

IEEE AIIoT 2024

2024 IEEE 5th Annual World AI IoT Congress (AlloT)

Physical Conference (Seattle Convention Center, USA) 29th – 31st May 2024

TECHNICAL SCHEDULE

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2024)	KEYNOTE 4:	UNDERWATER WIRELESS COMMUNICATION THROUGH A SWA -AGILE AUTONOMOUS UNDERWATER VEHICLES	ARM OF SUPER [ROOM NO - 3AB]	12:15 AM-1:00 PM	20
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2024)	KEYNOTE 5:AN ANATOMICALLY-INSPIRED MODEL OF THE VISUAL SYSTEM USING DEEP LEARNING[ROOM N	NO - 3AB] 11:30 AM-12:15PM	30
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DAY 1: 29TH MAY 2024)

TIME	PARALLEL SESSION
9:00 AM - 9:30 AM	INAUGURATION
9:30 AM - 10.45 AM	SESSION 1: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING [ROOM NO- 3AB]
9:30 AM - 10.30 AM	SESSION 2: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING
	[ROOM NO- 307]
9:30 AM – 11:00 AM	SESSION 3: SECURITY, TRUST AND PRIVACY
	[ROOM NO- 308]
11:30 AM-1:00 PM	KEYNOTE SESSION
	[ROOM NO- 3AB]
2:00 PM – 3:30 PM	SESSION 4: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING
	[ROOM NO- 3AB]
2:00 PM – 3:30 PM	SESSION 5: APPLICATIONS OF IoT; ARTIFICIAL INTELLIGENCE TOOLS & APPLICATIONS [ROOM NO- 307]
2:00 PM – 3:30 PM	SESSION 6: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING [ROOM NO- 308]
4:00 PM – 5:00 PM	SESSION 7: SYSTEMS AND SOFTWARE ENGINEERING; COMPUTER VISION AND SPEECH; PARALLEL AND DISTRIBUTED ALGORITHMS [ROOM NO- 3AB]
4:00 PM – 5:30 PM	SESSION 8: IoT ARCHITECTURES & PROTOCOL; ARTIFICIAL INTELLIGENCE TOOLS & APPLICATIONS; APPLICATIONS OF IoT [ROOM NO- 307]
4:00 PM – 5:30 PM	SESSION 9: APPLICATIONS OF 10T; SECURITY, TRUST AND PRIVACY [ROOM NO- 308]

PARALLEL SESSIONS

	SESSION 1: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING					
	SESSION CHAIR: ROGER ROZARIO A P (SRI RAMAKRISHNA INSTITUTE OF TECHNOLOGY, INDIA)					
		SESSION TIME: 9:30 AM – 10.45 AM				
TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY			
9.30 AM – 9.45 AM	1571013020	Multi-Tier Arrhythmia Detection: Achieving AI Hardware Compatibility Across Diverse Nodes	Adarsha Bhattarai (University of Nebraska - Lincoln, USA); Yutong Liu (University of Nebraska Medical Center, USA); Dongming Peng (University of Nebraska-Lincoln, USA)			
9.45 AM -10.00 AM	1571008569	Enhancing Pedestrian Safety: Predicting Movements With Deep Learning Models	Faria Farzana and Damian Valles (Texas State University, USA)			
10.00 AM – 10.15 AM	1571009109	Traffic Safety Through Machine Learning: A Study of Crash Severity Factors	Saddam Hossain (Texas State University & University of Texas, Austin, USA); Damian Valles (Texas State University, USA)			
10.15 AM -10.30 AM	1571004278	A Deep Learning Network for Classification and Visual Deterioration Detection of Concrete Surfaces	Deepanraj Balakrishnan and Hiren Mewada(Prince Mohammad Bin Fahd University, Saudi Arabia)			

	SESSION 2: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING SESSION CHAIR: GIANLUCA RIZZO (HES SO VALAIS, SWITZERLAND & UNIVERSITA' DI FOGGIA, ITALY)						
TIME ALLOTTED	SESSION TIME: 9:30 AM – 10.30 AM (DAY 1: 29th May 2024)TIME ALLOTTEDPAPER IDPAPER NAMEAUTHORS WITH AFFILIATION & COUNTRY						
9.30 AM – 9.45 AM	1571011072	Ultrasonic Frequency Anomaly Localization With Machine and Deep Learning	Evan R Smith, Antonio T Grahm, Joni E McCawley and Damian Valles (Texas State University, USA)				
9.45 AM – 10.00 AM	1571012751	Reinforcement Learning-Driven Adaptive Traffic Routing Role Delegation for Enhanced SDN Network Performance	Harsh Kumar, Petro Mushidi Tshakwanda, Sisay Tadesse Arzo and Michael Devetsikiotis (University of New Mexico, USA); Fabrizio Granelli (University of Trento, Italy)				
10.00 AM -10.15 AM	1571013350	Dataset Enlargement With Generative Adversarial Neural Networks	Gavin E Jackson and Damian Valles (Texas State University, USA)				

