HEE RIN LEE

WWW.HEERINLEE.COM
HEERIN@MSU.EDU

ACADEMIC APPOINTMENTS

2019 - current	**Assistant professor** Michigan State University
2017 - 2019	**Postdoctoral scholar** University of California, San Diego
2011 - 2017	**Ph.D. in Informatics and Computing** Indiana University Bloomington
2009 - 2011	**MS in Human-Computer Interaction** Georgia Institute of Technology
2007 - 2009	**MS in Digital Media** Georgia Institute of Technology

AWARDS

[a.9] **Best Paper Honorable Award**, Annual ACM/IEEE International Conference on Human Robot Interaction (HRI), 2024 (top 5% of submissions)

[a.8] **Google Inclusion Research Award**, 2023

[a.7] **Best Presentation Award**, SIG Artificial Intelligence (AI) Workshop, Annual Meeting of the Association for Information Science and Technology (ASIS&T), 2022

[a.6] **Best Paper Award**, ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW), 2021 (top 1% of submissions)

[a.5] **Best Paper Honorable Award**, ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW), 2019 (top 5% of submissions)

[a.4] **Best Paper Honorable Award**, Annual ACM/IEEE International Conference on Human Robot Interaction (HRI), 2019 (top 5% of submissions)

[a.3] **Rob Kling Social Informatics Fellowship**, Indiana University, 2015

[a.2] **Best Paper Honorable Award**, ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp), 2013 (top 5% of submissions)

[a.1] **Best Paper Honorable Award**, ACM SIGCHI Conference on Human Factors in Computing Systems (HRI), 2012 (top 5% of submissions)

RESEARCH GRANTS

[g.5] 2023 **Google Inclusion Research Award**: Towards Robots for Inclusive Clinical Teamwork: Empowering Nurses to Promote Patient Safety $60,000 over 1 year. Co-PI with Angelique Taylor as PI.

[g.4] 2022 **National Science Foundation (NSF):** Future of Work. Efficient Inspection of Unpiggable Pipelines through Human-Robot Integration. $60,000 over 1 year. Co-PI with Xiaobo Tan as PI.

[g.3] 2022 **Trifecta** Initiative Facilitating Funds Award. AI Supported Health Misinformation Management. $8,000. Co-PI with Wei Peng as PI.

[g.2] 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. $247,073 over 3 years. PI with Kahyun Choi as Co-PI.

[g.1] 2021 **National Institute of Health (NIH)/ Michigan Center for Urban African American Aging Research (MCUAAAR)**; Junior Faculty Research Mentoring Funding. Social robots for the mental health management of a low-income African American in Flint. $27,000 over a year. PI

PUBLICATIONS

PEER-REVIEWED JOURNAL ARTICLES

[j.6] **Lee, H. R.**, & Riek, L. D. (2023). Designing Robots for Aging: Wisdom as a Critical Lens. ACM Transactions on Human-Robot Interaction, 12(1), 1-21.

[j.5] Shin, J. Y., Chaar, D., Davis, C., Choi, S. W., & **Lee, H. R.** (2021). Every cloud has a silver lining: Exploring experiential knowledge and assets of family caregivers. Proceedings of the ACM on Human-Computer Interaction, 5(CSCW2), 1-25.

[j.4] Taylor, A., **Lee, H. R.**, Kubota, A., & Riek, L. D. (2019). Coordinating clinical teams: Using robots to empower nurses to stop the line. Proceedings of the ACM on Human-Computer Interaction, 3(CSCW), 1-30.

[j.3] **Lee, H. R.**, & Riek, L. D. (2018). Reframing assistive robots to promote successful aging. ACM Transactions on Human-Robot Interaction (THRI), 7(1), 1-23.

[j.2] Piatt, J., Nagata, S., Šabanović, S., Cheng, W. L., Bennett, C., **Lee, H. R.**, & Hakken, D. (2016). Companionship with a robot? Therapists' perspectives on socially assistive robots as therapeutic interventions in community mental health for older adults. American Journal of Recreation Therapy, 15(4), 29-39.

