Conference Recordings
Conference Proceedings
Advance Program
(IEEE AIxB/AIxHeart/AIxSET 2024)
(Last updated: September 28th)

- All times are in Pacific Standard Time (PST)
- For Presentation Instructions, see page 13

Sunday, September 29
19:00 - 20:30 — **Ice Breaker Pre-Conference Reception** (Location: Boardroom)

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Monday, September 30			
Time (PDT)	**Room 1 (in person: Crystal 1)** Zoom	**Room 2 (in person: Crystal 3)** Zoom	**Room 3 (in person: Slate Room)** Zoom (Note: If there is a Zoom link in the cell for the session you are trying to attend, please use the Zoom link in the cell)
08:00 - 08:30	**Check In (in person only)**		
08:30 - 09:00	**Opening** (Co-Chairs: Phillip Sheu, Fabio Persia, Gary Glesener, Marc Wagner, Julienne Greer)		
09:00 - 10:00	**Keynote 1: George F. Luger** University of New Mexico, USA *"Large Language Models: Their Promise and Problems"* (Chair:Joe Barr)		
10:00 - 10:15	**Coffee Break**		
10:15 - 11:20	**Session 1: (AIxSET-1)** (5 regular papers) (Chair: Pauline Kawamoto)	**Session 2: (AIxB-1)** (3 regular papers) (Chair: Sukrit Mittal)	**Session 3: (AIxSET-2)** (3 regular papers) (Chair: Bryan Chou)
11:20 -		**Session 4: (AIxHeart-1)**	**Session 5: (AIxSET-3)**

12:00		(3 regular papers) (Chair: David Ostrowski)	(2 regular papers) (Chair: Luca Muratore)
12:00 - 12:40			
12:40 - 13:30	Lunch (Crystal 2)		
13:30 - 14:00	Keynote 2: Wardah Inam Overjet, USA *"AI to improve patient outcomes"* (Chair: Gary Glessner)		
14:00 - 15:00			**Workshop on the Role of Data and AI in Health, Wealth and Wisdom: A K-12 perspective (I)** Workshop Program (Zoom link Chair: G. Mani)
15:00 - 16:00	Session 6: (AIxSET-4) Canceled	Session 7: (AIxB-2) (3 regular papers) (Chair: Changshuo Liu)	
16:00 - 16:20	Coffee Break		
16:20 – 18:00	Session 8: (AIxSET-5) (3 regular papers, 1 short paper) (Chair: Marc Böhlen)	Session 9: (AIxHeart-2) (3 regular papers, 1 short paper) (Chair: Chee-Hann Wu)	**Workshop on the Role of Data and AI in Health, Wealth and Wisdom: A K-12 perspective (II)** (Zoom link Chair: G. Mani)
18:20 - 20:00	Reception (Location:Emerald Lounge)		

Tuesday, October 1			
Time\ Place	Room 1 (in person: Crystal 1) Zoom	Room 2 (in person: Crystal 3) Zoom	Room 3 (in person: Slate Room) Zoom
08:00 - 09:00	Check In (in person only)		

Time			
09:00 - 10:00	**Keynote 3: Norbert Pohlmann** Westphalian University of Applied Sciences, Germany ***"AI and IT Security - More Security, More Threats"*** (Chair: Johannes Schick) (Zoom)		
10:00 – 10:15	**Coffee Break**		
10:15 - 11:00	**Session 10: (AIxSET-6)** (2 short papers) (Chair: Luca Muratore)	**Session 11: (AIxHeart-3)** (1 regular paper, 2 position papers) (Chair: David Ostrowski)	**Session 12: (AIxSET-7)** (1 invited paper, 1 regular paper) (Chair: Johannes Schick)
11:00 - 12:00	**13: (AIxSET-8)** (1 regular paper, 2 short papers) (Chair: Gary Glesener)	**Session 14: (AIxB-3)** (1 regular papers, 3 short papers, 1 position paper) (Chair: Fabio Persia)	
12:00 - 12:20			
12:20 – 14:00	**Lunch (Crystal 2)**		
14:00 - 15:00	**Keynote 4: Vishal Misra** Columbia University, USA ***"Title"*** (Chair: David Ostrowski) (Zoom)		
15:00 - 16:05	**Session 15: (AIxSET-9)** (1 regular paper, 2 short papers, 1 position paper) (Chair: Pauline Kawamoto)	**Session 16: (AIxHeart-4)** (3 regular papers) (Chair: Bryan Chou)	**Workshop on Combinatorial Methods in AI** (Chair: Joseph Barr)
16:05 - 16:20	**Coffee Break**		
16:20 - 16:45	**Session 17: (AIxSET-10)** (2 regular papers, 2 short papers, 1 position paper) (Chair: Roselyne Tchoua)	**Session 18: (AIxB-4)** (1 regular paper, 1 position paper) (Chair: Dipankar Dasgupta)	**Workshop on the Transformation of Marketing, Sales, and Branding with AI** (Chair: Sami Viitamäki)
16:45 - 17:50		**Session 19: (AIxHeart-5)** (3 regular papers) (Chair: Fabio Persia)	
17:50 - 18:25			

