

Curriculum Vitae

Elham Morshedzadeh
Assistant Professor
emorshed@vt.edu

Industrial Design Program
School of Architecture and Design
Virginia Tech

I. Executive Summary

Education

- 2016 Ph.D., Design Science, Chiba University, Chiba, Japan. Thesis: "The User-Product Interaction Evaluation (UPIE) Model; A Structured Method for Testing and Improving the Product Design."
- 2009 M.S., Industrial Design, Islamic Art University of Tabriz, Tabriz, Iran. Thesis: "The Influence of Interaction Design on Product Functionality."
- 2009 B.A., Industrial Design, Alzahra University of Tehran, Tehran, Iran. Thesis: "Queue System Keyboard and Display Design for Bank Employees."

Academic and Administrative Appointments

- 2017–pres. Assistant Professor, Industrial Design, School of Architecture + Design, College of Architecture and Urban Studies (CAUS), Virginia Tech
- Spring 2017 Adjunct Instructor, Industrial Design, School of Architecture + Design, CAUS, Virginia Tech
- 2015–2016 Teaching Assistant, Division of Design Science, Chiba University, Chiba, Japan
- 2009–2012 Lecturer, Saba School of Art and Architecture, Bahonar University of Kerman, Kerman, Iran
- 2009–2012 Lecturer, Department of Graphic Design, Jame Elmi Karbordi (Applied Science and Technology) University, Kerman, Iran

Selected Service to the Community and Profession Community

Professional Appointment:

- 2021-Present Advisory Board Member, Office of Undergraduate Research (OUR)
- 2021-Present Scientific Advisory Board (SAB). integrated Translational Health Research Institute of Virginia (iTHRIV) Office of Undergraduate Research (OUR) Advisory Board
- 2021-pres. Human Centered Design PhD / Grad Program, Executive Committee Member
- 2020-pres. Center for Human Computer Interaction, , Executive Committee Member
- 2017-pres. International Archive of Women in Architecture, Executive Board Member
- 2020-pres. Team Malawi Member and consultant for proposed research and projects,

Professional Membership:

- 2018-pres. American Society of Engineering Education (ASEE)
- 2017-present Center for Human Computer Interaction (CHCI)
- 2017-pres. Industrial Design Society of America (IDSA)
- 2014–pres. Japanese Society for the Science of Design (JSSD)
- 2003–pres. Industrial Design Scientific Society of Iran
- 2013–2016 Academic Soc. of Iranians in Japan (ASIJ)

Selected Service to Virginia Tech:

College

- 2017-2020 CAUS Diversity Equity and Inclusion
- 2019- pres. CAUS Curriculum Committee

School

2020 - pres. A+D Diversity Equity and Inclusion Working Party
2020 - pres. A+D Technology Committee
2020 – pres. A+D Health Design Committee

Department

2017 - 2018 Search Committee Member, for a new Tenure-Track Assistant Professor of Industrial Design.

V. Research and Creative Activities

A. Awards, prizes, and recognitions

- 2020 Excellence in Outreach, School of Architecture and Design, Virginia Tech
2018 Junior Faculty Award, ICTAS (Institute for Critical Technology and Applied Science), Virginia Tech

Prior to Virginia Tech:

International awards and recognition:

- 2012 MEXT Academic Scholarship. Awarded by the Japanese government One of nine PhD students awarded out of approximately 500 applicants Embassy of Japan Tehran, Iran.
- 2008 Honorable Mention, iF Forum (International Forum Design Hannover), Hannover, Germany.
- 2006 Academic Scholarship. Awarded by Iran's Ministry of Science, Research and Technology for scoring in the top 5% on the Graduate School Entrance Examination Islamic Art University of Tabriz Tabriz, Iran.
- 2004 National Elite Industrial Design Students; selected to participate in the National Design Project (One of twelve students chosen from all Iranian universities) Ministry of Science and Technology, Department of Design Process and Development Project: Motorcycle safety helmet design Tehran, Iran.
- 2004 Second Place, Industrial Design Scientific Society Project: "One Touch" CD packaging design University of Tehran Tehran, Iran.
- 2001 Academic Scholarship. Awarded by Iran's Ministry of Science, Research and Technology for scoring in the top 10% on the Graduate School Entrance Examination Alzahra University of Tehran Tehran, Iran.

