# Shamila Janakiraman

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## EDUCATION

**Ph.D., Learning Design & Technology**, *Purdue University, West Lafayette, IN*     9/2020

Department: Curriculum and Instruction
Area of Specialization: Learning Design & Technology
Advisor: Dr. Sunnie Watson, Ph.D.

**M.S., Learning Design & Technology**, *Purdue University West Lafayette, IN*     8/2016

**M.B.A, Marketing Management**, *IGNOU, India*     7/2001

**B.E., Electronics & Communication Engineering**, *Madras University, India*     5/1992

## CURRENT POSITION

<u>Assistant Professor</u>, Learning Design & Technology     **August 2023-Present**
University of Hawaiʻi at Manoa

-Teaching graduate level courses in the Learning Design & Technology program (LTEC)
- Theory and Practice in Educational Technology
- Instructional Design and Development
- Social Media and Learning
- Introduction to Online learning
- Qualitative Research
- Seminar in Educational Technology Issues: Online Communities
- Project Management in Instructional Design

-Chair & Committee member, Ph.D. student dissertation committees
-Editor-in-Chief, TCC Conference publication
-Co-Chair, College of Education Student Faculty relations
-Senator, College of Education senate
-Search Advocate, University of Hawaiʻi
-Board member, Ethics Committee, University of Hawaiʻi
-Conducting research on instructional design and emerging technologies
-Implementing academic and community service projects

## PRIOR TEACHING EXPERIENCE

<u>Lecturer</u>, Learning Design & Technology, College of Education, Purdue University     2021 – July 2023

Taught graduate level courses at Purdue University
-Advanced Practices in Learning Systems Design (online)     Fall 2021

| | |
|---|---:|
| -Instructional Design Competencies (online) | Fall 2021 |
| -Introduction to E-learning (Face-to-Face) | Spring 2022 |
| -Instructional Systems Design (Online) | Summer 2022 |
| -Instructional Systems Design (Face-to-Face) | Fall 2022 |
| -Instructional Design Competencies (online) | Spring 2023 |

**Visiting Faculty**

Taught Graduate level courses at Purdue University

| | |
|---|---:|
| -Learning Theory and Instructional Design | Spring 2021 |
| -Project Management in Learning Design and Technology | Spring 2021 |
| -Introduction to E-Learning | Summer 2021 |

**Teaching Assistant**

EDCI 27000: Introduction to Educational Technology (undergraduate course):
Course taught by Dr. Tim Newby, COE, Purdue University.                            2017 - 2020

**Co-instructor (Face-to-Face courses)**

Learning Theory and Instructional Design (Graduate level course):                            2019

Advanced Practices in Learning Systems Design (Graduate level course):                            2019

**Co-instructor (online courses)**

Foundations of Learning Design and Technology (Grad level course):            2018, 2019, & 2020

Project Management in Learning Design and Technology (Grad level course):            2017-2018

# RESEARCH EXPERIENCE

Conducting multiple research projects with student teams in the University of Hawaiʻi            **2023-Present**
and other collaborative projects with faculty (Please see list of publications)

- Service Learning: Instructional design implications.
- Community of Inquiry: Presence and Engagement through Student Asynchronous Video Posts
- Emerging Technologies: Augmented Reality and Attitude Change

**Postdoctoral Researcher**, Purdue University            August 2021 - July 2023

**Competency-Based Education**

Worked on a multi-university National Science Foundation funded project to support systemic change in computing education by the development of a research-based competency-based education approach.

Project Manager

-Conducted a systematic literature review on the competencies required by computing professionals
-Developing a competency-based education approach (knowledge, skills, and dispositions)
-Redesigning curriculum for computing-related degree programs
-Data collection from interviews, journals, and conference proceedings
-Data Analysis Tools used: **Rayyan & Dedoose**

**PoRTAL – Purdue online Repository for Teaching And Learning**                    2017 – 2021

-Conducted a Design-Based Research (DBR) study on this project
-Multidisciplinary multi-grant project to develop Open Educational Resources (OERs)
-Developed OERs to help faculty and graduate students transition to online teaching
-Completed user needs analysis, design, development, and implementation
-Implemented an international evaluation study

**Teaching Academy – Purdue University**                    2020-22

-Conducted a Qualitative case study
-Graduate administrative/professional assistantship with the Teaching academy
-Project initiated by the Provost and Executive Vice President for Academic Affairs and Diversity
-Project goals achieved:
- Defined teaching excellence.
- Determined how to document, evaluate, and recognize excellent teaching
- Created an evaluation framework
-Developed a "Teaching Excellence Guide" to be used by all colleges at Purdue University
-A paper based on this research is under review

**Research Tools used:** Nivo, SPSS, Rayyan, PLS-SEM, Dedoose, Zotero, & Mendeley

## RESEARCH PUBLICATIONS

### Peer Reviewed Journal Publications

**Janakiraman, S**., Sabin, M., Exter, M., & Duan, S. (2026). Preliminary Results from a Systematic Literature Review on Computing Competencies Valued in the Workplace. *ACM Transactions on Computing Education, 26*(2), 1-50. https://doi.org/10.1145/3785359

**Janakiraman, S.,** Dazzeo, R., & Oshiro, S. (2025). Creating STEM-Focused Interactive Storybooks: A Case Study on Instructional Design Service Learning. *Journal of Experiential Education*, 1-28. https://doi.org/10.1177/10538259251386781