18:30 - 20:00	**Banquet** (Location: Villa Roma Restaurant) (map - 8 min. walk)		

Wednesday, October 2

Time\Place	Room 1 (in person: Crystal 1) Zoom	Room 2 (in person: Crystal 3) Zoom	Room 3 (in person: Slate Room) Zoom
08:00 - 08:30	**Check In (in person only)**		
08:30 - 09:30	**Keynote 5: Devavrat Shah** MIT, USA *"Role of Human Expertise in Algorithmic Prediction Tasks"* (Chair: Fabio Persia) (Zoom)		**Workshop on Robotics and AI (I)** (Chair: Luca Muratore)
09:30 – 10:00	**Coffee Break**		
10:00 – 11:00	**Keynote 6: Gerald Friedland** Amazon Research, USA *"The Scientific Method and Machine Learning"* (Chair: Robert Mertens) (Zoom)		
11:00 - 12:00	**Session 20: (AIxSET-11)** (1 regular paper, 2 short papers, 1 position paper) (Chair: Johannes Schick)	**Session 21: (AIxB-5)** (1 regular paper, 2 short papers) (Chair: Aman Shrestha)	**Workshop on Generative AI and Software Engineering** (Chair: David Ostrowski)
12:00 - 12:45	**Session 22: (AIxSET-12)** (2 short papers) (Chair: Robert Mertens)	**Session 23: (AIxHeart-6)** (1 regular papers, 1 short paper, 1 position paper) (Chair: Chee-Hann Wu)	
12:45 - 14:00	**Lunch (Crystal 2)**		

14:00 - 15:30	**Session 24: (AIxSET-13)** (3 regular papers, 1 short paper, 1 position paper) (Chair: Pauline Kawamoto)	**Session 25: (AIxB-6)** (1 regular paper, 2 short papers, 1 position paper) (Chair: Aman Shrestha)	
15:30 - 15:45	**Coffee Break**		
15:45 - 16:05	**Session 26: (AIxSET-14)** (3 regular papers) (Chair: Robert Mertens)	**Session 27: (AIxSET-15)** (3 invited papers) (Chair: Roselyne Tchoua)	
16:05 - 16:50			**Workshop on Robotics and AI (II)** (Chair: Luca Muratore)
16:50 - 17:25	**Session 28: (AIxSET-16)** (1 regular paper, 2 short papers) (Chair: Gary Glesener)	**Workshop on Ethical, Safe, and Governed Use of Generative AI in an Enterprise** (Chair: Daryush Laqab)	
17:25 - 17:55		**Workshop on Estimating and Measuring ROI of Generative AI Projects** (Chair: Daryush Laqab)	
17:55 - 18:15			
18:15 - 18:55			

Detailed Sessions (IEEE AIxSET 2024)

Presenting authors' names are underlined.
[R] Presenter will present remotely over Zoom.
[I] Presenter will present in person at the conference venue.

Session	Title
Session 1: **AIxSET-1 - Best Paper Session** (Chair: Pauline Kawamoto)	Anomaly Detection In Time Series Data Using Reinforcement Learning, Variational Autoencoder, and Active Learning (Regular Paper) <u>Bahareh Golchin</u>,[I] Banafsheh Rekabdar
	ZoDIAC: Zoneup Dropout Injection Attention Calculation for Image Captioning (Regular Paper) <u>Zanyar Zohourianshahzadi</u>,[R] Terrance Boult, Jugal Kalita
	A Transformer-Enabled Phonological Study of Genuine and Synthetic Voices (Regular Paper) <u>Sarah Reynolds</u>,[I] Daniel Machado, Omar Ochoa
	Opinion Graphs Construction for Reviews using Transfer Learning and Large Language Models (Regular Paper) Yichen Lin, <u>Petros Potikas</u>,[R] Katerina Potika

