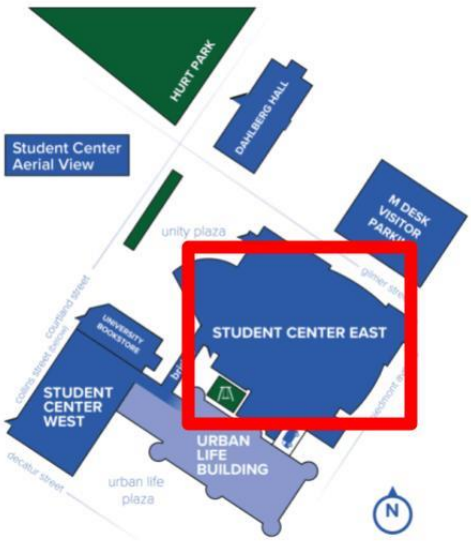
Program at glance

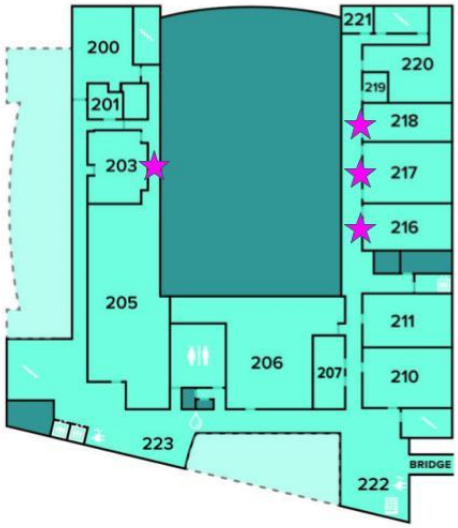
	MONDAY, 13			FRIDAY, 17	
8.00	REGISTRATION		8.00	REGISTRATION	
	WORKSHOPS			WORKSHOPS	
	WORKSHOPS			WORKSHOPS	
9.00	WORKSHOPS	Room 1: BRAIN	9.00	WORKSHOPS	Room 1: CoMoRea
	WORKSHOPS	Room 2: TELMED		WORKSHOPS	Room 2: PerFail
	WORKSHOPS	Room 3: PerVehicle + PERSASN		WORKSHOPS	Room 3: PDT + PerConAI
	WORKSHOPS	Room 4: Cloud2Things		WORKSHOPS	Room 4: PERAWARECITY
10.00	WORKSHOPS		10.00	WORKSHOPS	Room 5: UMUM
	WORKSHOPS			WORKSHOPS	Room 6: ARDUOUS
	COFFEE			COFFEE	
11.00	WORKSHOPS		11.00	WORKSHOPS	
	WORKSHOPS	Room 1: BRAIN		WORKSHOPS	Room 1: CoMoRea
	WORKSHOPS	Room 2: TELMED		WORKSHOPS	Room 2: PerFail
	WORKSHOPS	Room 3: PerVehicle + PERSASN		WORKSHOPS	Room 3: PDT + PerConAI
12.00	WORKSHOPS	Room 4: Cloud2Things	12.00	WORKSHOPS	Room 4: PERAWARECITY
	WORKSHOPS			WORKSHOPS	Room 5: UMUM
	WORKSHOPS			WORKSHOPS	Room 6: ARDUOUS
	WORKSHOPS			WORKSHOPS	
13.00	LUNCH		13.00	LUNCH	
14.00	WS - PhD FORUM	Room 1: BRAIN	14.00	WORKSHOPS	Room 1: CoMoRea
	WS - PhD FORUM	Room 2: TELMED		WORKSHOPS	Room 2: PRIVACOM
	WS - PhD FORUM	Room 3: PerVehicle + PERSASN		WORKSHOPS	Room 3: PDT + PerConAI
	WS - PhD FORUM	Room 4: *LESS		WORKSHOPS	Room 4: WRISTSENSE
15.00	WS - PhD FORUM	Room 5: BIRD	15.00	WORKSHOPS	Room 5: UMUM
	WS - PhD FORUM	Room 6: EMOTIONAWARE		WORKSHOPS	Room 6: ARDUOUS
		Room 7: PhD Forum		WORKSHOPS	
	COFFEE			COFFEE	
16.00	WS - PhD FORUM	Room 1: BRAIN	16.00	WORKSHOPS	Room 2: PRIVACOM
	WS - PhD FORUM	Room 3: PerVehicle + PERSASN		WORKSHOPS	Room 3: PDT + PerConAI
	WS - PhD FORUM	Room 4: *LESS		WORKSHOPS	Room 4: WRISTSENSE
	WS - PhD FORUM	Room 5: BIRD		WORKSHOPS	Room 5: UMUM
17.00	WS - PhD FORUM	Room 6: EMOTIONAWARE	17.00	WORKSHOPS	Room 6: ARDUOUS
	WS - PhD FORUM	Room 7: PhD Forum		WORKSHOPS	
	WS - PhD FORUM			WORKSHOPS	
	WS - PhD FORUM			WORKSHOPS	
18.00			18.00		

Room 1	**SCW 460 (56)**
Room 2	**SCE 203 (51)**
Room 3	**SCE 217 (59)**
Room 4	**SCW 462 (62)**
Room 5	**SCW 466 (56)**
Room 6	**SCW 468 (62)**
Room 7	**SCW 464 (55)**

