



# IEEE CCWC-2020

**The 10th IEEE Annual Computing and Communication Workshop and Conference  
University of Nevada, Las Vegas, USA  
6<sup>th</sup> – 8<sup>th</sup> January, 2020**

# TECHNICAL SCHEDULE

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**DAY-1:****6<sup>TH</sup> JANUARY, 2020**

<b>TIME</b>	<b>NAME OF THE EVENT</b>	<b>VENUE</b>
8:00 AM – 9:00 AM	REGISTRATION	Bennett Family Auditorium, Science and Engineering Building,UNLV
8:00 AM – 9:00 AM	BREAKFAST	Bennett Family Auditorium, Science and Engineering Building,UNLV
9:00 AM - 9:30 AM	INAUGURAL SPEECH	Bennett Family Auditorium, Science and Engineering Building,UNLV
9:30 AM – 10:00 AM	KEYNOTE ADDRESS BY ERNESTO ZAMORA RAMOS (INTEL CORPORATION, USA) TITLE OF THE TALK: THE PREVALENCE OF ARTIFICIAL NEURAL NETWORKS IN EVERYDAY LIFE	Bennett Family Auditorium, Science and Engineering Building,UNLV
10:00A.M – 10:30A.M	KEYNOTE ADDRESS BY DANIEL BRYCE (SMART INFORMATION FLOW TECHNOLOGIES (SIFT), USA) TITLE OF THE TALK: HUMAN-AWARE AI	Bennett Family Auditorium, Science and Engineering Building,UNLV
10:30A.M – 11:00A.M	KEYNOTE ADDRESS BY MRINAL K. DAS (TEXAS INSTRUMENTS ,USA) TITLE OF THE TALK: FROM WATTS TO ELECTRONS: HOW A SEMICONDUCTOR REVOLUTION IS USHERING IN A MORE-ELECTRIC WORLD	Bennett Family Auditorium, Science and Engineering Building,UNLV
11:00 AM–11:15 AM	COFFEE BREAK	Bennett Family Auditorium, Science and Engineering Building,UNLV
11.15 AM–11.45 AM	KEYNOTE ADDRESS BY PETER SHIRLEY (NVIDIA CORPORATION, USA) TITLE OF THE TALK: STATE OF THE FIELD: GPU COMPUTING	Bennett Family Auditorium, Science and Engineering Building,UNLV
11.45 AM – 12:15P.M	KEYNOTE ADDRESS BY HAYDEN MELTON (REFINITIV, USA) TITLE OF THE TALK: A MARKET OPERATOR’S PERSPECTIVE ON THE ARMS RACE FOR SPEED IN ELECTRONIC TRADING	Bennett Family Auditorium, Science and Engineering Building,UNLV
12:15 PM–12:45 PM	KEYNOTE ADDRESS BY SHANKAR N. SWAMY (DCM SYSTEMS,USA) TITLE OF THE TALK: EMERGING PARADIGM OF SOFTWARE ARCHITECTURES	Bennett Family Auditorium, Science and Engineering Building,UNLV
12:45 PM–1:15 PM	KEYNOTE ADDRESS BY HOSSAM FATTAH (MICROSOFT CORPORATION, USA) TITLE OF THE TALK: 5G NARROWBAND INTERNET OF THINGS (NB-IOT): 3GPP PROTOCOLS AND APPLICATIONS	Bennett Family Auditorium, Science and Engineering Building,UNLV
1:15 PM - 2:00 PM	LUNCH	Bennett Family Auditorium, Science and Engineering Building,UNLV

## PARALLEL SESSIONS (6<sup>th</sup> January, 2020)

### SESSION 1: ALGORITHM AND THEORY

**SESSION CHAIR: Matin Pirouz Nia (California State University, Fresno)**

**SESSION TIME: 2:00 PM-3:30 PM**

**VENUE: UNLV Science and Engineering Building, Classroom 1240**

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION
2:00 PM-2:15 PM	1570613426	A Distributed Density-Grid Clustering Algorithm for Multi-Dimensional Data	Daniel Brown and Yong Shi (Kennesaw State University, USA)
2:15 PM-2:30 PM	1570612552	Continuous Error Detection and Correction of Arithmetic in a Complement RRNS	Eric Olsen (Maitrix, USA)
2:30 PM-2:45 PM	1570613034	Prediction of Oblique Saccade Trajectories Using Learned Velocity Profile Parameter Mappings	Henry Griffith, Samantha Aziz and Oleg Komogortsev (Texas State University, USA)
2:45 PM-3:00 PM	1570610717	A Group Mutual Exclusion Protocol for the Use Case of IoT-Blockchain Integration in Work-Safe Scenario	Quazi Ehsanul Kabir Mamun and M Arif Khan (Charles Sturt University, Australia)
3:00 PM-3:15 PM	1570613138	Crumple Trees	Kevin A. Wortman and Coleman Nugent (California State University, Fullerton, USA)
3:15 PM-3:30 PM	1570613422	Parallelizing the Bounded K-Nearest Neighbors Algorithm for Distributed Computing Systems	Arialdis Japa and Yong Shi (Kennesaw State University, USA)

**SESSION 2: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING****SESSION CHAIR: Uri Rogers (Eastern Washington University, USA)****SESSION TIME: 2:00 PM-3:30 PM****VENUE: UNLV Science and Engineering Building, Classroom 1242**

<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION</b>
2:00 PM-2:15 PM	1570611510	Designing a Feature Selection Technique for Analyzing Mixed Data	Duc Manh Doan and Dong Jeong (University of the District of Columbia, USA); Soo-Yeon Ji (Bowie State University, USA)
2:15 PM-2:30 PM	1570601951	A Scalable System for Neural Architecture Search	Jeff Hajewski and Suely Oliveira (University of Iowa, USA)
2:30 PM-2:45 PM	1570607524	DFB Laser Chip Defect Detection Based on Successive Subspace Learning	Janpu Hou (Applied Data Research, USA)
2:45 PM-3:00 PM	1570614199	A Wavelet Compression Based Multi-Resolution Bidirectional LSTM Network for Electrocardiogram Biometric Classification	Htet Myet Lynn, Taekeun Hong, Hyoungju Kim and Pankoo Kim (Chosun University, South Korea); Sung Hwan Kim (SW Convergence Education Institute of Chosun University, South Korea)
3:00 PM-3:15 PM	1570601952	An Evolutionary Approach to Variational Autoencoders	Jeff Hajewski and Suely Oliveira (University of Iowa, USA)
3:15 PM-3:30 PM	1570604472	On-device Training for Breast Ultrasound Image Classification	Janpu Hou (Applied Data Research, USA)

**SESSION 3: MOBILE AND WIRELESS COMPUTING****SESSION CHAIR: Damian Valles (Texas State University, USA)****SESSION TIME: 2:00 PM-3:30 PM****VENUE: UNLV Science and Engineering Building, Classroom 1243**

<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION</b>
2:00 PM-2:15 PM	1570605343	Accelerated and Preconditioned Refinement of Gauss-Seidel Method for Uplink Signal Detection in 5G Massive MIMO Systems	Robin Chataut, Robert Akl and Mohammadreza Robaei (University of North Texas, USA)
2:15 PM-2:30 PM	1570608700	Adaptive Beamforming and Modulation Design for 5G V2I Networks	Tadilo Endeshaw Bogale (North Carolina A&T State University, USA)

2:30 PM-2:45 PM	1570608657	Grouping Proofs for Dynamic Groups of RFID Tags: A Secure and Scalable Protocol	Vanya Cherneva (LSU, United States, USA); Jerry Trahan (Louisiana State University, USA)
2:45 PM-3:00 PM	1570612822	Analysis of Human Behaviors in Real-Time Swarms	Gregg Willcox and Louis Rosenberg (Unanimous AI, USA); Colin Domnauer (University of California, Berkeley, USA)
3:00 PM-3:15 PM	1570613408	High Throughput Vehicular Communication Using Spatial Multiplexing MIMO	Utpal Kumar Dey, Robert Akl and Robin Chataut (University of North Texas, USA)
3:15 PM-3:30 PM	1570613033	CSI Feedback Overhead Reduction for 5G Massive MIMO Systems	Ahmed Hindy (Motorola Mobility, USA); Udar Mittal (Motorola, India); Tyler Alan Brown (Motorola, USA)

