



IEEE CCWC 2024

2024 IEEE 14th Annual Computing and Communication Workshop and Conference (CCWC)
Physical Conference (University of Nevada, Las Vegas, USA)
8th – 10th January 2024

All the timings are given in Pacific Standard Time (PST (UTC-08))

TECHNICAL SCHEDULE

CONTENTS

| DAY | EVENT DETAILS | TIMING | PAGE NUMBER |
|---|--|--------------------------|-------------|
| DAY 1 (8TH JAN 2024) | INAUGURATION | 9:00 AM-9:30 AM | 5 |
| | KEYNOTE 1: NASA TECHNOLOGIES TO EXPLORE THE UNIVERSE | 9:30 AM-10:15 AM | 5 |
| | KEYNOTE 2 : | 10:15 AM-11:00 AM | 5 |
| | -----COFFEE BREAK----- | 11:00AM-11:30AM | 5 |
| | SESSION 1: ALGORITHMS AND THEORY | 11:30AM-12:45 PM | 7 |
| | SESSION 2: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING | 11:30AM-12:45 PM | 8 |
| | SESSION 3: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING | 11:30AM-12:45 PM | 9 |
| | -----LUNCH BREAK----- | 1:00 PM- 2:00 PM | 9 |
| | SESSION 4: ALGORITHMS AND THEORY; AI | 2:00 PM-3:15 PM | 10 |
| | SESSION 5: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING | 2:00 PM-3:15 PM | 11 |
| | SESSION 6: COMPUTATIONAL INTELLIGENCE | 2:00 PM-3:15 PM | 12 |
| | -----COFFEE BREAK----- | 3:15 PM- 3:45 PM | 12 |
| | SESSION 7: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING | 3:45 PM-5:15 PM | 13 |
| | SESSION 8: BIG DATA, DATA MANAGEMENT AND ANALYTICS; AI | 3:45 PM- 5:00 PM | 14 |

All the timings are given in Pacific Standard Time (PST (UTC-08))

| DAY | EVENT DETAILS | TIMING | PAGE NUMBER |
|---|---|----------------------------|-------------|
| DAY 2 (9th Jan 2024) | KEYNOTE 3: DEMOCRATIZE AND PERSONALIZE HEALTHCARE VIA WEARABLES AND GENERATIVE AI | 9:00 AM-9:45 AM | 15 |
| | KEYNOTE 4: SELF-ORGANIZING INCLUSIVE NETWORKS: THE KEY TO GLOBAL FOOD SUFFICIENCY | 9:45 AM-10:30 AM | 15 |
| | KEYNOTE 5: REDUCING PREVENTABLE MEDICAL ERRORS WITH COMPUTER SYSTEMS AND BEYOND | 10:30 AM-11:15 AM | 15 |
| | -----COFFEE BREAK----- | 11:15 AM – 11:45 AM | 15 |
| | SESSION 9: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING | 11:45 AM–1:00 PM | 16 |
| | SESSION 10: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING | 11:45 AM–12:45 PM | 17 |
| | SESSION 11: COMPUTER ARCHITECTURE AND VLSI; AI | 11:45 AM–1:00 PM | 18 |
| | -----LUNCH BREAK----- | 1:00 PM – 2:00 PM | 18 |
| | SESSION 12: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING | 2:00 PM–3:00 PM | 19 |
| | SESSION 13: COMPUTER GRAPHICS, SIMULATION; PARALLEL ALGORITHMS AND PATTERN RECOGNITION | 2:00 PM–3:00 PM | 20 |
| | SESSION 14: CRYPTOGRAPHY AND SECURITY | 2:00 PM–3:30 PM | 21 |
| | -----COFFEE BREAK----- | 3:15 PM – 3:45 PM | 21 |
| | SESSION 15: SECURITY AND PRIVACY | 3:45 PM–5:00 PM | 22 |
| SESSION 16: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING | 3:45 PM–5:00 PM | 23 | |

All the timings are given in Pacific Standard Time (PST (UTC–08))

| DAY | EVENT DETAILS | TIMING | PAGE NUMBER |
|--|--|---------------------------|-------------|
| DAY 3 (10th Jan 2024) | KEYNOTE 6: ONLINE COMPETITIVE TECHNIQUES FOR THE INTEGRATION OF RENEWABLE ENERGY INTO THE SMART GRID | 9:00 AM-9:45 AM | 24 |
| | KEYNOTE 7: THE FUTURE OF WORK: AI, DEVELOPERS, AND LEADING LIKE A SCIENTIST | 9:45 AM-10:30 AM | 24 |
| | -----COFFEE BREAK----- | 10:30 AM-11:00AM | 24 |
| | WORKSHOP ON “ASPECTS OF VIRTUAL REALITY” BY DR. PHILLIP BRADFORD (UNIVERSITY OF CONNECTICUT, STAMFORD, USA) | 11:00 AM–2:00 PM | 24 |
| | SESSION 17: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING | 11:00AM–12:15 PM | 25 |
| | SESSION 18: SECURITY, TRUST AND PRIVACY | 11:00AM–12:15 PM | 26 |
| | SESSION 19: WIRELESS COMPUTING | 11:00AM–12:15 PM | 27 |
| | -----LUNCH BREAK----- | 12:30 PM – 1:30 PM | 27 |
| | SESSION 20: SYSTEMS AND SOFTWARE ENGINEERING; AI | 1:30 PM–2:45 PM | 28 |
| | SESSION 21: SIGNAL PROCESSING; QOS; SENSOR NETWORKS AND CONTROL SYSTEM | 1:30 PM–2:45 PM | 28 |
| | -----COFFEE BREAK----- | 2:45 PM – 3:15 PM | 28 |
| | SESSION 22: GRAPHICS; AI; ROBOTICS AND CONTROL SYSTEMS | 3:15 PM – 5:00 PM | 29 |
| | SESSION 23: ROBOTICS; AI; BIG DATA AND VLSI | 3:15 PM – 5:15 PM | 30 |
| | VALEDICTORY SESSION | 5:30 PM–6:15 PM | 30 |

All the timings are given in Pacific Standard Time (PST (UTC–08))

DAY 1: 8TH JANUARY 2024

| TIME | NAME OF THE EVENT |
|---------------------|--|
| 9:00 - 9:30 AM | INAUGURATION |
| 9:30 AM - 10:15 AM | KEYNOTE ADDRESS BY GOUTAM CHATTOPADHYAY (SENIOR RESEARCH SCIENTIST, JET PROPULSION LABORATORY, NASA, USA) TITLE FOR TALK: NASA TECHNOLOGIES TO EXPLORE THE UNIVERSE |
| 10:15 AM - 11:00 AM | KEYNOTE ADDRESS BY MATTHEW K. FARREN (PROFESSOR, UNIVERSITY OF CALIFORNIA, DAVIS) TITLE OF TALK: THE IMPORTANCE OF UNDERSTANDING THE COMMODITY SERVER IN NETWORKED COMPUTER SYSTEMS |

11:00 AM – 11:30 AM

COFFEE BREAK

All the timings are given in Pacific Standard Time (PST (UTC-08))