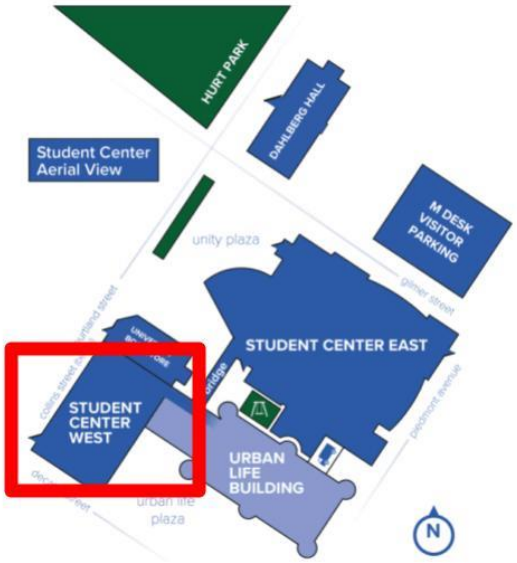
Student Center Maps. – ★ PERCOM EVENT ROOMS



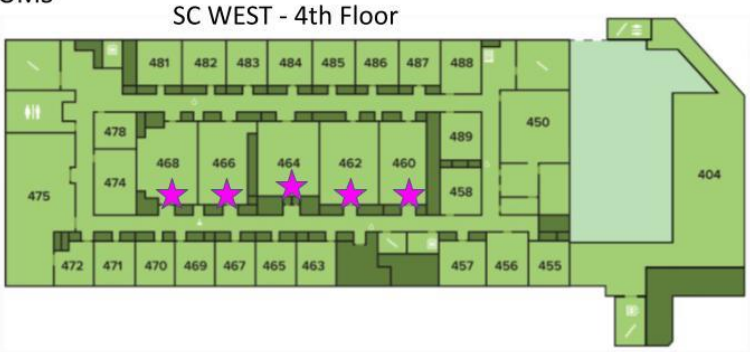
SC EAST - 2nd Floor



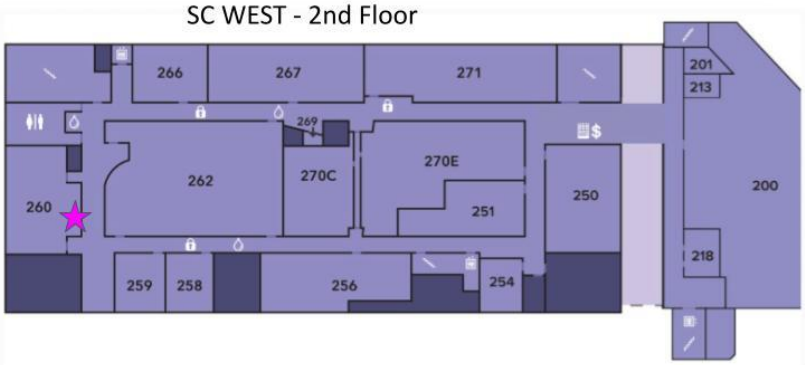
Student Center Maps. – ★ PERCOM EVENT ROOMS



SC WEST - 4th Floor



SC WEST - 2nd Floor



MONDAY, 13

Room 1 - BRAIN

BRAIN 2023: 4th Workshop on Blockchain theoRy and ApplicatIoNs

9:00-10:30 - Session 1: Opening and Keynote

9:00-9:15 Workshop opening

9:15-10:30 Keynote

10:30 - 11:00 - Coffee break

11:00 - 13:00 - Session 2: Smart contracts Analysis

1. **On the Use of Deep Neural Networks for Security Vulnerabilities Detection in Smart Contracts**
   Martina Rossini (University of Bologna, Italy); Mirko Zichichi (Universidad Politécnica de Madrid, Spain); Stefano Ferretti (University of Urbino, Italy)
2. **MichelsonLiSA: A Static Analyzer for Tezos**
   Luca Olivieri (University of Verona, Italy); Thomas Jensen (University of Rennes 1, France); Luca Negrini (University of Venice, Italy); Fausto Spoto (University of Verona, Italy)
3. **ChoEn: A Smart Contract Based Choreography Enforcer**
   Francesco Spegni (Università Politecnica delle Marche, Italy); Lorenzo Fratini and Massimiliano Pirani (Università Politecnica Delle Marche, Italy); Luca Spalazzi (Università Politecnica delle Marche, Italy)
4. **An Empirical Study of Impact of Solidity Compiler Updates on Vulnerabilities**
   Chihiro Kado and Naoto Yanai (Osaka University, Japan); Jason Paul Cruz (Nara Institute of Science and Technology, Japan); Shingo Okamura (National Institute of Technology, Nara College, Japan)

13:00 - 14:00 - Lunch Break

14.00 - 15.30 - Session 3: Tutorial

The impact of Distributed ledger Technology on the evolution of electronic voting systems

15:30 - 16:00 - Coffee break

16:00 - 17:30 - Session 4: DLT theory and applications

1. **A decentralized approach to award game achievements**
   Francesco Bruschi, Donatella Sciuto and Tommaso Paulon (Politecnico di Milano, Italy); Andrea Marchesi (Italy)
2. **Soulbound Token for Covid-19 Vaccination certification**
   Maria Ilaria Lunesu (University of Cagliari, Italy); Roberto Tonelli (Università degli studi di Cagliari, Italy); Andrea Pinna and Simone Sansoni (University of Cagliari, Italy)
3. **Optimizing Data Distribution to Balance Scalability-Redundancy Trade-off in Blockchains**
   Azam Khan and Ashiq Anjum (University of Leicester, United Kingdom (Great Britain)

17:30 - 17:50 - Session 5: Closing

Room 2 - TELMED

TELMED 2023: 2nd workshop on Telemedicine and e-Health evolution in the new era of social distancing