	Enhancing Bicyclist Volume Estimation with Data Fusion and Deep Learning Techniques (Regular Paper) Saba Izadkhah,[R] Andrew Wagner, Banafsheh Rekabdar, Joseph Broach, Sirisha Kothuri
Session 3: **AIxSET-2 - Large Language Models (I)** (Chair: Bryan Chou)	Fine-Tuning Large Language Models for Environmental Health and Safety Applications (Regular Paper) Mohammad Adil Ansari, Genya Ishigaki, William B Andreopoulos
	Integrating Clustering with Overlaps into Intelligent Agent Systems (Regular Paper) Peter Shaw, Joseph R. Barr, Faisal Abu-Khzam, Stephen Lean
	Now Streaming Sentiments: A Comparative Analysis of GPT and Gemini in Evaluation of OTT Streaming Show Reviews (Regular Paper) Srishti Chaudhary[R]
Session 5: **AIxSET-3 - Image Analysis and Processing (I)** (Chair: Luca Muratore)	Advancing Wildfire Predictive Models: A Novel Dataset for Next-Day Wildfire Spread (Regular Paper) Sunny Zhang,[R] Saanvi Mhatre,[R] Syed Ali, Ting Xiao
	Enhancing Lymph Node Classification in Rectal Cancer MRI Images through a Multi-Model Approach (Regular Paper) Rishit Gupta,[R] Yuji Iwahori, Kenji Funahashi, Manas K. Bhuyan, Manish Bhatt, Boonserm Kijsirikul, Aili Wang, Akira Ouchi, Yasuhiro Shimizu
Session 6: **AIxSET-4 - AI Applications (I)** **Canceled**	canceled
	moved to session 8
Session 8: **AIxSET-5 - Learning and Prediction (I)** (Chair: Marc Böhlen)	CP-PINNs: Data-Driven Changepoints Detection in PDEs Using Online Optimized Physics-Informed Neural Networks (Regular Paper) Zhikang Dong, Pawel Polak
	Data Protection Regulation Compliant Dataset Generation for LiDAR-based People Detection Using Neural Networks (Regular Paper) Lukas Haas,[R] Johann Zedelmeier, Florian Bindges, Matthias Kuba, Thomas Zeh, Martin Jakobi, Alexander Koch
	A Neural Network Model of Smoke Plume Dynamics for Arbitrary Wind Speeds and Landscapes (Regular Paper) Yash Ranjith[R]
	A Novel Diagnosis and Prognosis Model for the RUNX1 Mutation in AML f (Short Paper) Ajay Penugonda,[I] Pranav Kulkarni
Session 10: **AIxSET-6 - Image Analysis and Processing (II)** (Chair: Luca Muratore)	Enhancing the Binary Classification of Wildfire Smoke Through Vision-Language Models (Short Paper) Timothy Wei,[I] Pranav Kulkarni

	Brain Tumor Detection Using U-Net Architectures in Industry 4.0 IoT Healthcare industries (Short Paper) Mohsen Asghari Ilani, Yaser Banad
Session 12: **AIxSET-7 - Invited Papers (I) and GeoAI** (Chair: Johannes Schick)	Differential Topic Selections and Wording Behaviors among Funded Environmental Projects with Stakeholders (Invited Paper) WONG Ka Chun
	GeoAI in resource-constrained environments (Regular Paper[I] Marc Bohlen,[i] Gede Sugiarta
Session 13: **AIxSET-8 - Deep Learning** (Chair: Gary Glesener)	Neuromorphic Computing in Autonomous Distributed Grid Control (Regular Paper) James Obert,[R] Adrian Chavez and Rodrigo Trevizan
	Vulnerability Handling of AI-Generated Code - Existing Solutions and Open Challenges (Short Paper) Sabrina Kaniewski,[R] Dieter Holstein, Fabian Schmidt, Tobias Heer
	Audio Sentiment Analysis with Spectrogram Representations and Transformer Models (Short Paper) Sophina Luitel,[R] Yang Liu, Mohd Anwar
Session 15: **AIxSET-9 - Large Language Models (II)** (Chair: Pauline Kawamoto)	Towards Improved Scientific Knowledge Proliferation: Leveraging Large Language Models on the Traditional Scientific Writing Workflow (Regular Paper) Tyler Procko, Alexandra Davidoff,[R] Timothy Elvira, Omar Ochoa
	Evaluation of LLMs, BERT, and Ensemble Techniques for Analyzing Online Vaccine Sentiment (Short Paper) Arin Parsa,[I] Atul Dubey
	Graph Retrieval-Augmented Generation for Large Language Models: A Survey (Short Paper) Tyler Procko, Omar Ochoa
	Neural Network Flooding Simulation of Built Environments (Position Paper) Tianhao Ni
Session 17: **AIxSET-10 - Data Analysis** (Chair: Roselyne Tchoua)	An Ensemble Machine Learning Technique for Detecting Distributed Denial of Service Attacks in Vehicular Ad Hoc Networks (Regular Paper) Sadiksha Aryal,[R] Niyomdi Magani Magani,[R] Jared Oluoch
	Feature Selection via Weighted Independent Domination (Regular Paper) Joseph R Barr, Peter Shaw,[R] Faisal Abu-Khzam, Manel Benabidm
	Estimating the Carbon Footprint of Small Language Models Powering Edge Device Applications (Short Paper) Pradyun Gaddam,[I] Pranav Kulkarni
	A Repository of Metadata-related Threats and Mitigation Strategies to Enhance Security in Smart Homes (Short Paper) Brittany Davis,[R] Yang Liu, Mohd Anwar