DAY 1: 8TH JANUARY 2024

| TIME | PARALLEL SESSION |
|------------------|---|
| 11:30AM–12:30 PM | SESSION 1: ALGORITHMS AND THEORY |
| 11:30AM–12:45 PM | SESSION 2: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING |
| 11:30AM–12:45 PM | SESSION 3: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING |
| 2:00 PM–3:00 PM | SESSION 4: ALGORITHMS AND THEORY; AI |
| 2:00 PM–3:00 PM | SESSION 5: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING |
| 2:00 PM–3:15 PM | SESSION 6: COMPUTATIONAL INTELLIGENCE |
| 3:45 PM–5:15 PM | SESSION 7: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING |
| 3:45 PM– 5:15 PM | SESSION 8: BIG DATA, DATA MANAGEMENT AND ANALYTICS; AI |

All the timings are given in Pacific Standard Time (PST (UTC–08))

PARALLEL SESSIONS

SESSION 1: ALGORITHMS AND THEORY

SESSION CHAIR: QINGXUE ZHANG (PURDUE UNIVERSITY INDIANAPOLIS, USA)

SESSION TIME: 11:30 AM – 12:30 PM (DAY 1: 8th Jan 2024)

| TIME ALLOTTED | PAPER ID | PAPER NAME | AUTHORS WITH AFFILIATION & COUNTRY |
|---------------------|------------|--|---|
| 11:30 AM -11:45 AM | 1570978322 | Accurate and Efficient Implementations of Recursive Filtering Based on SIMD and Cascaded Form | Haotian Zhai and Bernd-Peter Paris (George Mason University, USA) |
| 11:45 AM – 12:00 PM | 1570975607 | Deep Learning and Game Theory for AI-Enabled Human-Robot Collaboration System Design in Industry 4.0 | Yuan Xing, Dongfang Hou, Jason Liu, Holly Yuan, Abhishek Verma and Wei Shi (University of Wisconsin-Stout, USA) |
| 12:00 PM - 12:15 PM | 1570975167 | Next-Generation Reservoir Computing (NG-RC) Machine Learning Model for Advanced Cybersecurity | Andre Slonopas (American Public University System, USA) |
| 12:15 PM -12:30 PM | 1570978367 | Efficient Repair Configuration Algorithm, for Improving Yield of Semiconductor Memories | Vivek Nautiyal (Arm inc, USA) |

All the timings are given in Pacific Standard Time (PST (UTC–08))

SESSION 2: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING**SESSION CHAIR: XIAOHE WU (BETHUNE-COOKMAN UNIVERSITY, USA)****SESSION TIME: 11:30 AM – 12:45 PM (DAY 1: 8th Jan 2024)**

| TIME ALLOTTED | PAPER ID | PAPER NAME | AUTHORS WITH AFFILIATION & COUNTRY |
|----------------------|-----------------|---|--|
| 11:30 AM -11:45 AM | 1570972237 | FedBayes: A Zero-Trust Federated Learning Aggregation to Defend Against Adversarial Attacks | Marc Vucovich (Deloitte, USA); Devin Quinn (Deloitte and Touche LLP, USA); Kevin Choi (Deloitte and Touche LLP, USA); Christopher Redino (Deloitte & Touche LLP, USA); Abdul Rahman (Deloitte & Touche LLP, USA); Edward Bowen (Deloitte & Touche LLP, USA); |
| 11:45 AM – 12:00 PM | 1570978130 | Image Based and Point Cloud Based Methods for 3D View Reconstruction in Real-Time Environment | Arya Agrawal (VIT Vellore, India); Teena Sharma (Indian Institute of Technology Guwahati, India); Nishchal K Verma (Indian Institute of Technology Kanpur, India); Shantaram Vasikarla (California State University-Northridge, USA) |
| 12:00 PM - 12:15 PM | 1570976927 | Early Prediction of Characteristic Compressive Strength of Concrete Based on Mix Proportions Using Modified Dimensional Analysis | Nikhil M Pawar (Texas State University, USA); Shubham Gujar (University of Southern California, USA); Hemant B Dhonde (C Probe LLC, USA); Damian Valles (Texas State University, USA) |
| 12:15 PM -12:30 PM | 1570977990 | Exploring the Influence of Preoperative Variables on Patient Satisfaction: A Machine Learning Approach in Rotator Cuff Repair Surgeries | Arti Taneja (University of Cincinnati, USA) |
| 12:30 PM – 12:45 PM | 1570977952 | Imputing ADS-B/GPS Dropouts Using Machine Learning | Barathwaja Subash Chandar (University of North Dakota, USA); Prakash Ranganathan (University of North Dakota, United Kingdom (Great Britain)); William Semke (University of North Dakota, USA) |

All the timings are given in Pacific Standard Time (PST (UTC-08))

SESSION 3: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING**SESSION CHAIR: SAIKAT DAS (UTAH VALLEY UNIVERSITY, USA)****SESSION TIME: 11:30 AM – 12:45 PM (DAY 1: 8th Jan 2024)**

| TIME ALLOTTED | PAPER ID | PAPER NAME | AUTHORS WITH AFFILIATION & COUNTRY |
|----------------------|-----------------|--|--|
| 11:30 AM -11:45 AM | 1570978329 | Revolutionizing Mental Health Care Through LangChain: A Journey With a Large Language Model | Aditi Singh (Cleveland State University, USA); Jong-Hoon Kim (Kent State University, USA); Abul Ehtesham (The Davey Tree Expert Company, USA); Saifuddin Mahmud (Bradley University, USA) |
| 11:45 AM – 12:00 PM | 1570978225 | Large Language Model-Based Architecture for Automatic Outcome Data Extraction to Support Meta-Analysis | Fatemeh Shah-Mohammadi (University of Utah, USA); Joseph Finkelstein (University of Utah, School of Medicine, USA) |
| 12:00 PM - 12:15 PM | 1570978227 | Conversational Swarm Intelligence Amplifies the Accuracy of Networked Groupwise Deliberations | Louis Rosenberg, Gregg Willcox and Hans Schumann (Unanimous AI, USA) |
| 12:15 PM -12:30 PM | 1570976122 | Machine Learning Approaches for COVID-19 Sentiment Analysis: Unveiling the Power of BERT | Shobhit Srivastava (University of Engineering & Management Jaipur & Dr Rammanohar Lohia Avadh University Ayodhya UP, India); Mrinal Sarkar (University of Engineering and Management Jaipur, India); Chinmay Chakraborty (Birla Institute of Technology, Mesra, India) |
| 12:30 PM – 12:45 PM | 1570978230 | Advancing Cattle Health: AI-Driven Innovations in Lameness Detection and Management | Mehdi Roopaei (University of Wisconsin - Platteville, USA); Collin Bergmann (University of Wisconsin-Platteville, USA); Asad Azemi (University of Maryland Eastern Shore, USA); Krista Hardyman (University of Wisconsin-Platteville, USA); James Hampton (University of Wisconsin-Platteville, USA) |

All the timings are given in Pacific Standard Time (PST (UTC-08))**Lunch Break****1:00 PM- 2:00 PM**

PARALLEL SESSIONS

SESSION 4: ALGORITHMS AND THEORY; AI

SESSION CHAIR: HAYSSAMEL- RAZOUK (CALIFORNIA STATE UNIVERSITY, FRESNO, USA)

