

## RESEARCH INTERESTS

AI and Robots for Social Good; Automation and Labor; Future of Work; Robots and AI as Community-Based Health Interventions

## ACADEMIC APPOINTMENTS

Michigan State University Aug. 2019 - current  
Assistant Professor

University of California San Diego Nov. 2017 - Jul. 2019  
Postdoctoral Scholar in Computer Science and Engineering Supervisor: Laurel Riek

Indiana University Aug. 2011 - Nov. 2017  
PhD in Informatics and Computing Advisor: Selma Šabanović  
Thesis: Collaborative Design of Intelligent Technologies

Georgia Institute of Technology Aug. 2009 - May 2011  
MS in Human-Computer Interaction Advisor: Rebecca Grinter

Georgia Institute of Technology Aug. 2007 - May 2009  
MS in Digital Media Advisor: Carl DiSalvo

## AWARDS

2024: **HRI Best Paper**, Honorable Mention (top 5% of submissions)

2023: **Google** Inclusion Research Award

2022: **ASIS&T** Best Presentation Award, SIG Artificial Intelligence (AI) Workshop

2021: **CSCW Best Paper Award** (top 1% of submissions)

2019: **CSCW Best Paper**, Honorable Mention (top 5% of submissions)

2019: **HRI Best Paper**, Honorable Mention (top 5% of submissions)

2015: Rob Kling Social Informatics Fellowship

2013: **UbiComp Best Paper**, Honorable Mention (top 5% of submissions)

2012: **CHI Best Paper**, Honorable Mention (top 5% of submissions)

## RESEARCH GRANTS

**Institute of Museum and Library Services (IMLS)** | National Leadership Grants for Libraries. Asset-Based AI Literacy Toolkit for Public Librarians: Connecting Librarians' Cultural Assets and AI Knowledge. (under review)

**National Science Foundation (NSF)** | Engineering Research Center (ERC). Engineering Research Center for Smart Tunable Robotic Exo-muscles for Natural Generative Training and Habilitation (STRENGTH). (under review)

2024 **National Science Foundation (NSF)** | Civic Innovation Challenge (CIVIC). Manufacturing Automation Toolkit (MAT): Enhancing Equity through Collaborative Visioning in Manufacturing Future. Award Number: 2431223. PI.

2023 **Google** Inclusion Research Award: Towards Robots for Inclusive Clinical Teamwork: Empowering Nurses to Promote Patient Safety. Co-PI.

2022 **National Science Foundation (NSF)** | Future of Work. Efficient Inspection of Unpiggable Pipelines through Human-Robot Integration. Award Number: 2222635. Co-PI.

2022 **Trifecta** Initiative Facilitating Funds Award. AI Supported Health Misinformation Management. Co-PI.

2021 **Institute of Museum and Library Services (IMLS)** | National Leadership Grants for Libraries. Library as a community catalyst empowering low-income youth to cultivate symbiotic relationships between Artificial Intelligence (AI) and local industry. Award Number: LG-250059-OLS-21. PI.

2021 **National Institute of Health (NIH)/ Michigan Center for Urban African American Aging Research (MC-UAAAR)** | Junior Faculty Research Mentoring Funding. Social robots for the mental health management of a low-income African American in Flint. PI

## PUBLICATIONS

### CONFERENCE PROCEEDINGS / JOURNALS

- CHI 2025 "AI literacy for Underserved Students: Exploring An Asset-Based Approach to Library-Based AI Literacy Program. "  
ACM Conference on Human Factors in Computing Systems (CHI). (Under review)
- CHI 2025 "Empowering Adults with AI Literacy: Using Short Videos to Transform Understanding and Harness Fear for Critical Thinking."  
ACM Conference on Human Factors in Computing Systems (CHI). (Under review)
- HRI 2025 "Minding the Stop-gap: Attending to the "Temporary," Unplanned, and Added Work of Human-Robot Collaboration in Context."  
ACM/IEEE Conference on Human-Robot Interaction (HRI). (Under review)
- HRI 2025 "Rapidly Built Medical Crash Cart! Lessons Learned and Impacts on High-Stakes Team Collaboration in the Emergency Room."  
ACM/IEEE Conference on Human-Robot Interaction (HRI). (Under review)
- HRI 2025 "Young children as co-designers: Engaging children in the design of bedtime-support robots."  
ACM/IEEE Conference on Human-Robot Interaction (HRI). (Under review)
- HRI 2025 "Too Old to be a Robot? The Influence of Age-based Stereotypes in Human-Robot Interaction."  
ACM/IEEE Conference on Human-Robot Interaction (HRI). (Under review)
- HRI 2025 "Well-Being Robot Companion for Korean American Young Adults."  
ACM/IEEE Conference on Human-Robot Interaction (HRI). (Under review)
- CHI 2024 **Lee, H.R.**  
"Conflicting Perspectives of Workers: Exploring Labor Relations in Workplace Automation and Potential Interventions."  
ACM Conference on Human Factors in Computing Systems (CHI), 2024.