	Toward Personalizing Healthcare with AI (Position Paper) Joseph R. Barr, <u>Fabio Persia</u>,[I] Daniela D'Auria, Jon Haass
Session 20: **AIxSET-11 - AI Applications (II)** (Chair: Johannes Schick)	Supporting Formal Methods for Machine Learning Verification in Urban Air Mobility (Regular Paper) Alexandra Davidoff, Juan Couder, Omar Ochoa
	Neuromorphic Digital-Twin for Multi-Agent System Control using Spiking Neural Networks (Short Paper) Reza Ahmadvand, Sarah Sharif, Yaser'Mike' Banad
	AI-Assisted UAV Swarms Detection (Short Paper) <u>Fred Mohamadi</u>
	Improved Discrete Spider Monkey Optimization for Vending Machine Column Optimization Considering Sales and a Replenishment Cycle (Position Paper) <u>So Koyama</u>,[R] Yoshikazu Fukuyama, Takuya Watanabe, Tatsuya Iizaka
Session 22: **AIxSET-12 - AI Applications (III)** (**Chair: Robert Mertens**)	Forecasting Smart Grid Stability using Machine Learning Models (Short Paper) Raja Kandukuri, Yaser'Mike' Banad
	Requirements Elicitation for Machine Learning Applications: A Research Preview (Short Paper) Timothy Elvira, Tyler Procko, Omar Ochoa
Session 24: **AIxSET-13 - Learning and Prediction (II)** (Chair: Pauline Kawamoto)	XGBoost Algorithm for Interpretable AI Prediction of Melt Pool Geometry in IoT-Enabled Additive Manufacturing within Industry 4.0 Utilizing NSGA-II (Regular Paper) Mohsen Asghari Ilani, Yaser Banad
	Hyperparameter Tuning for Self-Organizing Maps (Regular Paper) <u>Axel Guérin</u>,[I] Pierre Chauvet, Frédéric Saubion
	Transformer Based Ensemble Framework For Sequential User Behavior Prediction (Regular Paper) <u>Asha Boyapati</u>,[R] <u>Pranit Sinha</u>,[R] Anusha Rayavarapu, Ramakrishna Sreepada
	Inverse Design of Crystal Compositions via Improved Generative Models (Short Paper) Danial Ebrahimzadeh, Sarah Sharif, Yaser Banad
	Towards Transparent Artificial Intelligence: Exploring Modern Approaches and Future Directions (Position Paper) Arash Ahmadi, Sarah Sharif, Yaser Banad
Session 26: **AIxSET-14 - Knowledge Graphs and Explainable AI** (**Chair: Robert Mertens**)	Explanation of Gas Turbine Generator anomaly detection using Contextual Outlier Interpretation with Ordering Points To Identify the Clustering Structure (Regular Paper) Jiahui Yin, <u>Yoshikazu Fukuyama</u>,[I] Kenya Murakami, Satoshi Suzuki, Tatsuya Izaka
	Leveraging Knowledge Graph to design the Machine-Learning Engineering Body-of-Knowledge (Regular Paper) <u>Juliette Mattioli</u>,[R] Dominique Tachet, Fabien Tschirhart, Henri Sohier, Loic Cantat, Boris Robert

Session	Title
	Knowledge Graphs in AI-Driven Biomedical and Chemical Engineering: A Survey of Construction, Applications, and Future Directions (Regular Paper) Asiyah Ahmad[R]
Session 27: **AIxSET-15 - Invited Papers (II)** (Chair: Roselyne Tchoua)	LLM-Based Localization in the Context of Low-Resource Languages (Invited Paper) Hardi Trivedi, Jorjeta G. Jetcheva, Carlos Rojas
	Earnings Calls- Combined power of AI and GenAI for deriving signals and insights (Invited Paper) Suraj G. Jadhav, Surendra Sarnikar
	Training Data Debugging through a Lens of Outliers in Neuron Coverage (Invited Paper) Kozo Okano,[R] Daichi Ofuchi, Shinpei Ogata, Shin Nakajima
Session 28: **AIxSET-16 - High-School Papers** (Chair: Gary Glesener)	Neural Network Architectures for Simulating Time-varying Room Acoustics (Regular Paper) Hannah Cho[I]
	Application of Neural Operators to the Phase Field Modeling of Brittle Fractures (Short Paper) Zhiheng He[R]
	An Explainable CNN-BiGRU Model For Arrhythmia Classification From ECG Signals (Short Paper) Rishi Salvi[R]

Detailed Sessions (IEEE AIxB 2024)