09:15 - 09:30 - Introduction to TELMED Workshop

09:30 - 10:30 - Session 1: Health monitoring for Telemedicine Applications I

1. **E-Health monitoring using camera: Measurement of vital parameters in a noisy environment**
   Bushra Jalil (Scuola Superiore Sant Anna, Italy); Vincenzo Lionetti (Fondazione Toscana Gabriele Monasterio, Italy); Luca Valcarenghi (Scuola Superiore Sant'Anna, Italy)
2. **Detecting an ataxia-type disease from acceleration data**
   Eileen Kraenzle (University of Tübingen, Germany); Stephan Sigg (Aalto University, Finland)

10:30 – 11:00 — Break

11:00 – 12:00 — Keynote

"Instrumentation and Measurement in Medical, Biomedical and Healthcare Systems", Prof. Eros Pasero, Politecnico di Torino (Italy).

12:00 – 13:00 — Session 2: Systems for telemedicine and e-Health

1. CHARLIE: A Chatbot that Recommends Daily Fitness and Diet Plans
   Deepanjali Chowdhury (Texas A&M University, USA); Ahana Roy (Howard County Public School System, USA); Sreenivasan Ramasamy Ramasamy

Ramamurthy (Bowie State University, USA); Nirmalya Roy (University of Maryland Baltimore County, USA)
2. A perspective of telemedicine videostreaming systems for emergency care
Sujit Kumar Sahu ,Anna Lina Ruscelli, Gabriele Cecchetti, Molka Gharbaoui and Piero Castoldi (Scuola Superiore Sant'Anna, Italy)

13:00 – 14:00 — Lunch break

14:00 – 15:00 — Session 3: Health monitoring for Telemedicine Applications II

1. Electrodermal Activity in the Evaluation of Engagement for Telemedicine Applications
Giulia Masi (Unito, Italy); Gianluca Amprimo (Politecnico di Torino & National Research Council- IEIIT, Italy); Irene Rechichi (Politecnico di Torino, Italy); Claudia Ferraris (CNR - IEIIT, Italy); Lorenzo Priano (Unito, Italy)
2. Evaluation of a Depth Camera as e-Health Sensor for Contactless Respiration Monitoring
Steffen Brinkmann, Jochen Kempfle, Kristof Van Laerhoven, Jonas Pöhler (Universität Siegen, Germany)

15:00 - 15:15 — Workshop conclusions

Room 3 - PerVehicle and PERSASN

PERVEHICLE 2023: 5th International Workshop on Pervasive Computing for Vehicular Systems

9:00-9:15 - Session 1: Welcome and introduction

9:15-10:30 Session 2: Traffic estimation and control

1. **A Joint Traffic Flow Estimation and Prediction Approach for Urban Networks**
Ruiyuan Jiang (Xi'an Jiaotong-Liverpool University, China); Shangbo Wang (Xi'an Jiaotong Liverpool University, China & School of Advanced Technology, China); Valerio Selis (University of Liverpool, United Kingdom (Great Britain)); Yuli Zhang (Xi'an Jiaotong-Liverpool University, China)
2. **A novel Multi-Agent Deep RL Approach for Traffic Signal Control**
Shijie Wang (The Hong Kong Polytechnic University, Hong Kong); Shangbo Wang (Xi'an Jiaotong Liverpool University, China & School of Advanced Technology, China)
3. **Traffic congestion mitigation by deceleration control with short-term velocity forecasting using V2X**

Tetsuya Fukumaru and Hiroaki Morino (Shibaura Institute of Technology, Japan)

10:30-11:00 - Coffee Break

11:00-11:40 Session 3: Keynote

Keynote: Hirozumi Yamaguchi (Osaka University, Japan) "Location Context and Knowledge Digitalization for Human-centric Digital Twin"

11:40-13:00 - Session 4: Vehicular Networks

1. **Anonymization Use Cases for Data Transfer in the Automotive Domain**
   Andrea Fieschi (University of Stuttgart & Mercedes-Benz AG, Germany); Pascal Hirmer (University of Stuttgart, Germany); Rose Sturm and Martin Eisele (Mercedes-Benz AG, Germany); Bernhard Mitschang (University of Stuttgart, Germany)
2. **Efficient Vehicle-Centric Networking for Ultra Dense Vehicle Communication in 5G Access**
   Beichen Yang (The University of Alabama, USA); Xiaoyan Hong and Pawan Subedi (University of Alabama, USA)
3. **Intermittent Multi-hop Video and UAV Control Command Transmission for Sewer Inspection**
   Yuki Tsutsumi, Thanh V. Pham and Susumu Ishihara (Shizuoka University, Japan)

PERSASN 2023: 1st Workshop on Pervasive Computing for Smart Autonomous Systems and Networks (conducted as a part of PerVehicle)

14:00-14:55 Session 5: Internet of Things

1. **IoT in the Air: Thread-enabled Flying IoT Network for Indoor Environments**
   Dheryta Jaisinghani, Tanzeel Rehman, Ryan Mulkey and Andrew Berns (University of Northern Iowa, USA)
2. **PADAAV: Enhancing Perception Systems using GAN-generated Adversarial Augmented Domains for Autonomous System**
   Oshin Rawlley (Birla Institute of Technology and Science Pilani, India); Shashank Gupta (Birla Institute of Technology and Science, Pilani, Rajasthan, India)