<b>SESSION 4: CLOUD COMPUTING AND IOT</b>			
<b>SESSION CHAIR: Lanier Watkins (Johns Hopkins University Whiting School of Engineering)</b>			
<b>SESSION TIME: 2:00 PM-3:30 PM</b>			
<b>VENUE:UNLV Science and Engineering Building, Classroom 1245</b>			
<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION</b>
2:00 PM-2:15 PM	1570601379	A Fuzzy Linguistic Programming for Sustainable Ecotourism Activities	Esra Çakır and Ziya Ulukan (Galatasaray University, Turkey)
2:15 PM-2:30 PM	1570609302	Dynamic Constellation Mapping and SER Performance for Asynchronized PNC Using QPSK	Aditi Singh, Tamseel Syed and Laurie Joiner (University of Alabama in Huntsville, USA)
2:30 PM-2:45 PM	1570613440	Energy Consumption Analysis of Scheduling Algorithms for Cloud Computing Systems	Yun Tian (California State University, Fullerton & College of Engineering and Computer Science, USA); Patrick Hovsepian (California State University, Fullerton, USA)
2:45 PM-3:00 PM	1570613164	NetForager: Geographically-Distributed Network Performance Monitoring of Web Applications	Levent Dane and Deniz Gurkan (University of Houston, USA)
3:00 PM-3:15 PM	1570613320	A Resilient Cooperative Localization Strategy for Autonomous Underwater Vehicles in Swarms	Mark Allison (The University of Michigan-Flint, USA)
3:15 PM-3:30 PM	1570604734	Dilated Causal Convolutional Model for RF Fingerprinting	Josh Robinson, Scott Kuzdeba, James Stankowicz and Joseph Carmack (BAE Systems, USA)

TIME	EVENT	VENUE
3:30 PM-4:00 PM	COFFEE BREAK	UNLV Science and Engineering Building Lobby

**SESSION 5: SOFTWARE ENGINEERING**

**SESSION CHAIR: Tadilo Endeshaw Bogale (North Carolina A&T State University, USA)**

**SESSION TIME: 4:00 PM-5:30 PM**

**VENUE: UNLV Science and Engineering Building, Classroom 1240**

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION
4:00 PM-4:15 PM	1570597589	A Simple Model for Reasoning About Limits on Coupling in Object-Oriented Software	Hayden Melton (Refinitiv, USA)
4:15 PM-4:30 PM	1570598433	A Decentralized Approach to Architecture-Based Self-Protecting Software Systems	Jason Porter (University of North Georgia, USA); Emad Albassam (King Abdulaziz University, Saudi Arabia)
4:30 PM-4:45 PM	1570598957	The Paradoxical Effects of Jitter on Fairness in Financial Exchanges: Engineering Implications	Hayden Melton (Refinitiv, USA)
4:45 PM-5:00 PM	1570609429	Adapting a Container Infrastructure for Autonomous Vehicle Development	Yujing Wang and Qinyang Bao (University of Waterloo, Canada)
5:00 PM-5:15 PM	1570613488	The Self-Upgrading Mobile Application for the Automatic Malaria Detection	Hyo Jung Song (San Francisco State University, USA); Austin Tsang (SFSU, USA); Wanzin Yazar (UC Berkeley, USA)
5:15 PM-5:30 PM	1570613429	DeeperCoder: Code Generation Using Machine Learning	Rajiv Ramesh Yadav and Simon Shim (San Jose State University, USA)

**SESSION 6: ROBOTICS , AUTONOMOUS SYSTEM AND MACHINE LEARNING**

**SESSION CHAIR: Jerry L Trahan (Louisiana State University, USA)**

**SESSION TIME: 4:00 PM-5:30 PM**



**VENUE: UNLV Science and Engineering Building, Classroom 1242**

<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION</b>
4:00 PM-4:15 PM	1570613404	Detecting Malign Encrypted Network Traffic Using Perlman Noise and Convolutional Neural Network	Wajdi Bazuhair (The University of Texas at San Antonio, USA); Wonjun Lee (University of Texas at San Antonio, USA)
4:15 PM-4:30 PM	1570612797	A Data-Centric Approach to Taming the Message Dissemination in the Internet of Vehicles	Fletcher Trueblood, Sumanjit Gill and Robert Wong (California State University, USA); Shahab Tayeb and Matin Pirouz (California State University, Fresno, USA)
4:30 PM-4:45 PM	1570613476	Automated Radar Signal Analysis Based on Deep Learning	Ruchi Ramesh Bagwe, Jahnvi Kachhia and Alex Erdogan (California state University Fullerton, USA); Kiran George (California State University, Fullerton, USA)
4:45 PM-5:00 PM	1570613532	Deep Reinforcement Learning Pairs Trading with a Double Deep Q-Network	Andrew William Brim (Utah State University, USA)
5:00 PM-5:15 PM	1570613062	Cost-Effective, Re-Configurable Cluster Approach for Resource Constricted FPGA Based Machine Learning and AI Applications	Dulana Rupanetti (University of Saint Thomas, USA); Kundan Nepal (University of St. Thomas, USA); Hassan Salmay and Cheol-Hong Min (University of Saint Thomas, USA)
5:15 PM-5:30 PM	1570610411	Ultra-thin MobileNet	Debjyoti Sinha and Mohamed El-Sharkawy (Purdue School of Engineering and Technology, USA)

**SESSION 7: CRYPTOGRAPHY AND INFORMATION SECURITY****SESSION CHAIR: Lanier Watkins (Johns Hopkins University Whiting School of Engineering)****SESSION TIME: 4:00 PM-5:30 PM****VENUE: UNLV Science and Engineering Building, Classroom 1243**

<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION</b>
4:00 PM-4:15 PM	1570606643	Decentralized Security Bounty Management on Blockchain and IPFS	Alex Hoffman, Eric Becerril-Blas and Kevin Moreno (University of Nevada Las Vegas, USA); Yoohwan Kim (University of Nevada, Las Vegas, USA)
4:15 PM-4:30 PM	1570610623	Synchronized Power Injection from Pva to Grid with Reduced Thd and Dc Voltage Ripple Using PID Controller for Dc Grid Applications	Zuhair Alqarni (Western Michigan University, USA); Johnson A. Asumadu (WMU, USA)

4:30 PM-4:45 PM	1570594609	Optimal Power Sharing of Renewable Sources and Backup Power Supply Maintenance During Grid Power Failure	Zuhair Alqarni (Western Michigan University, USA); Johnson A. Asumadu (WMU, USA); Ibrahim Alsaduni (Majmaah University, Saudi Arabia)
4:45 PM-5:00 PM	1570614745	Inductive and Deductive Reasoning to Assist in Cyber-Attack Prediction	Ericsson S Marin, Mohammed Almukaynizi and Paulo Shakarian (Arizona State University, USA)
5:00 PM-5:15 PM	1570596106	Area and Energy Efficient Radiation Hardened Gain Cell Memory	Anudeep Bonasu (California State University Fresno, USA); Reshma Kns and Maria Dominic Savio M (SRM Institute of Science and Technology, India); Nan Wang (California State university, USA)
5:15 PM-5:30 PM	1570613415	An Improved Crypto-Ransomware Early Detection Model Using Integrated Deep Learning and Vector Space Model	Abdullah Mari J Alqahtani (University of Idaho & Computer Science, USA); Mazen Ali M Gazzan (University of Idaho, USA); Frederick T Sheldon (University of Idaho & University of Memphis, USA)