	SESSION 3: SECURITY, TRUST AND PRIVACY				
		SESSION CHAIR:			
		SESSION TIME: 9:30 AM – 11:00 AM (I	DAY 1: 29th May 2024)		
TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY		
9.30 AM – 9.45 AM	1571019353	Enhancing Data Security and Privacy Through Classification-Based Adaptive Encryption	Razaq Jinad, Tosin Akinsowon, Chukwuemeka Ihekweazu and Min Kyung An (Sam Houston State University, USA)		
9.45 AM -10.00 AM	1571011721	Smart Meter Performance Under Wired and Wireless Cyber Security Attack	Harsh Kumar (University of New Mexico, USA); Sanjeev Kumar (University of Texas - RGV, USA); Patrick Nnaji (University of Texas Rio Grande Valley, USA)		
10.00 AM – 10.15 AM	1571013021	Secure BACnet Device Communication and Verification for MS/TP Networks	Tsion M Yimer (Morgan State University, USA); Otily Toutsop (Morgan State University & CREAM LAB, USA); Kevin Kornegay (Morgan State University, USA)		
10.15 AM -10.30 AM	1571012443	Risk Assessment of Cybersecurity IoT Anomalies Through Cyber Value at Risk (CVaR)	Prashant Vajpayee and Gahangir Hossain (University of North Texas, USA)		
10:30 AM - 10.45 AM	1571019349	Enhanced Approaches to Similarity Analysis on Car Accident Reconstruction	Damilola Oladimeji, Chiamaka Femi-Adeyinka, Juli Dutta and Min Kyung An (Sam Houston State University, USA)		

COFFEE BREAK	11:00 AM- 11:30AM
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KEYNOTE SESSION [DAY 1: 29TH MAY 2024]

TIME	NAME OF THE EVENT
11:30 AM – 12:15 PM	KEYNOTE ADDRESS BY V JOHN MATHEWS (PROFESSOR, OREGON STATE UNIVERSITY, USA)
	TITLE OF TALK: INTUITIVE CONTROL OF BIONIC LIMBS FOR AMPUTEES AND PEOPLE WITH SPINAL CORD INJURIES
12:15 PM – 1:00 PM	KEYNOTE ADDRESS BY CHANDRA KRINTZ (PROFESSOR, UNIVERSITY OF CALIFORNIA, SANTA BARBARA, USA)
	TITLE OF TALK: SUSTAINABLE IOT SYSTEMS FOR DIGITAL AGRICULTURE

1:00 AM-2:00 AM	LUNCH BREAK
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	SESSION 4: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING				
	SESSION C	CHAIR: DAMIAN VALLES (TEXAS	S STATE UNIVERSITY, USA)		
	5	SESSION TIME: 2:00 PM – 3:15 PM	I (DAY 1: 29th May 2024)		
TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY		
2.00 PM – 2.15 PM	1571016374	Supply-Demand Balancing and Fairness Enhancement in Ride-Sharing Services: A Graph Reinforcement Learning Based Approach	Jiyao Li and Vicki Allan (Utah State University, USA)		
2.15 PM – 2.30 PM	1571013042	Advancements in AI-Driven Customer Service	Mona Esmaeili and Mohammad Ahmadi (University of New Mexico, USA); Mohammad David Ismaeil (Islamic Azad University, Iran); Sharareh Mirzaei (University of New Mexico, USA); Jorge Canales Verdial (Central New Mexico Community College, USA)		
2.45 PM -3.00 PM	1571009916	A Transformer-Based Framework for Payload Malware Detection and Classification	Kyle R Stein (University of West Florida & Institute for Human and Machine Cognition, USA); Arash Mahyari (IHMC & UWF, USA); Guillermo Francia and Eman El-Sheikh (University of West Florida, USA)		

	SESSION 5: APPLICATIONS OF IoT; ARTIFICIAL INTELLIGENCE TOOLS & APPLICATIONS					
	SESSION CHAIR: ROGER ROZARIO A P (SRI RAMAKRISHNA INSTITUTE OF TECHNOLOGY, INDIA)					
		SESSION TIME: 2:00 PM – 3:30 PM				
TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY			
2.00 PM – 2.15 PM	1571001577	Iridium Based Agronomical System	Bharath Kumar N g (George Mason University, USA); Omid Nia (GMU, USA)			
2.15 PM – 2.30 PM	1571015746	Boxing Strike Classification From Wearable IMU Sensor Unit	Cheol-Hong Min (University of St. Thomas, USA); Chris Nagel (Alpine Laser, USA)			
2.30 PM – 2.45 PM	1571012901	Quantitative Evaluation of KIRETT Wearable Demonstrator for Rescue Operations	Mubaris Nadeem, Johannes Zenkert, Lisa Bender and Christian Weber (University of Siegen, Germany); Madjid Fathi (Universität Siegen, Germany)			
2.45 PM -3.00 PM	1571015406	Gamifying AI Education for Young Minds: The TransAI Adventure in Learning	Mehdi Roopaei (University of Wisconsin - Platteville, USA); Ryan Roopaei (Hoover Elementary School, Dubuque, IA, USA)			
3.00 PM – 3.15 PM	1571012813	DIM-YOLO: Desktop Item Management System Based on YOLO	Chencheng Tang (Peking University, China); Jiahao Fan, Qilong Shi and Zhen Chen (Tsinghua University, China); Kaiwen Men (Tsinghua University & University of Washington, USA); Yaodong HU, Changxu Sun, Min Guo, Yisong Zhang and Xiaodong Ma (Tsinghua University, China)			