- HRI 2024 ***Best Paper Honorable Mention (top 5% of submissions)***  
Taylor, A., Tanjim, T., Cao, J., **Lee, H.R.**  
“Towards Collaborative Crash Cart Robots that Support Clinical Teamwork.”  
ACM/IEEE Conference on Human-Robot Interaction (HRI), 2023.
- JMIR Form Res 2024 Peng, W., **Lee, H.R.**, Lim, S.  
“Leveraging Chatbots to Combat Health Misinformation for Older Adults: Participatory Design Study.”  
JMIR Formative Research, 2024
- DIS 2023 Shin, J.Y., Li, T., Peng, W., **Lee, H.R.**  
“Bedtime Pals: A Deployment Study of Sleep Management Technology for Families With Young Children.”  
ACM Designing Interactive Systems (DIS), 2023.
- HRI 2023 **Lee, H.R.**, Sun, F., Iqbal, T., Robert, B.  
“Reimagining Robots for Dementia: From Robots for Carereceivers/giver to Robots for Carepartners”  
ACM/IEEE Conference on Human-Robot Interaction (HRI), 2023.
- Ro-Man 2023 **Lee, H.R.**, Tan, X., Zhang, W., Deng Y., Liu Y.  
“Situating Robots in the Organizational Dynamics of the Gas Energy Industry: A Collaborative Design Study.”  
IEEE Symposium on Robot and Human Interactive Communication (Ro-Man), 2023.
- THRI 2023 **Lee, H.R.**, Riek, L. D.  
“Designing Robots for Aging: Wisdom as a Critical Lens”  
ACM Transactions on Human-Robot Interaction (THRI), 2023.
- CHI 2022 Shin, J. Y., Peng, W., **Lee, H.R.**  
“More than Bedtime and the Bedroom: Sleep Management as a Collaborative Work for the Family.”  
ACM Conference on Human Factors in Computing Systems (CHI), 2022.
- HRI 2022 **Lee, H.R.**, Cheon, E., Lim, C. Y., Kerstin Fischer  
“Configuring Humans: What Roles Humans Play in HRI Research.”  
ACM/IEEE Conference on Human-Robot Interaction (HRI), 2022.
- CSCW 2021 ***Best Paper Award (top 1% of submissions)***  
Shin, J. Y., Chaar, D., Davis, C. E., Choi, S., **Lee, H. R.**  
“Every Cloud Has a Silver Lining: Exploring Experiential Knowledge of Family Caregivers.”  
ACM Conference On Computer-Supported Cooperative Work And Social Computing (CSCW), 2021.
- CSCW 2019 ***Best Paper Honorable Mention (top 5% of submissions)***  
**Lee, H. R.\***, Taylor, A.\*, Kubota, A., Riek, L. D. \*Angelique Taylor and Hee Rin Lee contributed equally.  
“Coordinating Clinical Teams: Using Robots to Empower Nurses to Stop the Line.”  
ACM Conference On Computer-Supported Cooperative Work And Social Computing (CSCW), 2019.
- HRI 2019 ***Best Paper Honorable Mention (top 5% of submissions)***  
Moharana, S., Panduro, A., **Lee, H. R.**, Riek, L. D.  
“Robots for Joy, Robots for Sorrow: Community Based Robot Design for Dementia Caregivers.”  
ACM/IEEE Conference on Human-Robot Interaction (HRI), 2019
- THRI 2018 ***Invited to Present at HRI 2018 in a Special Session***  
**Lee, H. R.**, Riek, L. D.  
“Reframing Assistive Robots to Promote Successful Aging.”  
ACM Transactions on Human-Robot Interaction (THRI), 2018