**SESSION 8: ARTIFICIAL INTELLIGENCE, MACHINE LEARNING AND EMBEDDED SYSTEMS**

**SESSION CHAIR: Ernesto Zamora Ramos (Intel Corporation, USA)**

**SESSION TIME: 4:00 PM-5:30 PM**

**VENUE: UNLV Science and Engineering Building, Classroom 1245**

<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION</b>
4:00 PM-4:15 PM	1570613406	A Victims Detection Approach for Burning Building Sites Using Convolutional Neural Networks	Farah Jaradat and Damian Valles (Texas State University, USA)
4:15 PM-4:30 PM	1570610236	RMNv2: Reduced Mobilenet V2 for CIFAR10	Maneesh Ayi and Mohamed El-Sharkawy (Purdue School of Engineering and Technology, USA)
4:30 PM-4:45 PM	1570612688	Simulation of Surface Reflections and Shadowing in Molecular Communication Systems	Uri Rogers, Yun Tian and Saqer Qureish B. Alhloul (Eastern Washington University, USA)
4:45 PM-5:00 PM	1570613447	Machine Learning Techniques for Motion Analysis of Fatigue from Manual Material Handling Operations Using 3D Motion Capture Data	Geovanni Hernandez, Jr and Damian Valles (Texas State University, USA)
5:00 PM-5:15 PM	1570593087	Application of RXD Algorithm to Word Vector Representation for Keyword Identification	Alex Sumarsono (California State University, East Bay, USA)

5:15 PM-5:30 PM	1570612674	Deep Convolutional Neural Network Design Approach for 3D Object Detection for Robotic Grasping	Purvesh Sharma and Damian Valles (Texas State University, USA)
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TIME	EVENT	VENUE
5.30 PM-6.30 PM	POSTER & NETWORKING SESSION	Bennett Family Auditorium, Science and Engineering Building,UNLV
6.30 PM-8.00 PM	BANQUET DINNER	UNLV Science and Engineering Building Lobby

<b>DAY-2:</b>	<b>7<sup>TH</sup> JANUARY, 2020</b>
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TIME	NAME OF THE EVENT	VENUE
8:00 AM – 9:00 AM	REGISTRATION	Bennett Family Auditorium, Science and Engineering Building,UNLV
8:00 AM – 9:00 AM	BREAKFAST	Bennett Family Auditorium, Science and Engineering Building,UNLV
9:00 AM – 9:45 AM	KEYNOTE ADDRESS BY LANIER WATKINS (JOHNS HOPKINS UNIVERSITY, USA) TITLE OF THE TALK: A RED TEAM EVALUATION OF COMMERCIAL OFF-THE-SHELF AUTONOMOUS DRONES	Bennett Family Auditorium, Science and Engineering Building,UNLV
9:45 AM–10:30 AM	KEYNOTE ADDRESS BY SHAHRAM LATIFI (UNIVERSITY OF NEVADA, LAS VEGAS, USA) TITLE OF THE TALK: ADVANCED BIOMETRICS	Bennett Family Auditorium, Science and Engineering Building,UNLV

10:30 AM-11:15 AM	KEYNOTE ADDRESS BY RENEE BRYCE (UNIVERSITY OF NORTH TEXAS, USA) TITLE OF THE TALK: SYSTEMATIC SOFTWARE TESTING TECHNIQUES FOR EMERGING TECHNOLOGIES	Bennett Family Auditorium, Science and Engineering Building, UNLV
11:15 AM – 11.30 AM	COFFEE BREAK	Bennett Family Auditorium, Science and Engineering Building, UNLV

## PARALLEL SESSIONS (7<sup>th</sup> January, 2020)

### SESSION 9: ARTIFICIAL INTELLIGENCE , CRYPTOGRAPHY AND SECURITY

SESSION CHAIR: Uri Rogers (Eastern Washington University, USA)

SESSION TIME: 11:30 AM–12:45 PM

VENUE: UNLV Science and Engineering Building, Classroom 1240

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION
11:30 AM -11:45 AM	1570611334	BloCyNfo-Share: Blockchain Based Cybersecurity Information Sharing with Fine Grained Access Control	Shahriar Badsha (University of Nevada, Reno, USA); Iman Vakilinia (University of North Florida, USA); Shamik Sengupta (University of Nevada, Reno, USA)
11:45 AM-12:00 PM	1570613122	Facial Expression Recognition with Convolutional Neural Networks	Shekhar Singh (University of Nevada Las Vegas, USA); Fatma Nasoz (University of Nevada, Las Vegas, USA)
12:00 PM-12:15 PM	1570613451	Network Traffic Images: A Deep Learning Approach to the Challenge of Internet Traffic Classification	Ibraheem Saleh and Hao Ji (California State Polytechnic University, Pomona, USA)
12:15 PM-12:30 PM	1570613508	An Automated Framework for Real-time Phishing URL Detection	Farhan Sadique, Raghav Kaul, Shahriar Badsha and Shamik Sengupta (University of Nevada, Reno, USA)
12:30 PM-12:45 PM	1570613526	Unravelling of Convolutional Neural Networks Through Bharatanatyam Mudra Classification with Limited Data	Anuja P Parameshwaran (Georgia State University & None, USA); Heta Desai, Michael Weeks and Rajshekhar Sunderraman (Georgia State University, USA)

**SESSION 10: ALGORITHM AND THEORY****SESSION CHAIR: Matin Pirouz Nia (California State University, Fresno)****SESSION TIME: 11:30 AM–12:45 PM****VENUE: UNLV Science and Engineering Building, Classroom 1242**

<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION</b>
11:30 AM -11:45 AM	1570606726	Throughput, Delay, and Complexity Tradeoffs in Interference Channels	Sajjad Nassirpour and Alireza Vahid (University of Colorado Denver, USA)
11:45 AM-12:00 PM	1570613473	Two Methods for Authentication Using Variable Transmission Power Patterns	Hosam Alamleh (Edgewood College & Louisiana Tech University, USA); Ali Abdullah S. Alqahtani (Louisiana Tech University, USA)
12:00 PM-12:15 PM	1570613468	Optimizing B-Spline Surface Reconstruction for Sharp Feature Preservation	Daniel Lee (Carnegie Vanguard High School); Isabella Quan and Chris Wu (Westlake High School, USA); Jason Wu (Clements High School, USA); Dan Tamir (TX State Univ, USA); Naphtali Rishe (Florida International University, USA)
12:15 PM-12:30 PM	1570613479	Using Machine Learning to Estimate Utilization and Throughput for OpenCL-Based Matrix-Vector Multiplication (MVM)	Jannatun Naher (North Carolina A&T State University, USA); Christopher Doss (North Carolina A & T State University, USA); Clay Gloster (NC A & T University, USA); Shrikant S Jadhav (North Carolina A&T State University, USA)
12:30 PM-12:45 PM	1570613576	Pulse on Pulse Deinterleaving Radar Algorithm	Jaron Lin and Jordan Juliano (California State University, Fullerton, USA); Alex Erdogan (California state University Fullerton, USA); Kiran George (California State University, Fullerton, USA)

**SESSION 11: WIRELESS COMMUNICATION AND EMBEDDED SYSTEMS****SESSION CHAIR: Phillip Bradford (University of Connecticut, Stamford)****SESSION TIME: 11:30 AM–12:45 PM****VENUE: UNLV Science and Engineering Building, Classroom 1243**

<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION</b>
11:30 AM -11:45 AM	1570609638	Implementing ROS Communications for Sensor Integration with the RB5 Collaborative Robot	Jason M Kreitz (University of Nevada Las Vegas & DASL, Drones and Autonomous Systems Lab, USA); Moonyoung Lee (KAIST Hubo Lab, USA)
11:45 AM-12:00 PM	1570612407	HID-SMART: Hybrid Intrusion Detection Model for Smart Home	Faisal Alghayadh and Debatosh Debnath (Oakland University, USA)
12:00 PM-12:15 PM	1570613402	Data Compression and Re-computation Based Performance Improvement in Multi-Core Architectures	Hakduran Koc (University of Houston - Clear Lake, USA); Mounika Garlapati (University of Houston-Clear Lake, USA); Pranitha Madupu (University of Houston - Clear Lake, USA)
12:15 PM-12:30 PM	1570610665	3.5-9 GHz Ultra-Wideband LNA with Variable Gain and Noise Cancellation for Wireless Communication	Hossein Khosravi (University of Minho & University of Birjand, Portugal); Abolfazl Bijari and Mahdi Sheikhi (University of Birjand, Iran); Nabeeh Kandalaft (Grand Valley State University, USA)