SESSION 6: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING				
		SSION CHAIR: ZHEN CHEN (TSIN	, ,	
	S	ESSION TIME: 2:00 PM – 3:30 PM (I	DAY 1: 29th May 2024)	
TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY	
2.00 PM – 2.15 PM	1571013331	Classification of Microcystin Based on Temperature Data in North Dakota Lakes	Meera Gopinath Sujatha (University of North Dakota, USA); Prakash Ranganathan (University of North Dakota, United Kingdom (Great Britain))	
2.15 PM – 2.30 PM	1571013410	Smart Feeding: Integrating Deep Learning Into Dairy Farm Practices	Kyle T King (University of Wisconsin Platteville, USA); Mehdi Roopaei and Caleb Thornton (University of Wisconsin - Platteville, USA)	
2.30 PM – 2.45 PM	1571016197	Network Intrusion Detection Using a Stacking of AI-Driven Models With Sampling	Samar G Aboulela (Toronto Metropolitan University, Canada & Alexandria University, Egypt); Rasha Kashef (Toronto Metropolitan University, Canada)	
2.45 PM -3.00 PM	1571012989	Wavelet-Based fMRI Analysis for Autism Spectrum Disorder Detection Using Feature Selection and Ridge Classifier	Fatemehsadat Ghanadi Ladani and Nader Karimi (Isfahan University of Technology, Iran); Pejman Khadivi and Shadrokh Samavi (Seattle University, USA)	
3.00 PM – 3.15 PM	1571013428	Robust Training on the Edge: Federated vs.Transfer Learning for Computer Vision in Intelligent Transportation Systems	Sergei Chuprov, Raman Zatsarenko, Dmitrii Korobeinikov and Leon Reznik (Rochester Institute of Technology, USA)	

3:30 PM- 4:00 PM

SESSION 7: SYSTEMS AND SOFTWARE ENGINEERING; COMPUTER VISION AND SPEECH; PARALLEL AND DISTRIBUTED ALGORITHMS

SESSION CHAIR:				
	SESSION TIME: 4:00 PM – 5.00 PM (DAY 1: 29th May 2024)			
TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY	
4.00 PM – 4.15 PM	1571004301	Low-Power Embedded ECG Acquisition System for Real-Time Monitoring and Analysis	Hiren Mewada and Deepanraj Balakrishnan (Prince Mohammad Bin Fahd University, Saudi Arabia)	
4.15 PM – 4.30 PM	1571007116	Federated Learning for Potato Leaf Disease Detection Using CNN	Marufa Kamal, Rakib Hossain Rifat and Abanti Chakraborty Shruti (BRAC University, Bangladesh); Mohd Ariful Haque (Clark Atlanta University, USA); Kishor Datta Gupta (Clark Atlanta University, USA & Silicon Orchard Ltd, Bangladesh); Roy George (Clark Atlanta University, USA)	
4.30 PM – 4.45 PM	1571011942	Context-Aware Orchestration of Energy- Efficient Gossip Learning Schemes	Mina Aghaei Dinani (HES SO Valais, Switzerland); Adrian Holzer (École Polytechnique Fédérale de Lausanne, Switzerland); Hung Xuan Nguyen (University of Adelaide, Australia); Marco G Ajmone Marsan (IMDEA Networks Institute, Spain); Gianluca Rizzo (HES SO Valais, Switzerland & Universita' di Foggia, Italy	
4.45 PM - 5.00 PM	1571014176	PyroScan: Wildfire Behavior Prediction System Using Unmanned Aerial Vehicles (UAV)	Derek Thompson, Parker Padgett, Timothy Cary Johnson and Bhaskar Ghosh (Arkansas Tech University, USA)	

