



Ambient Intelligence for Healthcare (AmI4HC2023) with MICCAI2023

Oct 8, 2023 (Vancouver, Canada) <https://ami4hc.stanford.edu>



Ambient Intelligence (AmI) defines the future vision of intelligent computing where sensors and processors are embedded into everyday devices and the environment will seamlessly adapt to the user's requirements. AmI is increasingly seeing applications in healthcare (e.g., for quality improvement, senior care at home, ensuring clinician and patient safety by monitoring staff compliance with clinical best practices or relieving staff of burdensome documentation tasks). Despite the promise of ambient intelligence to improve the quality of care, the continuous collection of large amounts of sensor data in healthcare settings presents numerous challenges from sensor technologies, data management, technical model development, and causal inference to ethical, privacy, bias, and fairness. This workshop aims to shed light on this novel technology.

This workshop will have a joint program with the **Affective Intelligence for Computer-Assisted Interventions (AICAI)** workshop.

Topics of interest include (but are not limited to):

- Intelligent Environments for Healthcare
- Integration of Ambient Sensors with Medical Imaging, Radiology, or Neuroscience
- Ambient Intelligence in Hospital Spaces
- Ambient Intelligence in Daily living Spaces
- Behavior Recognition in Complex Scenes
- Learning with Big Data
- Causal Inference and Causal Reinforcement Learning for Healthcare
- Computational Neurorehabilitation
- Rare Event Detection (e.g., falls)
- Generalization to New Environments
- Pervasive Computing
- Unobstructed Embedded Devices
- Sensors and User Interfaces
- Context Awareness
- Human Activity Recognition
- Human Pose Recovery in Physical Spaces
- (Semi-)Automated Orofacial Assessment
- Health or Safety Monitoring
- Assessment of Depression or Anxiety
- Adaptive Rehabilitation Technologies
- Longitudinal (Remote) Monitoring of Symptoms
- Automating Critical Care Support
- Reducing Patient Waiting Time
- Monitoring Vital Signs
- Diagnosis and Care in Complicated Scenarios
- Social and Ethical Challenges
- Privacy in Computer Vision
- Bias and Fairness

Full Paper Submission Deadline: June 15, 2023

Notification of Acceptance: July 16, 2023

Keynote speakers:



[Zakia Hammal](#), Carnegie Mellon University



[Teodor Grantcharov](#), Stanford University



[Tanveer Syeda-Mahmood](#), IBM Research

Organizers:



[Ehsan Adeli](#)
Stanford University



[Babak Taati](#)
TRI, UHN & Univ of Toronto



[James Cotton](#)
Shirley Ryan AbilityLab



[Itir Önal Ertuğrul](#)
Utrecht University



[Fei-Fei Li](#)
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[James Landay](#)
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Website: <https://ami4hc.stanford.edu>

Paper submission: <https://cmt3.research.microsoft.com/AmI4HC2023/>