3. **Fast and Lightweight UAV-based Road Image Enhancement Under Multiple Low-Visibility Conditions**
   Chaitanya Kapoor (Birla Institute of Technology and Science, Pilani, India); Aadith Warrier and Mohit Singh (Birla Institute of Technology and Science Pilani, India); Pratik Narang (BITS Pilani, India); Harish Puppala (BML Munjal University, India); Rallapalli Srinivas and Ajit Pratap Singh (Birla Institute of Technology and Science Pilani, India)
4. **Autonomous Network Slicing and Resource Management for Diverse QoS in IoT Networks**
   Sri Harsh Amur (University of Twente, Enschede Netherlands, The Netherlands); Kamran Zia (University of Twente, The Netherlands); Alessandro Chiumento (University of Twente, The Netherlands & Katholieke Universiteit Leuven, Belgium); Paul Havinga (University of Twente, The Netherlands)

14:55-15:00 - Session 6: Closing remarks

Room 4 - Cloud2Things and *LESS

Cloud2Things 2023: 3rd Workshop on From Cloud to Things: harnessing pervasive data in the Computing Continuum

9:00 - 9:15 - Welcome from Workshop chairs

9:15 - 10:30 - Keynote

“Harnessing the Computing Continuum for Urgent Science” Prof. Manish Parashar (University of Utah)

10:30 - 11:00 - Coffee break

11:00 - 12:40 - Paper presentations

1. **Orchestration of containerized applications in the Cloud continuum**
   Giuseppe Di Modica (University of Bologna, Italy); Antonino Galletta and Lorenzo Carnevale (University of Messina, Italy); Ahmad Alkhansa (Italian Institute for Nuclear Physic, Italy); Alessandro Costantini and Daniele Cesini (Italian Institute for Nuclear Physics, Italy); Paolo Bellavista (University of Bologna, Italy); Massimo Villari (University of Messina, Italy)
2. **Holistic Life-Cycle Management of Cloud-To-Thing Compute Entities**
   Simon Volpert, Georg Eisenhart and Jörg Domaschka (Ulm University, Germany)

3. **Selective Data Offloading in Edge Computing for Two-Tier Classification With Local Domain Partitions**
   Forough Shirin Abkenar (University of California Irvine, USA); Leonardo Badia (Università degli Studi di Padova, Italy); Marco Levorato (University of California, Irvine, USA)
4. **Smart Computation Offloading for Mobile Clouds**
   Sergiu-Cristian Toader, Radu-Ioan Ciobanu and Ciprian Dobre (University Politehnica of Bucharest, Romania)
5. **A QoS-Aware 3D Point Cloud Streaming from Real Space for Interaction in Metaverse**
   Hiroki Ishimaru (Nara Institute of Science and Technology, Japan); Yugo Nakamura (Kyushu University, Japan); Manato Fujimoto (Osaka Metropolitan University, Japan); Hirohiko Suwa and Keiichi Yasumoto (Nara Institute of Science and Technology, Japan)

12:40 - 12:50 - Best paper award ceremony

12:50 - 13:00 - Closing from Workshop chairs

*LESS 2023: 2nd workshop on Serverless computing for pervasive cloud-edge-device systems and services

14.00-14.10 - Welcome and introduction

14.10-15.10 - Keynote

“The Elastic AI Ecosystem – Towards A Holistic Pervasive System for Adaptive Artificial Intelligence”

Gregor Schiele (University of Duisburg-Essen, Germany)

15.10-15.30 - Meet-the-author Gabriele Russo Russo (Università Roma Tre, Italy)

15.30-16.00 - Coffee break

16:00-17:15 - Paper presentations

1. **Measuring the Edge: A Performance Evaluation of Edge Offloading**
   Heiko Bornholdt and Kevin Röbert (Universität Hamburg, Germany); Martin Breitbach (University of Mannheim, Germany); Mathias Fischer and Janick Edinger (Universität Hamburg, Germany)
2. **OS3: The Art and the Practice of Searching for Open-Source Serverless Functions**

Sarvesh Bhatnagar and Zhengquan Li (University of Michigan- Dearborn, USA); Zheng Song (University of Michigan at Dearborn, USA); Eli Tilevich (Virginia Tech, USA)

3. **Reducing the Cost of GPU Cold Starts in Serverless Deep Learning Inference Serving**
   Justin San Juan and Bernard Wong (University of Waterloo, Canada)

17.15-17.55 Interactive session: Serverless at the Edge: Foe or Friend?

17.55-18.00 Closing remarks

Room 5 - BIRD

BIRD 2023: 2nd International Workshop on Behavior analysis and Recognition for knowledge Discovery

14:00-14:30 - Opening and Keynote

"Collective learning in non-human animals"

Takao Sasaki (University of Georgia, USA)

14:30-15:30 - Oral Presentation Session

1. **Event-triggered feedback system using YOLO for optogenetic manipulation of neural activity**
   Hayato M Yamanouchi; Ryoya Tanaka; Azusa Kamikouchi (Nagoya University, Japan)
2. **Detecting repetitive human actions by neural networks trained on composite data only**
   Yuuki Nishino; Takuya Maekawa; Takahiro Hara (Osaka University, Japan)
3. **Estimating Networks of Interaction in Fish Schools with a Minimal Model**
   Hiroaki Kawashima (University of Hyogo, Japan)

15:30-16:00 - Coffee Break

16:00-16:50 - Award Ceremony of OpenPack Challenge 2022 and Special Talk

16:50-17:50 - Poster Session

1. **Prediction of Bat Flight Path During Obstacle Avoidance by Imitation Learning**
   Shoko Genda; Yu Teshima; Taku Kawamura; Daichi Ohara (Doshisha

