

ISTAS 2025 AI EVOLUTION & REVOLUTION

Maureen Vavra, Chair IEEE SCV-OEB SSIT Treasurer, IEEE Oakland East Bay Section





AI ADOPTION AND THE ACCELERATING SOCIETAL IMPACTS

Dates: September 10-12, 2025

[Plus high school and above, YP Involvement – To be announced soon!]

- Main Sessions Sept 10-12, dinner Sept 10 and social events
- Tours and Social events evening of Sept 12 or 13
- Location: Innovation Center, Santa Clara University campus, Santa Clara, CA
- **Format:** Hybrid, Seminars, Workshops, Panels, Tutorials, Hackathons
- STEM opportunities for students in connection with the outreach done with the USS Hornet Museum in Alameda, Cal State East Bay and Santa Clara University.





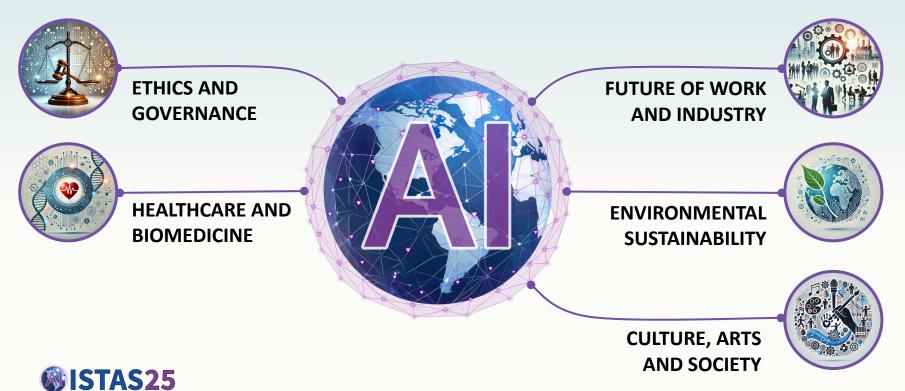
THE VENUE AND INFO/SIGHTS WITHIN 50 MILES

- Location: Santa Clara University campus, Santa Clara, CA previous host to successful GHTC 2022 – modern classrooms/AV and room for breakouts
- Lodging: Sonesta Simply Suites, Santa Clara, code ISTAS25 2 blocks from SCU
- San Francisco: Cable Cars, Fisherman's Wharf, shows, fine dining, Golden Gate Bridge, Presidio, SFMOMA, Chinatown, shopping and tours
- Santa Cruz: beaches, surfing, hiking, music, and dining
- Wine Tasting of several local appellations: local vineyards or Napa excursion
- Stanford and UC Berkeley Universities
- Computer History Museum Mountain View: artifacts, IEEE Milestones collection
- Los Gatos: dining, hikes, shopping and local color
 ISTAS25



ISTAS 2025

AI EVOLUTION & REVOLUTION





THEMES AND VOLATILITY

Our themes and the underlying topic suggestions represent our best information today about where Artificial Intelligence is likely to make an impact in the next few years and what our priorities ought to be for discourse. Emphasis will be on the "work in progress" nature of utilizing AI and the opportunities for sharing and collaboration.

This is a moving target, and the likelihood is high that topics will change in the next 3 months. Input and suggestions to **Ahmed Amer** or **Sanjay Samuels**, our Technical Co-Chairs, are welcome as we refine our program.

Student submissions are welcome at this conference - **Prasanta Ghosh** is leading a special track supporting them. We will be soliciting assistance and mentors for these undergrads at the program evolves.





ETHICS AND GOVERNANCE TRACK

- 1. Ethical frameworks for AI development and deployment
- 2. Al regulation, policy, legal issues at national and international levels
- 3. AI in Law Enforcement and Surveillance
- 4. Transparency and explainability in AI systems
- 5. Al privacy concerns
- 6. Balancing innovation with responsible AI practices
- 7. Human oversight and management





HEALTHCARE/BIOMEDICINE TRACK

- 1. Al-driven diagnostic tools and their impact on healthcare delivery
- 2. Personalized medicine and AI
- 3. AI in drug discovery and development
- 4. Ethical considerations in AI-assisted medical decision-making and caregiving
- 5. Al's role in addressing global health challenges







FUTURE OF WORK AND INDUSTRY TRACK

- 1. Who's in charge? Managing AI
- 2. Impact of AI on job markets and employment trends
- 3. Al-human collaboration in the workplace
- 4. Al in recruitment and human resources
- 5. Governance and legal implications
- 6. Economic implications of widespread AI adoption
- 7. Reskilling and education for an AI-driven economy and business climate
- 8. Infrastructure impact and change requirements