**Janakiraman, S.**, Koehler, A.A. (2025). Effectiveness of gamification on team building activities to improve student learning experiences in online courses. *Journal of Computing in Higher Education*, 1-28. https://doi.org/10.1007/s12528-025-09470-4

Richardson, J. C., Castellanos-Reyes, D., **Janakiraman, S.**, & Duha, M. S. U. (2025). Using design-based research to gauge the impact of an open educational resource repository to support online teaching and learning. *Journal of Computing in Higher Education*, 1-31. https://doi.org/10.1007/s12528-025-09483-z

Huang, W., **Janakiraman, S.**, Ilobinso, A., & Slijepcevic, N. (2025). "Wow! This Is So Cool": Learning Spanish with Augmented Reality. *Education Sciences, 15*(3), 379. https://doi.org/10.3390/educsci15030379

Huang, W., & **Janakiraman, S**. (2024). Enhancing learning and attitude toward statistics with a microlearning approach using an animated video. *Journal of Research on Technology in Education, 57(*5), 1087–1112. https://doi.org/10.1080/15391523.2024.2363197

Duan, S., Exter, M., Tagare, D., Sabin, M, **Janakiraman, S**. (2024). Essential Competencies for Computing Managers: Skills and Dispositions. *Education and Information Technologies, special issue, 29*(2). https://doi.org/10.1007/s10639-023-11869-4

Watson, S. L., Watson, W. R., Huang, W., **Janakiraman, S**., & Dufault, K. H. (2023). Student Attitudes Toward Digital Badges for Instructional Design Competency-Based Education. *Social Education Research, 4*(2), 307–326. https://doi.org/10.37256/ser.4220233027

Richardson, J. C., Castellanos Reyes, D., **Janakiraman, S**., & Duha, M. S. U. (2023). The Process of Developing a Digital Repository for Online Teaching Using Design-Based Research. *TechTrends,* 1-14. https://doi.org/10.1007/s11528-022-00795-w

Koehler, A., Cheng, Z., Fiock, H., Wang, H., **Janakiraman, S**., & Chartier, K. (2022). Examining students' use of online case-based discussions to support problem solving: Considering individual and collaborative experiences. *Computers & Education.* https://doi.org/10.1016/j.compedu.2021.104407

**Janakiraman, S**., Watson, S.L., Watson, W.R., & Newby, T. (2021). Exploring the Effectiveness of Digital Games in Producing Attitudinal Learning in Environmental Sustainability Education: A Mixed Methods Study. *Computers and Education.* https://doi.org/10.1016/j.compedu.2020.104043

**Janakiraman, S**., Watson, S.L., & Watson, W.R., (2021). Effectiveness of digital games in converting eco-awareness to pro-environmental behaviors when played collaboratively and individually: A mixed methods study in India. *TechTrends,* 1-17. https://doi.org/10.1007/s11528-020-00571-8

**Janakiraman, S**., Watson, S.L., Watson, W.R., & Cheng, Z. (2021). Creating environmentally conscious engineering professionals through attitudinal instruction: A mixed methods study. *Journal of Cleaner Production*, 291, 125957. https://doi.org/10.1016/j.jclepro.2021.125957

**Janakiraman, S**., Watson, S.L., Watson, W.R., & Shepardson, D. (2021). Influence of digital games on pro-environmental attitudes and behaviors: A mixed methods study in India using the new ecological paradigm scale. *Journal of Education for Sustainable Development.* *https://doi.org/10.1177/0973408221997844*

Koehler, A., Cheng, Z., Fiock, H., **Janakiraman, S**. & Wang, H. (2020). Asynchronous online discussions during case-based learning: A problem-solving process. *Online Learning Journal.* DOI: http://dx.doi.org/10.24059/olj.v24i4.2332

Caskurlu, S., Richardson, J., Alamri, H., Chartier, K., & Farmer, T., **Janakiraman, S**., Strait, M., Yang, M. (2020). Cognitive Load and Online Course Quality: Insights from Instructional Designers in a Higher Education Context. *British Journal of Educational Technology.* *https://doi.org/10.1111/bjet.13043*

Watson, W. R., Watson, S. L., Fehrman, S. E., Yu, J. H., & **Janakiraman, S**. (2020). Examining international students' attitudinal learning in a higher education course on cultural and language learning. *Journal of International Students, 10*(3). https://www.ojed.org/index.php/jis/article/view/1083/1124

**Janakiraman, S.,** Watson, W.R., & Watson, S.L., Bawa, P. (2019). Instructional strategies for producing attitude change in a multicultural education course: A qualitative case study. *Journal of Educational Research and Practice, 9*(1), 300-315. DOI:10.5590/JERAP.2019.09.1.21

Cheng, Z., Watson, S.L., Watson, W.R., & **Janakiraman, S**. (2019). Attitudinal learning in large-enrollment classrooms: A case study. *TechTrends,* 1-14. Doi:10.1007/s11528-019-00462-7

**Janakiraman, S**., Watson, S.L. & Watson, W.R. (2018). Adult learners use of self-directed learning strategies in a massive open online course. *Journal of Ethnographic & Qualitative Research, 13*(2), 122-133.