12:30 PM-12:45 PM	1570612097	Wireless Communication Between FPGA and Microcontroller	Pratik Shrestha, Binayak Subedi and Megan Girard (Grand Valley state University, USA); Chirag J Parikh and Nabeeh Kandalaft (Grand Valley State University, USA)
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**SESSION 12: NATURAL LANGUAGE PROCESSING, COMMUNICATION SOFTWARE AND OTHERS**

**SESSION CHAIR: Alex Sumarsono (California State University, East Bay, USA)**

**SESSION TIME: 11:30 AM–12:45 PM**

**VENUE: UNLV Science and Engineering Building, Classroom 1245**

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION
11:30 AM -11:45 AM	1570613494	Corpora of Russian Spontaneous Speech as a Tool for Modelling Natural Speech Production and Recognition	Elena Riekhakaynen (Saint-Petersburg State University, Russia)
11:45 AM-12:00 PM	1570608768	A Comparative Study of Machine Learning Algorithms for Use in Breast Cancer Studies	Chuck Easttom (CEC-Security LLC, USA)
12:00 PM-12:15 PM	1570613026	AIOPS Prediction for Hard Drive Failures Based on Stacking Ensemble Model	Haifeng Wang (Pennsylvania State University & Pennsylvania State University New Kensington, USA); Haili Zhang (Inspur Company, China)
12:15 PM-12:30 PM	1570608767	On the Application of Algebraic Graph Theory to Modeling Network Intrusions	Chuck Easttom (CEC-Security LLC, USA)
12:30 PM-12:45 PM	1570608766	On the Application of the Complexity Zeta Function to Modelling Complexity and Emergence in Neuro-Engineering	Chuck Easttom (CEC-Security LLC, USA)

TIME	EVENT	VENUE
12:45 PM–1.00 PM	PRIZE GIVING CEREMONY	Bennett Family Auditorium, Science and Engineering Building, UNLV
1.00 PM-2.00 PM	LUNCH	UNLV Science and Engineering Building Lobby

**SESSION 13: WIRELESS COMMUNICATION AND ENERGY MANAGEMENT**

**SESSION CHAIR: Phillip Bradford (University of Connecticut, Stamford)**

**SESSION TIME: 2:00P.M–3:30 PM**

**VENUE: UNLV Science and Engineering Building, Classroom 1240**

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION
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2:00 PM-2:15 PM	1570613850	Monitoring and Alarm System Timing Analysis for an Interconnecting Grid	Steve Chan (Harvard University, USA); Parnmook Noppawan (Vit Tall Energy Unit, Philippines)
2:15 PM-2:30 PM	1570613105	Environmental Perception in Autonomous Vehicles Using Edge Level Situational Awareness	Nima Ghafoorianfar and Mehdi Roopaei (University of Wisconsin - Platteville, USA)
2:30 PM-2:45 PM	1570613911	The Blindspot of Electromagnetic Interference Affecting Sensitive Medical Devices at Hospitals and Healthcare Facilities	Steve Chan (Harvard University, USA); Marco Zennaro (ICTP - The Abdus Salam International Centre for Theoretical Physics, Italy); Ermanno Pietrosemoli (ICTP, Italy); Marco Rainone (The Abdus Salam International Centre for Theoretical Physics, Italy); Ika Oktavianti (University of Sriwijaya, Indonesia); Parnmook Noppawan (Vit Tall Energy Unit, Philippines)
2:45 PM-3:00 PM	1570611508	A New Highly Power-Efficient Inverse Class-D PA for NB-IoT Applications	Mehrdad Harifi-Mood, Abolfazl Bijari and Hossein Alizadeh (University of Birjand, Iran); Nabeeh Kandalaft (Grand Valley State University, USA)
3:00 PM-3:15 PM	1570611507	Design of A 2-3 GHz Down-Conversion Active Mixer with Improved Linearity	Nabeeh Kandalaft (Grand Valley State University, USA); Salman Zandian (University of Birjand, Iran); Hossein Khosravi (University of Minho & University of Birjand, Portugal); Abolfazl Bijari (University of Birjand, Iran)
3:15 PM-3:30 PM	1570613495	Edge Based Decision Making in Disaster Response Systems	Jonas R Wagner (University of Wisconsin Platteville, USA); Mehdi Roopaei (University of Wisconsin - Platteville, USA)

**SESSION 14: CRYPTOGRAPHY , SECURITY AND MACHINE LEARNING**

**SESSION CHAIR: Shahriar Badsha (University of Nevada, Reno, USA)**

**SESSION TIME: 2:00P.M–3:30 PM**

**VAUUE: UNLV Science and Engineering Building, Classroom 1242**

<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION</b>
2:00 PM-2:15 PM	1570612810	Image Classification on NXP i.MX RT1060 Using Ultra-thin MobileNet DNN	Saurabh Desai, Debjyoti Sinha and Mohamed El-Sharkawy (Purdue School of Engineering and Technology, USA)
2:15 PM-2:30 PM	1570612787	Behavioral Model Anomaly Detection in Automatic Identification Systems (AIS)	Farah Kandah, Jacob Coleman and Brennan Huber (University of Tennessee at Chattanooga, USA)
2:30 PM-2:45 PM	1570613123	Investigating the Security Threats on Networked Medical Devices	David Zaldivar (Texas A&M University, USA); Lo'ai A. Tawalbeh (Texas A&M University- San Antonio, USA); Fadi Muheidat (California State University San Bernardino, USA)
2:45 PM-3:00 PM	1570606627	Privacy Violating Opensource Intelligence Threat Evaluation Framework: A Security Assessment Framework for Critical Infrastructure Owners	Adrian Cartagena, Gerald Rimmer and Thomas Van Dalsen (Johns Hopkins University Whiting School of Engineering, USA); Lanier Watkins (Johns Hopkins University Whiting School of Engineering); William H. Robinson (Vanderbilt University, USA); Aviel Rubin (Johns Hopkins University, USA)
3:00 PM-3:15 PM	1570610944	UDPP: Blockchain Based Open Platform as a Privacy Enabler	Xin Pei (ZhongAn Information and Technology Service Co., Ltd, China); Xiaochuan Wu (Zhong An Information and Technology Service, China)
3:15 PM-3:30 PM	1570605824	Practical Data Sharing at Untrusted Stores	Xin Pei (ZhongAn Information and Technology Service Co., Ltd, China); Xiaochuan Wu (Zhong An Information and Technology Service, China); Liang Sun (ZhongAn Information and Technology Service, China)

**SESSION 15: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING****SESSION CHAIR: James Stankowicz (BAE Systems, USA)****SESSION TIME: 2:00P.M–3:30 PM****VENUE: UNLV Science and Engineering Building, Classroom 1243**

<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION</b>
2:00 PM-2:15 PM	1570613073	Houston Toad and Other Chorus Amphibian Species Call Detection Using Deep Learning Architectures	Shafinaz Islam and Damian Valles (Texas State University, USA)
2:15 PM-2:30 PM	1570612542	A Non-Linear GPU Performance Modeling Approach and Consolidated Linear Hardware Model	David Johnson and Damian Valles (Texas State University, USA)
2:30 PM-2:45 PM	1570613058	Performance Evaluation of the LEAP Cluster	Sudarshan S Chawathe (University of Maine, USA)
2:45 PM-3:00 PM	1570613417	Rice Disease Detection by Image Analysis	Sepehr Saadatmand (Missouri University of Science and Technology, USA); Mohammad Amir Kavousi (University of California Riverside, USA); Sima Azizi (Missouri University of Science and Technology, USA)
3:00 PM-3:15 PM	1570613456	The Voltage Regulation of Boost Converters Using Dual Heuristic Programming	Sazida Binta Islam and Damian Valles (Texas State University, USA)
3:15 PM-3:30 PM	1570613059	Identification of Wild Species in Texas from Camera-trap Images Using Deep Neural Network for Conservation Monitoring	Sudarshan S Chawathe (University of Maine, USA)
		Topic Analysis of Climate-Change News	

**SESSION 16: ROBOTICS AND AUTONOMOUS SYSTEMS****SESSION CHAIR: Alex Sumarsono (California State University, East Bay, USA)****SESSION TIME: 2:00P.M–3:30 PM****VENUE: UNLV Science and Engineering Building, Classroom 1245**