SESSION TIME: 2:00 PM – 3:00 PM (DAY 1: 8th Jan 2024)

| TIME ALLOTTED | PAPER ID | PAPER NAME | AUTHORS WITH AFFILIATION & COUNTRY |
|-------------------|------------|--|--|
| 2:00 PM – 2:15 PM | 1570977830 | Building a Cloud Infrastructure for Virtual Machine Scheduling in Datacenters | Jonathan Chua and Xunfei Jiang (California State University, Northridge, USA) |
| 2:15 PM – 2:30 PM | 1570976263 | Assessing the Contamination Intensity of Porcelain Insulators Using Deep Learning Networks by UAV | Balbir(Bob) Gill (British Columbia Institute of Technology, Canada) |
| 2:30 PM – 2:45 PM | 1570977983 | Online Supervised Learning Algorithm for Dendritic Spiking Neural Networks With Nonlinear Synaptic Integration | Yaohui Zou, Xianghong Lin and Yuan Zhao (Northwest Normal University, China) |
| 2:45 PM -3:00 PM | 1570978229 | Distributed and Efficient Storage of High-Dimensional Data Using Artificial Neural Network | Xiaohe Wu (Bethune-Cookman University, USA); Ahmed Badi (Bethune-Cookman University & College of Science, Engineering, and Mathematics, USA); Juan M Calderon (Universidad Santo Tomas, USA) |

All the timings are given in Pacific Standard Time (PST (UTC-08))

SESSION 5: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING**SESSION CHAIR: QINGXUE ZHANG (PURDUE UNIVERSITY INDIANAPOLIS, USA)****SESSION TIME: 2:00 PM – 3:00 PM (DAY 1: 8th Jan 2024)**

| TIME ALLOTTED | PAPER ID | PAPER NAME | AUTHORS WITH AFFILIATION & COUNTRY |
|----------------------|-----------------|---|---|
| 2:00 PM – 2:15 PM | 1570978304 | GlitchOS: An Open Source Virtual Assistant | William E Husen (University of Wisconsin, USA); Hynek Boril (University of Wisconsin-Platteville, USA); Mehdi Roopaei (University of Wisconsin - Platteville, USA) |
| 2:15 PM – 2:30 PM | 1570975786 | Assuring Safe Navigation and Network Operations of Autonomous Ships | Luis Rivas, Spencer Stevens, Andrew Zitter, Amodini Vardhan, Chinmay Lohani and Vinayak Khandelwal (Johns Hopkins University, USA); Chris Rouff (JHU APL, USA); Lanier Watkins (Johns Hopkins University Information Security Institute, USA) |
| 2:30 PM – 2:45 PM | 1570975542 | A Prediction Model for Short Price Jump in Cryptocurrency Market | Mohammadjavad Rajaei and Qusay Mahmoud (Ontario Tech University, Canada) |
| 2:45 PM -3:00 PM | 1570978166 | Estimating GPS/ADS-B Dropouts in the Open Sky Network Platform | Anton R Skurdal (University Research, USA); Akshay Ram Ramchandra (University of North Dakota, USA); Prakash Ranganathan (University of North Dakota, United Kingdom (Great Britain)) |

All the timings are given in Pacific Standard Time (PST (UTC-08))

SESSION 6: COMPUTATIONAL INTELLIGENCE**SESSION CHAIR: XIAOHE WU (BETHUNE-COOKMAN UNIVERSITY, USA)****SESSION TIME: 2:00 PM – 3:15 PM (DAY 1: 8th Jan 2024)**

| TIME ALLOTTED | PAPER ID | PAPER NAME | AUTHORS WITH AFFILIATION & COUNTRY |
|----------------------|-----------------|---|---|
| 2:00 PM – 2:15 PM | 1570972233 | Improving Performance and Battery Consumption Through Edge Computing | Dan Myers and Wei Hao (Northern Kentucky University, USA) |
| 2:15 PM – 2:30 PM | 1570978135 | Optimal Task Admission Control of Private Cloud Data Centers With Limited Resources | Yuhong Zhang and Wei Li (Texas Southern University, USA) |
| 2:30 PM – 2:45 PM | 1570978705 | Advancing Occupancy Detection Through Deep Learning and Sensor Integration | Rakeshkumar Mahto and Kanika Sood (California State University, Fullerton, USA) |
| 2:45 PM -3:00 PM | 1570977491 | A Survey and Comparative Analysis of Methods for Countering Sybil Attacks in VANETs | Gideon Adele and Abinash Borah (Oklahoma State University, USA); Anirudh Paranjothi (Oklahoma State University, USA & Stillwater, USA); Mohammad S Khan (East Tennessee State University, USA) |
| 3:00 PM – 3:15 PM | 1570978332 | Design of a Novice-Friendly Drone Control System | Jinsai Cheng (Kent State University, USA); Saifuddin Mahmud and Misbahuddin Mohammed (Bradley University, USA); Aditi Singh (Cleveland State University, USA); Jong-Hoon Kim (Kent State University, USA) |

All the timings are given in Pacific Standard Time (PST (UTC–08))**Coffee Break****3:15 PM- 3:45 PM**

PARALLEL SESSIONS

SESSION 7: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

SESSION CHAIR: SAIKAT DAS (UTAH VALLEY UNIVERSITY, USA)

SESSION TIME: 3:45 PM – 5:15 PM (DAY 1: 8th Jan 2024)

| TIME ALLOTTED | PAPER ID | PAPER NAME | AUTHORS WITH AFFILIATION & COUNTRY |
|-------------------|------------|---|---|
| 3:45 PM – 4:00 PM | 1570977923 | Elephant: LLM System for Accurate Recantations | Trung Thanh Nguyen and Praise Chinedu-Eneh (Winona State University, USA) |
| 4:00 PM – 4:15 PM | 1570978339 | Hierarchical Software Framework for Safe Unmanned Aerial Systems Integration into National Airspace (NAS) | Jaya Preethi Mohan (University of North Dakota, USA); Prakash Ranganathan (University of North Dakota, United Kingdom (Great Britain)); Hassan Reza (University of North Dakota, USA) |
| 4:15 PM – 4:30 PM | 1570975608 | Feature Selection Using the Advanced Shapley Value | Ayesh Meepaganithage (University of Nevada, Reno, USA); Suman Rath (University of Nevada, USA); Mircea Nicolescu and Monica Nicolescu (University of Nevada Reno, USA); Shamik Sengupta (University of Nevada, Reno, USA) |
| 4:30 PM – 4:45 PM | 1570975835 | Designing a Machine Learning Course on Cyberthreat Analytics Tailored for High School Students | Kossi D Bissadu and Gahangir Hossain (University of North Texas, USA) |
| 4:45 PM- 5:00 PM | 1570976265 | Stochastic Optimization on Parking Lots for Smart Parking Using Reinforcement Learning Methods | Balbir (Bob) Gill (British Columbia Institute of Technology, Canada) |
| 5:00 PM – 5:15 PM | 1570978543 | Decentralized Clustering for Rural Internet of Vehicles Using Federated Deep Reinforcement Learning | Chandler Scott and Mohammad S Khan (East Tennessee State University, USA); Anirudh Paranjothi (Oklahoma State University, USA & Stillwater, USA); Joshua Qiang Li (Oklahoma State University, USA) |

All the timings are given in Pacific Standard Time (PST (UTC-08))