**Janakiraman, S**., Watson, S.L. & Watson, W.R. (2018). Using game-based learning to facilitate attitude change for environmental sustainability. *Journal of Education for Sustainable Development, 12*(2), 176–185. https://doi.org/10.1177/0973408218783286

Watson, S. L., Yu, J., Watson, W. R., Caskurla, S., **Janakiraman, S**., & Fiock, H. S. (2018). Watson, S. L., Watson, W. R., Yu, J. H., Caskurlu, S., Janakiraman, S., & Fiock, H. (2018). Attitudinal learning and its relation to gender, age, ethnicity, enrolment purpose, and most impactful learning activity in a science of happiness MOOC. *International Journal of Learning Technology, 13*(4), 306-326. https://doi.org/10.1504/IJLT.2018.091632

Watson, S. L., Watson, W. R., **Janakiraman, S**. & Richardson, J. (2017). A team of instructors' use of social presence, teaching presence and attitudinal dissonance: An animal behavior and welfare MOOC. *The International Review of Research in Open and Distributed Learning, 18* (2), 69-90. DOI: http://dx.doi.org/10.19173/irrodl.v18i2.2663

Watson, W. R., Watson, S. L., & **Janakiraman, S**. (2017). Instructional Quality of Massive Open Online Courses: A Review of Attitudinal Change MOOCs. *International Journal of Learning Technology, 12* (3). https://doi.org/10.1504/IJLT.2017.088406

## Peer Reviewed Book Chapters:

**Janakiraman, S.,** Watson, S.L., Watson, W.R. (2023). Pre-Service Teachers' Perceptions towards Using Games for Learning about Socio-Scientific Topics: A Case Study. In: Spector, M.J., Lockee, B.B., Childress, M.D. (eds) *Learning, Design, and Technology*. Springer, Cham. https://doi.org/10.1007/978-3-319-17727-4_172-1

**Janakiraman, S.** (2021). Using digital games in virtual classrooms to make attitudinal learning motivating and engaging. In *Handbook of Research on Transforming Teachers' Online Pedagogical Reasoning for Engaging K-12 Students in Virtual Learning* (pp. 236-258). IGI Global.

## Peer Reviewed Conference Proceedings:

Tagare, D., **Janakiraman, S**., Exter, M., Duan, S., Sabin, M., & Tavakoli, J. (2023). Dispositions that Computing Professionals Value in the Workplace: Systematic Literature Review and Interviews with Professionals. In Proceedings of the ACM Conference on International Computing Education Research (ICER '23). Association for Computing Machinery, Chicago, IL, USA. https://doi.org/10.1145/3568813.3600118

**Janakiraman, S.** (2021). Games in environmental sustainability education. Indiana STEM Educational Conference proceedings. https://docs.lib.purdue.edu/instemed/2021/briefs/7/

**Janakiraman, S**. (2021). Digital games for environmental sustainability education: Implications for Educators. Eighth International Conference on Technological Ecosystems for Enhancing Multiculturality (TEEM'20) Proceedings. https://doi.org/10.1145/3434780.3436649

## Papers and Book Chapters under Review:

Cockerham, D., Dickson-Deane, C., **Janakiraman, S**., Marcelle, P., Stidham, S., Ragula, M. (under Review) Multi-Staged Mentoring Circles: A Collaborative Autoethnography of an Online Community of Practice.

Payne, L., & **Janakiraman, S.,** Kenney, R. (Book chapter). Defining and evaluating teaching excellence at a research-intensive university: Sharing the stage. Sage.

**Janakiraman, S.,** & Howard, H. (Book chapter). Documenting teaching excellence: tools and templates. Sage.

## Works in Progress:

**Janakiraman, S**., Dazzeo, R., Oshiro, S.  Creating a tabletop arboretum with Augmented Reality and Virtual Tours.

**Janakiraman, S**., Dazzeo, R., Oshiro, S. Adapting interactive digital materials for learners with intellectual and developmental disabilities.

Katz, S., Smith, T., **Janakiraman, S.,** & Nyugen, L. Social presence, cognitive, and teaching presence through multimodal expression in online learning.

Katz, S., Smith, T., **Janakiraman, S.**, & Nyugen, L. Social presence and student experience through multimodal expression in online learning.

## Research Presentations (Peer Reviewed)

**Janakiraman, S.,** Dazzeo, R., Oshiro, S. (2026, April 08-12). Adapting interactive digital materials for learners with intellectual and developmental disabilities [Paper presentation]. American Educational Research Association (AERA) 2026, Los Angeles, CA, United States.

**Janakiraman, S.,** Quezon, J. (2026, February 05-08). Designing Virtual Learning Environments with Augmented Reality and Interactive H5P Activities: A Practical Workshop for Educators. [Workshop]. The 6th Southeast Asian Conference on Education (SEACE2025), International Academic Forum (IAFOR), Singapore.

**Janakiraman, S**. (2025, December, 5-7). Creating an Interactive E-book  with H5P and Augmented Reality: Instructional Design Service-learning Experience [Paper presentation]. International Conference on Technology 4 Education (T4E 2025), Chennai, TN, India.

Umezawa, K., & **Janakiraman, S.** (2025, December, 5-7). *Participatory Action Research about Technology use in Multilingual Early Childhood Classrooms in India, the U.S., and Japan [Poster presentation]*. International Conference on Technology 4 Education (T4E 2025), Chennai, TN, India.