6. Papers in refereed journals (both print and electronic)

- 2016 Morshedzadeh E; Ono K; Watanabe W. (2016). A new Model for Improving User-Product Interaction Evaluation, Based on Affordance and Factor Analysis. Bulletin of Japanese Society of Science and Design (JSSD), Tokyo, Japan, Vol. 62(No. 5), 41-48.
- 2016 Morshedzadeh E; Ono K; Watanabe W. (2016). The User-Product Interaction Evaluation (UPIE) Model: A Case Study. Bulletin of Japanese Society of Science and Design (JSSD), Tokyo, Japan, Vol. 62(No.5), 49-58.
- 2012 Kolehini-Mamaghani, N; Morshedzadeh E; (2012). Evaluation of User and Product Performance by Approach of Interaction Design. Honarhaye Ziba (Journal of Fine Art) Spring 2010 issue, University of Tehran, Tehran, Iran.

7. Papers in refereed conference proceeding

- 2020 WIP: Transdisciplinary Design Education in Biomedical Engineering and Industrial Design Towards Identifying Unmet Needs of U.S. Veterans and their Healthcare Teams, 2020 ASEE Virtual Annual Conference Content Access, 22 Jun 2020 - 26 Jun 2021. 2020 ASEE Virtual Annual Conference Content Access Proceedings. ASEE Conferences. 24 Jun 2020
- 2019 Care for Veterans and Their Healthcare Providers A Community-Based, Collaborative Course for Industrial Design and Biomedical Engineering Students, Research & Education in Design: People & Processes & Products & Philosophy, 14 Nov 2019 - 15 Nov 2019.
- 2014 Morshedzadeh E; Watanabe W. User-Product Interaction Evaluation – Contribution Model Concept of Affordance, Usability and Confirmatory Factor Analysis” 5th STS Italia Conference (A Matter of Design: Making Society Through Science and Technology), Milan, Italy, 2014.
- 2014 Morshedzadeh E; “Evaluating Physical and Perceptual User-Product Interaction for Optimizing Product Design Methodology” 8th Annual Conference of ASIJ Journal (Academic Society of Iranians in Japan), Toyota, Japan (2014)
- 2013 Morshedzadeh E. Optimizing Product Design Methodology, 7th Annual Conference of ASIJ Journal (Academic Society of Iranians in Japan), Toyota, Japan (2013).

B. Exhibitions

- 2019 1x1 IN REAL TIME (No. Of Pieces: 23) [multiple two-dimensional media]. Stanford University. 2019, September 13.
- 2019 1x1 Toward 2020 (No. Of Pieces: 26) [Multiple two-dimensional media]. Greater Richmond Convention Center. 2019, November 6.
- 2018 Islamic Geometric Shapes in Art, Design & Architecture; An exhibition of sketches, paintings, prints, and product designs, April 9–10. Student designers: Alyssa Bushhouse (Industrial Design), Rachel Colon (Industrial Design), Yasmine Katkhuda (Architecture), Amanda Stuckey (Architecture), and Sarah Tram (Industrial Design). Photography by Dr. Elham Morshedzadeh and Jeff Joiner, Assistant Professor, Visual Communication Design, SOVA.
- 2018 Community Narratives, Kathryn Albright, Photography Exhibition: Virginia Tech. Cowgill Hall at Virginia Tech. October 2017.

10. Reviews

Published articles mentioning me, my teaching and/or my research:

- 2021 Roanoke Innovative
(<https://roanokeinnovates.com/2021/01/19/news-of-the-week-8/>)
- 2021 Women In Industrial Design
(https://www.linkedin.cn/authwall?trk=bf&trkInfo=AQHv-X30gWIIIAAAAXoc1KHYk6K6SJdDLzahqGSgpr2WRLlvMDv2iVRVeqwr97qULw_3BB28yxIK3DtV5ibsedxmuiZeMZR6Q8Cd0bLokNo--3znMIGB1uHOM5eFVm7VIEb3Pw=&originalReferer=&sessionRedirect=https%3A%2F%2Fwww.linkedin.cn%2Fcompany%2Fwomen-in-)