[j.1] **Lee, H.R.**, Jang, S. (2007). Potential and application of everyday tools as TUIs - focused on interactive art. Society of Basic Design & Art (SBDA), 7(4), 521-531

PEER-REVIEWED CONFERENCE PROCEEDINGS

[c.18] **Lee, H. R.** (2024). Conflicting Perspectives of Workers: Exploring Labor Relations in Workplace Automation and Potential Interventions. In Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems (CHI). ***Accepted***

[c.17] Taylor, A., Tanjim, T., Cao, K., **Lee, H. R.** (2024). Towards Collaborative Crash Cart Robots that Support Clinical Teamwork. In Proceedings of the 2024 ACM/IEEE International Conference on Human-Robot Interaction (HRI). ***Accepted***

[c.16] Shin, J. Y., Li, T., Peng, W., & **Lee, H. R.** (2023). Bedtime Pals: A Deployment Study of Sleep Management Technology for Families with Young Children. In Proceedings of the 2023 ACM Designing Interactive Systems Conference (DIS) (pp. 1610-1629).

[c.15] **Lee, H. R.**, Tan, X., Zhang, W., Deng, Y., & Liu, Y. (2023). Situating Robots in the Organizational Dynamics of the Gas Energy Industry: A Collaborative Design Study. In Proceedings of the 2023 32nd IEEE International Conference on Robot and Human Interactive Communication (RO-MAN) (pp. 1096-1101)

[c.14] **Lee, H. R.**, Sun, F., Iqbal, T., & Roberts, B. (2023). Reimagining robots for dementia: From robots for care-receivers/giver to robots for carepartners. In Proceedings of the 2023 ACM/IEEE International Conference on Human-Robot Interaction (HRI) (pp. 475-484).

[c.13] Shin, J. Y., Peng, W., & **Lee, H. R.** (2022). More than Bedtime and the Bedroom: Sleep Management as a Collaborative Work for the Family. In Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems (CHI) (pp. 1-16).

[c.12] **Lee, H. R.**, Cheon, E., Lim, C., & Fischer, K. (2022). Configuring humans: What roles humans play in hri research. In Proceedings of the 2022 17th ACM/IEEE International Conference on Human-Robot Interaction (HRI) (pp. 478-492).

[c.11] Moharana, S., Panduro, A. E., **Lee, H. R.**, & Riek, L. D. (2019). Robots for joy, robots for sorrow: community-based robot design for dementia caregivers. In Proceedings of the 2019 14th ACM/IEEE International Conference on Human-Robot Interaction (HRI) (pp. 458-467).

[c.10] **Lee, H. R.**, Šabanović, S., & Kwak, S. S. (2017). Collaborative map making: A reflexive method for understanding matters of concern in design research. In Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems (CHI) (pp. 5678-5689).

[c.9] **Lee, H. R.**, Šabanović, S., Chang, W. L., Nagata, S., Piatt, J., Bennett, C., & Hakken, D. (2017). Steps toward participatory design of social robots: mutual learning with older adults with depression. In Proceedings of the 2017 ACM/IEEE international conference on human-robot interaction (pp. 244-253).

[c.8] **Lee, H. R.**, Tan, H., & Šabanović, S. (2016). That robot is not for me: Addressing stereotypes of aging in assistive robot design. In 2016 25th IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN) (pp. 312-317).

[c.7] **Lee, H. R.**, Šabanovic, S., & Stolterman, E. (2014). Stay on the boundary: artifact analysis exploring researcher and user framing of robot design. In Proceedings of the 2014 CHI conference on human factors in computing systems (CHI) (pp. 1471-1474).

[c.6] **Lee, H. R.**, & Sabanović, S. (2014). Culturally variable preferences for robot design and use in South Korea, Turkey, and the United States. In Proceedings of the 2014 ACM/IEEE international conference on Human-robot interaction (HRI) (pp. 17-24).

[c.5] **Lee, H. R.**, & Šabanović, S. (2013). Weiser's dream in the Korean home: collaborative study of domestic roles, relationships, and ideal technologies. In Proceedings of the 2013 ACM international joint conference on Pervasive and ubiquitous computing (UbiComp) (pp. 637-646).

[c.4] Parker, A., Kantroo, V., **Lee, H. R.**, Osornio, M., Sharma, M., & Grinter, R. (2012). Health promotion as activism: building community capacity to effect social change. In Proceedings of the 2012 CHI Conference on Human Factors in Computing Systems (pp. 99-108).

[c.3] **Lee, H. R.**, Sung, J., Šabanović, S., & Han, J. (2012). Cultural design of domestic robots: A study of user expectations in Korea and the United States. In Proceedings of the 21st IEEE International Symposium on Robot and Human Interactive Communication (pp. 803-808).