Katz, S., Nyugen, L., Smith, T., & **Janakiraman, S.** (2025, October, 24-29). *Enhancing Social Presence and Engagement through Student Asynchronous Video Posts* [Paper presentation]. Association for Educational Communications and Technology (AECT) 2025, Las Vegas, NV, United States.

Katz, S., **Janakiraman, S.** (2025, May 27-31). *Social Presence through Multimodal Expression in an ESL Writing Course* [Paper presentation]. Computer Assisted Language Instruction Consortium (CALICO 2025), San Diego, CA,United States.

**Janakiraman, S.,** Dazzeo, R., Oshiro, S. (2025, April 15-16). *Creating Inclusive Arboretum Experiences for Individuals with Intellectual and Developmental Disabilities [Paper presentation].* 2025 40th Annual Pacific Rim International Conference, Honolulu, HI, United States.

**Janakiraman, S.,** Dazzeo, R., Oshiro, S. (2025, February 21-25). Creating Interactive Storybooks with H5P Based Virtual Tours: A Design Based Research Study. [Paper presentation]. The 5th Southeast Asian Conference on Education (SEACE2025), International Academic Forum (IAFOR), Kuala Lumpur, Malaysia.

**Janakiraman, S.,** Dazzeo, R., Oshiro, S. (2025, January 3-7). *Digital Nature: Designing and Developing Inclusive Arboretum Experiences for Individuals with Disabilities* [Poster Presentation]. The 10th annual IAFOR International Conference on Education (IICE2025), Honolulu, HI, United States.

Dai, C., Eichelberger, A., Hoffman, D., **Janakiraman, S.,** Leong, P., Menchaca, M., Paek, S. (2025, February 21-25). Promoting Cultural Awareness in Artificial Intelligence for Sustainable Education: East -

West Collaboration [Plenary presentation]. The 5th Southeast Asian Conference on Education (SEACE2025), International Academic Forum (IAFOR), Kuala Lumpur, Malaysia.

**Janakiraman, S.,** Dazzeo, R. (2024, October 19-23). *Creating Interactive Storybooks: Case Study on an Instructional Design Service Learning Experience* [Poster presentation]. Association for Educational Communications and Technology (AECT) 2024, Kansas City, MO, United States.

**Janakiraman, S.** (2024, April 11-14). "Wow! This is so cool": A case study on using Augmented Reality in learning Spanish [Paper presentation]. American Educational Research Association (AERA) 2024, Philadelphia, PA, United States

Dai, C., Eichelberger, A., Hoffman, D., **Janakiraman, S.,** Leong, P., Menchaca, M., Paek, S. (2024, February 10-13). Change for resiliency: One department's strategies for implementing culturally relevant education with a focus on Asia and the Pacific [Plenary presentation]. The 4th Southeast Asian Conference on Education (SEACE2024), International Academic Forum (IAFOR), Chiang Mai, Thailand.

**Janakiraman, S.** (2024, February 10-13). Defining Teaching Excellence and Developing a Teaching Excellence Framework at a Research-intensive University: A Case Study [Paper presentation]. The 4th Southeast Asian Conference on Education (SEACE2024), International Academic Forum (IAFOR), Chiang Mai, Thailand.

**Janakiraman, S., Dash, M.** (2023, October 16-20). A Bibliometric Analysis on Competency-based Education across the Globe (2003-2022) [Poster presentation]. Association for Educational Communications and Technology (AECT) 2023, Orlando, FL, United States.

**Janakiraman, S.**, Kotangale, A., Tavakoli, J. (2023, October 16-20). Exploring pedagogical practices in environmentally sustainable education in university engineering courses: A literature review. Association for Educational Communications and Technology (AECT) 2023, Orlando, FL, United States.

**Janakiraman, S.** (2023, October 16-20). Effectiveness of Gamification in Supporting Team Activities in Online Courses [Paper presentation]. Association for Educational Communications and Technology (AECT) 2023, Orlando, FL, United States.

**Janakiraman, S.**, Exter, M. (2023, April 13-16). Educational recommendations for improving computing education: Report from a systematic literature review [Round table]. American Educational Research Association (AERA) 2023, Chicago, IL, United States.

Richardson, J. C., Castellanos Reyes, D., **Janakiraman, S.**, & Duha, M. S. U. (2023, April 13-16). Impact of an Open Online Repository to Support Online Teaching and Learning: The Users' Perspective [Round table]. American Educational Research Association (AERA) 2023, Chicago, IL, United States.

**Janakiraman, S.**, Exter, M. (2022, October 24-28). *Exploring the competencies required by computing professionals in the workplace: A systematic literature review* [Paper Presentation]. Association for Educational Communications and Technology (AECT) 2022, Las Vegas, NV, United States.

**Janakiraman, S.**, Koehler, A. (2022, October 24-28). Effectiveness of team building activities on student learning experiences in online courses [Round Table]. Association for Educational Communications and Technology (AECT) 2022, Las Vegas, NV, United States.

**Janakiraman, S.** (2021, April 8-12). Influence of digital games on pro-environmental attitudes and behaviors: A mixed methods study in India using the new ecological paradigm scale [Poster Presentation]. American Educational Research Association (AERA) 2021, Virtual Annual Meeting.

**Janakiraman, S.** (2021, November 2-6). Exploring the Effectiveness of Digital Games in Producing Pro-Environmental Behaviors when Played Collaboratively and Individually: A Mixed Methods Study in India [Paper presentation]. Association for Educational Communications and Technology (AECT) 2021, Chicago, IL, United States.