SESSION 8: IoT ARCHITECTURES & PROTOCOL; ARTIFICIAL INTELLIGENCE TOOLS & APPLICATIONS; APPLICATIONS OF IoT			
S	SESSION CHAIR: RO	GER ROZARIO A P (SRI RAMAKR	ISHNA INSTITUTE OF TECHNOLOGY, INDIA)
	SESS	SION TIME: 4:00 PM – 5:30 PM	(DAY 1: 29th May 2024)
TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
4.00 PM – 4.15 PM	1571011707	Reducing Cyber Risks in IoT Device Resource Management: A Probabilistic Banker's Algorithm Approach	Enamul Hassan and Gahangir Hossain, Prashant Vajpayee (University of North Texas, USA)
4.15 PM – 4.30 PM	1571012869	Student Retention Model via Machine Learning & Predictive Analysis	Milka C I Madahana, Dr. (University of the Witwatersrand, South Africa)
4.30 PM – 4.45 PM	1571013338	An Energy Efficiency Evaluation of the LTC3108 for Thermal Energy Harvesting	Mariana Marques Ferreira and Maria Paula Medeiros Gomes Miguel (Federal University of Paraíba, Brazil); Cleonilson Protasio de Souza (Federal University of Paraiba, Brazil); Yajun An (University of Washington-Tacoma, USA); Orlando Baiocchi (University of Washington Tacoma, USA)
4.45 PM - 5.00 PM	1571013437	An Experimental Evaluation of a Thermal Energy Harvesting System for IoNT	Maria Paula Medeiros Gomes Miguel and Mariana Marques Ferreira (Federal University of Paraíba, Brazil); Cleonilson Protasio de Souza (Federal University of Paraiba, Brazil); Yajun An (University of Washington-Tacoma, USA); Orlando Baiocchi (University of Washington Tacoma, USA)
5.00 PM – 5.15 PM	1571013352	ResNet50 Pretrained Model Based Pneumonia Detection System	Moses Olaifa, Pius Adewale Owolawi and Mohale Tshwale (Tshwane University of Technology, South Africa)

SESSION 9: APPLICATIONS OF IoT; SECURITY, TRUST AND PRIVACY SESSION CHAIR: DAMIAN VALLES (TEXAS STATE UNIVERSITY, USA) SESSION TIME: 4:00 PM – 5:00 PM (DAY 1: 29th May 2024)					
TIME ALLOTTED					
4.00 PM – 4.15 PM	1571015748	Watermarking Using Polymorphic Algorithms for Increased Data Security	MandeepSingh (Santa Clara University, USA); Albert H Carlson (Austin Community College, USA)		
4.15 PM – 4.30 PM	1571013430	Preserving Medical Data With Renyi Differential Privacy	Olusola Tolulope Odeyomi (North Carolina A and T University, USA); Harshitha Karnati and Austin Smith (North Carolina Agricultural and Technical State University, USA)		
4.30 PM – 4.45 PM	1571004895	Agriculture 5.0 Cybersecurity: Monitoring Agricultural Cyber Threats With Digital Twin Technology	Kossi D Bissadu and Gahangir Hossain, Prashant Vajpayee (University of North Texas, USA)		

Day 2: 30TH May 2024

TIME	PARALLEL SESSION
9:30 AM-11:00 AM	SESSION 10: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING
	[ROOM NO- 3AB]
9:30 AM-11:00 AM	SESSION 11: SECURITY FOR IOT; IOT ARCHITECTURES & PROTOCOL; IOT ENABLING TECHNOLOGIES
	[ROOM NO- 307]
9:30 AM-11:00 AM	SESSION 12: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING
	[ROOM NO- 308]
11:30 PM – 1.00 PM	KEYNOTE SESSION
	[ROOM NO- 3AB]
2.00 PM-3:30 PM	SESSION 13: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING
	[ROOM NO- 3AB]
2.00 PM-3:30 PM	SESSION 14: NEURAL NETWORKS; ROBOTICS AND MACHINE VISION
	[ROOM NO- 307]
2.00 PM-3:30 PM	SESSION 15: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING
	[ROOM NO- 308]
4.00 PM- 5:30 PM	SESSION 16: PATTERN RECOGNITION AND NLP AND AI
	[ROOM NO- 3AB]
4:00 PM- 5:30 PM	SESSION 17: ARTIFICIAL INTELLIGENCE, SECURITY AND CAD DESIGN [ROOM NO- 307] [VIRTUAL SESSION]

	SESSION 10: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING			
SE	CSSION CHAIR: (OLUSOLA TOLULOPE ODEYOMI (NOR AND TECHNICAI	ATH CAROLINA AGRICULTURAL L UNIVERSITY, USA)	
		SESSION TIME: 9:30 AM-11:00 AM (
TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY	
9.30 AM – 9.45 AM	1571013370	Enhanced Nuclei Segmentation in Histopathological Images Using a Novel Preprocessing Pipeline and Deep Learning	Ali Tamizifar and Pouya Behzadifar (Isfahan University of Technology, Iran); Zahra Sobhaninia (University of Copenhagen & Electronic and Computer, Denmark); Nader Karimi (Isfahan University of Technology, Iran); Pejman Khadivi and Shadrokh Samavi (Seattle University, USA)	
9.45 AM -10.00 AM	1571016051	Enhancing IoT Botnet Attack Detection in SOCs With an Explainable Active Learning Framework	Rajesh Kalakoti (Tallinn University of Technology, Estonia); hayretdin bahsi (Taltech, Estonia); Sven Nomm (Tallinn University of Technology, Estonia)	
10.00 AM - 10.15 AM	1571014939	Trust-Based Anomaly Detection in Federated Edge Learning	Raman Zatsarenko, Sergei Chuprov, Dmitrii Korobeinikov and Leon Reznik (Rochester Institute of Technology, USA)	
10.15 AM -10.30 AM	1571016378	A Neural Network Based Deep Reinforcement Learning Controller for Voltage Regulation of Active Distribution Network	Jatin Jain (City University of New York, USA)	
10:30 AM – 10.45 AM	1571015480	Prediction of Dissolved Oxygen in Shrimp Pond Using Dolphin Glow Worm Optimization Based Radial Basis Function Neural Network	Roger Rozario A P (Sri Ramakrishna Institute of Technology, India)	