SESSION 8: BIG DATA, DATA MANAGEMENT AND ANALYTICS; AI**SESSION CHAIR: ANDREW J. PARK (TRINITY WESTERN UNIVERSITY, CANADA)****SESSION TIME: 3:45 PM – 5:15 PM (DAY 1: 8th Jan 2024)**

| TIME ALLOTTED | PAPER ID | PAPER NAME | AUTHORS WITH AFFILIATION & COUNTRY |
|----------------------|-----------------|--|---|
| 3:45 PM – 4:00 PM | 1570972484 | Knowledge-Based Modeling Approach: A Schematic Design of Artificial Intelligence of Things (AIoT) for Hydrogen Energy System | Sanguk Park, Kihyeon Kwon and Salaki Reynaldo Joshua (Kangwon National University, Korea (South)) |
| 4:00 PM – 4:15 PM | 1570975844 | Analysis of Hockey Forward Line Corsi: Should the Focus Be on Forward Pairs? | Samuel Brownlee, Ayesha Khan, Barnaby Vanderzyl and Mohamad El-Hajj (MacEwan University, Canada) |
| 4:15 PM – 4:30 PM | 1570968026 | Development of an Augmented Reality Handwashing Tool for Children With Autism Spectrum Disorder | Evan R Smith, Rachel Koldenhoven, John W Farrell III, Semih Aslan, Maria D Resendiz and Yumeng Li (Texas State University, USA); Ting Liu (Texas A&M University -San Antonio, USA); Damian Valles (Texas State University, USA) |
| 4:30 PM – 4:45 PM | 1570978087 | Taxonomy Mining From a Smart City CMS Using the Multidimensional Knowledge Representation Approach | Johannes Zenkert and Madjid Fathi (University of Siegen, Germany) |
| 4:45 PM- 5:00 PM | 1570977685 | Hypergraph Transformer for Knowledge Tracing | Xianrun He, Xianghong Lin and Yuan Zhao (Northwest Normal University, China) |
| 5:00 PM – 5:15 PM | 1570978291 | SE-DO: Navigating the 6G Frontier With Scalable and Efficient DevOps for Intelligent Agents Optimization | Petro Mushidi Tshakwanda, Harsh Kumar, Sisay Tadesse Arzo and Michael Devetsikiotis (University of New Mexico, USA) |

All the timings are given in Pacific Standard Time (PST (UTC-08))

DAY 2: 9th Jan 2024

| TIME | NAME OF THE EVENT |
|---------------------|--|
| 9:00 AM - 9:45 AM | <p>KEYNOTE ADDRESS BY CATHERINE FANG (CARNEGIE MELLON UNIVERSITY)</p> <p>TITLE OF TALK: DEMOCRATIZE AND PERSONALIZE HEALTHCARE VIA WEARABLES AND GENERATIVE AI</p> |
| 9:45 AM - 10:30 AM | <p>KEYNOTE ADDRESS BY FOROUZAN GOLSHANI (CALIFORNIA STATE UNIVERSITY, LONG BEACH)</p> <p>TITLE OF TALK: SELF-ORGANIZING INCLUSIVE NETWORKS: THE KEY TO GLOBAL FOOD SUFFICIENCY</p> |
| 10:30 AM - 11:15 AM | <p>KEYNOTE ADDRESS BY SHANGPING REN (SAN DIEGO STATE UNIVERSITY)</p> <p>TITLE OF TALK: REDUCING PREVENTABLE MEDICAL ERRORS WITH COMPUTER SYSTEMS AND BEYOND</p> |

| | |
|---------------------|--------------|
| 11:15 AM - 11:45 AM | COFFEE BREAK |
|---------------------|--------------|

All the timings are given in Pacific Standard Time (PST (UTC-08))

Day 2: 9th Jan 2024

| TIME | PARALLEL SESSION |
|-------------------|--|
| 11:45 AM–1:00 PM | SESSION 9: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING |
| 11:45 AM–12:45 PM | SESSION 10: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING |
| 11:45 AM–1:00 PM | SESSION 11: COMPUTER ARCHITECTURE AND VLSI; AI |
| 2:00 PM–3:00 PM | SESSION 12: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING |
| 2:00 PM–3:00 PM | SESSION 13: COMPUTER GRAPHICS, SIMULATION; PARALLEL ALGORITHMS AND PATTERN RECOGNITION |
| 2:00 PM–3:00 PM | SESSION 14: CRYPTOGRAPHY AND SECURITY |
| 3:45 PM–5:00 PM | SESSION 15: SECURITY AND PRIVACY |
| 3:45 PM–5:00 PM | SESSION 16: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING |

All the timings are given in Pacific Standard Time (PST (UTC–08))

PARALLEL SESSIONS

SESSION 9: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

SESSION CHAIR: SHADI JAWHAR (INDIANA TECH & LIONFISH CYBER SECURITY, USA)

SESSION TIME: 11:45 AM – 1:00 PM (DAY 2: 9th Jan 2024)

| TIME ALLOTTED | PAPER ID | PAPER NAME | AUTHORS WITH AFFILIATION & COUNTRY |
|---------------------|------------|--|---|
| 11:45 AM – 12:00 PM | 1570978673 | HIV Progression and Outcome Prediction to Enhance Patient Matching for Clinical Trials | Rakeshkumar Mahto and Kanika Sood (California State University, Fullerton, USA) |
| 12:00 PM - 12:15 PM | 1570976831 | Using Convolutional Neural Network to Predict EURO Games | Arisoa S. Randrianasolo (Abilene Christian University, USA) |
| 12:15 PM -12:30 PM | 1570975267 | Agent Guidance in Autonomous Mobility on Demand Systems: An Approach Utilizing Priority Double Deep-Q-Networks | Jiyao Li and Vicki Allan (Utah State University, USA) |
| 12:30 PM – 12:45 PM | 1570977412 | Towards an Automatic Ensemble Methodology for Explainable Reinforcement Learning | Rudy Milani (Universität der Bundeswehr München, Germany) |
| 12:45 PM – 1:00 PM | 1570974753 | MicroElectrodes for High Density Surface Electromyography | Nabeeh Kanda laft, Brendan P. Beauchamp and Karl Brakora (Grand Valley State University, USA) |

All the timings are given in Pacific Standard Time (PST (UTC-08))

SESSION 10: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING**SESSION CHAIR: DAMIAN VALLES (TEXAS STATE UNIVERSITY, USA)****SESSION TIME: 11:45 AM – 12:45 PM (DAY 2: 9th Jan 2024)**

| TIME ALLOTTED | PAPER ID | PAPER NAME | AUTHORS WITH AFFILIATION & COUNTRY |
|----------------------|-----------------|---|---|
| 11:45 AM – 12:00 PM | 1570976501 | Myoelectric Controls With Embedded Machine Learning | Nabeeh Kandalft and Aaron M. Mulder (Grand Valley State University, USA) |
| 12:00 PM - 12:15 PM | 1570976024 | ChatGPT in Education, Healthcare, and Cybersecurity: Opportunities and Challenges | Gahangir Hossain and Shafi Parvez Mohammed (University of North Texas, USA) |
| 12:15 PM -12:30 PM | 1570978335 | Machine Learning Techniques for Non-Intrusive Load Monitoring for Enhanced Energy Predictions | Tushar Chugh (Carnegie Mellon University, USA); Kanishka Tyagi (University of Texas, Arlington, USA); Rolly Seth (Microsoft, USA) |
| 12:30 PM – 12:45 PM | 1570977558 | Techniques to Detect Fake Profiles on Social Media Using the New Age Algorithms - A Survey | A K M Rubaiyat Reza Habib, Edidiong Elijah Akpan, Bhaskar Ghosh and Indira K Dutta (Arkansas Tech University, USA) |