- AJRT 2018 Piatt, J., Nagata, S., Šabanović, S., Cheng, W. L., Bennett, C., **Lee, H.R.**, Hakken, D.  
“Companionship with a robot? Therapists’ perspectives on socially assistive robots”  
American Journal of Recreation Therapy (AJRT), 2018.
- CHI 2017 **Lee, H. R.**, Šabanović, S., Kwak, S. S.  
“Collaborative map making: A reflexive method for understanding matters of concern in design research.”  
ACM Conference on Human Factors in Computing Systems (CHI), 2017
- HRI 2017 **Lee, H. R.**, Šabanović, S., Chang, W. L., Nagata, S., Piatt, J., Bennett, C., Hakken, D.  
“Steps toward participatory design of social robots: mutual learning with older adults with depression.”  
ACM/IEEE Conference on Human-Robot Interaction (HRI), 2017
- Ro-Man 2016 **Lee, H.R.**, Haodan, T., Šabanović, S.  
“That robot is not for me: addressing stereotypes of aging in assistive robot design.”  
IEEE Symposium on Robot and Human Interactive Communication (Ro-Man), 2016.
- CHI 2014 **Lee, H.R.**, Šabanović, S., Stolterman, E.  
“Stay on the boundary: artifact analysis exploring researcher and user framing of robot design.”  
ACM Conference on Human Factors in Computing Systems (CHI), 2014
- HRI 2014 **Lee, H.R.**, Šabanović, S.  
“Culturally variable preferences for robot design and use in South Korea, Turkey, and the United States.”  
ACM/IEEE Conference on Human-Robot Interaction (HRI), 2014.
- UbiComp 2013 ***Best Paper Honorable Mention (top 5% of submissions)***  
**Lee, H.R.**, Šabanović, S.  
“Weiser’s dream in the Korean home: collaborative study of domestic roles, relationships, and ideal technologies.”  
ACM Conference on Ubiquitous computing (UbiComp), 2013
- CHI 2012 ***Best Paper Honorable Mention (top 5% of submissions)***  
Parker, A., Kantroo, V., **Lee, H.R.**, Osornio, M., Sharma, M., Grinter, R.  
“Health promotion as activism: building community capacity to effect social change.”  
ACM Conference on Human Factors in Computing Systems (CHI), 2012.
- Ro-Man 2012 **Lee, H.R.**, Sung, J., Šabanović, S., Han, J.  
“Cultural design of domestic robots: A study of user expectations in Korea and the United States.”  
IEEE Symposium on Robot and Human Interactive Communication (Ro-Man), 2012.
- AMIA 2011 Lee, E. K., **Lee, H.R.**, Quarshie, A.  
“SEACOIN—An investigative tool for biomedical informatics researchers.” American Medical  
Informatics Association Annual Symposium (AMIA), 2011.
- Persiv. Health Yun, T.J., Jeong, H.Y., **Lee, H.R.**, Arriaga, R.I., Abowd, G.  
2010 “Assessing asthma management practices through in-home technology probes.”  
ACM Conference on Pervasive Computing Technologies for Healthcare (Pervasive Health), 2010.

## WORKSHOP PUBLICATIONS, EXTENDED ABSTRACTS & POSTERS

- HRI 2024 Dobrosovestnova, A., **Lee, H. R.**, Ljungblad, S., Gamboa, M., Gosnall, T., & Mansouri, M.  
“Ethnography in HRI: Embodied, Embedded, Messy and Everyday.”  
ACM/IEEE International Conference on Human-Robot Interaction(HRI), 2024.