**Janakiraman, S.** (2020, November 2-7). Exploring the Effectiveness of Digital Games in Producing Attitudinal Learning in Environmental Sustainability Education: A Mixed Methods Study [Paper presentation]. Association for Educational Communications and Technology (AECT) 2020, Virtual Meeting.

**Janakiraman, S**. (2020, October 22). Digital Games for Environmental Sustainability Education: Implications for Educators. TEEM 2020 Online Conference, University of Salamanca, Spain.

Koehler, A. A., Cheng, Z., Fiock, H., Wang, H., **Janakiraman, S.,** & Chartier, K. (2019, October 21-25). Examining Students' Use of Online Case-based Discussions to Support Problem Solving [Paper presentation]. Association for Educational Communications and Technology (AECT) 2019, Las Vegas, NV, United States.

Richardson, J. C., Castellanos Reyes, D., **Janakiraman, S.**, & Duha, M. S. U. (2019, October 21-25). Developing a Digital Repository for Online Teaching and Learning Using Design-Based Research [Poster presentation]. Association for Educational Communications and Technology (AECT) 2019, Las Vegas, NV, United States.

Caskurlu, S., Richardson, J., **Janakiraman, S**., Yang, M. (2019, October 21-25). Instructional Designers Perceptions of Online Course Quality and Cognitive Load [Paper presentation]. Association for Educational Communications and Technology (AECT) 2019, Las Vegas, NV, United States.

Cheng, Z., **Janakiraman, S**. (2019, October 21-25). Attitudinal learning in large-enrollment classrooms: A case study. [Paper presentation]. Association for Educational Communications and Technology (AECT) 2019, Las Vegas, NV, United States.

**Janakiraman, S**. (2019, April 5-9). Instructional Strategies for Producing Attitude Change in a Multicultural Education Course: A Qualitative Case Study [Roundtable]. American Educational Research Association (AERA) 2019, Toronto, Canada.

**Janakiraman, S.** (2018, October 23-27). Instructional Design for Adult Education: Autoethnographic Study in a Service-Learning MOOC [Poster Presentation]. Association for Educational Communications and Technology (AECT) 2018, Kansas City, MI, United States.

Watson, S., Watson, W., Caskurla, S., **Janakiraman, S**. (2018, April 13-17). What do we know about attitudinal learning in MOOCs?: Gender, age, ethnicity, enrollment purpose, and most impactful learning activity in a science of happiness MOOC [Poster presentation]. American Educational Research Association (AERA) 2018, New York City, NY, United States.

**Janakiraman, S.** (2017, October 18-21). Gain Experience for Good: Autoethnographic Study in the Designers for Learning Service MOOC [Poster presentation]. Mid-Western Educational Research Association (MWERA) 2017, Evanston, IL, United States.

**Janakiraman, S.** (2017, November 7-11). How did adult learners use self-directed learning strategies in a science of happiness MOOC designed for attitudinal learning: A qualitative study [Poster Presentation]. Association for Educational Communications and Technology (AECT) 2018, Jacksonville, FL, United States.

**Professional Experience**

**Creating Intentional Equity in the Classroom**                 **March-August 2025**
     -Fellowship
     -Develop a Faculty Learning Community (FLC) curriculum
     -Beta test and finalize a University of Hawai'i focused FLC on equity in the classroom

**TCC Conference Proceedings**                    **2024-Present**
     -Editor                                                   **2025**

**Transactions on Computing Education (TOCE)**           **2025-Present**
     -Peer reviewer

**TechTrends**                                **2025-Present**
     **-**Peer reviewer

**Journal of Cleaner Production**
     -Peer reviewer for instructional design related articles      **2020 - Present**

**Journal of Research on Technology in Education**       **2019 - Present**
     -Peer reviewer
     -Participated in the doctoral mentoring peer-review program.

**Journal of Computing in Higher Education**
     -Peer reviewer                                  **2021-Present**

**Simulation and Gaming**                      **2022-Present**
     **-**Peer reviewer
**International Journal of Mentoring and Coaching in Education**    **2025-Present**
     -Peer reviewer

**Teaching Excellence Committee**                     2022-2023
     -Advisory council member, Purdue University
     -Guiding the design and delivery of sessions for faculty professional development

**Explore! Interactive** (Augmented Reality)                                                        2018
Educational Content Developer and Instructional Design Lead.
        -Designed educational content to be implemented in an Augmented Reality (AR) platform.
        -Designed a lesson on Electrical Circuits for the Physics curriculum.
        -Implemented an inquiry-based learning model for middle school students.

**Professional Development Certificates**

**Google AI Essentials!**                                                                 **May 2025**
        **-**Learned about the basics of Artificial Intelligence
        -Use AI responsibly by identifying AI's potential biases and avoiding harm
        -Apply prompting techniques to develop ideas and make more informed decisions

**University of Hawaiʻi at Mānoa Search Advocate Program**                          **February 2025**

        -Learned to identify and promote practices throughout the faculty search process
        that support diversity and social justice, and that minimize the impacts of cognitive and
        structural biases.