<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION</b>
2:00 PM-2:15 PM	1570611362	A Robotic Control System Using Robot Operating System and MATLAB for Sensor Fusion and Human-Robot Interaction	Balasubramanian Chandrasekaran and Ariel Ramos Ruiz (Florida Polytechnic University, USA)
2:15 PM-2:30 PM	1570611525	Autonomous Control of a Line Follower Robot Using a Q-Learning Controller	Sepehr Saadatmand and Sima Azizi (Missouri University of Science and Technology, USA); Mohammad Amir Kavousi (University of California Riverside, USA); Donald Wunsch (University of Missouri-Rolla, USA)
2:30 PM-2:45 PM	1570613332	An Intrusion Detection System for the Detection of DDoS Attacks in IoT Networks	Monika Roopak (Newcastle University, United Kingdom (Great Britain)); Guiyun Tian (Newcastle University & University of Electronic Science and Technology of China, United Kingdom (Great Britain)); Jonathon Chambers (Newcastle University, United Kingdom (Great Britain))
2:45 PM-3:00 PM	1570611028	ROS-MATLAB Interface and Setup for a Fault Tolerant Robotic System Using Human Robot Interaction	Balasubramanian Chandrasekaran and Luis Figueroa Rivera (Florida Polytechnic University, USA)



3:00 PM-3:15 PM	1570610600	A Robotic System for Elderly Care and Monitoring Using Human Robot Interaction	Balasubramaniyan Chandrasekaran, James K Andrews and Mihir Lad (Florida Polytechnic University, USA)
3:15 PM-3:30 PM	1570613076	A Data Driven PID Control System	Evangelos Yfantis (University Of Nevada, USA); William Culbreth (University of Nevada, Las Vegas, USA)

TIME	EVENT	VENUE
3:30 PM-4:00 PM	COFFEE BREAK	UNLV Science and Engineering Building Lobby

**SESSION 17: IMAGE PROCESSING, EVOLUTIONARY COMPUTATION AND OTHERS**

**SESSION CHAIR: Shahriar Badsha (University of Nevada, Reno, USA)**

**SESSION TIME:4:00 PM – 5:30 PM**

**VENUE:UNLV Science and Engineering Building, Classroom 1240**

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION
4:00 PM-4:15 PM	1570609305	MARS: Machine Learning Based Adaptable and Robust Network Management for Software-defined Networks	Farah Kandah (University of Tennessee at Chattanooga, USA); Ilker Ozcelik (Recep Tayyip Erdogan University, Turkey); Brennan Huber (University of Tennessee at Chattanooga, USA)
4:15 PM-4:30 PM	1570613485	Error Detection Using Augmented Reality in the Subtractive Manufacturing Process	Meghashree Hulkod Sreekanta (California State University, USA); Abhishek S Sarode (California State University Fullerton, USA); Kiran George (California State University, Fullerton, USA)
4:30 PM-4:45 PM	1570613498	Combinatorial-Based Event Sequences for Reduction of Android Test Suites	Ryan P Michaels (St Edward's University & University of North Texas, USA); David Adamo (Ultimate Software Group, Inc., USA); Renee Bryce (University of North Texas, USA)
4:45 PM-5:00 PM	1570602849	Integer vs. Floating-Point Processing on Modern FPGA Technology	Don Lahiru Nirmal M Hettiarachchi, Venkata Salini Priyamvada Davuluru and Eric Balster (University of Dayton, USA)
5:00 PM-5:15 PM	1570608656	Area-Optimized UAV Swarm Network for Search and Rescue Operations	Laik Ruetten (University of Wisconsin-La Crosse, USA); Paulo A Regis (Southeastern Louisiana University, USA & CAPES, Brazil); David Feil-Seifer and Shamik Sengupta (University of Nevada, Reno, USA)
5:15 PM-5:30 PM	1570609914	Zoning Effect on the Capacity and Placement Planning for Battery Exchange Stations in Battery Consolidation Systems	Dara Nyknahad and Rojin Aslani (University of Nevada Las Vegas, USA); Wolfgang Bein (University of Nevada, Las Vegas, USA); Laxmi Gewali (University of Nevada Las Vegas, USA)

**SESSION 18: BIG DATA, DATA MANAGEMENT AND ANALYTICS**

**SESSION CHAIR: Damian Valles (Texas State University, USA)**

**SESSION TIME: 4:00 PM – 5:30 PM**

**VENUE:UNLV Science and Engineering Building, Classroom 1242**

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION
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4:00 PM-4:15 PM	1570612396	Multi-Stage Distributed Computing for Big Data: Evaluating Connective Topologies	Rasha Gargees (University of Missouri-Columbia, USA); Grant Scott (University of Missouri, USA)
4:15 PM-4:30 PM	1570611408	Prediction of Cancer Drug Effectiveness Based on Multi-Fusion Deep Learning Model	Qian Li (Tongji University, China)
4:30 PM-4:45 PM	1570613363	Supervised Sentiment Analysis of Twitter Handle of President Trump with Data Visualization Technique	Kalyan Sahu, Yu Bai and Yoonsuk Choi (California State University, Fullerton, USA)
4:45 PM-5:00 PM	1570613430	Multi-Tenant Big Data Analytics on AWS Cloud Platform	Yun Tian (California State University, Fullerton & College of Engineering and Computer Science, USA); Vinay Khedekar (California State University, Fullerton, USA)
5:00 PM-5:15 PM	1570612920	An Investigation of Factors Influencing Private Technology Organizations' Intention to Adopt Open Government Data in Saudi Arabia	Abdullah Sulaiman Alhujaylan (University of Southampton, United Kingdom (Great Britain)); Leslie Car (School of Electronics and Computer Science, United Kingdom (Great Britain)); Matthew Ryan (Governance and Public Policy University of Southampton, United Kingdom (Great Britain))
5:15 PM-5:30 PM	1570613538	Meal-Food Recognition Using Hyperspectral Images	Shirin Nasr Esfahani (4805 Heidi St., USA); Venkatesan Muthukumar (UNLV, USA); Emma Regentova (University of Nevada Las Vegas, USA)

**SESSION 19: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING**

**SESSION CHAIR: Haifeng Wang (Pennsylvania State University , USA)**

**SESSION TIME: 4:00 PM – 5:30 PM**

**VENUE: UNLV Science and Engineering Building, Classroom 1243**

<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION</b>
4:00 PM-4:15 PM	1570613013	A Multi Sensor Real-time Tracking with LiDAR and Camera	Surya Kollazhi Manghat (Purdue University, USA); Mohamed El-Sharkawy (Purdue School of Engineering and Technology, USA)
4:15 PM-4:30 PM	1570613023	High Impulse Noise Intensity Removal in Natural Images Using Convolutional Neural Network	Mehdi Mafi, Walter Izquierdo and Malek Adjouadi (Florida International University, USA)
4:30 PM-4:45 PM	1570612377	A Scalable Approach to Time Series Anomaly Detection & Failure Analysis for Industrial Systems	Azharul Karim, Nitin Ranjan and Darshit Shah (Elutions Inc, USA)
4:45 PM-5:00 PM	1570612566	Connected Home Automated Security Monitor (CHASM): Protecting IoT Through Application of Machine Learning	Jeffrey Chavis (Johns Hopkins University Applied Physics Laboratory, USA); Lanier Watkins (Johns Hopkins University Information Security Institute, USA); Anna Buczak (Johns Hopkins University Applied Physics Laboratory, USA); Aviel Rubin (Johns Hopkins University, USA)
5:00 PM-5:15 PM	1570610229	Squeeze-and-Excitation SqueezeNext: An Efficient DNN for Hardware Deployment	Ravi Teja NVS Chappa (Purdue University, USA); Mohamed El-Sharkawy (Purdue School of Engineering and Technology, USA)
5:15 PM-5:30 PM	1570613019	GFSK Demodulation Using Learned Sequence Correlation	Paul E Gorday, Nurgun Erdol and Hanqi Zhuang (Florida Atlantic University, USA)