- industrial-design%3Ftrk%3Dorganization-update_share-update_actor-text)
- 2021 UVA Today
(<https://news.virginia.edu/content/ithriv-distributes-200000-fund-innovative-medical-research-projects>)
- 2021 Virginia Tech Interior Design Fall Newsletter 2020
(https://issuu.com/vtitds/docs/fall2020_vtitds_newsletter-issue04)
- 2021 EurokAlart
(https://www.eurekalert.org/pub_releases/2021-01/vt-iah011421.php)
- 2021 eScience.News
(<https://escience.news/ithriv-distributes-200000-to-fund-innovative-medical-research-projects.html>)
- 2021 Opera News
(<https://www.dailyadvent.com/news/45e31f62a3645895891cbf5b3a83b648-iTHRIV-announces-health-research-pilot-project-recipients>)
- 2020 EurokAlart
(https://eurekalert.org/pub_releases/2020-04/vt-gfr042720.php)
- 2020 CHCI News
(<https://hci.icat.vt.edu/news/id-students-design-for-aging-in-place.html>)
- 2019 The Flagship
(https://static.dvidshub.net/media/pubs/pdf_51600.pdf)
- 2019 Bracework
(<https://braceworks.ca/2020/11/28/health-tech/industrial-designers-and-biomedical-engineers-team-up-to-address-unmet-needs-of-wounded-veterans/>)
- 2019 Military News
(https://www.militarynews.com/news/veterans/industrial-designers-and-biomedical-engineers-team-up-to-address-unmet-needs-of-wounded-veterans/article_c600d676-beb0-11e9-b926-3fb793c5305a.html)
- 2019 Virginia Tech News
(<https://beam.vt.edu/about/news/stories/industrial-designers-and-biomedical-engineers-team-up-to-address.html>)
- 2017 CHCI News
(<https://hci.icat.vt.edu/news/chci-welcomes-new-member-elham-morshedzadeh.html>)

13. Papers and posters presented at professional meetings

International Conference Presentations:

- 2021 **Morshedzadeh E** (presenter); Muelenaer A.; Morris, M.; Werlich, D.; & Nelson, M.; Identifying Factors for Designing a Successful Telemedical Training System for Remote Pediatric Physical Exams, DESIGN CULTURE (OF) NEW NORMAL, Rome, Italy, 08 Jun 2021 - 12 Jun 2021
- 2019 **Morshedzadeh, E** (presenter); Arena, C., Hendershot, B. D., Robertson, J., Muelenaer, A., Lianos, E. A., and VandeVord, P. (2019). Care for Veterans and Their Healthcare Providers A Community-Based, Collaborative Course for Industrial Design and Biomedical Engineering Students, Research & Education in Design: People & Processes & Products & Philosophy, 14 Nov 2019 - 15 Nov 2019.
- 2014 **Morshedzadeh E**; Watanabe W. User-Product Interaction Evaluation – Contribution Model Concept of Affordance, Usability and Confirmatory Factor Analysis” 5th STS Italia Conference (A Matter of Design: Making Society Through Science and Technology), Milan, Italy, 2014.
- 2014 **Morshedzadeh E**; “Evaluating Physical and Perceptual User-Product Interaction for Optimizing Product Design Methodology” 8th Annual Conference of ASIJ Journal (Academic Society of Iranians in Japan), Toyota, Japan (2014)
- 2013 **Morshedzadeh E**. Optimizing Product Design Methodology, 7th Annual Conference of ASIJ Journal (Academic Society of Iranians in Japan), Toyota, Japan (2013).

National Conference Presentations:

- 2021 **Morshedzadeh E** (presenter); Muelenaer A.; Morris, M.; Werlich, D.; & Nelson, M.; Investigating the Role of User Experience Design in a Telemedical Training System for Pediatric Physical Examinations, International Applied Human Factors and Ergonomics Conference 2021, New York, Manhattan, 25 Jun 2021 - 29 Jun 2021
- 2021 **Morshedzadeh E**; (presenter); Arena, C.; Muelenaer A.; Teaching Strategies and Models Considering Interdisciplinary Practice in Industrial Design Curriculum, International Applied Human Factors and Ergonomics Conference 2021, New York, US, 25 Jun 2021 - 29 Jun 2021
- 2021 Turel, E.; Bohanen, C.L.; **Morshedzadeh, E.**(presenter); and Tomer, S.; Students’ Perspectives on an Inclusive Curriculum, and Equity and Diversity in Design Education: A Comparative Analysis of Four Design Programs, EDRA 52 Annual Conference: Just Environments: Transdisciplinary Border Crossings, Virtual, 19 May 2021 - 23 Jan 2021
- 2021 **Morshedzadeh, E.**(presenter); Bodo, B.; Sharma, A.; Assessment Strategy for Design Projects: A Collaborative Study for Improving Student Learning Outcome Evaluations in Project-Based Learning of Design Studio, 13th Annual Conference on Higher Education Pedagogy. (Participation: 75%).
- 2021 Kirkland, B.; **Morshedzadeh, E.**(presenter); VTID + SFCS, Collaborative Design Project on “Aging in Pace” with Virginia Tech Industrial Design Studio”, Kirkland, B.; Morshedzadeh, E.; 36th Annual By Design Conference, February 16, 2021

- 2020 Arena, C.; **Morshedzadeh, E.*** (presenter); Hendershot, B. D., Robertson, J., Muelenaer, A., Lianos, E. A., and VandeVord, P. (2020). WIP: Transdisciplinary Design Education in Biomedical Engineering and Industrial Design Towards Identifying Unmet Needs of U.S. Veterans and their Healthcare Teams, 2020 ASEE Virtual Annual Conference Content Access, 22 Jun 2020 - 26 Jun 2021. 2020
- 2020 **Morshedzadeh, E.**(presenter); Muelenaer, A.; Community-Centered Participatory Research in Design Education, 12th Annual Conference on Higher Education Pedagogy. (Participation: 75%).