- HRI 2024 Dobrosovestnova, A., **Lee, H. R.**, Ljungblad, S., Gamboa, M., Gosnall, T., & Mansouri, M.  
“Ethnography in HRI: Embodied, Embedded, Messy and Everyday.”  
ACM/IEEE International Conference on Human-Robot Interaction(HRI), 2024.
- HRI 2024 Allen, K.H., Aronson, R.M., Bhattacharjee, T., Broz, F., Chang, M.L., Collier, M., Kessler Faulkner, T., **Lee, H.R.**, Neto, I., Winkle, K. and Short, E.S.  
“Assistive Applications, Accessibility, and Disability Ethics in HRI.”  
ACM/IEEE International Conference on Human-Robot Interaction(HRI). 2024.
- ASIS&T 2023 Kim, S.H., Choi, G.W., Choi, K., Copeland, A., D’Arpa, C., Evans, S., Lance, S., **Lee, H.R.** & Yoon, A.  
“Public Library-University Partnerships in Library and Information Science.”  
Association for Information Science and Technology (ASIS&T), 2023.
- HRI 2023 Malvi, P., **Lee, H. R.**  
“Cat-E: A Social Robot Guiding Children’s Activities with AI Art Generator”  
ACM/IEEE International Conference on Human-Robot Interaction (HRI), 2023.
- HRI 2022 Abdi, M., Hamp, E., Oistad, W., Shin, J. Y., and **Lee, H.R.**  
“Gamer Breakbots: Exploring robots as a way for gamers to alleviate potential health issues.”  
ACM/IEEE International Conference on Human-Robot Interaction (HRI), 2022.
- CSCW 2021 Cheon, E., Zaga, C., **Lee, H.R.**, Lupetti, M.L., Dombrowski, L. and Jung, M.F.  
“Human-Machine Partnerships in the Future of Work.”  
ACM/IEEE International Conference on Human-Robot Interaction (HRI), 2021.
- HRI 2019 **Lee, H. R.**, Cheon, E., De Graaf, M., Alves-Oliveira, P., Zaga, C., & Young, J.  
“Robots for social good: exploring critical design for HRI.”  
ACM/IEEE International Conference on Human-Robot Interaction (HRI), 2019.
- HRI 2019 García, D., Esteban, P., **Lee, H.R.**, Romeo, M., Senft, E., Billing, E.  
“Social Robots in Therapy and Care.”  
ACM/IEEE International Conference on Human-Robot Interaction (HRI), 2019.
- HRI 2018 García, D., Esteban, P., **Lee, H.R.**, Chevalier, P., Baxter, P., Bethel, C.  
“Social Robots in Therapy: Focusing on Autonomy and Ethical Challenges”  
ACM/IEEE International Conference on Human-Robot Interaction (HRI), 2018.
- AAAI 2016 **Lee, H.R.**, Šabanović, S., Stolterman, E.  
“How humanlike should a social robot be: a user-centered exploration.”  
AAAI Spring Symposium on Enabling Computing Research in Socially Intelligent Human-Robot Interaction.
- HRI 2014 Šabanović, S., Bennett, C., **Lee, H.R.**  
“Towards culturally robust robots: a critical social perspective on robotics and culture.”  
Culture-Aware Robotics Workshop @ ACM/IEEE Conference on Human Robot Interaction (HRI), 2014.
- CHI 2013 **Lee, H.R.**, Šabanović, S., Hakken, D.  
“Cultural design of domestic robot with participatory design.”  
Methods for Studying Technology in the Home Workshop @ ACM Conference on Human Factors in Computing Systems (CHI), 2013.
- CHI 2010 **Lee, H.R.**, Panont, W.R., Plattenburg, B., de la Croix, J.P., Patharachalam, D. and Abowd, G.  
“Asthmon: empowering asthmatic children’s self-management with a virtual pet.”  
ACM Conference Extended Abstracts on Human Factors in Computing Systems(CHI), 2010.

- AAAI 2010 Hwang, J.Y., Shim-Lee, J., **Lee, H.**  
 “Designing a visual analytic system to represent bookmark sharing data.” Visual Representations and Reasoning Workshop at the AAAI Conference, 2010.
- CHI 2009 **Lee, H.R.**, DiSalvo, C.  
 “Connected space.”  
 ACM Conference Extended Abstracts on Human Factors in Computing Systems (CHI), 2009.