ENVIRONMENTAL SUSTAINABILITY TRACK

- 1. Al applications in climate change modeling and mitigation
- 2. Smart cities and AI-driven resource management
- 3. Al in renewable energy optimization
- 4. Environmental monitoring and conservation using AI
- 5. Ethical considerations in using AI for environmental decision-making
- 6. LLM/Data storage energy usage and design practices to mitigate





CULTURE, ARTS AND SOCIETY TRACK

- 1. Al's impact on social interactions and relationships
- 2. Al in education and learning
- 3. Al-generated art, music, and literature
- 4. Al and its effects on democracy and public discourse
- 5. Cultural differences in AI perception and adoption
- 6. Al, misinformation, and the public trust
- 7. Al in Social Media



IEEE Regio





YOUTH/STEAM WORKSHOP IDEAS Being Investigated

- 1. Possible IEEE REACH interactive day at a local museum Sept 7
- 2. Build a Chatbot Exercise
- 3. Al in Games Interactive Session
- 4. Ethics in AI Discussion
- 5. Use tools like DeepArt or Magenta to create AI art
- 6. Al in Healthcare Activity: design an Al solution for a health problem
- 7. Voice Assistants Workshop to Create a basic voice command system
- 8. Climate Change- Analyze climate datasets using machine learning
- 9. Group project: design an AI-based solution for an environmental issue





IEEE International Symposium on Technology and Society "AI Evolution and Revolution"

September 10-12, 2025 Hosted by Santa Clara University, Santa Clara, California, USA

Thematic Areas:

- 1. Ethics and Governance
- 2. Healthcare & Biomedicine
- 3. Future of Work & Industry
- 4. Environmental Sustainability
- 5. Culture, Arts & Society
- 6. Student interactive sessions

Call For Papers [includes Students] Submission Deadlines:

May 16, 2025	Panel Session and Tutorial
	Proposals due
May 16, 2025	Papers/Poster Abstracts due
June 15, 2025	Acceptance/rejection notices
July 11, 2025	Camera Ready abstracts due



For more information on the topics of interest, to know how to sponsor and any other questions related to the conference, visit our website: https://attend.ieee.org/istas-2025



ISTAS25 TECHNICAL PROGRAM

	WEDNESDAY, SEPT 10						
8:30 AM		Keynote					
9:30 AM	The E	Panel 1 merging Scop	e of Al				
10:00 AM	Break						
	Track 1	Track 2	Track 3				
10:30 AM							
10:45 AM	ISTAS25 PRESENTATIONS						
11:00 AM							
11:15 AM							
11:30 AM							
12:00 PM		Lunch					
	Tool 4	T	01 1 1				

	Track 4	Track 5	Students			
1:30 PM						
1:45 PM	ISTAS25 PRESENTATIONS					
2:00 PM						
2:15 PM						
2:30 PM						
3:00 PM						
3:30 PM	Guest Talk					
3:45 PM	Group Photo					
4:00 PM		Draak				
4:30 PM	Break					
4:45 PM	01					
5:30 PM	Student Presentations					
6:00 PM		Disco				
7:00 PM		Diner				

THU	THURSDAY, SEPT 11			FRIDAY, SEPT 12		
The In	Panel 2 The Importance of Failing			Keynote		
	Break				Break	
Track 1	Track 2	Track 3		Track 1	Track 2	Track 3
ISTAS25	ISTAS25 PRESENTATIONS			ISTAS25 PRESENTATIONS		
Kathleen Kra	Keynote Kathleen Kramer - 2025 IEEE President					
	Lunch			Lunch		
Track 4	Track 5	Students		Guest Talk		
ISTAS25	ISTAS25 PRESENTATIONS			Panel 3 Revolution and Society		iety
	Guest Talk			Guest Talk Containing the Power of Technology		
	Guest Talk			Break		
	Free Time			Announcing ISTAS26 & Concluding Remarks		
	Diner			Adjourn		



TRACKS

- 1. Ethics & Governance
- 2. Health Care & BioMedicine
- 3. Environmental Sustainability
- 4. Future of Work & Industry
- 5. Culture, Arts & Society



Call For Papers Flyer



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Technical Program Co-Chair:

IEEE Chair Seattle Section

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- Future of Work & Industry
- Environmental
 Sustainability
- Culture, Arts & Society
- Student interactive sessions
- Student Interactive session

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Chair: Maureen Vavra IEEE SCV-OEB SSIT Chair Partner, The StrataFusion Group chair@istas25.org Technical Program Co-Chair: Ahmed Amer IEEE SCV-OEB Santa Clara University, CS&E tpc-chair@istas25.org



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ISTAS25 Website



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Questions and Comments?

Contact me at:

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