[c.2] Lee, E. K., **Lee, H. R.**, & Quarshie, A. (2011). SEACOIN–an investigative tool for biomedical informatics researchers. In AMIA Annual Symposium Proceedings (Vol. 2011, p. 750). American Medical Informatics Association.

[c.1] Yun, T. J., Jeong, H. Y., **Lee, H. R.**, Arriaga, R. I., & Abowd, G. D. (2010). Assessing asthma management practices through in-home technology probes. In Proceedings of 2010 4th International Conference on Pervasive Computing Technologies for Healthcare (Pervasive Health) (pp. 1-9).

PEER-REVIEWED EXTENDED ABSTRACTS

[e.11] Dobrosovestnova, A., Lee, H. R., Ljungblad, S., Gamboa, M., Mansouri, M., Gosnall, T. (2024) Ethnography in HRI: Embodied, Embedded, Messy and Everyday. In Companion Publication of the 2023 ACM/IEEE International Conference on Human-Robot Interaction (HRI). ***Accepted***

[e.10] Allen, K., Aroson, R., Bhattacharjee, T., Broz, F., Cabrera, M., Chang, M., Collier, M., Faulkner, T., Lee, H. R., Neto, I., Winkle, K., Short, E. (2024) Assistive Applications, Accessibility, and Disability Ethics (A3DE). In Companion Publication of the 2023 ACM/IEEE International Conference on Human-Robot Interaction (HRI). ***Accepted***

[e.9] Kim, S. H., Choi, G. W., Choi, K., Copeland, A., D'Arpa, C., Evans, S., Simpson, L., **Lee, H.R.** & Yoon, A. (2023). Public Library - University Partnerships in Library and Information Science: Approaches, Challenges, Implications for Translating Research into Practice. In Proceedings of the Association for Information Science and Technology (ASIS&T), 60(1), 799-803. DOI: 10.1002/pra2.864

[e.8] Malvi, P., & **Lee, H. R.** (2023). Cat-E: A Social Robot Guiding Children's Activities with AI Art Generator. In Companion Publication of the 2023 ACM/IEEE International Conference on Human-Robot Interaction (HRI) (pp. 407-410). DOI: 10.1145/3568294.3580116

[e.7] Abdi, M., Hamp, E., Oistad, W., Shin, J. Y., & **Lee, H. R.** (2022). Gamer breakbots: Exploring robots as a way for gamers to manage break time and alleviate potential health issues. In Companion of 2022 17th ACM/IEEE International Conference on Human-Robot Interaction (HRI) (pp. 659-661). DOI: 10.1109/HRI53351.2022.9889524

[e.6] Cheon, E., Zaga, C., **Lee, H. R.**, Lupetti, M. L., Dombrowski, L., & Jung, M. F. (2021). Human-Machine Partnerships in the Future of Work: Exploring the Role of Emerging Technologies in Future Workplaces. In Companion Publication of the 2021 Conference on Computer Supported Cooperative Work and Social Computing (CSCW) (pp. 323-326). DOI: 10.1145/3462204.3481726

[e.5] **Lee, H. R.**, Cheon, E., De Graaf, M., Alves-Oliveira, P., Zaga, C., & Young, J. (2019). Robots for social good: exploring critical design for HRI. In Companion Publication of the 2019 14th ACM/IEEE International Conference on Human-Robot Interaction (HRI) (pp. 681-682). DOI: 10.1109/HRI.2019.8673130

[e.4] García, D. H., Esteban, P. G., **Lee, H. R.**, Romeo, M., Senft, E., & Billing, E. (2019). Social robots in therapy and care. In Companion Publication of 2019 14th ACM/IEEE International Conference on Human-Robot Interaction (HRI) (pp. 669-670). DOI: 10.1109/HRI.2019.8673243

[e.3] G. Esteban, P., Hernández García, D., **Lee, H. R.**, Chevalier, P., Baxter, P., & Bethel, C. (2018). Social robots in therapy: Focusing on autonomy and ethical challenges. In Companion Publication of the 2018 ACM/IEEE International Conference on Human-Robot Interaction (HRI) (pp. 391-392). DOI: 10.1145/3173386.3173562

[e.2] **Lee, H. R.**, Panont, W. R., Plattenburg, B., de la Croix, J. P., Patharachalam, D., & Abowd, G. (2010). Asthmon: empowering asthmatic children's self-management with a virtual pet. In CHI'10 extended abstracts on human factors in computing systems (pp. 3583-3588). DOI: 10.1145/1753846.1754022