Presenting authors names are underlined

Session	Title
Session 2: **AIxB-1 - Deep Learning & Reinforcement Learning** (Chair: Sukrit Mittal)	Reinforcement learning for Multiple Goals in Goals-Based Wealth Management (Regular Paper) *Sanjiv Das, Daniel Ostrov, Sukrit Mittal, Anand Radhakrishnan, Deep Srivastav and Hungjen Wang*
	Theory-Regularized Deep Learning for Demand-Curve Estimation and Prediction (Regular Paper) *Chul Kim, Dong Soo Kim, Mingyu Joo and Hai Che*
	Enhancing Intrusion Detection with CNN Attention Using NSL-KDD Dataset (Regular Paper) *Jay Barach*

Session 7: **AIxB-2 - Machine** **Learning** (Chair: Changshuo Liu)	Enhancing Visual Exploration of Illicit Bitcoin Transactions with Machine Learning (Regular Paper) *Scott Barlowe, Kaushal Patel, Noah Hassett, Kellan Anderson and Aidan Kirk*
	Enhancing Business Analytics with Tabular Data Synthesis via Context-Based Diffusion Models (Regular Paper) *Changshuo Liu*
	Novel Cash-Flow Based Underwriting Model using Gradient Boosted Decision Trees (Regular Paper) *Mihit Puvvula, Pranav Kulkarni and Anaiy Somalwar*
Session 14: **AIxB-3 - Generative AI** (Chair: Fabio Persia)	The Future of Game Development in the Era of Gen AI (Short Paper) *Pankaj Pilaniwala, Girish Chhabra and Prabhleen Kaur*
	Balancing Potential and Prudence: An On-going Study on Organizational Policymaking for Generative AI Adoption (Short Paper) *Makoto Nakayama, Yun Wan and Frank Alvino*
	Pitfalls of Generic Large Language Models (GLLMs) from reliability and security perspectives (Short Paper) *Dipankar Dasgupta and Arunava Roy*
	AI at your service: Generative artificial intelligence and the next generation of assistants (Position Paper) *Srishti Chaudhary*[R]
	Generative AI based industrial metaverse creation methodology (Regular Paper) *Aman Shrestha and Kenji Imamoto*
Session 18: **AIxB-4 - Organization** **Agility** (Chair: Dipankar Dasgupta)	Does organizational agility mediates between artificial intelligence and sustainable performance: Moderating role of organizational culture (Regular Paper) *Muhammad Abubakar Tahir, Tahir Yousaf, Muhammad Faisal Shahzad, Fahad Zain and Dr. Qurat Ul Ain*
	The Role of Digital Public Infrastructure (DPI) in Promoting Financial Inclusion (Position Paper) Vega Mani[R] and Kareena Mehta[R]
Session 21: **AIxB-5 - Large Language** **Models** (Chair: Aman Shrestha)	Enhancing Efficiency and Flexibility of Rapid Prototyping for Scalable Multimodal Intelligent Agents (Regular Paper) *Muthukumarapandian Chandrasekaran*
	How are You Really Doing? Dig into the Wheel of Emotions with Large Language Models (Short Paper) *Massimiliano Luca, Gabriel Lopez, Antonio Longa and Joe Kaul*
	A Framework for Intelligent Trip Planning leveraging LLMs, OpenStreetMap, and Neo4j (Short Paper) *Alessandro Pio, Fabio Persia, Giovanni Pilato, Mouzhi Ge and Daniela D'Auria*

Session	Title
Session 25: **AIxB-6 - Data Analysis** (Chair: Aman Shrestha)	Artificial Intelligence in Project Management: Impacts on Efficiency, Innovation and Competitive Edge (Regular Paper) *Tanvi Saxena and Michael W. Totaro*
	A Temporal Multipartite Network for News Articles Insights Extraction (Short Paper) *Antonio Longa, Massimiliano Luca, Gabriel Lopez and Joe Kaul*
	Asking vs. listening: A comparative analysis of focus groups and text mining customer reviews (Position Paper) *Maren Schnieder, Ramin Behbehani, Ana Isabel Canhoto, Ahmad Beltagui, Niraj Kumar and Jay McCloskey*
	CrowdFaceYOLO: Advancing Real-Time Face Detection in High-Density Crowded Area (Position Paper) *Waquar Ahmad, Aditya Vashist, Neel Sinha, Manisha Prasad, Vishesh Shrivastava and Junaid Hussain Muzamal*

Detailed Sessions (IEEE AIxHeart 2024)