	SESSION 11: SECURITY FOR IoT; IoT ARCHITECTURES & PROTOCOL; IoT ENABLING TECHNOLOGIES SESSION CHAIR: ALEX SUMARSONO (CALIFORNIA STATE UNIVERSITY, EAST BAY, USA)				
	S	ESSION TIME: 9:30 AM-11.00 AM (I	DAY 2: 30 TH MAY 2024)		
TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY		
9.30 AM – 9.45 AM	1571013013	RFID-PIN Access Control System: Cost- Effective Security for Smart Home Applications	Eric K Rivera, Zoe S Statzer and Hayssam El- Razouk (California State University, Fresno, USA); Zoulikha Mouffak (California State University Fresno, USA)		
9.45 AM -10.00 AM	1571016372	Automated Waste Management Using a Customized Vision-Based Transformer Model	Rasha Kashef, Tasnim Prova, Sakshi Aggarwal and Edwin Philippe Alegre (Toronto Metropolitan University, Canada)		
10.00 AM – 10.15 AM	1571013431	Computationally Efficient Global Optimization of Labelling in Non-Uniform QAM Constellations	Brett Wiens and Daniel Lee (Simon Fraser University, Canada)		
10.15 AM -10.30 AM	1571013266	ULDP: A User-Centric Local Differential Privacy Optimization Method	Wenjun Yang and Eyhab Al-Masri (University of Washington Tacoma, USA)		
10:30 AM – 10.45 AM	1571013106	Scene Based Programming for IoT Applications Development	Tianxiao Lin and Yuxiang Lin (Guanglun Electronic Technology, China); Zhen Chen, Yisong Zhang, Xiaodong Ma, Min Guo and Ying Gao (Tsinghua University, China); Kaiwen Men (Tsinghua University & University of Washington, USA)		

	SESSION 12: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING SESSION CHAIR: DAMIAN VALLES (TEXAS STATE UNIVERSITY, USA)			
		SESSION TIME: 9:30 AM-11.00 AM (DAY 2: 30 TH MAY 2024)	
TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY	
9.30 AM – 9.45 AM	1571013028	Digital Twins for Stress Management Utilizing Synthetic Data	Sandra Kumi (University of Saskatchewan, Canada); Madhurima Ray (Penn State University, USA); Sanskriti Walia and Richard Lomotey (Pennsylvania State University, USA); Ralph Deters (University of Saskatchewan, Canada)	
9.45 AM -10.00 AM	1571013445	AI-Based Detection for Remote Electrocardiogram Monitoring System	Sanjeev Kumar (University of Texas - RGV, USA); Maximiliano Garcia (The University of Texas - RGV, USA)	
10.00 AM - 10.15 AM	1571013004	Preserving Details in Darkness: A VQ-VAE Based Approach With SSIM Loss for Low-Light Image Enhancement	Farzaneh Koohestani (Isfahan University of Technology, Iran); Zahra Nabi Zadeh Shahr Babak (Isfahan University of Technology & McMaster, Canada); Nader Karimi (Isfahan University of Technology, Iran); Shadrokh Samavi (McMaster University, Canada)	
10.15 AM -10.30 AM	1571016475	Performance Analysis of Machine Learning Algorithms on Imbalanced DDoS Attack Dataset	Sanjeev Kumar, Hansapani Rodrigo and Dipok Deb (University of Texas - RGV, USA)	
10:30 AM - 10.45 AM	1571014484	Using AI and Big Data in the HealthCare Sector to Help Build a Smarter and More Intelligent Healthcare System	Sanjeev Kumar Marimekala (IBM, USA); John Lamb (Pace University, USA); Robert Epstein (IBM, USA); Vasundhara Bhupathi (DXC Technology, USA)	

11:00 AM-11:30 AM	COFFEE BREAK

TIME	NAME OF THE EVENT
11:30 AM-12:15 AM	ROBERT HIROMOTO (PROFESSOR, UNIVERSITY OF IDAHO, USA)
	TITLE OF TALK: A NARROW AI PERSPECTIVE ON SECURING IOT SYSTEMS
	M. REZA ALAM
12:15 AM-1:00 PM	(PROFESSOR, UNIVERSITY OF BERKLEY, USA)
	TITLE OF TALK: UNDERWATER WIRELESS COMMUNICATION THROUGH A SWARM OF SUPER-AGILE AUTONOMOUS UNDERWATER VEHICLES