University, Japan); Keisuke Fujii (Nagoya University, Japan); Shizuko Hiryu (Doshisha University, Japan)

2. **Work Recognition based on Product States, Processing Parts, and Skeleton Data**
   Hirotomo Oshima; Takanori Yoshii; Masamitsu Fukuda (Toshiba Corporation, Japan); Takuya Maekawa (Osaka University, Japan); Yasuo Namioka (Toshiba Corporation, Japan)
3. **Transformer-based Time Series Classification for the OpenPack Challenge 2022**
   Tomoki Uchiyama (Tsukuba University)
4. **Exploring Cross Modality Feature Fusion for Activity Recognition at OpenPack Challenge 2022**
   Tetsuo Inoshita (NEC, Japan); Yuto Namba (Yamaguchi University, Japan); Yuichi Nakatani; Kenta Ishihara; Sachio Iwasaki; Kosuke Moriwaki (NEC, Japan); Xian-Hua Han (Yamaguchi University, Japan)
5. **A Spatial-Temporal Graph Convolutional Networks-based Approach for the OpenPack Challenge 2022**
   Shurong Chai; Jiaqing Liu; Rahul Kumar Jain; Yinhao Li (Ritsumeikan University, Japan); Tateyama Tomoko (Fujita Health University, Japan); Yen-Wei Chen (Ritsumeikan University, Japan)
6. **OpenPack Challenge 2022 Report: Impact of Data Cleaning and Time Alignment on Activity Recognition**
   Yusuke Matsubayashi (Osaka University, Japan)
7. **Precise Human Activity Recognition for the OpenPack Challenge 2022**
   Shubham Maroti Wagh (Veridium UK Limited)

17:50-18:00 - Closing

Room 6 - EMOTIONAWARE

EMOTIONAWARE 2023: 7th International Workshop on Emotion Awareness for Pervasive Computing beyond traditional approaches

14:00 - 14:10 - Welcome & Opening

14:10 - 15:10 - Session 1

1. **Emotional Virtual Reality Stroop Task**
   Deniz Mevlevioglu (University College Cork, Ireland); Sabin Tabirca (National University of Ireland at Cork, Ireland); David Murphy (UCC, Ireland)
2. **Episodes of Change: Emotion Change in Semantic Trajectories of Multimodal Sensor Data in Episodes**
   Thomas William Johnson and Eiman Kanjo (Nottingham Trent University, United Kingdom (Great Britain))

15:10 - 15:30 - Coffee Break

15:30 - 16:30 - Session 2:

1. Analysis of Accelerometer Data for Personalised Mood Detection in Activities of Daily Living
   Yulith V Altamirano-Flores (Centro de Investigación Científica y de Educación Superior de Ensenada (CICESE), Mexico); Alexandros Konios (Nottingham Trent University, United Kingdom (Great Britain)); Irvin Hussein López-Nava (Consejo Nacional de Ciencia y Tecnología & Centro de Investigación Científica y de Educación Superior de Ensenada, Mexico); Matias Garcia-Constantino and Idongesit Ekerete (Ulster University, United Kingdom (Great Britain)); Mustafa Asan Mustafa (University of Manchester, United Kingdom (Great Britain))
2. Emotions Studied by Computer Scientists and Psychologists - A Complementary Perspective
   Maciej Behnke (Wrocław University of Science and Technology & Adam Mickiewicz University, Poland); Stanislaw Saganowski (Wroclaw University of Science and Technology, Poland); Lukasz Kaczmarek (Adam Mickiewicz University, Poland); Przemysław Kazienko (Wroclaw University of Science and Technology, Poland)

16:30 - 17:30 - Keynote Session

“Hooked on a Feeling: Challenges and Opportunities of Emotion Research in Human-Computer Interaction”

Dr. Benjamin Tag (Immersive Analytics Lab, Monash University, Australia)

17:30 - 18:00 - Closing & Discussion.

FRIDAY, 17

Room 1 - CoMoRea

COMOREA 2023: 19th Workshop on Context and Activity Modeling and Recognition

09:45 - 10:00 - Session 1: Welcome and introduction

10:00 - 10:30 - Session 2: Human Activity Recognition

1. **Evaluation of Regularization-based Algorithms in Human Activity Recognition**
   Bonpagna Kann (University of Grenoble Alpes, France); Sandra Castellanos (UGA, France); Philippe Lalanda (Grenoble University, France)

10:30 - 11:00 - Coffee break

11:00 - 12:00 - Session 3: Keynote

"Computational Behavior Analysis - Pushing the Boundaries towards usable Digital Health"
Thomas Plötz, Georgia Institute of Technology, USA

12:00 - 13:00- Session 4: Data Cleaning in Context-Aware Systems

1. **Context-aware Outlier Detection for Sensor Data Stream Processing**
   Aboubakr Benabbas (University of Bamberg, Germany); Marco Grawunder (University of Oldenburg, Germany); Daniela Nicklas (University of Bamberg & Faculty Information Systems and Applied Computer Science, Germany)
2. **RTClean: Context-aware Tabular Data Cleaning using Real-time OFDs**
   Daniel Del Gaudio and Tim Schubert (University of Stuttgart, Germany); Mohamed Abdelaal (Software AG, Germany)