Session	Title
Session 4: **AIxHeart-1: Music, Audio & AI** (Chair: David Ostrowski)	Music Emotion Recognition Using Hierarchical Contrastive Learning (Regular Paper) *Siyeol Jung, Yubin Choi, E. Cho Smith and <u>Mia Yaqin Wang</u>* [I]
	Using Deep Learning for Text to Asia Music Generation (Regular Paper) *Cheng-Han Wu, Yu-Cheng Lin, Pe-Chung Chen and <u>Timothy Shih</u>* [I]
	A Comprehensive Dataset and Visualization Tool for Drone Acoustic Signatures (Regular Paper) *Mia Yaqin Wang, <u>Daisy Clavijo Ramirez</u>,* [I] *Emma Noonan, Mackenzie Linn and Qian Zhang*
Session 9: **AIxHeart-2: Design, Devices & AI** (Chair: Chee-Hann Wu)	3D Designer Toy Design System Based on Generative AI and AI Agent (Regular Paper) *<u>Yixuan Liu</u>,* [R] *Lisha Wang, <u>Zhen Chen</u>,* [I] *Weiran Lin, Yaodong Hu, Xin Xie and Lie Zhang*
	AI-HEAL: Smart Cube for personal mental healing based on hybrid AI technology (Regular Paper) *<u>Xiaotong Qin</u>,* [I] *Xinyang Liu, Xinyuan Mao, Linze Wu, Zhen Chen, Xin Xie, Yaodong Hu and Weiran Lin*

	AIMonitor Software Proposal for the reporting and monitoring of incidents with Artificial Intelligence (Regular Paper) *Antonio Carlos Bento, Carolina de Los Santos-Rezéndiz, Nancy Silva-Alvarez* [R] *and Dora Estefanía García-Correa*
	Braitenberg Vehicle Simulator: Visualizing the Classic Thought Experiment (Short Paper) *Devon Tao* [I] *and Lucas Bang*
Session 11: **AIxHeart-3:** **Education/Teaching & AI (I)** (Chair: David Ostrowski)	Use of Artificial Intelligence to Improve Teacher Preparation (Regular Paper) *Daniel A. Tillman* [R] *, Song A. An, Josefina V. Tinajero, William H. Robertson, Claudia Cochran and Thomas J. Soto*
	Media Competence is the key requirement when using Generative AI in Academic Education in a meaningful way (Position Paper) *Florian Schimanke*
	Prompting a Dialectic of Freedom in AI (Position Paper) *Shawn Powers* [R]
Session 16: **AIxHeart-4:** **Education/Teaching, AI and Storytelling** (Chair: Bryan Chou)	TinyTeller AI, an AI-based Adaptive Storytelling Application (Regular Paper) *Mira Kim,* [I] *Taylor Kim,* [I] *Alexander Nguyen, Eduardo Nunez Gomez and Jennifer Jin*
	MEMOS - Multimodal Educational Mentor and Optimisation System Based on Multi-Agent Frame (Regular Paper) *Yaodong Hu,* [I] *Zhen Chen, Yuxiang Lin, Junyu Wang, Yishan Liu and Weiran Lin*
	Thematic Analysis of Students' Perception and Attitudes towards Online Class using Latent Dirichlet Allocation (Regular Paper) *Zion Nabor, Rosel Onesa,* [R] *Tiffany Lyn Pandes and Joseph Jessie Oñate*
Session 19: **AIxHeart-5: Humanities and AI** (Chair: Fabio Persia)	A Translative Research Assistant on Retrieval-Augmented Generation Enhanced by Keyword Extraction in the Case of Asian Studies (Regular Paper) *Chung-Hsien Chou* [I] *and Chee-Hann Wu*
	Cross-Linguistic Examination of Gender Bias Large Language Models (Regular Paper) *Athira Kumar, William Andreopoulos and Nada Attar* [R]
	Methodologies and Evaluation for Disrupting Character Stereotypes Through AI (Regular Paper) *Xiaohan Feng* [R] *and Makoto Murakami*
Session 23: **AIxHeart-6: Digital Art and AI** (Chair: Chee-Hann Wu)	Digital Art Ecosystem: A Proposed Theoretical Construct (Regular Paper) *Roshanak Basty,* [R] *Heekyoung Jung and Shane Halse*
	MoodMonster: Integrating AI and Art for Emotional Journaling (Short Paper) *Yishan Liu* [R] *, Zhen Chen* [I] *, Xin Xie and Yaodong Hu*

Session	Title
	Critical Future Archives: Artist-led Generative AI Innovation and the Global South (Position Paper) *Ameera Kawash*

Detailed Sessions (Workshops)

Presenting authors names are underlined

Session	Title
Workshop on Combinatorial Methods in AI (Chair: Joseph Barr)	Combinatorial clustering of coastal contaminant data: An Extended Abstract *Faisal Abu-Khzam, Kimani Kimbrough, Joe Barr*
	Noise Reduction-Based Image Enhancement Using Transformer Networks for Satellite SAR Radar Recognition *Sangdong Kim*
	Combinatorics in AI: Principles & Algorithms: An Extended Abstract *Joe Barr, Jon C Haass, Peter Shaw, Faisal N. Abu-Khzam*
Workshop on Robotics and AI (Chair: Luca Muratore)	Interactive object learning with vision and touch *Lorenzo Natale*
	Cognitive Legged Robots for Real-World Applications *Dimitrios Kanoulas*
	Autonomous And Adaptive Behaviors For Robotics *Luca Muratore*
	On the Opportunity of Employing Diffusion Models for Generalizable Robotic Motion Planning *Alessandro Roncone*
	Enhancing Educational Websites with AI Chatbots: Design Considerations for Safety *Danika Gupta*
	On Robot Physical Intelligence *Yan Wu*