1:00 PM-2.00 PM	LUNCH BREAK
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	PARALLEL SESSIONS			
	SESSION 13: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING			
			NNESSEE STATE UNIVERSITY, USA)	
	SESSION	FIME: 2.00 PM-3:30 PM (DAY 2: 30TH		
TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY	
2.00 PM – 2.15 PM	1571013010	Enhanced Segmentation in Abdominal CT Images: Leveraging Hybrid CNN-Transformer Architectures and Compound Loss Function	Fatemeh Piri and Nader Karimi (Isfahan University of Technology, Iran); Shadrokh Samavi (McMaster University, Canada)	
2.15 PM – 2.30 PM	1571011348	Inference-Optimized Metaheuristic Approach for a Prospective AI Training/Inference Inversion Paradigm in Optimized Energy- Aware Computing	Steve Chan (Harvard University, USA)	
2.30 PM – 2.45 PM	1571012446	Improved Polyp Segmentation of Irregular Shapes in Colonoscopy Images	Swagat Ranjit, Bijaya karki and Jian Zhang (Louisiana State University, USA)	
2.45 PM -3.00 PM	1571013394	Programming by Demonstration Using Mixed Reality and Simulated Kinematics	Taylor C. Washington and Winston Sealy (Purdue University, USA)	
3.00 PM – 3.15 PM	1571015716	Cascading Succession of Models for an Enhanced Long-Tail Discernment AI System	Steve Chan (Harvard University, USA)	

	SESSION 14: NEURAL NETWORKS; ROBOTICS AND MACHINE VISION			
	SESSION CHAIR: OLUSOLA TOLULOPE ODEYOMI (NORTH CAROLINA AGRICULTURAL			
	SESSION	AND TECHNICAL UNIVERS TIME: 2.00 PM-3:30 PM (DAY 2: 30		
TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY	
TIME MELOTIED				
2.00 PM – 2.15 PM	1571008082	Model Order Estimation for Sensor Array Observations Using a Neural Network	Kaushallya Adhikari and Ridhab Al Kinani (University of Rhode Island, USA)	
2.15 PM – 2.30 PM	1571013387	GA-Net: Global-Aware Attention-Guided CNN for Food Image Classification	Alvin Wang (Bridgeland High School, USA); Lujun Zhai (Prairie View A&M University, USA)	
2.30 PM – 2.45 PM	1571013725	Dissecting the Origins of the Power Side- Channel in Deep Neural Networks	Sayed Erfan Arefin and Abdul Serwadda (Texas Tech University, USA)	
2.45 PM -3.00 PM	1571012762	Design of Autonomous Rover for Firefighter Rescue: Integrating Deep Learning With ROS2	Saad A Rafiq and Erich S Ellsworth (High-Performance Engineering Research Group, USA); Oscar Resendiz (USA); Susmitha Haripriya Varanasi, Adenrele Adeniyi Ishola, Rachel Koldenhoven, John W Farrell III, Yumeng Li, Maria D Resendiz, Semih Aslan and Damian Valles (Texas State University, USA); Ting Liu (Texas A&M University-San Antonio, USA)	
3.00 PM – 3.15 PM	1571011338	Autonomously Reconfigurable Robot Coupled With Intelligent Vision and Control System for Rapid Runtime Adaptation	Gvarami Labartkava and Nurin Binti Suhaimi (Independent Researcher, Canada); Thiago Silva (Seneca Polytechnic, Canada); Lev Kirischian (Ryerson University, Canada)	

SESSION 15: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING SESSION CHAIR: ALEX SUMARSONO (CALIFORNIA STATE UNIVERSITY, EAST BAY, USA)			
		FIME: 2.00 PM-3:30 PM (DAY 2: 30 ^{TF}	
TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
2.00 PM – 2.15 PM	1571012083	"Hyper Photography" Artifact: An Interactive Aesthetic Education Experience Device Based on AIGC	Yishan Liu, Zhen Chen, Xin Xie, Yaodong HU, Lie Zhang and Weiran Lin (Tsinghua University, China); Kaiwen Men (Tsinghua University & University of Washington, USA); Shuangshou Li (Tsinghua University, China)
2.15 PM – 2.30 PM	1571011391	Modeling Dynamic Elasticity on Intraday Volatility and Volume by Finding PDEs Using Machine Learning	Daming Li (New Jersey Institute of Technology); Zy Li (Computer & Math Institute, USA); Angela Li (Stony Brook University, USA)
2.30 PM – 2.45 PM	1571012954	Murder Mystery Game Script Compose Based on a Large Language Model	Jiameng Li, Zhen Chen and Weiran Lin (Tsinghua University, China); Liang-jun Zou (Beijing University of Technology, China); Xin Xie and Yaodong HU (Tsinghua University, China)
2.45 PM -3.00 PM	1571013378	Big Data and the Application of IoT Systems	Otily Toutsop (Morgan State University & CREAM LAB, USA); Tsion M Yimer and Kevin Kornegay (Morgan State University, USA)
3.00 PM – 3.15 PM	1571002848	Fusion Models for Cyber Threat Defense: Integrating Clustering, Random Forests, and SVM to Against Windows Malware	Azita Ramezani (University of Cleveland & Cleveland State University, USA)