## TEACHING EXPERIENCE

- MI 845 Usability and Accessibility: Design and Evaluation | Michigan State University 2021 - current  
 Instructor
- MI 484 Human-Robot Interaction | Michigan State University 2020 - current  
 Instructor
- MI 350 Evaluating Human-Centered Technologies | Michigan State University 2019 - current  
 Instructor
- STS 5974 Independent Study on Social Robotics | Virginia Tech 2016  
 Guest Lecturer
- I502 Human Centered Research Methods | Indiana University 2015, 2016  
 Associate Instructor
- I202 Intro. to Social Informatics | Indiana University 2016  
 Co-Instructor
- I440/H440/I540 Human Robot Interaction | Indiana University 2015, 2016  
 Associate Instructor
- CS 3790 Cognitive Science | Georgia Institute of Technology 2009  
 Teaching Assistant
- User Interface Design | Sungshin Women’s University 2007  
 Teaching Assistant
- Typography | Sungshin Women’s University 2005  
 Teaching Assistant

## STUDENT MENTORING

- Visiting Scholar HyungJun Cho, Industrial Design, KAIST 2024 - current
- PhD Ji Youn Shin, Info & Media PhD student, Michigan State Univ 2019 - 2022  
 Students *(currently Assistant Professor at Univ. of Minnesota)*
- Selin Akgun, Curric., Instruction and Teacher Edu PhD student, Michigan State Univ 2021 - 2024  
*(currently Assistant Professor at Univ. of Minnesota)*

PhD	Huajie Cao, Info & Media PhD student, Michigan State Univ	2023 - current
Students	Elisavet Averkiadi, Info & Media PhD student, Michigan State Univ	2020 - current
	Sue Lim, Communication PhD student, Michigan State Univ	2020 - current
Masters	Jisun Lee, Media & Info Masters student, Michigan State Univ	2024 - current
Students	Hsiang-Ting Lin, Media & Info Masters student, Michigan State Univ	2023 - current
	Jae Lee, Media & Info Masters student, Michigan State Univ	2023 - current
	Madeline Allen, Media & Info Masters student, Michigan State Univ	2023 - 2024
	Joe Kubeshesky, Media & Info Masters student, Michigan State Univ	2022 - 2024
	Yuanyuan Xue, Media & Info Masters student, Michigan State Univ	2022 - 2024
	Pooja Malvi, Media & Info Masters student, Michigan State Univ	2021 - 2023
	Tongxin Li, Media & Info Masters student, Michigan State Univ	2019 - 2021
	Valentina Oram, Media & Info Masters student, Michigan State Univ	2020 - 2021
	Renu Singh, Computer Science Masters student, UC San Diego	2018
	Jeremy Smith, Computer Science Masters student, UC San Diego	2018
Undergraduate	Vu Phi, Engineering, Michigan State Univ	2022 - current
Students	Emily Lin, Experience Architecture Undergraduate, Michigan State Univ	2019 - 2022
	Catherine Davis, Information Science Undergraduate, Michigan State Univ	2019 - 2020
	Sanika Moharana, Cognitive Science Undergraduate, UC San Diego	2017 - 2019
	Alejandro Panduro, Cognitive Science Undergraduate, UC San Diego	2017 - 2019
	Kayoung Cho, Informatics Undergraduate, Indiana University	2017 - 2019
	Ying Hong, Informatics Undergraduate, Indiana University	2016
	Jeron Braxton, Informatics Undergraduate, Indiana University	2015

## INVITED TALKS

“Automation and Labor: The Role of Robots.” University of Wisconsin–Madison, Madison WI	2024
“Hands-On AI Literacy Programs for Youth and Teens.” Young Adult Services Symposium, St. Louis MO	2023
“AI Literacy Programs for Youth and Teens in Public Libraries.” Young Adult Library Services Association, Webinar	2023
“Human-centered study: focusing on participatory and collaborative approaches.” Workshop Your Study Design (WYSD), International Conference on HRI, Stockholm, Sweden.	2023
“AI and Co-Design in Public Libraries.” Public Library-University Partnerships in Library and Information Science, Association for Information Science and Technology (ASIS&T), London, United Kingdom.	2022

“From Labor-Displacing to Labor-Reinstating: Exploring Production Workers’ Experience with Collaborative Robots.” Labor Tech Speaker Series, Labor Tech Research Network, Online.	2022
“From Labor-Displacing to Labor-Reinstating: Exploring Production Workers’ Experience with Co-bots.” The Evolution and Future of Work Speaker Series, Michigan State University, East Lansing, MI.	2022
“Robots for Aging: Robot Design to Support Inclusion and Wellness.” The Asian Conference on Aging & Gerontology (AGen), The International Academic Forum (IAFOR), Tokyo, Japan	2022
“Making the Invisible Visible in Robot Design for Aging.” Social Robots for Health and Well-being, Ageing Societies, Online.	2021
“Participatory Design for Assistive Robots.” IBM Research, San Diego, CA.	2019
Grounded Theory for Social Robot Design Industrial Design Seminar, Ewha Womans University, South Korea.	2014
Culturally Situated Domestic Robot Telerobotics and Control Laboratory, KAIST, South Korea.	2012
Culturally Situated Robot Design Industrial Design Seminar, Ewha Womans University, South Korea.	2013