Workshop on Generative AI and Software Engineering (Chair: David Ostrowski)	Utilizing NFT Technology and Generative AI for Deep Fake Detection and Media Authentication *Saurabh Nandwani, David Alfred Ostrowski*
Workshop on the Role of Data and AI in Health, Wealth and Wisdom: A K-12 perspective (Chair: Ganesh Mani)	Mini keynote 1 *Prof. Chipeta*
	Mini keynote 2 *Prof. Yeboah*
	Interactive Panel The Art of Data Science: Transferring knowledge and skills responsibly *Avi-Yona Israel, Jim Bologna, Colleen Kraft, Carter LaSalle* Moderator: Ganesh Mani
	Coffee Break
	Ethan Hilton & Tolen Schreid
	AI in English Education *Alexa Muse*
	Integration of Tech into Edu *Dr. Lei*
	Healthcare/Education *David Boone*
	Art *Alex Dalton*
	Computational Biology *Rajarshi Mandal*
	Andrew Chen
	Sentiment in Bullet Chat message *Ryan and Kyle Li*

Joint Keynotes: AIxB, AIxHEART, AIxSET 2024

Gerald Friedland
Amazon Research, USA

Dr. Gerald Friedland is a Principal Scientist at AWS and adjunct professor at the University of California, Berkeley.

Dr. Friedland has published about 200 scientific publications, including two books and is a part-time Lecturer at the EECS department of the University of California. Berkeley. He is the recipient of several research and industry recognitions, among them the European Academic Software Award and the Multimedia Entrepreneur Award by the German Federal Department of Economics. He also led the team that won the ACM Multimedia Grand Challenge in 2009. Dr. Friedland received his doctorate (summa cum laude) and master's degree in computer science from Freie Universitaet Berlin, Germany, in 2002 and 2006, respectively.

Dr. Friedland is also an avid software and hardware developer and is known for open-source contributions, such as SIOX (Simple Interactive Object Extraction), which has become the open-source standard algorithm for interactive image cut and paste used in applications like GIMP or Inkscape.

Wardah Inam
Overjet, USA

Dr. Wardah Inam is disrupting the dental industry. She is the co-founder and CEO of Overjet, a Boston-based startup that uses FDA-cleared artificial intelligence to assess X-rays for tooth decay and bone loss and assist in diagnostics. These insights are then passed onto insurers to help them decide whether they should approve a claim. Since it was founded in 2018, Overjet has raised nearly $80 million in funding from backers such as General Catalyst and the MIT-affiliated E14 fund. Before founding Overjet, Inam was the lead product manager at the biotechnology company Q Bio. She earned a bachelor's degree from the Ghulam Ishaq Khan Institute of Engineering Sciences and Technology in Pakistan and master's and doctoral degrees in electrical engineering and computer science from MIT.

George F. Luger
University of New Mexico, USA

Dr. George Luger is Professor Emeritus of Computer Science at the University of New Mexico. Dr. Luger was also a Professor in the Psychology and Linguistics Departments, reflecting his interdisciplinary interests in Cognitive Science and Computational Linguistics.

The National Science Foundation, NATO, the British Royal Society, NASA, the Smithsonian Institution, NIH, the Departments of Defense, Energy and Transportation, NIH, and other government agencies have supported George Luger's research. He has worked with the Los Alamos and Sandia National Laboratories and for numerous companies. Currently, his consulting is in the design of natural language web agents and deep learning technologies that analyze information in very large collections of data.

Dr. Luger is the author of Artificial Intelligence: Structures and Strategies for Complex Problem Solving (Addison-Wesley, 2009), now in its Sixth Edition, and Knowing Our World (Springer, 2021).

Vishal Misra
Columbia University, USA

Dr. Vishal Misra's research is in the broad area of networking. His work includes both developing mechanisms that make networks work better and faster, and also investigating the economic models that underpin the Internet and their impact on public policy like Network Neutrality. His approach to research is to incorporate fundamental theories like control theory, queueing theory, information theory, and game theory in the design and analysis of networks.

Dr. Vishal has worked extensively in the design and analysis of congestion control mechanisms, both for the Internet as well as for data centers. His work, based on applying classical control theory to differential equation based model that he developed for Internet traffic, has found its way into becoming part of the DOCSIS 3.1 standard for cable modems and is being deployed worldwide. He has also played a very active role in the public policy debates related to Network Neutrality and the strong recent regulations passed by the Indian and Canadian regulatory authorities are in line with a definition of Network Neutrality he has proposed.