All the timings are given in Pacific Standard Time (PST (UTC-08))

SESSION 11: COMPUTER ARCHITECTURE AND VLSI; AI**SESSION CHAIR: XIAOHE WU (BETHUNE-COOKMAN UNIVERSITY, USA)****SESSION TIME: 11:45 AM – 1:00 PM (DAY 2: 9th Jan 2024)**

| TIME ALLOTTED | PAPER ID | PAPER NAME | AUTHORS WITH AFFILIATION & COUNTRY |
|----------------------|-----------------|--|---|
| 11:45 AM – 12:00 PM | 1570978344 | Efficient Designs for the 8-Bit Approximate Fixed Point Multiplication | Kaptan Singh and Sai Varun Puligilla (California State University - Fresno, USA); Harshitha Ramesh (California State University, Fresno, USA); Ankur Panghal (USA); Hayssam El- Razouk (California State University, Fresno, USA) |
| 12:00 PM - 12:15 PM | 1570961994 | A Soulbound Token Certificate Verification System (SBTCert): Design and Implementation | Tarun V Tumati (California State University, Northridge, USA); Yun Tian (California State University, Fullerton & College of Engineering and Computer Science, USA); Xunfei Jiang (California State University, Northridge, USA) |
| 12:15 PM -12:30 PM | 1570978286 | Recursive Implementation of Voting Networks | Behrooz Parhami (University of California, Santa Barbara, USA) |
| 12:30 PM – 12:45 PM | 1570978294 | Advancements in Secure Computing: Exploring Automated Repair Debugging and Verification Techniques for Hardware Design | Alireza Abolhasani Zeraatkar, Parnian Shabani Kamran and Hussain Al-Asaad (University of California, Davis, USA) |
| 12:45 PM – 1:00 PM | 1570978386 | State-Based Dynamic Graph With Breadth First Progression for Autonomous Robots | Tushar Chugh (Carnegie Mellon University, USA); Kanishka Tyagi (University of Texas, Arlington, USA); Pranesh Srinivasan (IIT Madras, India); Jeshwanth Challagundla (Google, USA) |

All the timings are given in Pacific Standard Time (PST (UTC–08))**1:00 PM – 2:00 PM****LUNCH BREAK**

PARALLEL SESSIONS

SESSION 12: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

SESSION CHAIR: WAN D BAE (SEATTLE UNIVERSITY, USA)

SESSION TIME: 2:00 PM – 3:00 PM (DAY 2: 9th Jan 2024)

| TIME ALLOTTED | PAPER ID | PAPER NAME | AUTHORS WITH AFFILIATION & COUNTRY |
|-------------------|------------|---|---|
| 2:00 PM – 2:15 PM | 1570978220 | Towards Distributed Learning to Support Situational Awareness for Robotic Team Augmented Humanitarian Disaster Response | Mark Allison (The University of Michigan-Flint, USA); Michael Farmer (Kettering University, USA) |
| 2:15 PM – 2:30 PM | 1570977877 | AutoHealth: Advanced LLM-Empowered Wearable Personalized Medical Butler for Parkinson's Disease Management | Luis M Cardenas, Katherine A. Parajes, Ming Zhu and Shengjie Zhai (University of Nevada Las Vegas, USA) |
| 2:30 PM – 2:45 PM | 1570978037 | An Online Supervised Learning Algorithm Based on Spike Train Kernel for Spiking Neurons | Liu Yang, Xianghong Lin, Yuan Zhao, Xiangwen Wang, Xianrun He and Yaohui Zou (Northwest Normal University, China) |
| 2:45 PM -3:00 PM | 1570978231 | L-IDS: A Multi-Layered Approach to Ransomware Detection in IoT | Farhad Mofidi (University of Colorado & Mastercard, USA); Sena Hounsinou (Metro State University, USA); Gedare Bloom (University of Colorado Colorado Springs, USA) |

All the timings are given in Pacific Standard Time (PST (UTC-08))

**SESSION 13: COMPUTER GRAPHICS, SIMULATION; PARALLEL
ALGORITHMS AND PATTERN RECOGNITION**

SESSION CHAIR: DAMIAN VALLES (TEXAS STATE UNIVERSITY, USA)

SESSION TIME: 2:00 PM – 3:00 PM (DAY 2: 9th Jan 2024)

| TIME ALLOTTED | PAPER ID | PAPER NAME | AUTHORS WITH AFFILIATION & COUNTRY |
|----------------------|-----------------|---|--|
| 2:00 PM – 2:15 PM | 1570978261 | Fire Egress Simulations Based on Human Behavioural Patterns | Andrew J. Park (Trinity Western University, Canada); Gisung Han (Korea University, Korea (South)); Ryan Ficocelli (Thompson Rivers University, Canada); Eunju Hwang (Virginia Tech, USA) |
| 2:15 PM – 2:30 PM | 1570976294 | H2 EMS: A Simulation Approach of a Solar-Hydrogen Energy Management System | Salaki Reynaldo Joshua, Sanguk Park and Kihyeon Kwon (Kangwon National University, Korea (South)) |
| 2:30 PM – 2:45 PM | 1570978254 | MRL-PoS: A Multi-Agent Reinforcement Learning Based Proof of Stake Consensus Algorithm for Blockchain | Tariqul Islam and Faisal Haque Bappy (Syracuse University, USA); Tarannum Shaik Zaman (SUNY Polytechnic Institute, USA); Md Sajidul Islam Sajid (Towson University, USA); Mir Mehedi Ahsan Pritom (Tennessee Tech University, USA) |
| 2:45 PM -3:00 PM | 1570978371 | Multiple Gain Adaptations for Improved Neural Networks Training | Jeshwanth Challagundla (Google, USA); Kanishka Tyagi (University of Texas, Arlington, USA); Tushar Chugh (Carnegie Mellon University, USA); Michael T. Manry (The University of Texas at Arlington, USA) |

All the timings are given in Pacific Standard Time (PST (UTC-08))

SESSION 14: CRYPTOGRAPHY AND SECURITY**SESSION CHAIR: MARTIN C CARLISLE (TEXAS A&M UNIVERSITY, USA)****SESSION TIME: 2:00 PM – 3:00 PM (DAY 2: 9th Jan 2024)**

| TIME ALLOTTED | PAPER ID | PAPER NAME | AUTHORS WITH AFFILIATION & COUNTRY |
|----------------------|-----------------|--|--|
| 2:00 PM – 2:15 PM | 1570975474 | Learning Blockchain in School: A Dozen Connected Topics | Gahangir Hossain and Dedeepya Yarra (University of North Texas, USA) |
| 2:15 PM – 2:30 PM | 1570976634 | Exploring Polymorphic Algorithms and Their Use in Cryptography | Mandeep Singh (Santa Clara University, USA); Albert H Carlson (Austin Community College, USA) |
| 2:30 PM – 2:45 PM | 1570971744 | Enhancing Cyber Resilience With AI-Powered Cyber Insurance Risk Assessment | Shadi Jawhar (Indiana Tech & Lionfish Cyber Security, USA); Jeremy Miller, Zeina Bitar and Craig E. Kimble (Lionfish Cyber Security, USA) |
| 2:45 PM -3:00 PM | 1570977657 | Blockchain Technology in the Healthcare Sector: Overview and Security Analysis | Nour El Madhoun (ISEP Engineering School, France & Sorbonne Université, LIP6, France); Badis Hammi (Institut Polytechnique de Paris, Télécom SudParis, France) |