## PROFESSIONAL EXPERIENCE

NAVER Corporation, South Korea Consultant for Emerging Technologies	2016
Industrial Design, Ewha Womans University, South Korea Visiting Scholar	2014, 2016
Center for Operations Research in Medicine and HealthCare, Georgia Institute of Technology, USA Research Assistant	2009 - 2011

## PROFESSIONAL SERVICE

### EDITOR

ACM Transactions on Human-Robot Interaction   Associate Editor	2024 - current
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### PROGRAM COMMITTEE

#### *Program Subcommittee Co-Chair*

ACM/IEEE International Conference on Human-Robot Interaction (HRI)   Design Subcommittee	2024
ACM/IEEE International Conference on Human-Robot Interaction (HRI)   alt.HRI	2023

#### *Jury for Best Paper Award*

ACM/IEEE International Conference on Human-Robot Interaction (HRI)   Design, Method & Theory tracks	2023
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### *Conference Program Committee Member*

ACM/IEEE International Conference on Human-Robot Interaction (HRI)	2019 - current
ACM Conference on Human Factors in Computing (CHI)   Critical Comp, Sustainability, & Social Justice	2024
IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN)	2023 - 2024
Symposium on Human-Computer Interaction for Work (CHIWORK)	2022 - 2023
ACM Designing Interactive Systems (DIS)	2022
Participatory Design Conference (PDC)	2018

### ORGANIZER

Ro-Man Video Chair	2023
CSCW Workshop on Human-Machine Partnership in the Future of Work	2021
HRI Workshop on Social Robots in Therapy and Care	2019
HRI Workshop on Robots for Social Good: Exploring Design for HRI	2019
HRI Workshop on Social Robots in Therapy: focusing on Autonomy and Ethical Challenges	2018

### REVIEWER

#### *Journal*

ACM Transactions on Human-Robot Interaction (THRI)  
ACM Communications  
BMJ open  
Elsevier Journal of Computers in Human Behavior  
IEEE Transactions on Human-Machine Systems  
IEEE Robotics and Automation Magazine  
Sage Science, Technology, & Human Values (ST&HV)  
Springer The Journal of Collaborative Computing and Work Practices  
Springer International Journal of Social Robotics  
Taylor & Francis Human-Computer Interaction  
Talyor & Francis Assistive Technology  
Wiley-Blackwell Topics in Cognitive Science (topiCS)

#### *Conference*

ACM/IEEE International Conference on Human Robot Interaction (HRI)  
ACM/SIGCHI Conference on Human Factors in Computing Systems (CHI)  
ACM Conference on Computer-Supported Cooperative Work & Social Computing (CSCW)  
ACM Conference on Participatory Design Conference (PDC)  
ACM Interaction Design and Children (IDC)  
ACM Conference on Designing Interactive Systems (DIS)  
ACM Conference on Human Agent Interaction (HAI)  
IEEE International Symposium on Robot and Human Interactive Communication (Ro-Man)

## PANEL

First International Workshop on Worker-Robot Relationships: Exploring Transdisciplinarity for the Future of Work with Robots, ACM/IEEE International Conference on Human Robot Interaction (HRI)	2024
Workshop YOUR Study Design 2024! Participatory Critique and Refinement of Participants' Studies, ACM/IEEE International Conference on Human Robot Interaction (HRI)	2024
Social Human-Robot Interaction of Human-Care Service Robots, ACM/IEEE International Conference on Human Robot Interaction (HRI)	2019
Social Human-Robot Interaction of Human-Care Service Robots, IEEE International Symposium on Robot and Human Interactive Communication (Ro-Man)	2018
Robot Design Workshop, IEEE International Conference on Ubiquitous Robots and Ambient Intelligence	2017