13:00 - 14:00 - Lunch break

14:00-15:30 - Session 5: Data management in Context-Aware Systems

1. **Mobile Health System using Facial Image for Assessment of Work Engagement, Recovery and Reattachment**
   Satoshi Yoshimura (Osaka University, Japan); Hirohiko Suwa (Nara Institute of Science and Technology, Japan); Teruhiro Mizumoto (Osaka University, Japan)
2. **Validating Quality of Context in Pervasive Computing Systems: Surf Life Saving Use Case**
   Kanaka Sai Jagarlamudi, Arkady Zaslavsky, Seng W Loke and Kevin Lee (Deakin University, Australia)
3. **CV-Priv: Towards a Context Model for Privacy Policy Creation for Connected Vehicles**
   Yunxuan Li, Pascal Hirmer and Christoph Stach (University of Stuttgart, Germany)

15:30 - 15:45 - Session 6: Closing remarks

Room 2 - PerFail and PRIVACOM

PERFAIL 2023: 2nd International Workshop on Negative Results in Pervasive Computing

8:30-8:35 - Welcome words by chairs

8:35-9:30 - Keynote

Sira Vegas, Technical University of Madrid, Spain: “Importance of Methodology in Empirical Studies”

9:30-10:30 Session 1

1. **On efficacy of Meta-Learning for Domain Generalization in Speech Emotion Recognition**
   Raeshak King Gandhi, Vasileios Tsouvalas and Nirvana Meratnia (Eindhoven University of Technology, The Netherlands)
2. **How not to IETF: Lessons Learned From Failed Standardization Attempts**
   Michael Welzl (University of Oslo, Norway); Jörg Ott (Technische Universität München, Germany); Colin Perkins (University of Glasgow, United Kingdom (Great Britain)); Safiqul Islam (Oslo Metropolitan University, Norway); Dirk Kutscher (The Hong Kong University of Science and Technology (Guangzhou), China)

10:30-11:00 - Coffee break

11:00-11:55 - Panel

“Struggles and failures of finding your academic identity”

Panelists: Suman Banerjee (University of Wisconsin-Madison), Sandip Chakraborty (Indian Institute of Technology Kharagpur), Thomas Ploetz (Georgia Institute of Technology)

11:55 - 12:55 - Session 2

1. **TSN Experiments Using COTS Hardware and Open-Source Solutions: Lessons Learned**
   Filip Rezabek and Marcin Bosk (Technical University of Munich, Germany); Georg Carle and Jörg Ott (Technische Universität München, Germany)

2. **A Deployment-First Methodology to Mechanism Design and Refinement in Distributed Systems**
   Martijn De Vos, Georgy Ishmaev and Johan Pouwelse (Delft University of Technology, The Netherlands); Stefanie Roos (TU Delft, The Netherlands)

12:55-13:00 - Best paper award and final words

PRIVACOM 2023: 1st Workshop on Privacy Preserving Computation in Pervasive Computing

14:00 - 14:15 - Welcome and Introduction

14:15 - 15:30 - Session 1:

1. **Applying Differential Privacy to Medical Questionnaires**
   Arno Appenzeller (Karlsruhe Institute of Technology & Fraunhofer IOSB, Germany); Nick Terzer (Fraunhofer IOSB & Karlsruhe Institute of Technology, Germany); Patrick Philipp and Jürgen Beyerer (Fraunhofer IOSB, Germany)
2. **DCFL: Dynamic Clustered Federated Learning under Differential Privacy Settings**
   Andrea Augello, Giulio Falzone and Giuseppe Lo Re (University of Palermo, Italy)

15:30 - 16:00 - Coffee break

16:00 - 17:00 - Session 2:

1. **Differential Privacy with Weighted ϵ for Privacy-Preservation in Human Activity Recognition**
   Ryusei Fujimoto, Yugo Nakamura and Yutaka Arakawa (Kyushu University, Japan)
2. **A Secure Bandwidth-Efficient Treatment for Dropout-Resistant Time-Series Data Aggregation**
   Reyhaneh Rabbaninejad, Alexandros Bakas, Eugene Frimpong and Antonis Michalas (Tampere University, Finland)

17:00 - 17:30 - Closing + Discussion

Room 3 - PDT and PeRConAI

PDT 2023: 1st Workshop on Pervasive Digital Twins

08:30 - 9:30 - Opening and Keynote 1

“Digital Twins - Nearly 20 years on”
Michael Grieves

09:30 - 10:30 - Session 1

1. **NFTs for Trusted Traceability and Management of Digital Twins for Shipping Containers**
   Feruz Elmay and Mohammad Moussa Madine (Khalifa University, United Arab Emirates); Khaled Salah and Raja Jayaraman (Khalifa University of Science and Technology, United Arab Emirates)
2. **How to Change a Light Bulb in Your Smart Home: A Digital-Twin Based Approach**
   Peter Zdankin (University of Duisburg-Essen, Germany); Marco Picone (University of Modena and Reggio Emilia, Italy); Matthias Schaffeld (University of Duisburg-Essen, Germany); Marco Mamei (Università di Modena e Reggio Emilia, Italy); Torben Weis (Universität Duisburg-Essen, Germany)

10:30 - 11:00 - Coffee Break

11:00 - 12:00 - Keynote 2

“Mirror X - Digital Twins at Nokia Bell Labs”
Klaus Doppler

12:00 - 13:00 - Session 2

1. **Assessing the Maturity of Digital Twinning Solutions for Ports**
   Robert Klar (Linköping University & Swedish National Road and Transport Research Institute (VTI), Sweden); Anna Fredriksson and Vangelis Angelakis (Linköping University, Sweden)
2. **Mobile Robot Control and Autonomy Through Collaborative Twin**
   Nazish Tahir and Ramviyas Parasuraman (University of Georgia, USA)