All the timings are given in Pacific Standard Time (PST (UTC–08))**3:15 PM – 3:45 PM****COFFEE BREAK**

PARALLEL SESSIONS

SESSION 15: SECURITY AND PRIVACY

SESSION CHAIR: HAYSSAMEL- RAZOUK (CALIFORNIA STATE UNIVERSITY, FRESNO, USA)

SESSION TIME: 3:45 PM – 5:00 PM (DAY 2: 9th Jan 2024)

| TIME ALLOTTED | PAPER ID | PAPER NAME | AUTHORS WITH AFFILIATION & COUNTRY |
|-------------------|------------|--|--|
| 3:45 PM – 4:00 PM | 1570978312 | Improving Network Traffic Anomaly Detection Through Data Denoising and Unsupervised Learning | James Talbott, Joshua Palicka, Alexander Sheardown and Wan D Bae (Seattle University, USA); Matthew Horak (Amazon, USA) |
| 4:00 PM – 4:15 PM | 1570978134 | Towards Design Synthesis From Verbal Conversations in Teams | Alex Doboli (Stony Brook University, USA) |
| 4:15 PM – 4:30 PM | 1570977503 | CIMALIR: Cross-Platform IoT Malware Clustering Using Intermediate Representation | Minhajul Alam Rahat, Vijay K Banerjee and Gedare Bloom (University of Colorado Colorado Springs, USA); Yanyan Zhuang (University of Colorado, Colorado Springs, USA) |
| 4:30 PM – 4:45 PM | 1570977506 | Should Smart Homes Be Afraid of Evil Maids? Identifying Vulnerabilities in IoT Device Firmware | Austen Knapp, Emmanuel Wamuo and Minhajul Alam Rahat (University of Colorado Colorado Springs, USA); Santiago Torres Arias (Purdue University, USA); Gedare Bloom (University of Colorado Colorado Springs, USA); Yanyan Zhuang (University of Colorado, Colorado Springs, USA) |
| 4:45 PM – 5:00 PM | 1570968146 | Security Threats on Data-Driven Approaches for Luggage Screening | Debashis Gupta (Wake Forest University, USA); Aditi Golder (Jahangirnagar University, Bangladesh); Kishor Datta Gupta (Clark Atlanta University, USA & Silicon Orchard Ltd, Bangladesh); Dipankar Dasgupta (University of Memphis, USA); Roy George and Khalil Shujaee (Clark Atlanta University, USA) |
| 5:00 PM- 5:15 PM | 1570975991 | Automated Vulnerability Detection in Source Code Using Deep Representation Learning | Christoforos Seas (University of Cyprus, Cyprus); Glenn Fitzpatrick and John A. Hamilton (Texas AM University, USA); Martin C Carlisle (Texas A&M University, USA) |

All the timings are given in Pacific Standard Time (PST (UTC-08))

SESSION 16: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

SESSION CHAIR: MADJID FATHI (UNIVERSITY OF SIEGEN, GERMANY)

SESSION TIME: 3:45 PM – 5:00 PM (DAY 2: 9th Jan 2024)

| TIME ALLOTTED | PAPER ID | PAPER NAME | AUTHORS WITH AFFILIATION & COUNTRY |
|----------------------|-----------------|--|--|
| 3:45 PM – 4:00 PM | 1570971751 | Enhancing Wearable ECG Sensors: A Secure, Accurate and Efficient System Architecture for Resource-Constrained ECG Monitoring | Adarsha Bhattarai (University of Nebraska - Lincoln, USA); Dongming Peng (University of Nebraska-Lincoln, USA); Jason Payne (University of Nebraska Medical Center, USA); Hamid Sharif (University of Nebraska-Lincoln, USA) |
| 4:00 PM – 4:15 PM | 1570978416 | Reducing the Computational Cost of Urban Flood Prediction in Los Angeles | Laura Ani Bedoyan, Mansoureh Lord and Adam Kaplan (California State University Northridge, USA) |
| 4:15 PM – 4:30 PM | 1570978324 | A Framework for Abstractive Summarization of Conversational Meetings | Vincent Marklynn, Anjali Sebastian, Yong Long Tan and Wan D Bae (Seattle University, USA); Shayma Alkobaisi (UAEU, United Arab Emirates); Sada Narayanappa (University of Denver, USA) |
| 4:30 PM – 4:45 PM | 1570978275 | Geomagnetic Storm Forecasting Using Machine/Deep Learning Models | Shree Ram Abayankar Balaji (University of North Dakota, USA); Prakash Ranganathan (University of North Dakota, United Kingdom (Great Britain)) |
| 4:45 PM – 5:00 PM | 1570978281 | CMI: Cluster-Centric Missing Value Imputation With Feature Consistency | Mohammad Masum (San Jose State University, USA) |

All the timings are given in Pacific Standard Time (PST (UTC-08))

DAY 3: 10th Jan 2024

| TIME | NAME OF THE EVENT |
|---------------------------|---|
| 9:00 AM - 9:45 AM | KEYNOTE ADDRESS BY WOLFGANG BEIN (UNIVERSITY OF NEVADA, LAS VEGAS) TITLE OF TALK: ONLINE COMPETITIVE TECHNIQUES FOR THE INTEGRATION OF RENEWABLE ENERGY INTO THE SMART GRID |
| 9:45 AM - 10:30 AM | KEYNOTE ADDRESS BY JENNA BUTLER (PRINCIPAL APPLIED RESEARCH SCIENTIST, MICROSOFT, USA) [VIRTUAL PRESENTATION] ZOOM LINK: HTTPS://ZOOM.US/J/6319961197 TITLE OF TALK: THE FUTURE OF WORK: AI, DEVELOPERS, AND LEADING LIKE A SCIENTIST |

| | |
|---------------------|---------------------------|
| COFFEE BREAK | 10:30 AM- 11:00 AM |
|---------------------|---------------------------|

| | |
|--|---------------------------|
| Workshop on Aspects of Virtual Reality By Dr. Phillip Bradford (University of Connecticut, Stamford, USA) | 11:00 AM – 2:00 PM |
|--|---------------------------|

All the timings are given in Pacific Standard Time (PST (UTC-08))

DAY 3: 10th Jan 2024

| TIME | PARALLEL SESSION |
|-------------------|--|
| 11:00 AM–12:15 PM | SESSION 17: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING |
| 11:00AM–11:30 AM | SESSION 18: SECURITY, TRUST AND PRIVACY |
| 11:00AM–11:45 AM | SESSION 19: WIRELESS COMPUTING |
| 1:30 PM–2:45 PM | SESSION 20: SYSTEMS AND SOFTWARE ENGINEERING; AI |
| 1:30 PM–2:45 PM | SESSION 21: SIGNAL PROCESSING; QOS; SENSOR NETWORKS AND CONTROL SYSTEM |
| 3:15 PM – 5:00 PM | SESSION 22: GRAPHICS; AI; ROBOTICS AND CONTROL SYSTEMS |
| 3:15 PM – 5:15 PM | SESSION 23: ROBOTICS; AI; BIG DATA AND VLSI |