He received a BTech from IIT Bombay in 1992, and an MS and PhD from the University of Massachusetts at Amherst in 1996 and 2000 respectively. Fellow of IEEE and ACM. He has been awarded a Distinguished Alumnus Award by IIT Bombay (2019) and a Distinguished Young Alumnus Award by UMass-Amherst College of Engineering (2014).

Norbert Pohlmann
Westphalian University of Applied Sciences, Germany

Dr. Norbert Pohlmann holds two positions at Westphalian University of Applied Sciences, Gelsenkirchen: Professor of Distributed Systems and Information Security in the field of IT, and Managing Director of the Institute for Internet Security.

Prior to holding these posts, from 1988 to 1999 he served as a managing partner of the firm KryptoKom, Society for Cryptographic Information Security and Communication Technology mbH. Following the merger of KryptoKom with Utimaco Safeware, he was a member of the management board of Utimaco Safeware AG from 1999 to 2003.

Since April 1997, Prof. Pohlmann has been chairman of the management board of the German Association for IT Security TeleTrusT, the role of which is to establish trustworthy IT systems.

Prof. Pohlmann is co-initiator and chairman of the program committee of the "Information Security Solutions Europe" conference (ISSE), which takes place annually in different European cities (Berlin, Barcelona, London, Paris, Paris, Vienna, Berlin, Berlin, Budapest, Rome, Warsaw, Madrid, The Hague, Berlin, Prague, Brussels, Berlin).

In addition, Prof. Pohlmann is a member of the scientific advisory board of the GDD (Society for Data Protection and Data Security e. V.), a member of the advisory board of eco (Association of the Internet Industry e. V.) and a member of the steering committee "Taskforce IT-Security" (Federal Ministry of Economics and Technology).

For five years, he was a member of the "Permanent Stakeholders Group" of ENISA (European Network and Information Security Agency), the European Community's security agency (www.enisa.europa.eu).

Numerous articles and books, lectures, and seminars in the field of information security testify to his professional competence and his engagement in the field of IT security.

Devavrat Shah
MIT, USA

Dr. Devavrat Shah is a Professor with the department of Electrical Engineering and Computer Science at Massachusetts Institute of Technology since 2005. He is a member of the Laboratory for Information and Decision Sciences (LIDS) and the Institute for Data, Systems and Society (IDSS). He directs the Statistics and Data Science Center (SDSC). He is a visiting Adjunct Professor at Tata Institute of Fundamental Research (TIFR) since March 2018.

Professor Shah's research focuses on statistical inference and stochastic networks. His contributions span a variety of areas including resource allocation in communications networks, inference and learning on graphical models, and algorithms for social data processing including ranking, recommendations and crowdsourcing. Within the broad context of networks, his work spans a range of areas across electrical engineering, computer science and operations research.

Professor Shah received a bachelor's degree in computer science and engineering from the Indian Institute of Technology in Bombay, where he received the Presidents of India Gold Medal, which is awarded to the best graduating student across all engineering disciplines. He received a PhD in computer science from Stanford University with George B. Dantzig Dissertation Award from Institute for Operations Research and the Management Sciences (INFORMS).

His work has received broad recognition including Rising Star Award from the Association for Computing Machinery (ACM) Special Interest Group for the computer systems performance evaluation community (SIGMETRICS), the Erlang Prize from the Applied Probability Society of INFORMS in addition to paper prize awards including the Best Publication Award from the Applied Probability Society of INFORMS, Best Paper Award from Manufacturing and Service Operations Management Society of INFORMS, NIPS Best Paper Award and ACM SIGMETRICS Best Paper Award. He received NSF CAREER Award and he is distinguished young alumni of his alma mater IIT Bombay. He founded the machine learning start-up Celect, Inc. which helps retailer with optimizing inventory by accurate demand forecasting.

Presentation Instructions

ATTENTION: Please note the new presentation time limits as of September 12th.

The following presentation instructions are applied to all accepted Regular, Short, Position and Workshop papers. All authors, please follow the corresponding instructions to prepare the presentation for your papers.

Additionally, please join the session where you are going to present at least 10 minutes before the starting time of that session. If you cannot do so, please inform the session chair. Additional technical details about how to join conference sessions will follow.

Regular Papers
- Each regular paper, including the best paper candidates in the best paper session, will be presented in an oral presentation.
- Each presentation, except the best paper candidates, will be allotted a total of **20 minutes**, including 5 minutes for Q&A.
- Each best paper candidate presentation will be allotted a total of **25 minutes**, including 5 minutes for Q&A.

Short Papers
- Each short paper will be presented in an oral presentation.
- Each presentation will be allotted a total of **15 minutes**, including 3 minutes for Q&A.

Position Paper
- Each short paper will be presented in an oral presentation.
- Each presentation will be allotted a total of **10 minutes**, including 3 minutes for Q&A.

Workshop Papers
- Each workshop paper will be presented in an oral presentation.
- Each presentation will be allotted a total of **20 minutes** including 5 minutes for Q&A.