13:00 - 14:00 - Lunch

PERCONAI 2023: 2nd Workshop on Pervasive and Resource-Constrained Artificial Intelligence

14:15 - 15:30 - Opening PerConAI and Keynote 3

"Decentralized Intelligence: towards collaborative and sustainable learning"
Dr. Paolo Dini

15:30-16:00 Coffee Break

16:00 - 17:00 - Session 3

1. **Towards Scalable Resilient Federated Learning: A Fully Decentralised Approach**
   Divi De Lacour and Marc Lacoste (Orange Innovation, France); Mario Sûdholt (IMT Atlantique, France); Jacques Traoré (Orange Innovation, France)
2. **Computation Efficient ECG classification on resource constrained devices**
   Andrea Arigliano (University of Modena and Reggio Emilia, Italy); Andrea Malagoli (University of Modena and Reggio Emilia & VST SRL, Italy); Luca Bedogni (University of Modena and Reggio Emilia, Italy)

17:00 - 18:00 - Session 4

1. **PhiNet-GAN: Bringing real-time face swapping to embedded devices**
   Alberto Ancilotto (FBK, Italy); Francesco Paissan and Elisabetta Farella (Fondazione Bruno Kessler, Italy)
2. **Content-Aware Dynamic Resource Allocation Framework for Video Analytic Applications at Edge**
   Boonyarith Saovapakhiran; Sorawit Khumnaewnak; Wibhada Naruephiphat; Chalermpol Charnsripinyo (National Electronics and Computer Technology Center, Thailand)

18:00 - 18:30 - Closing Remarks with keynote speakers and chairs

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Room 4 - PERAWARECITY and WristSense

PERAWARECITY 2023: 8th International Workshop on Pervasive Context-Aware Smart Cities and Intelligent Transportation Systems

09:15 - 09:30 - Session 1: Welcome and introduction

09:30 - 10:30 - Session 2: Keynote

Daniela Nicklas

Research and the City: An Experience Report on Launching the Smart City Research Lab Bamberg

10:30 - 11:00 - Coffee Break

11:00 - 12:30 - Session 3: Smart Travel and Transportation

1. **Towards Cheaper Tourists' Emotion and Satisfaction Estimation with PCA and Subgroup Analysis**
   Lucas Maris and Yuki Matsuda (Nara Institute of Science and Technology, Japan); Ramin Sadre (Université Catholique de Louvain, Belgium); Keiichi Yasumoto (Nara Institute of Science and Technology, Japan)
2. **Bus Ridership Prediction with Time Section, Weather, and Ridership Trend Aware Multiple LSTM**
   Tatsuya Yamamura, Ismail Arai and Masatoshi Kakiuchi (Nara Institute of Science and Technology, Japan); Arata Endo (Information Initiative Center, Nara Institute of Science and Technology, Japan); Kazutoshi Fujikawa (Nara Institute of Science and Technology, Japan)
3. **Supporting winter road maintenance procedures with the use of distributed measurements based on IoT**
   Mirosław Hajder (University of Information Technology and Management, Poland); Piotr Hajder and Lucyna Hajder (AGH University of Science and Technology, Poland); Mateusz Liput (University of Information Technology and Management, Poland); Janusz Kolbusz (University of Information Technology and Management in Rzeszow, Poland)

12:30 - 12:45 - Session 4: Discussion

WRISTSENSE 2023: 9th Workshop on sensing systems and applications using wrist worn smart devices

14:00 - 14:05 - Welcome and Introduction

14:05 - 15:30 - Session 1 (Human Actiivty Monitoring):

1. **3D Hand Tracking with Induced Magnetic Field**
   Sizhen Bian (ETH Zürich, Switzerland); Bo Zhou (German Research Center for Artificial Intelligence, Germany); Paul Lukowicz (DFKI and University of Kaiserslautern, Germany); Mengxi Liu (German Research Center for Artificial Intelligence, Germany); Kexuan Guo (DFKI, Germany)
2. **PuffConv: A System for Online and On-device Puff Detection for Smoking Cessation**
   Varsha Sharma and Shalini Mukhopadhyay (TCS Research, India); Sakyajit

Bhattacharya (TCS Innovation Labs, India); Swarnava Dey (TCS Research & Tata Consultancy Service Limited, India); Avik Ghose (Tata Consultancy Services, India)

3. **C-HAR: Compressive Measurement-Based Human Activity Recognition**
   Billy Dawton (Kyushu University, Japan); Shigemi Ishida (Future University Hakodate, Japan); Yutaka Arakawa (Kyushu University, Japan)

15:30 - 16:00 - Coffee break

16:00 - 18:00 - Session 2 (Cognitive State Monitoring):

Panel Discussion: Future of Wrist-Based wearable sensing for mental health monitoring

1. Cognitive and Emotional Monitoring with Inexpensive Wrist-Worn Consumer-Grade Wearables Yunan Wu (Northwestern University, USA); Roxana Valdez (United States Bowdoin College, USA); Clifton Forlines (Northeastern University, USA)
2. Wearables for In-Situ Monitoring of Cognitive States: Challenges and Opportunities
   Meeralakshmi Radhakrishnan (Agency for Science, Technology and Research, Singapore); Thivya Kandappu, Manoj Gulati and Archan Misra (Singapore Management University, Singapore)

17:45 - 18:00 - Best Paper Award and Closing

Room 5 - UMUM

UMUM 2023: 2nd Workshop on Ubiquitous and Multi-domain User Modeling

9:00 - 10:00 Opening Talk

“Area2Vec: Modeling Area and Persona from Mobility Big-data”