[e.1] **Lee, H. R.**, & DiSalvo, C. (2009). Connected space. In CHI'09 Extended Abstracts on Human Factors in Computing Systems (pp. 3643-3648). DOI: 10.1145/1520340.1520548

TEACHING EXPERIENCE

MICHIGAN STATE UNIVERSITY

MI 845 Usability and Accessibility: Design and Evaluation

MI 484 Human-Robot Interaction

MI 350 Evaluating Human-Centered Technologies

INDIANA UNIVERSITY

I502 Human Centered Research Methods

I440/H440/I540 Human Robot Interaction

I202 Introduction to Social Informatics

STUDENT MENTORING

PH.D. DISSERTATION COMMITTEE

CHAIR (2): Cao, Huajie. (August 2023 - Present); Ji Youn Shin (Graduated in 2022, Assistant Professor at University of Minnesota Twin Cities)

MEMBER (1): Elizabeth Averkiadi (Fall 2021 - Present)

PH.D. Research Assistant

Sue Lim (Communication), Selin Akgun (Curriculum, Instruction and Teacher Education)

MASTER THESIS COMMITTEE

CHAIR (5): Lee, Jae (Fall 2023 - Present); Hsiang-Ting Lin (Fall 2023 – present); Pooja Kantilal Malvi (Degree Awarded); Valentina Oram (Degree Awarded); Tongxin Li (Degree Awarded).

MEMBER (2): Yifan Xiong (Fall 2022 - Present); Allen, Madeline (Summer 2023 - Present).

PRESENTATIONS

KEYNOTE/PLENARY SPEAKER

[k.2] Mar/13/2023 Human-centered study: focusing on participatory and collaborative approaches. Workshop Your Study Design (WYSD), International Conference on Human-Robot Interaction (HRI), Stockholm, Sweden.

[k.1] Nov/9/2021 Making the invisible visible in robot design for aging. Social Robots for Health and Well-being in Ageing Societies, Socio-Gerontechnology Network, Online.

PANELIST

[p.3] Mar/9/2022 Robots for Aging: Robot Design to Support Inclusion and Wellness. The Asian Conference on Aging & Gerontology (AGen), The International Academic Forum (IAFOR), Tokyo, Japan

[p.2] Feb/9/2022 Every Cloud Has a Silver Lining: Exploring Experiential Knowledge and Assets of Family Caregivers. Presented paper at HCI Korea 2022, Seoul, South Korea.

[p.1] Mar/11/2019 Robot Design to Challenge Ageism. Social Human-Robot Interaction of Human-Care Service Robots at HRI, ACM/IEEE International Conference on Human Robot Interaction (HRI).

PEER-REVIEWED ORAL PRESENTATION

[o.4] Nov/30/2023 Hands-On AI Literacy Programs for Youth and Teens. Young Adult Library Services (YALSA), Webinar

[o.3] Nov/11/2023 AI Literacy for Libraries. 2023 Young Adult Library Services Association Symposium, St. Louis, MO.

[o.2] Oct/30/2023 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.

[o.1] Oct/29/2022 AI & Co-design in public libraries: Empowering underserved youth to cultivate symbiotic relationships between Artificial Intelligence (AI) and their communities. Workshop on AI in the Real World, Association for Information Science and Technology (ASIS&T), Pittsburgh, PA.

GUEST LECTURE & OTHER INVITED TALKS

[g.13] Apr/17/2023 Robot Design for Social Good. Guest lecture, SYS 4582/6465, ECE 4502/6465, CS 6465 Robots and Humans, University of Virginia, VA.

[g.12] Nov/28/2022 AI & Co-design in public libraries. Guest lecture for MI401 Cyborg, Michigan State University, MI.

[g.11] Nov/20/2022 Robots for Social Good. Guest lecture, INFO 5755 Introduction to Human-Robot Interaction, Cornell Tech, NY.

[g.10] Nov/10/2022 Robots for Social Good. Guest lecture, CSCI 436/536 Human-Robot Interaction, Colorado School of Mines, CO.

[g.9] Nov/9/2022 Robots for Social Good: Participatory Design of robots to Support Inclusion and Wellness. Robotics seminar, Michigan State University, MI.