3.30 PM- 4.00 PM	COFFEE BREAK

	SESSION 16: PATTERN RECOGNITION AND NLP AND AI				
	SESSION CHAIR: ZHEN CHEN (TSINGHUA UNIVERSITY, CHINA)				
		ESSION TIME: 4:00 PM- 5:30 PM (I			
TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY		
4.00 PM – 4.15 PM	1571012015	An Open Source Framework for Benchmarking Cyberbullying Detection on Social Media	Parisa Hajibabaee (Florida Polytechnic University, USA); Mohsen Ahmadi (Arizona State University (ASU), USA & Apple Inc, Cisco Systems, USA); Roya Salek Shahrezaie (University of Nevada, Reno, USA)		
4.15 PM – 4.30 PM	1571013246	Minimum Distance Receiver Using Dynamic Programming-Based Sparse Samples	Zaynah L. Kalaoun, Kaushallya Adhikari and Steven Kay (University of Rhode Island, USA)		
4.30 PM – 4.45 PM	1571005889	Phishing URL Detection Using Machine Learning and Deep Learning	Rawshon Ferdaws and Nahid Ebrahimi Majd (California State University San Marcos, USA)		
4.45 PM – 5.00 PM	1571015420	Product Recommendation System Using Large Language Model: Llama-2	Muhammad Zaid Muhammad Ashfak Katlariwala (Btech AIML P P Savani University, India); Mr Aakash Gupta (Assistant Professor, India)		
5.00 PM – 5.15 PM	1571015884	Hybrid Data-Driven Learning-Based Internet of Things Network Intrusion Detection Model	Oyeniyi Akeem Alimi (Durban University of Technology, South Africa)		
5.15 PM – 5.30 PM	1571013398	Scalable Multimodal Machine Learning for Cervical Cancer Detection	Jiblal Upadhya (Middle Tennessee State University & USA, USA); Khem Poudel, Samir Poudel, Thuan Nhan and Satish Wagle (Middle Tennessee State University, USA)		
5.30 PM – 5.45 PM	1571012263	Arbitrated Packet Switching With Machine Learning Driven Data Plane	Alex Sumarsono, Bhuvana Prakash and Christian Leon (California State University, East Bay, USA)		

	SESSION 17: ARTIFICIAL INTELLIGENCE, SECURITY AND CAD DESIGN				
	SESSION CHAIR: RICHARD LOMOTEY (PENNSYLVANIA STATE UNIVERSITY, USA SESSION TIME: 4.00 PM- 5.45 PM (DAY 2: 30TH MAY 2024)				
		TION LINK: https://zoom.us/j/41092			
TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY		
4.00 PM – 4.15 PM	1571014783	Dissection of Rorschach Ransomware	Dharati Dholariya (Rashtriya Raksha University & Maulana Azad University, India); Dixit Panchal (Quickheal Technologies Ltd, India); Pallavi Singhal (Maulana Azad University, India)		
4.15 PM – 4.30 PM	1571014283	Deep Learning Based Cyber Attack Detection in Power Grids With Increasing Renewable Energy Penetration	Velmanickam Logeeshan, Sisil Kumarawadu, Sasika Prasad Dayarathne, Serani Madhushika Jayathilaka and Venura Avishka (University of Moratuwa, Sri Lanka)		
4.30 PM – 4.45 PM	1571016054	Secure Data Provenance in Internet of Vehicles With Data Plausibility for Security and Trust	Anuj Nepal and Robin Doss (Deakin University, Australia); Frank Jiang (Australia, Australia); Mohamed Ahzam Amanullah (Deakin University, Australia)		
4.45 PM – 5.00 PM	1571005085	Comparative Analysis of Physical Design Parameters for JPEG Encoder IP Using OpenROAD	Purav Bhatt and Shrikant S Jadhav (San Jose State University, USA)		
5.00 PM – 5.15 PM	1571014277	Self-Adaptive Non-Intrusive Load Monitoring Using Deep Learning	Velmanickam Logeeshan, Sisil Kumarawadu, Shehan M L Arampola, Wijesinghage Arunadee Yasodya and Kashmith Nisakya (University of Moratuwa, Sri Lanka)		
5.15 PM – 5.30 PM	1571015318	Evaluation of Protocol-Centric Intrusion Detection Systems(IDS) for the Internet of Medical Things (IoMT) Leveraging Machine Learning Techniques	Puthiyavan Udayakumar (Vels University, India)		
5.30 PM – 5.45 PM	1571013427	Optimizing Cervical Cancer Prediction, Harnessing the Power of Machine Learning for Early Diagnosis	Mahadi Hasan (The University of Tennessee at Chattanooga, USA); Jahirul Islam (New Mexico Institute of Mining and Technology, USA); Miraz Al Mamun (Christus Health, USA)		

Day 3: 31ST May 2024

TIME	PARALLEL SESSION
9:30 AM-11.00 AM	SESSION 18: ROBOTICS AND SECURITY, IoT [virtual session] [ROOM NO- 3AB]
9:30 AM-11.00 AM	SESSION 19: SECURITY AND ARTIFICIAL INTELLIGENCE [ROOM NO- 307]
9.30 AM -11.30 AM	WORKSHOP [ROOM NO- 308]
11:30 PM – 1.00 PM	KEYNOTE SESSION [ROOM NO- 3AB]
2.00 PM – 3.00 PM	VALECDICTORY SESSION [ROOM NO- 3AB]