**SESSION 20: ARTIFICIAL INTELLIGENCE, DATA MINING AND OTHERS**

**SESSION CHAIR: Sudarshan S Chawathe (University of Maine, USA)**

**SESSION TIME: 4:00 PM – 5:30 PM**

**VENUE: UNLV Science and Engineering Building, Classroom 1245**

<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION</b>
4:00 PM-4:15 PM	1570612852	Differential Pricing of 5G Network Slices for Heterogeneous Customers	Siyang Chen and Bhaskar Krishnamachari (University of Southern California, USA)
4:15 PM-4:30 PM	1570612548	Social Network Analysis and Mining: Privacy and Security on Twitter	Mansour Alshaikh and Mohamed Zohdy (Oakland University, USA); Zahraddeen Gwarzo (Lawrence Technological University, USA); Jalal Alowibdi (University of Jeddah, Saudi Arabia); Richard Olawoyin and Debatosh Debnath (Oakland University, USA)
4:30 PM-4:45 PM	1570602822	Light-Based Interpretation of Quanta and Its Implications on Quantum Computing	Pravir Malik (Deep Order Technologies & Zappos, USA)
4:45 PM-5:00 PM	1570613046	Buterin's Scalability Trilemma Viewed Through a State-change-based Classification for Common Consensus Algorithms	Amani Altarawneh and Tom Herschberg (The University of Tennessee At Chattanooga, USA); Sai Medury, Farah Kandah and Anthony Skjellum (University of Tennessee at Chattanooga, USA)
5:00 PM-5:15 PM	1570613371	Evolution of Machine Learning Algorithms on Autonomous Robots	Balasubramaniyan Chandrasekaran and Manasa Mainampati (Florida Polytechnic University, USA)
5:15 PM-5:30 PM	1570612850	Location Privacy Protection Based-on Privacy Region Transformation in Online Query	Yali Ji (Xi'an Jiaotong University, China); Xiaolin Gui and Ruowei Gui (Xi'an Jiaotong University, China); Dong Liao and Xinyang Lin (Xi'an Jiaotong University, China)

**DAY-3:**

**8<sup>TH</sup> JANUARY, 2020**

<b>TIME</b>	<b>NAME OF THE EVENT</b>	<b>VENUE</b>
8:00 AM – 9:00 AM	REGISTRATION	Bennett Family Auditorium, Science and Engineering Building, UNLV
8:00AM – 9:00 AM	BREAKFAST	Bennett Family Auditorium, Science and Engineering Building, UNLV
9:00 AM – 9:45 AM	KEYNOTE ADDRESS BY JOHN MARTINIS (GOOGLE AND UCSB, USA) TITLE OF THE TALK: QUANTUM SUPREMACY USING A PROGRAMMABLE SUPERCONDUCTING PROCESSOR	Bennett Family Auditorium, Science and Engineering Building, UNLV

9:45 AM–10:30 AM	KEYNOTE ADDRESS BY MAHASWETA SARKAR (SAN DIEGO STATE UNIVERSITY, USA) TITLE OF THE TALK: THE FUTURE OF WIRELESS HEALTH	Bennett Family Auditorium, Science and Engineering Building,UNLV
10:30 AM–11:15 AM	KEYNOTE ADDRESS BY AKANE SANO (RICE UNIVERSITY, USA) TITLE OF THE TALK: TOWARD DATA-DRIVEN PERSONALIZED WELLBEING AND PERFORMANCE ASSISTANT	Bennett Family Auditorium, Science and Engineering Building,UNLV
11:15 AM – 11.45 AM	COFFEE BREAK	Bennett Family Auditorium, Science and Engineering Building,UNLV

## PARALLEL SESSIONS (8<sup>th</sup> January, 2020)

<b>SESSION 21: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING</b>			
<b>SESSION CHAIR: Alex Sumarsono (California State University, East Bay, USA)</b>			
<b>SESSION TIME: 11:45A.M – 1:00 PM</b>			
<b>VENUE: UNLV Science and Engineering Building, Classroom 1240</b>			
TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION
11:45 AM-12:00 PM	1570613428	Fine-grained Access Control in the Era of Cloud Computing: An Analytical Review	Khalid Abdullah Albulayhi (University of Idaho & Technical and Vocational Training Corporation, USA); Abdullah Abuhussein (St. Cloud State University, USA); Faisal Alsubaei (University of Jeddah, Saudi Arabia); Frederick T Sheldon (University of Idaho & University of Memphis, USA)
12:00 PM-12:15 PM	1570613489	Complex Motion Detection Based on Channel State Information and LSTM-RNN	Pengyu Zhang and Zhuoran Su (Worcester Polytechnic Institute, USA); Zehua Dong (Wuhan University of Technology, China); Kaveh Pahlavan (WPI, USA)
12:15 PM-12:30 PM	1570610919	Analyzing Variation Among IoT Botnets Using Medium Interaction Honeybots	Bryson Lingenfelter (University of Nevada, Reno, USA); Iman Vakilinea (University of North Florida, USA); Shamik Sengupta (University of Nevada, Reno, USA)
12:30 PM-12:45 PM	1570613567	Interface for Human Machine Interaction for Assistant Devices: A Review	Saifuddin Mahmud (Kent State University, USA); Xiangxu Lin (Kent State University & Advanced Telerobotics Research Laboratory, USA); Jong-Hoon Kim (Kent State University, USA)
12:45 PM-1:00 PM	1570612918	Using Attribute-based Feature Selection Approaches and Machine Learning Algorithms for Detecting Fraudulent Website URLs	Mustafa Aydin (Middle East Technical University & Banking Regulation and Supervision Agency of Turkey, Turkey); Ismail Butun (Chalmers University of Technology, Sweden); Kemal Bicakci (TOBB University of Economics and Technology, Turkey); Nazife Baykal (METU, Turkey)

**SESSION 22: WIRELESS SENSOR NETWORK, OPTICAL NETWORKS AND OTHERS****SESSION CHAIR: Phillip Bradford (University of Connecticut, Stamford)****SESSION TIME: 11:45A.M – 1:00 PM****VENUE: UNLV Science and Engineering Building, Classroom 1242**

<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION</b>
11:45 AM-12:00 PM	1570609340	Can Mobile Phone Usage Affect HPA-Axis Response?	Niyazi Korkut Uluaydin (Bogazici University, Turkey); Saban Selim Seker (Uskudar University, Turkey)
12:00 PM-12:15 PM	1570613335	Optical Communication and Positioning Method of Underwater Observation Apparatus for Environmental Monitor	Eriko Enomoto (Shibaura Institute of Technology, Japan); Yoshikazu Koike (Shibaura Institute of Technology & Faculty of Engineering, Japan); Hideki Yokoi (Shibaura Institute of Technology, Japan)
12:15 PM-12:30 PM	1570595744	Node Replacement Method for Disaster Resilient Wireless Sensor Networks	Alberto Gallegos Ramonet and Taku Noguchi (Ritsumeikan University, Japan)
12:30 PM-12:45 PM	1570613285	Optimal Contention Window Based on Performance Analysis for Full Duplex WLANs	Shota Sakakura, Kosuke Sanada, Hiroyuki Hatano and Kazuo Mori (Mie University, Japan)
12:45 PM-1:00 PM	1570613119	Risk-Averse--Traffic Allocation for Multi-RAT Connectivity in HetNets	Fateh M Elsherif and Edwin K. P. Chong (Colorado State University, USA)

**SESSION 23: ARTIFICIAL INTELLIGENCE, WIRELESS COMMUNICATION AND OTHERS****SESSION CHAIR: Shahab Tayeb (California State University, Fresno, USA)****SESSION TIME: 11:45A.M – 1:00 PM****VENUE: UNLV Science and Engineering Building, Classroom 1243**