Nobuo Kawaguchi (Nagoya University, Japan)

10:00 - 11:00 - Coffee break

11:00 - 13:00 - Session 1: Ubiquitous User Modeling

1. An Effective and Efficient Self-Attention Based Model for Next POI Recommendation

Qingxin Xia, Takahiro Hara and Takuya Maekawa (Osaka University, Japan); Mori Kurokawa and Kei Yonekawa (KDDI Research, Inc., Japan)

2. PresSim: An End-to-end Framework for Dynamic Ground Pressure Profile Generation from Monocular Videos Using Physics-based 3D Simulation
   Lala Shakti Swarup Ray (DFKI & TU Kaiserslautern, Germany); Bo Zhou (German Research Center for Artificial Intelligence, Germany); Sungho Suh (German Research Center for Artificial Intelligence (DFKI), Germany); Paul Lukowicz (DFKI and University of Kaiserslautern, Germany)
3. MSQA: An Unsupervised Domain-Adapted Question Answering Method Based on Multiple Source Domains
   Tao Peng, Xincheng Zhang, Junjie Huang, Junping Liu, Xinrong Hu and Ruhan He (School of Computer Science and Artificial Intelligence, Wuhan Textile University, China)
4. CrowdFlowTransformer: Capturing Spatio-Temporal Dependence for Forecasting Human Mobility (Tomoki Cyoya, Naoki Tamura, Shin Katayama, Kenta Urano, Takuro Yonezawa, Nobuo Kawaguchi (Nagoya University, Japan))

13:00 - 14:00 - Lunch break

14:00 - 15:30 - Keynote

”If only we had more data! Sensor-Based Human Activity Recognition in Challenging Scenarios”

Thomas Plötz (Georgia Institute of Technology, USA)

15.30 - 16.00 - Coffee break

16:00 - 17:30 - Session 2: Modeling for Human Activity Recognition

1. **Channel State Information for Human Activity Recognition with Low Sampling Rates**
   Jeroen Klein Brinke and Paul Havinga (University of Twente, The Netherlands); Alessandro Chiumento (University of Twente, The Netherlands & Katholieke Universiteit Leuven, Belgium)
2. **On Training Strategies for LSTMs in Sensor-Based Human Activity Recognition**
   Shuai Shao (Newcastle University, United Kingdom (Great Britain)); Yu Guan (University of Warwick, United Kingdom (Great Britain)); Xin Guan and Paolo Missier (Newcastle University, United Kingdom (Great Britain)); Thomas Plötz (Georgia Institute of Technology, USA)
3. **Extraction of Important Temporal Order for eXplainable AI on Time-series data**
   Yasutaka Nishimura, Naoto Takeda, Roberto Legaspi and Kazushi Ikeda

(KDDI Research Inc., Japan); Thomas Plötz and Sonia Chernova (Georgia Institute of Technology, USA)

17:30 - 17:45 - Closing Remarks

Mori Kurokawa (KDDI Research Inc., Japan)

Room 6 - ARDUOUS

ARDUOUS 2023: 7th International Workshop on Annotation of useR Data for UbiquitOUs Systems

8:30-8:40 - Session 1: Welcome by chairs

8:40-9:40 - Keynote 1

Gabriele Civitarese, University of Milan, “Data scarcity in sensor based human activity recognition”.

9:40-10:30 - Paper session 1: Valid and trustworthy datasets

1. **APS: An Auditable Positioning System Based on Angle-of-Arrival Proof of Location and Graph of Trust**
   Jakob Schaerer (University of Bern, Switzerland); Antonio Di Maio (University of Bern, Switzerland); Torsten Ingo Braun (University of Bern, Switzerland)
2. **A Tutorial on Dataset Creation for Sensor-based Human Activity Recognition**
   Nilah Ravi Nair (Technical University Dortmund, Germany); Christopher Reining, Friedrich Niemann, Fernando Moya Rueda and Gernot Fink (TU Dortmund University, Germany)

10:30-11:00 - Coffee break

11:00-12:20 - Paper session 2: Participant as annotator

1. **Is Querying Users Acceptable for Human Activity Recognition Based on Active Learning?**
   Riccardo Presotto and Gabriele Civitarese (University of Milan, Italy); Claudio Bettini (Università degli Studi di Milano, Italy)
2. **When the Ground Truth is not True: Modelling Human Biases in Temporal Annotations**
   Taku Yamagata (Merchant Venturers Building & University of Bristol, United Kingdom (Great Britain)); Emma L. Tonkin, Benjamin Arana Sanchez, Ian

Craddock, Miquel Perelló Nieto, Raul Santos-Rodriguez, Weisong Yang and Peter Flach (University of Bristol, United Kingdom (Great Britain))

3. **Experiencing Annotation: Emotion, Motivation and Bias in Annotation Tasks**
   Teodor Stoev (University of Greifswald, Germany); Kristina Yordanova (University of Greifswald & University of Rostock, Germany); Emma L. Tonkin (University of Bristol, United Kingdom (Great Britain))

12:20-13:00 - Poster session

13:00-14:00 - Lunch break

14:00-16:00 - Practical annotation session: Validity in annotation

Practical 1: "Fine-Grained Annotation for Multi-channel Time-Series HAR"

Practical 2: Data quality in annotation

16:00-16:50 - Keynote 2

“Speech and audio capabilities in our everyday lives - can it be trusted?”

Jennifer Williams, University of Southampton

16:50-17:30 - Closing

Teodor Stoev, University of Greifswald. Summary, discussion and closing.