**CAMP + U Professional Development for Faculty, Staff and Administrators
on Postsecondary Success**
                                                                                  **December 2024**
        -Offered by the Center on Disability Studies at the University of Hawaiʻi at Mānoa
        -Learned about course design, instructional delivery and assessment, and effective practices to
        support students for a successful post secondary experience while fostering a sense of
        community that meets their needs.

**Quality Matters certificate**                                                              **2023**

        -QM Rubric Update Seventh Edition (RU) 2023
        -Independent Applying the QM Rubric (APPQMR) Fifth Edition
        -Instructional Design consultant, reviewed 15 online courses using the QM rubric sixth edition

**Qualitative Research Certificate** awarded by the Department of Curriculum & Instruction, Purdue
    University.                                                                      2020

**Teaching Certificates** awarded by the Center for Instructional Excellence, Purdue University

        -Graduate Instructional Development Certificate                              2018
        -Graduate Teacher Certificate                                              2018

## INSTRUCTIONAL DESIGN PROJECTS

**Interactive Digital Storybooks**                                              **January 2024 – Present**
        -Lyon Arboretum and Manoa Heritage Center
        -Created Open Educational Resources about the flora and fauna in Hawaiʻi
        -Included animations, virtual tours, and interactive activities.
        -Adapted the E-book for learners with Intellectual and Developmental Disabilities
        -Published E-book: Exploring Lyon ArboretumPublished book -
        https://pressbooks.oer.hawaii.edu/exploringlyonarboretum/


**Creating Intentional Equity in the Classroom at University of Hawaiʻi**          **March-August 2025**
        **-**Faculty fellow in a cohort Faculty Learning Community (FLC)
        -Instructional design and development of a six-week hybrid program
        -Program includes asynchronous learning modules and zoom or face-to-face meetings

**PoRTAL Tier 2**                                                                **2019-2022**
        -Designed and developed online workshops for Gamification and $21^{st}$ Century Skills.
        -Used Articulate Storyline 360 to create 10 interactive, self-paced modules.
        -Audio narration was added with ON/OFF option to ensure accessibility.
        -Included demo videos and interviews with experts to serve as exemplars.
        -Incorporated gamified quizzes to provide opportunities for practice & self-assessment.
        -Provided option to gain credit for course completion in the form of digital badges/certificates.
        -Built the workshops on the D2L Brightspace learning management system
        -We won the **2021 UPCEA Central Region Excellence** in Instructional Design Award for PoRTAL

**PoRTAL  Tier 1**                                                               **2017 - 2019**
Created instructional materials for building Purdue University's
**PoRTAL ( Purdue Repository for online Teaching and Learning)**:
        -Developed learner-centered go-to resources to meet needs of online instructors.
        -Each OER features: instructional strategies, course enhancement tips, pedagogy, sample tools,
        and policies to help make the role of an online instructor easier and build courses that are more
        engaging for online students.
        -Conducted a user needs analysis, designed, developed, evaluated, and implemented PoRTAL.
        -Our team won the **2019 AECT Division of Distance Learning Best Practice Award** for PoRTAL

    **Resources I created:**
- **$21^{st}$ Century Skills**
- **Gamification in online teaching**
- **Teamwork**

**Digital Badges – Purdue Passport**                                            **2020 – 2021**
        Working with Dr. Tim Newby, Professor, Learning Design & Technology to create new digital
        badges that will help highlight digital competencies earned by graduate students.

**iLookout**                                                                    **2019**
        Online course developed at Penn State College of  Medicine that guides primary caregivers on
        how to identify and report cases of child abuse.
        -Evaluated the gamification elements used to motivate learners to complete the course

**Designers for Learning**                                                                 2016 to 2019
      -Created STEM-based OERs to meet educator and learner needs in Adult Basic Education (ABE)
      -Developed OERs using the Empathy Framework to facilitate the learning process for adults
      -Made the OERs available on the OER Commons website to make them freely available
      -Evaluated OERs that were developed by other instructional designers for ABE
      -Facilitated a service-learning MOOC on instructional design as part of the instructional team

**Explore! Interactive** (Augmented Reality)                                                          2018
      -Educational Content Developer and Instructional Design Lead.
      -Designed lessons for teaching about electric circuits
      -Lessons were adapted for development in an Augmented Reality (AR) platform
      -*Energy and Circuits* interactive learning module available commercially on [Mindlabs](Mindlabs)
      -This game features male and female protagonists to attract girls to STEM fields

**Technical Skills**

**Digital learning tools used**
      -Authoring tools: Articulate Storyline 360, Articulate Rise 360, H5P
      -Learning Management Systems: Blackboard, Canvas, Moodle, and Brightspace (D2L)
      -Video editing: Camtasia, Adobe Premiere Pro, and OpenShot
      -Audio editing: Audacity

## FELLOWSHIPS, AWARDS & GRANTS

- **SEED Inclusion, Diversity, Equity, Access and Success (IDEAS)** grant from the University of Hawaiʻi at Manoa                                                        **February 2024**

- Office of the Vice Provost for Research and Scholarship (**OVPRS) Faculty Research** Travel Award from the University of Hawaiʻi                                               **September 2023**

- Grant awarded by the **Innovation Hub** (2023), Purdue University to create a transdisciplinary learning experience for undergraduate students.

- **Sponsored registration** (2022) from the **Systems Thinking SIG of the AERA** for conference participation.

- **Professional Development Conference Scholarship** (2021) from the AECT Foundation Board of Trustees towards conference participation.