<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION</b>
11:45 AM-12:00 PM	1570613364	Performance Comparative of OpenCV Template Matching Method on Jetson TX2 and Jetson Nano Developer Kits	Alejandro Israel Barranco Gutierrez (Cátedras CONACyT - TecNM Celaya, Mexico); Artiom Basulto Lantsova, Jose Alfredo Padilla Medina and Francisco Javier Perez Pinal (TecNM Celaya, Mexico)
12:00 PM-12:15 PM	1570614342	Towards Deep Learning Based Traffic Accident Analysis	Atif Naseer (Umm Al-Qura University, Saudi Arabia); Mohammed Nour (Umm al Qura University, Saudi Arabia); Basem Alkazemi (Umm Al-Qura University, Saudi Arabia)
12:15 PM-12:30 PM	1570613121	NVMe-over-RPMsg : A Virtual Storage Device Model Applied to Heterogeneous Multi-Core SoCs	Xiaohao Zhang (Beijing Institute of Technology, China); Yunjie Li (Beijing Institute of Technology, China); Gang Chen (Beijing Institute of Technology, China)

12:30 PM-12:45 PM	1570613917	Energy Efficient 5Gb/s/pin Baseband Transceiver for 3D Memory Interface	Ahmed Alzahmi and Mohammed Alswat (Southern Methodist University, USA); Chung-Ching Lin (Washington State University, USA)
12:45 PM-1:00 PM	1570604520	A Secure Biometric Based User Authentication Protocol in Wireless Sensor Networks	SungJin Yu, JoonYoung Lee, MyeongHyeon Kim and YoungHo Park (Kyungpook National University, Korea)

<b>SESSION 24: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING</b>			
<b>SESSION CHAIR: Grant Scott (University of Missouri, USA)</b>			
<b>SESSION TIME: 11:45A.M – 1:00 PM</b>			
<b>VENUE: UNLV Science and Engineering Building, Classroom 1245</b>			
<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION</b>
11:45 AM-12:00 PM	1570610636	Theoretical and Experimental Study of GSM Frequencies in the Offices	Osman Cerezci and Saban Selim Seker (Uskudar University, Turkey); Niyazi Korkut Uluaydin (Bogazici University, Turkey)
12:00 PM-12:15 PM	1570613727	Robotics Technology Kernel for Radiation Sensing and Site Exploitation	William Brooks, Christopher Korpela and Dominic Larkin (United States Military Academy, USA)
12:15 PM-12:30 PM	1570615043	A Bayesian Based Model to Credential Learners' Content Skill Assessment	Phuoc Pham (Kent State University, USA)
12:30 PM-12:45 PM	1570613471	Secure5G: A Deep Learning Framework Towards a Secure Network Slicing in 5G and Beyond	Anurag Thantharate (University of Missouri Kansas City, USA); Rahul Paropkari (University of Missouri-Kansas City, USA); Vijay Walunj (University of Missouri Kansas City, USA); Cory Beard (University of Missouri-Kansas City, USA); Poonam Kankariya (University of Missouri Kansas City, USA)
12:45 PM-1:00 PM	1570612801	Design and Implementation of Cadastral Geo-spatial IoT Network Gateway Analyzer for Urban Scale Infrastructure Health Monitoring	Hasan Tariq (Qatar University, Qatar); Abderrazek Abdaoui (Qatar University & College of Engineering, Qatar); Farid Touati and Mohammad Al-Hitmi (Qatar University, Qatar); Damiano Crescini (University of Brescia-Italy, Italy); Adel Ben Mnaouer (Canadian University Dubai & Faculty of Engineering, Applied Science and Technology, United Arab Emirates)

<b>TIME</b>	<b>EVENT</b>	<b>VENUE</b>
1:15 PM – 2:00 PM	LUNCH	Bennett Family Auditorium, Science and Engineering Building, UNLV

<b>SESSION 25: ALGORITHM AND THEORY, SOFTWARE ENGINEERING</b>		
<b>SESSION CHAIR: Ankita Mohapatra (California State University Fullerton, USA)</b>		

<b>SESSION TIME: 2:00P.M–3:30 PM</b>			
<b>VENUE: UNLV Science and Engineering Building, Classroom 1240</b>			
<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION</b>
2:00 PM-2:15 PM	1570612767	Extension of the Statistical MIMO Model by Alias as an Independent Subchannel	Franz G Aletsee (Augsburg University of Applied Sciences, Germany); Reinhard Stolle (Hochschule Augsburg, Germany); Sören Kohnert (Augsburg University of Applied Sciences, Germany)
2:15 PM-2:30 PM	1570613029	Roadway Crack Segmentation Based on an Encoder-Decoder Deep Network with Multi-Scale Convolutional Blocks	Mengyuan Sun (Tsinghua University, Beijing, China)
2:30 PM-2:45 PM	1570613224	Applying K-Means Method to the Modified Bottleneck Assignment Problem in Vector Case	Yuusaku Kamura (Tokyo Online University, Japan)
2:45 PM-3:00 PM	1570613540	The Basis for Development of a Foundational Biomarker Reflectance Signature Database System for Plant Cell Identification, Disease Detection, and Classification Purposes	Jeanette Hariharan (1537 Parnell Ct & Florida Gulf Coast University, USA); Yiannis Ampatzidis and Jaafar Abdulridha (University of Florida Southwest Research Center, USA)
3:00 PM-3:15 PM	1570613481	Modeling and Simulation of Software Execution Time in Embedded Systems	Stefan Resmerita and Anton Poelzleitner (University of Salzburg, Austria); Stefan Lukesch (Chrona.com, Austria)
3:15 PM-3:30 PM	1570613011	A New Maximum Weight Submatrix Solver Tool for Identifying Mutated Driver Pathways in Cancer Using Python	Fouad Kharroubi (Chouaib Doukkali University); Yassine El Kati (Hunan University, China); Shu-Lin Wang (Hunan University, Morocco); El Jourmi Mohammed (FSBM, Morocco)

<b>SESSION 26: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING</b>			
<b>SESSION CHAIR: Shahab Tayeb (California State University, Fresno, USA)</b>			
<b>SESSION TIME: 2:00P.M–3:30 PM</b>			
<b>VENUE: UNLV Science and Engineering Building, Classroom 1242</b>			
<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION</b>
2:00 PM-2:15 PM	1570613505	Multilayer Perceptron Algorithms for Network Intrusion Detection on Portable Low Power Hardware	Kayla Chisholm, Chris Yakopcic, Md. Shahanur Alam and Tarek Taha (University of Dayton, USA)
2:15 PM-2:30 PM	1570613474	A Time-varying Neural-network-based ARX Model of the Traffic in Mobile Networks	Abdelkader Aljerme and Huaping Liu (Oregon State University, USA)
2:30 PM-2:45 PM	1570613499	Focus Detection Using Spatial Release from Masking	Urmil P Shah, Ryan Villanueva and Brandon Hoang (California State University, Fullerton, USA)
2:45 PM-3:00 PM	1570610534	Service Robot Navigation and Computer Vision Application in a Banquet Hall Setting	Fausto Vega, Jr. (University of Nevada, Las Vegas, USA); Brandon Chan (Arcadia High School, USA); Eric Hwang (Diamond Bar High School,



			USA); Luke Park (Troy High School, USA); Paul Oh (University of Nevada, Las Vegas, USA)
3:00 PM-3:15 PM	1570613470	A CCRW Receiver with a Single Window of Variable Width for Mitigation of Multipath and Ambiguity in GNSS with MBOC Signals	Fahad Khaled Alhussein and Huaping Liu (Oregon State University, USA)
3:15 PM-3:30 PM	1570609806	The Future of Work: Towards Service Robot Control Through Brain-Computer Interface	Leonardo Georgescu (University of Nevada, Las Vegas, USA); Dylan Wallace (University of Nevada, Las Vegas & Drones and Autonomous Systems Lab @ UNLV, USA); Daniel Kyong (Coronado High School, USA); Alex Chun (Crean Lutheran High School, USA); Kathy Chun (Northwood High School, USA); Paul Oh (University of Nevada, Las Vegas, USA)

