University), and Xuyi Wang (Florida International University)</i>	

Poster/Demo Session

Demo: A Framework for Ranking The Clinical Trials with Large Language Model Prompting	476
<i>Shibbir Ahmed Arif (Montclair State University, USA), Anand Gopeekrishnan (Montclair State University, USA), Hao Liu (Montclair State University, USA), and Aparna S. Varde (Montclair State University, USA)</i>	

Poster: AI Models on Edge Devices with Accelerator	478
<i>Sean Digman (University of South Alabama), Isaac Arnold (University of South Alabama), Kyle Mooney (University of South Alabama), Harshvardhan Uppaluru (University of South Alabama), Na Gong (University of South Alabama), Shenghua Wu (University of South Alabama), and Jinhui Wang (University of South Alabama)</i>	
Poster: LLM-Based Extraction of Fluid Biomarkers for Alzheimer’s Disease Knowledge Base	480
<i>Julia Sammartino (Montclair State University, USA), Ernest Chianumba (Montclair State University, USA), and Hao Liu (Montclair State University, USA)</i>	
Poster: A Mobile Solution for Visual Fatigue Assessment Using Animated Ripple Icons	482
<i>I-Chen Lin (Chang Gung University), Yu-Qi Chen (Chang Gung University), Jyh-Da Wei (Chang Gung University), and Chi-Jen Wu (Chang Gung University)</i>	
Poster: Identifying SMILES from Molecular Structure Images	484
<i>Alexander Dang (Newark Academy), Emma Liu (Princeton High School), and Zhi Wei (New Jersey Institute of Technology)</i>	
Poster: Multimodal Deep Learning Approach to Detect Cognitive Impairment in the Oldest-Old with Digital Speech Markers	486
<i>Pooyan Mobtahej (University of California, Irvine), Sam T Gouron (University of California, Irvine), Jordan Zonner (University of California, Irvine), Thiri Htet Naing (University of California, Irvine), and S Ahmad Sajjadi (University of California, Irvine)</i>	
Knee Osteoarthritis Detection Using Bone Distances	488
<i>Clive Lewis (Pace University, USA), Tarun Ramapuram (Pace University, USA), and Juan Shan (Pace University, USA)</i>	
Expanding Wi-Fi Sensing Range for Respiratory Rate Estimation with Single-Antenna Transceivers	490
<i>He Wang (The Hong Kong Polytechnic University), Yunpeng Ge (The Hong Kong Polytechnic University), and Ivan Wang-Hei Ho (The Hong Kong Polytechnic University)</i>	
xR-enabled Digital Twins Applications in Longitudinal Trials	492
<i>Jacob Matos (University of Massachusetts Dartmouth, USA), Hieu Ngo (University of Massachusetts Dartmouth, USA), Honggang Wang (Yeshiva University, USA), and Hua Fang (University of Massachusetts Dartmouth, USA)</i>	
SiftIQ: Unraveling the Ethical Dilemma of AI in Healthcare	494
<i>Shivam Dhar (Unaffiliated), Niveadita Razdan (Unaffiliated), and Sidhi Razdan (Unaffiliated)</i>	
Virtual Reality-Based MRI Simulator	496
<i>Ray Lee (British Columbia Institute of Technology, Canada), Michael Doswell (British Columbia Institute of Technology, Canada), Tom He (British Columbia Institute of Technology, Canada), Navjot Kehal (British Columbia Institute of Technology, Canada), Bryan Le (British Columbia Institute of Technology, Canada), and Michael Yu (British Columbia Institute of Technology, Canada)</i>	

MAPD2: Mobile Application-based Pulmonary Disease Detector Using Electrocardiograms and Deep Learning	498
<i>Natasha Interlichia (University of North Florida), Hari Sree Lalitha Vardhini Vanaparathi (University of North Florida), Xudong Liu (University of North Florida), Mona Nasser (University of North Florida), and Scott Helgeson (Mayo Clinic)</i>	
Author Index	501