- 2021 **UPCEA Central Region Excellence in Instructional Design** Award for "PoRTAL: Purdue Repository for Online Teaching and Learning – Tier 2."

- **2020-2021 Mary Kay Sommers Dissertation Award** from the College of Education, Purdue University.

- **2020-2021 Outstanding Dissertation Award** from the Department of Curriculum and Instruction, Purdue University.

- **COVID Relief Fellowship** (Fall 2020) from the College of Education, Purdue University.

- **Best Paper Award** at the TEEM 2020 Advances on Sustainable Development in Higher Education track, University of Salamanca, Spain. Topic: Digital Games for Environmental Sustainability Education: Implications for Educators.

- **AECT Early Career Symposium** at the 2019 AECT Convention in Las Vegas, Nevada organized by The Research & Theory Division.

- 2019 **AECT** Division of Distance Learning **Best Practice Award** for a team project titled, "PoRTAL: Purdue Repository for Online Teaching and Learning."

- **Bilsland Dissertation Fellowship** (2019) by the College of Education, Purdue University for outstanding academic record and to devote full-time effort to the completion of all doctoral degree requirements. The award was worth $ 8,538 and was be paid on a monthly basis.

- **Frank B. De Bruicker Graduate Award** in Educational Technology (2018) by the Learning Design & Technology program at Purdue University. The award was worth $3000.

- **David Ross Fellowship** (2016-2020). This competitive and prestigious fellowship was awarded by the Graduate School, Purdue University. The total award package is worth **$54, 849** approximately per year for 4 years.

- Honorary In-Progress **Poster Presentation Award** at the Annual Graduate Student Educational Research Symposium (AGSERS 2017). Awarded a plaque by GSEC, Purdue University.

- Certificate of recognition by **Scholastic India** in 2005, for an "Innovative Idea" to improve student reading habits in K-12.

## OTHER GRANTS

- Awarded a $680 **Community Service-Learning Grant** (November, 2022) by Purdue University's Office of Engagement for STEM projects at Imagination Station, Lafayette.

- Awarded $800 **Dissertation Research Grant** from College of Education and Learning Design & Technology program (2020).

- Awarded a $500 **Community Service-Learning Grant** (2018) by Purdue University's Office of Engagement for STEM projects at Imagination Station and Bauer Center, Lafayette.

- Awarded a $350 Travel Grant (2019) by **Global Ambassadors** organization in Purdue Graduate School. Responsibilities included being a Purdue ambassador to India and to organize a presentation that addresses admission, residential, subject majors, and other details that are informative to prospective graduate students.

- Awarded several travel grants every semester from 2016 to 2024 for presenting at conferences.

**Examples**:
- o Received a $700 **Postdoctoral Supplemental Travel Grant** for travel to the 2023 American Educational Research Association (AERA) Conference
- o Received $1,800 travel grant from the postdoc project to travel to the 2022 AECT conference
- o Postdoc Association, Purdue University: $400 grant to attend the AERA 2022 conference

## GRANT WRITING EXPERIENCE

- April 2024: NewSchools, Learning Solutions, Teaching Reimagined, and Learning Differences grant. (Not awarded). Worked with Corporate and Foundation Relations, UHM to fund the purchase of devices to establish a technology enriched learning center at the Lyon Arboretum.
- May 2021: Spencer Foundation Special COVID-19 grant: PoRTAL+: A Design-Based Research Study on the Use of Open Educational Resources for Training Instructors to Teach at a Distance. (Not awarded).

# ACADEMIC SERVICE

University of Hawaiʻi Ethics Board Member                              **August 2025-Present**

Senator                                                                **August 2024-Present**
College of Education, University of Hawaiʻi Ethics Board Member

Student Faculty Relations Committee (Co-Chair)                          **August 2023-Present**
College of Education, University of Hawaiʻi Ethics Board Member

Graduate Student Research Symposium (Steering Committee member)         **August 2023-Present**
College of Education, University of Hawaiʻi Ethics Board Member

UH Lamakū Faculty Panel: Insights from the Summer 2024 Pilot Webinar    **September 2024**

University of Hawaiʻi Search Advocate Community                         **September 2024-Present**

**Dissertation Committee**                                             **2024-Present**
    -Ph.D. students' dissertation committee Chair & member at University of Hawaii
    -Ph.D. student dissertation committee member, Purdue University

**Invited speaker**

**Fall 2025**
- Samarkand International University of Technology (SIUT), Uzbekistan - Service Learning Implementation in a Course

**Spring 2025**
- AECT Graduate Student Association (GSA) - Thriving as a Non-Traditional Scholar: Navigating Family, Academia, and Life Abroad
- Grad Connect: A Virtual Networking Event with AECT International Division & GSA

**Fall 2024**

- Birla Institute of Technology & Science, Pilani, India - Systematic Literature Review
- Purdue Association of Learning Design and Technology (PALDT) - Professional Networking

**Fall 2023**

- GSA Panel at the 2023 AECT- Professional Development for International Students
- EdTech Society, India -  Game-Based Learning & Gamification
- Mahendra College of Engineering- Promoting 21st century Skills with Game-Based Learning & Gamification
- Purdue University, Instructional Systems Design course - Gamification, game-based learning, and Augmented Reality

March 2023

- Indian Institute of Technology Madras, India (IITM) - Game-Based Learning & Gamification