	SESSION 18: ROBOTICS AND SECURITY, IoT				
	SESSION CHAIR: GAHANGIR HOSSAIN (UNIVERSITY OF NORTH TEXAS, USA) SESSION TIME: 9.30 AM-11.15 AM (DAY 3: 31ST MAY 2024)				
		TION LINK: https://zoom.us/j/48974			
TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY		
9.30 AM – 9.45 AM	1571012716	SVM for Classification of Ten-Finger Imagined Movements Using tEEG Signals	Kaushallya Adhikari, Rafael da Luz Barbosa and Walter Besio (University of Rhode Island, USA)		
9.45 AM -10.00 AM	1571014274	Accurate Prediction of Remaining Useful Life for Lithium-Ion Battery Cells Using Deep Neural Network	Velmanickam Logeeshan, Shamaltha Mangala Wickramaarachchi, Dewmini Suraweera and Dissanayake M. P. Akalanka (University of Moratuwa, Sri Lanka)		
10.00 AM – 10.15 AM	1571014279	Development of Deep Learning Model to Detect Cyber-Attacks Within Vehicular Networks	Velmanickam Logeeshan, Dinushka Sandakelum Ramanayaka, Sisil Kumarawadu, Vashitha Hansaka Liyanage and Panchanie Manusha Chandrasekara (University of Moratuwa, Sri Lanka)		
10.15 AM -10.30 AM	1571013214	Internet of Things Security and Data Privacy Concerns in Smart Farming	Emmanuel Kojo Gyamfi, Jess Kropczynski, Joe Johnson and Mustapha A Yakubu (University of Cincinnati, USA)		
10:30 AM – 10.45 AM	1571012358	Anonymous Batch Message Authentication Aided by Edge Servers in Industrial Internet of Thing	Han Yu and Jianhong Zhou (Xihua University, China); Maode Ma (Qatar University, Qatar)		
10.45 AM-11.00 AM	1571012824	EAIA: An Efficient and Anonymous Identity Authentication Protocol for V2V Communications in Internet of Vehicles	Qianmin Du and Jianhong Zhou (Xihua University, China); Maode Ma (Qatar University, Qatar)		
11.00 AM-11.15 AM	1571016052	Human Occupancy From Few Diverse Sensors	Sudarshan S Chawathe (University of Maine, USA)		

	SESSION 19: SECURITY AND ARTIFICIAL INTELLIGENCE SESSION CHAIR: RICHARD LOMOTEY (PENNSYLVANIA STATE UNIVERSITY, USA)				
	SESSION CHARK. KICHARD LOMOTET (TERUSTLIVAUR STATE UNIVERSITT, USA) SESSION TIME: 9:30 AM-11.00 AM (DAY 3: 31 ST MAY 2024)				
TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY		
9.30 AM – 9.45 AM	1571013326	A Comprehensive Systematic Review of Blockchain-Based Intrusion Detection Systems	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); Vladimir K. Poulkov (Technical University of Sofia, Bulgaria)		
9.45 AM -10.00 AM	1571017466	Enhancing AI Systems With Agentic Workflows Patterns in Large Language Models	Aditi Singh (Cleveland State University, USA); Abul Ehtesham (The Davey Tree Expert Company, USA); Saket Kumar (The Mathworks, USA); Tala Talaei Khoei (Northeastern University, USA)		
10.00 AM -10.15 AM	1571013066	Large Language Model-Driven Immersive Agent	Aditi Singh (Cleveland State University, USA); Saket Kumar (The Mathworks, USA) ; Abul Ehtesham (The Davey Tree Expert Company, USA); Tala Talaei Khoei (Northeastern University, USA); Deepshikha Bhati (Kent State University, USA)		
10.15 AM -10.30 AM	1571017464	Exploring Fine-Grained Feature Analysis for Bird Species Classification Using Layer-Wise Relevance Propagation	Kyle Arquilla, Ishan Dilipbhai Gajera and Deepshikha Bhati (Kent State University, USA); Aditi Singh (Cleveland State University, USA); Angela Guercio (Kent State University, USA)		

Dr. P	Workshop on Aspects of Virtual Reality By hillip Bradford (University of Connecticut, Stamford, USA)	9.30 AM – 11.30 AM
11:00 AM-11:30 AM	COFFEE BREAK	

TIME	NAME OF THE EVENT
11:30 AM-12:15 PM	GARRISON W. COTTRELL (PROFESSOR, UNIVERSITY OF CALIFORNIA, SAN DIEGO, USA)
	TITLE OF TALK: AN ANATOMICALLY-INSPIRED MODEL OF THE VISUAL SYSTEM USING DEEP LEARNING
12:15 AM-1:00 PM	SATYAJIT CHAKRABARTI (PRESIDENT, IEM AMERICA CORPORATION)
	TITLE OF TALK: LATEST AI, IOT AND EMERGING TECHNOLOGY USE CASES IN THE INDUSTRY 4.0

LUNCH BREAK	1.00 PM-2.00 PM

VALEDICTORY SESSION	2.00 PM – 3.00 PM
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