All the timings are given in Pacific Standard Time (PST (UTC–08))

PARALLEL SESSIONS

SESSION 17: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

SESSION CHAIR: BEHROOZ PARHAMI (UNIVERSITY OF CALIFORNIA, SANTA BARBARA, USA)

SESSION TIME: 11:00 AM – 12:15 PM (DAY 3: 10th Jan 2024)

| TIME ALLOTTED | PAPER ID | PAPER NAME | AUTHORS WITH AFFILIATION & COUNTRY |
|---------------------|------------|--|---|
| 11:00 AM – 11:15 AM | 1570976260 | Trusting Classifiers With Interpretable Machine Learning Based Feature Selection Backpropagation | Saikat Das (Utah Valley University, USA); Raktim Ranjan Das (Stamford University Bangladesh, Bangladesh); Frederick T Sheldon (University of Idaho, USA); Sajjan Shiva (University of Memphis, USA) |
| 11:15 AM -11:30 AM | 1570976919 | State of the Art: Security Testing of Machine Learning Development Systems | Raktim Ranjan Das (Stamford University Bangladesh, Bangladesh); Bhargavi Krishnamurthy (Siddaganga Institute of Technology, India); Saikat Das (Utah Valley University, USA); Sajjan Shiva (University of Memphis, USA) |
| 11:30 AM -11:45 AM | 1570976430 | Using Natural Language Processing Tools to Infer Adversary Techniques and Tactics Under the Mitre ATT&CK Framework | Ryan Gabrys (Naval Information Warfare Center Pacific, USA); Mark Bilinski (NIWC Pacific, USA); Sunny Fugate (Naval Information Warfare Center Pacific, USA); Danny Silva (Naval Information Warfare Center, USA) |
| 11:45 AM – 12:00 PM | 1570979141 | Can AI Keep You Safe? A Study of Large Language Models for Phishing Detection | Robin Chataut, Yusuf Usman (Quinnipiac University, USA); Prashna K Gyawali (West Virginia University, USA) |

All the timings are given in Pacific Standard Time (PST (UTC-08))

SESSION 18: SECURITY, TRUST AND PRIVACY**SESSION CHAIR: MARTIN C CARLISLE (TEXAS A&M UNIVERSITY, USA)****SESSION TIME: 11:00 AM – 11:30 AM (DAY 3: 10th Jan 2024)**

| TIME ALLOTTED | PAPER ID | PAPER NAME | AUTHORS WITH AFFILIATION & COUNTRY |
|----------------------|-----------------|---|--|
| 11:00 AM – 11:15 AM | 1570977251 | Smart Car Temperature Monitoring System Using SRAM-Based PUF Sensor | Trevor Ridley, Julius Andrade, Cristian Luna, Hayssam El-Razouk (California State University, Fresno, USA) |
| 11:15 AM -11:30 AM | 1570972929 | ACPPS: Autonomic Computing Based Phishing Protection System | Jordan Mazur (Johns Hopkins University Whiting School of Engineering, USA); Christopher Rouff (Johns Hopkins Applied Physics Laboratory, USA); Ali Tekeoglu (Johns Hopkins University Whiting School of Engineering, USA & Leidos Innovations Center, USA) |

All the timings are given in Pacific Standard Time (PST (UTC-08))

SESSION 19: WIRELESS COMPUTING**SESSION CHAIR:****SESSION TIME: 11:00 AM – 11:45 AM (DAY 3: 10th Jan 2024)**

| TIME ALLOTTED | PAPER ID | PAPER NAME | AUTHORS WITH AFFILIATION & COUNTRY |
|----------------------|-----------------|---|--|
| 11:00 AM – 11:15 AM | 1570977554 | A Dyad-Based Mobile System to Support Older Adults and Informal Caregivers | Tarek El Salti, Ed Sykes, Jordan Scivo, Brandon Plaza and Vladislav Mun (Sheridan College, Canada) |
| 11:15 AM -11:30 AM | 1570978213 | Rotational Flying Station for Wireless Access in Large Disaster Area | Hasan Md Imran (Clark Atlanta University, USA); Xingya Liu (Lamar University, USA) |
| 11:30 AM -11:45 AM | 1570979396 | Defending Against Wormhole Attacks in Wireless Networks Using the Twofish Algorithm: A Performance Analysis | Mrinal Sarkar (University of Engineering and Management Jaipur, India) |

All the timings are given in Pacific Standard Time (PST (UTC-08))**12:30 PM – 1:30 PM****LUNCH BREAK**

PARALLEL SESSIONS

SESSION 20: SYSTEMS AND SOFTWARE ENGINEERING; AI

SESSION CHAIR: JEREMY MILLER (LIONFISH CYBER SECURITY, USA)

SESSION TIME: 1:30 PM – 2:45 PM (DAY 3: 10th Jan 2024)

| TIME ALLOTTED | PAPER ID | PAPER NAME | AUTHORS WITH AFFILIATION & COUNTRY |
|-------------------|------------|--|--|
| 1:30 PM – 1:45 PM | 1570968396 | An Innovative Method for Securing QR Codes Against Counterfeits in Supply Chain Management | Richard Wu, Nicole Liu, Grace Peng and Adarsha Bhattarai (University of Nebraska - Lincoln, USA); Dongming Peng (University of Nebraska-Lincoln, USA) |
| 1:45 PM – 2:00 PM | 1570978635 | A Genetic Algorithm Approach for A Broadband Reflector Design | Hasan Md Imran, Tareque Abu Abdullah, Suriya Islam Chowdhury and Mohd Ariful Haque (Clark Atlanta University, USA) |
| 2:00 PM – 2:15 PM | 1570976261 | Exploring the Impact of Cloud Computing and Edge Computing on Resource Consumption for Mobile Devices With Generative Artificial Intelligence APIs | Andrew Baynum and Wei Hao (Northern Kentucky University, USA) |
| 2:15 PM – 2:30 PM | 1570977860 | A Software Framework for Monitoring Harmful Algal Blooms (HABs) | Meera Gopinath Sujatha and Hassan Reza (University of North Dakota, USA); Prakash Ranganathan (University of North Dakota, United Kingdom (Great Britain)) |
| 2:30 PM- 2:45 PM | 1570977866 | Introduction to Inline-Services: A Seamless Approach to Microservices Development | Friban Almeida (USA) |

All the timings are given in Pacific Standard Time (PST (UTC-08))