Symposium on Educational Technology at Konkuk University, South Korea          Spring 2024
- Participated in a research symposium
- Shared instructional design experiences using emerging technologies

**Mentoring**                                                                                                              **2023-present**

 **-**AECT graduate student mentor
 -Guiding Ph.D. candidates in their academic job search process
 -Mentoring students in preparing their application materials

**Teaching Excellence Advisory Committee, Purdue University**
 -Member                                                                                                                    2021-2023
 -Implemented the Teaching Excellence framework at Purdue University

**Purdue Post-Doctoral Association (PPDA): Council member**          October 2022- July 2023
- Postdoc Association, Purdue University: Ask a postdoc panel          March 2023
- Ergonomics for the workplace (arranged a talk by a specialist)
- Postdoc Association, Purdue University: Ask a postdoc panel          September 2022

**Webinar: Conducting a Systematic Literature Review,** AECT International Division PD committee
October 2022

**Guest Lecture: Augmented Reality, Game-based Learning & Gamification**          December 2021

- In the Learning Systems Design course

**The Aronson Family Science & Society Honors Lecture. Making it Public:**          March 2020
Communicating Scientific Research and the Bioethical Implications of Designer Biology.

- Panelist with scholars from Biology and Serious Gaming, and Dr. David Baker from the University of Washington who has developed a game called **Foldit** for biochemistry education.

Research seminar for Career and Technical Education, Purdue University.          January 2019
**Cognitive Load in Online Course Quality**: Case study methodology

## PROFESSIONAL MEMBERSHIPS

**Association for Educational Communications & Technology (AECT):**          **2016-present**
- Chair, Awards Committee, AECT International Division          **2025-26**
- President of the AECT international Division          **2024-25**
- President-Elect of the AECT international Division & AECT Planning Committee          **2023-24**
- Graduate Student Assembly: Professional Development for International Students          **2023**
- Co-Coordinator: Professional Development Committee of the International Division          2021-23
- Peer reviewer for conference proposals          2018-Present
- Graduate Student Assembly: Panelist in a discussion on how graduate students can contribute effectively in community service and service-learning projects.          2018
- Volunteer technology assistant          2017

**American Educational Research Association (AERA):**          **2016-present**
- Elected as Secretary/Treasurer of the Systems Thinking in Education SIG          2020-2022
- Peer reviewer for conference proposals          2020 -Present
  - Systems Thinking in Education
  - Technology-Based Environments Special Interest Groups (SIGs)
  - Design & Technology

**Curriculum and Instruction Graduate Student Association (CIGSA), Purdue University:**          2018-19
- Organized student mentoring programs and workshops on poster presentation

**Graduate Student Education Council (GSEC), Purdue University:**          2015-2018
- Organized the Annual Graduate Student Education Research Symposiums (AGSERS)

## SERVICE PROJECTS

**Project Prayogam (own initiative):**          **Ongoing**
- Established a free library and STEM practical lab in a rural village in Tamil Nadu, India          2025
- Established practical learning centers in a rural elementary school in India          2025
- Established an Audio/Visual learning environment in a  rural school in India          2023

**K-12 Schools in India:** Providing consultations on how to implement educational technology tools in K-12 classrooms to promote 21$^{st}$ century skills development among students.          **2022- Present**

**USKids4Water.org:**          **2020-Present**
Teaching spoken English to children living in a rural region in India via WhatsApp. Conducting Spell Bee contests to improve English skills of students studying in rural schools.

**Purdue Under-Graduate Research Council**: As council member made students aware of research opportunities and mentored under-graduate students in research. Reviewer of presentations (2019-2023).

**Designers for Learning:** Instructional design of Open Educational Resources (OERs) for Adult Basic Education (ABE), evaluating OERs, and facilitating MOOCs. (2016-2020).

**Bauer Center:** Demonstrate Science experiments to elementary school students. (2018-19)

**Imagination Station:** Demonstrate Science experiments to elementary school students and design websites of lesson modules. (2016-present)

**Purdue Graduate Office:** Global ambassador for India (2017-20). Conducting webinars and presentations about admissions, funding, and other elements that impact life on campus.

**Indian Women's Association Academy**: Educational service projects in the Greater Lafayette Community (2018-present)

## INTERNATIONAL EXPERIENCE

**Teaching Experience:**

**CMS Computers Ltd.,** Chennai, India                                                          1994 - 1996
Faculty: Computer hardware, Basic Electronics

**Delhi Public School (DPS),** Lucknow, India                                       May 2004 - April 2006
Faculty: STEM Subjects, Environmental Science

**Lucknow University,** Lucknow, India                                                                  2007
Lecturer: Business Organization for B. Com (Hons)

**Research and Writing Experience**

**Freelance writer**                                                                                    2001 – 2004
Educational content and short stories for children

**Technology Marketing Corporation,** Norwalk, CT, USA                        Nov 2007 - Nov 2014
Contributing Editor (Online):
Writing articles on technology and technology-based business corporations.

**Asia-Pacific Business and Technology Report,** Seoul, Korea              June 2009 - August 2015
Content Contributor on business and technology topics of global interest
http://www.biztechreport.com/source/shamila-janakiraman

**Fun and Focus Published by Knowledge Base,** Chennai, India                         2007 - 2010
Educational Content Writer: Writing articles on science and technology,
places of interest and short stories for K-12 students.