[g.8] Apr/22/2022 From Labor-Displacing to Labor-Reinstating: Exploring Production Workers' Experience with Collaborative Robots. Labor Tech Speaker Series, Labor Tech Research Network, Online.

[g.7] Apr/18/2022 From Labor-Displacing to Labor-Reinstating: Exploring Production Workers' Experience with Collaborative Robots. The Evolution and Future of Work Speaker Series, Michigan State University, East Lansing, MI.

[g.6] Oct/23/ 2021 Robots for Social Good. Cognitive Science Seminar, New Mexico State University, NM.

[g.5] Apr/15/2020 Robots for Social Good: Robot Design to Support Inclusion and Wellness. Personal Robotics lab seminar, Massachusetts Institute of Technology (MIT), Online.

[g.4] Mar/10/2020 Making work visible: robots as social interventions in factory automation. The Evolution and Future of Work, Michigan State University, East Lansing, MI.

[g.3] Oct/28/2019 Robots for Aging: Robot Design to Support Inclusion and Wellness. Guest lecture, CSE 176A/276D Healthcare Robotics (Department: Computer Science), UC San Diego, San Diego, CA.

[g.2] Oct/8/2019 Human-Robot Interaction. Presented other materials at MI 401 Media, Information, and Society (Department: Media and Information), Michigan State University, East Lansing, MI.

[g.1] Mar/6/2017 Participatory Design for Assistive Robots. IBM Research, Online.

SERVICE

PROGRAM COMMITTEE

ACM/IEEE International Conference on Human-Robot Interaction (HRI), 2019 – current

ACM Designing Interactive Systems (DIS), 2022

Symposium on Human-Computer Interaction for Work, 2022

Participatory Design Conference (PDC), 2018

ORGANIZER

Video Chair, IEEE International Conference on Robot and Human Interactive Communication (RO-MAN), 2023

Best paper jury, ACM/IEEE International Conference on Human-Robot Interaction (HRI), 2023

alt.HRI Chair, ACM/IEEE International Conference on Human-Robot Interaction (HRI), 2023

Workshop Organizer, Workshop on Robots for Social Good: Exploring Critical Design for HRI, ACM/IEEE International Conference on Human-Robot Interaction (HRI), 2019

Workshop Organizer, Workshop on Social Robots in Therapy and Care, ACM/IEEE International Conference on Human-Robot Interaction (HRI), 2019

Workshop Organizer, Social Human-Robot Interaction of Human-Care Service Robots at HRI, ACM/IEEE International Conference on Human-Robot Interaction (HRI), 2018 – 2019.

REVIEWER

Grant:

Austrian Science Fund (FWF). 2021

National Science Foundation. National Institute of Robot (NRI), 2021

National Science Foundation. Future of Work, 2020

Journal:

ACM Conference on Computer-Supported Cooperative Work & Social Computing (CSCW)

ACM Transactions on Human-Robot Interaction (THRI)

ACM Transactions on Computer-Human Interation (TOCHI)

Assistive Technology

British Medical Journal (BMJ)

Elsevier Journal of Computers in Human Behavior

IEEE Transactions on Human-Machine Systems

IEEE Robotics and Automation Magazine

Springer International Journal of Social Robotics

Science, Technology, & Human Values (STHV)

Topics in Cognitive Science (topiCS)

Conference:

ACM Conference on Designing Interactive Systems (DIS)

ACM Conference on Human Agent Interaction (HAI)

ACM Conference on Participatory Design Conference (PDC)

ACM Interaction Design and Children (IDC)

ACM/IEEE International Conference on Human Robot Interaction (HRI)

ACM/SIGCHI Conference on Human Factors in Computing Systems (CHI)

IEEE International Conference on Robot and Human Interactive Communication (Ro-Man)

DEPARTMENT, COLLEGE, & UNIVERSITY COMMITTEE

Departmental Service:

Member, Search committee (Associate/Full Professor, Computational). (2023- Present)

Member, Undergraduate Committee. (2020 - Present).

Member, Search Committee (Associate Professor, Game). (2023).

Member, Search committee (Assistant professor). (2021).

College Service:

Member, Search Committee (Senior Associate Dean for Research). (2023 - Present).

Member, RPT Guidelines Review Committee, Michigan State University. (2021 - 2022).

University Service:

Member, Planning committee for Engineering and Digital Innovation Center, Michigan State University. (May 2023 - Present).

Advisory Board member, Trifecta Initiative for Interdisciplinary Research. (February 2020 - 2022).