**SESSION 27: ALGORITHMS AND THEORY, IMAGE PROCESSING AND MULTIMEDIA TECHNOLOGY AND OTHERS**

**SESSION CHAIR: James Stankowicz (BAE Systems, USA)**

**SESSION TIME: 2:00P.M–3:30 PM**

**VENUE: UNLV Science and Engineering Building, Classroom 1243**

<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION</b>
2:00 PM-2:15 PM	1570613356	Ticket-Based Authentication for Securing Internet of Things	Anish Prasad Shrestha and S. M. Riazul Islam (Sejong University, South Korea); Kyung Sup Kwak (Inha University, South Korea)
2:15 PM-2:30 PM	1570611523	Towards Smart Classroom: Affordable and Simple Approach to Dynamic Projection Mapping for Education	Akshay Dave (University of Nevada, Las Vegas, USA); Mia Lorenzo (Ed W. Clark High School, USA); Mirue Kang (Beckman High School, USA); Jihyun Hwang (Diamond bar High School, USA); Paul Oh (University of Nevada, Las Vegas, USA)
2:30 PM-2:45 PM	1570613577	Virtual Reality-Based Musical Therapy for Mental Health Management	Saifuddin Mahmud (Kent State University, USA); Xiangxu Lin (Kent State University & Advanced Telerobotics Research Laboratory, USA); Ethan Jones, Alfred Shaker, Alena Miskinis, Shadi Kanan and Jong-Hoon Kim (Kent State University, USA)
2:45 PM-3:00 PM	1570608557	Image Stitching Using Green Coordinates and Robust Elastic Warping	Shenghong Hu and Yuxing Mao (Chongqing University, China); Zhengyu He (Fudan University, China)
3:00 PM-3:15 PM	1570612591	Shamir's Secret Sharing for Authentication with Out Reconstructing Password	Kishor Gupta (University of Memphis, USA); Md Lutfar Lutfar Rahman (The University of Memphis, USA); Subash Poudyal and Dipankar Dasgupta (University of Memphis, USA)
3:15 PM-3:30 PM	1570613462	Average Consensus-Based Data Fusion in Networked Sensor Systems for Target Tracking	Md Ali Azam and Shawon Dey (South Dakota School of Mines and Technology, USA); Hans Mittelmann (Arizona State University, USA); Shankarachary Ragi (South Dakota School of Mines and Technology, USA)

**SESSION 28: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING**

**SESSION CHAIR: Grant Scott (University of Missouri, USA)**



<b>SESSION TIME: 2:00P.M–3:30 PM</b>			
<b>VENUE: UNLV Science and Engineering Building, Classroom 1245</b>			
<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION</b>
2:00 PM-2:15 PM	1570598528	CRADLE: Cross-Layer Design for Load-Aware Routing in IEEE 802.11-Based Wireless Mesh and Sensor Networks	Nemesio Macabale, Alexander Villasoto, Miguel Paulo A Talplacido, Jerome Rivera, Aliyah Ventanilla, Angeliko Sevilla and Jerome Garcia (Central Luzon State University, Philippines)
2:15 PM-2:30 PM	1570608518	Docker Container Security in Cloud Computing	Joel Coffman (United States Air Force Academy & Johns Hopkins University, USA); Kelly Brady, Seung Moon and Tuan Nguyen (Johns Hopkins University, USA)
2:30 PM-2:45 PM	1570613235	Performance Evaluation and Analysis of MANET Protocols at Varied Speeds	Russell Skaggs-Schellenberg (California State University, Fresno, USA); Nan Wang (California State University at Fresno, USA); Daniel Wright (California State University, Fresno, USA)
2:45 PM-3:00 PM	1570613109	A Secured IoT Scheme for Microgrids Monitoring	Josué Martínez Martínez (Universidad Ana G. Méndez, Gurabo Campus, Puerto Rico); Carmen Carvajal-Jiménez (Universidad Ana G. Méndez, Cupey Campus, Puerto Rico); Diego Aponte-Roa (Universidad Ana G. Méndez, Gurabo Campus, Puerto Rico)
3:00 PM-3:15 PM	1570612682	Brain-IoT Based Emotion Recognition System	Bhagyashree Shirke, Jonathan Wong and Jonathan Libut (California State University Fullerton, USA); Kiran George and Sang June Oh (California State University, Fullerton, USA)
3:15 PM-3:30 PM	1570613025	Exploiting Capture Diversity in Distributed Passive RFID Systems	Roberto Valentini, Piergiuseppe Di Marco and Roberto Alesii (University of L'Aquila, Italy); Fortunato Santucci (University of L'Aquila, Italy)

**SESSION 29: WORKSHOP ON IOT**

<b>TIME</b>	<b>EVENT</b>	<b>VENUE</b>
2:30 PM – 5:30 PM	WORKSHOP ON IOT (FROM CONCEPTS TO IMPLEMENTATION)	Bennett Family Auditorium, Science and Engineering Building, UNLV

<b>TIME</b>	<b>EVENT</b>	<b>VENUE</b>
3:30 PM-4.00 PM	COFFEE BREAK	Bennett Family Auditorium, Science and Engineering Building, UNLV

**SESSION 30: ARTIFICIAL INTELLIGENCE, ROBOTICS AND INFORMATION SECURITY**

**SESSION CHAIR: Shahab Tayeb (California State University, Fresno, USA)**

**SESSION TIME: 4:00 PM – 5:30 PM****VENUE: UNLV Science and Engineering Building, Classroom 1240**

<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION</b>
4:00 PM-4:15 PM	1570612400	A Study of Ensemble Methods for Cyber Security	Justin Zhan (University of Nevada, Las Vegas, USA); Nicholas Lower (University of Nevada Las Vegas, USA)
4:15 PM-4:30 PM	1570613064	Smart Jamming Attacks in 5G NR: A Review	Youness Arjoun (University of North Dakota, USA)
4:30 PM-4:45 PM	1570612390	Segregating Hazardous Waste Using Deep Neural Networks in Real-Time Video	Justin Zhan (University of Nevada, Las Vegas, USA); Piyush Puranik (University of Arkansas, USA)
4:45 PM-5:00 PM	1570613432	Artificial Intelligence for Wireless Communication and Networking: Opportunities, Challenges, and Future Research Directions	Youness Arjoun (University of North Dakota, USA)
5:00 PM-5:15 PM	1570612889	Hardware Trojan Detection Method Based on Time Feature of Chip Temperature	Lian Yang, Xiong Li and Huan Li (University of Electronic Science and Technology of China, China)
5:15 PM-5:30 PM	1570612423	Similarity Metric for Millions of Unlabeled Face Images	Justin Zhan (University of Nevada, Las Vegas, USA); Hadi Salman (University of Arkansas, USA)

**SESSION 31: SOFTWARE ENGINEERING, BIOMEDICAL COMPUTING AND OTHERS****SESSION CHAIR: Ankita Mohapatra (California State University Fullerton, USA)****SESSION TIME: 4:00 PM – 5:15 PM****VENUE: UNLV Science and Engineering Building, Classroom 1242**

<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION</b>
4:00 PM-4:15 PM	1570612381	Using Convolutional Neural Networks to Analyze X-Ray Radiographs for Multi-Label Classifications of Thoracic Diseases	Justin Zhan (University of Nevada, Las Vegas, USA); Sing Choi (UNLV, USA)
4:15 PM-4:30 PM	1570612397	Healthcare Yelp	Justin Zhan (University of Nevada, Las Vegas, USA); Yuria Mann (University of Nevada Las Vegas, USA)
4:30 PM-4:45 PM	1570612866	Improve Accuracy of Speech Emotion Recognition with Attention Head Fusion	Mingke Xu (Nanjing Tech University, China); Fan Zhang (IBM Massachusetts Lab, China); Samee U. Khan (North Dakota State University, USA)
4:45 PM-5:00 PM	1570608786	Increasing Reliability of Terahertz Communication Links Using Onboard Fiber Connectivity	Kathirvel Nallappan and Yang Cao (Ecole Polytechnique de Montreal, Canada); Guofu Xu (Polytechnique Montreal, Canada); Hichem Guerboukha (Ecole Polytechnique de Montreal, Canada); Chahe Nerguizian (Ecole Polytechnique, Canada); Maksim Skorobogatiy (Ecole Polytechnique de Montreal, Canada)
5:00 PM-5:15 PM	1570610634	A Predictive Tool for Grid Data Analysis Using Machine Learning Algorithms	David Penn and Vinitha Hannah Subburaj (West Texas A&M University, USA); Anitha Sarah Subburaj (West Texas A&M University, USA); Mark Harral (Group NIRE, USA)