SESSION 21: SIGNAL PROCESSING; QOS; SENSOR NETWORKS AND CONTROL SYSTEM**SESSION CHAIR: ROBIN CHATAUT (QUINNIPIAC UNIVERSITY, USA)****SESSION TIME: 1:30 PM – 2:45 PM (DAY 3: 10th Jan 2024)**

| TIME ALLOTTED | PAPER ID | PAPER NAME | AUTHORS WITH AFFILIATION & COUNTRY |
|----------------------|-----------------|--|---|
| 1:30 PM – 1:45 PM | 1570978265 | Spatial Variability Learning of Biomechanical Dynamics in Daily Lives | Ming Liu (Purdue School of Engineering and Technology, USA); Qingxue Zhang (Purdue University Indianapolis, USA) |
| 1:45 PM – 2:00 PM | 1570977856 | Empirical Characterization of Ookla's Speed Test Platform: Analyzing Server Deployment, Policy Impact, and User Coverage | Zesen Zhang (University of California San Diego, USA); Jiting Shen (University of California San Deigo, USA); Ka Pui Mok (University of California, San Diego & CAIDA, USA) |
| 2:00 PM – 2:15 PM | 1570978011 | Characteristic Analysis of Upper Bound Call Blocking Probability of Emergency CAC for Three Types of Calls | Sota Narikiyo and Sumiko Miyata (Shibaura Institute of Technology, Japan); Ken-ichi Baba (Kogakuin University, Japan); Katsunori Yamaoka (Tokyo Institute of Technology, Japan) |
| 2:15 PM – 2:30 PM | 1570977662 | Optimizing Post Deployment Maintenance at Nodal Level for Macroscale Wireless Sensor Network | Srihari Koripalli and Drake Sheela (California State University-Fresno, USA); Nan Wang (California State University at Fresno, USA) |

All the timings are given in Pacific Standard Time (PST (UTC-08))**2:45 PM – 3:15 PM****COFFEE BREAK**

PARALLEL SESSIONS [VIRTUAL SESSIONS]

SESSION 22: GRAPHICS; AI; ROBOTICS AND CONTROL SYSTEMS

SESSION CHAIR: JOHANNES ZENKERT (UNIVERSITY OF SIEGEN, GERMANY)

SESSION TIME: 3:15 PM – 5:00 PM (DAY 3: 10th Jan 2024)

PARTICIPATION LINK: <https://zoom.us/j/4109219194>

| TIME ALLOTTED | PAPER ID | PAPER NAME | AUTHORS WITH AFFILIATION & COUNTRY |
|-------------------|------------|--|---|
| 3:15 PM - 3:30 PM | 1570975252 | Use of Bim Technology for Augmented Reality in Buildings | Aracely Marilu Pacheco Mercado, JR, Cynthia Janeth Cerron Mercado, Fernando Reymundo Tapara Giron and Augusto Alberto Herrera Parraguez (Universidad Continental, Peru) |
| 3:30 PM – 3:45 PM | 1570975311 | Efficient Fourth-Order Buck Converter Design for Hybrid Electric Vehicle Power Systems With State Space Average Modeling and Control | Jaldu Asish, Megha T S and Laqueta N (Pes University, India); Rashmi Seethur (PES university, India) |
| 3:45 PM – 4:00 PM | 1570976703 | CNN-Based Autoencoder and Post-Training Quantization for On-Device Anomaly Detection of Cartesian Coordinate Robots | Hyuntae Cho (Tongmyong University, Korea (South)) |
| 4:00 PM – 4:15 PM | 1570977742 | Rigid Pavement: Compressive Strength, State of Preservation and Sampling Automation | Albert J Valenzuela Inga, Abel Max Julcarima Espiritu, Benjamin De La Cruz Taibe, Romel Moisés Olivera Pérez, Deyvid F Matamoros-Paitán, Juan Gabriel Benito Zuñiga and Heydi K Hinostroza Maravi (Universidad Continental, Peru) |
| 4:15 PM- 4:30 PM | 1570978247 | Predicting Travel Time in Complex Road Structures Using Deep Learning | Vignaan Vardhan Nampalli and Charan Gudla (Mississippi State University, USA); Md Shohel Rana (Florida Gulf Coast University, USA) |
| 4:15 PM- 4:45 PM | 1570978300 | Enhancing Security and Privacy in Cyber-Physical Systems: Challenges and Solutions | Manvendra Sharma (Amazon, USA) |
| 4:45 PM- 5:00 PM | 1570974617 | Enhancing Cloud-Based Application Component Placement With AI-Driven Operations | Efterpi Paraskevoulakou, Jean-Didier Totow Tom-Ata, Chrysostomos Symvoulidis and Dimosthenis Kyriazis (University of Piraeus, Greece) |

All the timings are given in Pacific Standard Time (PST (UTC–08))

SESSION 23: ROBOTICS; AI; BIG DATA AND VLSI**SESSION CHAIR: GAHANGIR HOSSAIN (UNIVERSITY OF NORTH TEXAS, USA)****SESSION TIME: 3:15 PM – 5:15 PM (DAY 3: 10th Jan 2024)****PARTICIPATION LINK: <https://zoom.us/j/6626883577>**

| TIME ALLOTTED | PAPER ID | PAPER NAME | AUTHORS WITH AFFILIATION & COUNTRY |
|----------------------|-----------------|--|--|
| 3:15 PM - 3:30 PM | 1570977761 | SIS-IDAI System in the Performance of Vehicle Counting in Different Road Scenarios in the City of Huancayo | Albert J Valenzuela Inga, Luis Fernando Alania-Borja and Rosali Ramos-Rojas (Universidad Continental, Peru) |
| 3:30 PM – 3:45 PM | 1570978168 | Data-Driven Approach to Identify Connectivity and Bus Stop Importance in Transit Network | Nahom H. Demoz (University of New Haven & ECECS, USA); Shivanjali Khare (University of New Haven, USA); Medha Kanu Baniya (University of New Haven, India) |
| 3:45 PM – 4:00 PM | 1570978207 | Learning Cost-Adjusted Predictive Models With Margin-Based Framework | Moshe Battula (DBCREST, USA); Naved Anwar (Engineers India Ltd, India); Jaismeen Kaur (DAV University, India); Saumya Pailwan (NMIMS, India) |
| 4:00 PM – 4:15 PM | 1570978222 | RTL to GDS Implementation and Verification of UART Using UVM and OpenROAD | Purav Bhatt (San Jose State University, USA); Dharmik Joshi (AMD, USA); Shrikant S Jadhav (San Jose State University, USA) |
| 4:15 PM- 4:30 PM | 1570978327 | Deepfakes – Reality Under Threat? | Md Shohel Rana (Florida Gulf Coast University, USA); Charan Gudla (Mississippi State University, USA); Md Solaiman and Md Fahimuzzman Sohan (Daffodil International University, Bangladesh) |
| 4:15 PM- 4:45 PM | 1570974768 | A Novel 10T SRAM Bit-Cell with High Static Noise Margin and Low Power Consumption for Binary In-Memory Computing | Hossein Khosravi (CoreHW, Finland); Ricardo Carmona Galán (Consejo Superior de Investigaciones Científicas & CSIC, Spain); Jorge Fernandez-Berni (Institute of Microelectronics of Seville, Spain); Nabeeh Kandalaf (Grand Valley State University, USA) |
| 4:45 PM- 5:00 PM | 1570978258 | Analysis of Serious Games for Nutrition Using NLP Techniques | Victor Okpanachi and Ifeoma Adaji (The University of British Columbia, Canada) |
| 5:00 PM - 5:15 PM | 1570976979 | Utilizing ChatGPT to Improve Quantum Algorithms | Chuck Easttom (Georgetown University, USA) |

**VALEDICTORY
SESSION****5:30 PM–6:15 PM****All the timings are given in Pacific Standard Time (PST (UTC–08))**