Regional Conference Presentations:

- 2019 Chen, J., Baden-Lopes, A., Baker, E., Challa, S., Harris, J., McDonald, C., Merrifield, K., Steen, C. Faculty Advisors: **Morshedzadeh, E.**, Bird, J., Muelenaer, A. Neonatal Harness Design for Vital Sign Monitoring, abstract presented at the Carilion Clinic Research Day, April 10, 2018).

Presentation to Professionals and Expert matters:

- 2021 **Morshedzadeh, E;** Shriver, M; Muelenaer, A; iTHRIV Pilot Studies First Report, Presentation to integrated Translational Health Research Institute of Virginia.
- 2021 **Morshedzadeh, E;** Arena, C; Rodriguez-McGill, Claudia, Intro to Collaborative Summer Program in DC Area, to Daniel P. Harrington, MD, Vice Dean of Virginia Tech Carilion School of Medicine (VTCSM)
- 2021 **Morshedzadeh, E;** Arena, C; Rodriguez-McGill, Claudia, Intro to Collaborative Summer Program in DC Area, to College of Architecture and Urban studies and School of a+d.
- 2021 **Morshedzadeh, E;** Arena, C; Rodriguez-McGill, Claudia, Intro to Collaborative Summer Program in DC Area, to Johnson & Johnson Innovation Center, JLABS
- 2021 **Morshedzadeh, E;** Shriver, M; Muelenaer, A; iTHRIV Pilot Studies Kick Off Call, Presentation to integrated Translational Health Research Institute of Virginia.
- 2017 **Morshedzadeh, E.,** Fund Raising for Swensak Concept Maternal kit for Haiti. Washington DC.
- 2017 **Morshedzadeh, E., & Sharma, A.** Swensak Concept Maternal kit for Haiti. Center for International Research, Education and Development.
- 2017 **Morshedzadeh, E., & Sharma, A.** Birthing Kit: Concept Maternal kit for Haiti. TEAM Malawi, Virginia Tech

15. Abstracts

- 2018 **Morshedzadeh, E.;** Sharma, A.; The Impact of Question-based vs Solution-based Approaches within Engineering and Industrial Design Education, American Society of Engineering Education.
- 2014 Morshedzadeh E; "Evaluating Physical and Perceptual User-Product Interaction for Optimizing Product Design Methodology" 8th Annual Conference of ASIJ Journal (Academic Society of Iranians in Japan), Toyota, Japan (2014)
- 2013 Morshedzadeh E. Optimizing Product Design Methodology, 7th Annual Conference of ASIJ Journal (Academic Society of Iranians in Japan), Toyota, Japan (2013).

16. Other papers and reports

- 2021 Tomer, S.; Turel, E.; Tucker, L.; Morshedzadeh, E.; Basset, J.; Bohannon, C.L.; Betsky, A.; VT a+d Diversity, Equity and Inclusion Working Party Report II.
- 2021 Morshedzadeh, E.; Tomer, S.; Turel, E.; Tucker, L.; Basset, J.; Bohannon, C.L.; Betsky, A.; VT a+d Diversity, Equity and Inclusion Working Party Town Hall II Presentation, February 16
- 2021 Van DeVord, P.; Arena, A.; Morshedzadeh, E.; NIH R25 Report.
- 2020 Tomer, S.; Turel, E.; Tucker, L.; Morshedzadeh, E.; Basset, J.; Bohannon, C.L.; Betsky, A.; VT a+d Diversity, Equity and Inclusion Working Party Report I.
- 2020 Morshedzadeh, E.; Tomer, S.; Turel, E.; Tucker, L.; Basset, J.; Bohannon, C.L.; Betsky, A.; VT a+d Diversity, Equity and Inclusion Working Party Town Hall I Presentation, October 29.
- 2020 Dunay, D., Zellner Bassett, P., Tomer, S., Morshedzadeh, E., & Pagett, M. (2020). Call for Papers 2021 IAWA Symposium.
- 2019 Dunay, D., Zellner Bassett, P., Tomer, S., Morshedzadeh, E., & Paget, M. (2019). The 2019 IAWA Milka Bliznakov Research Prize: The 2019 International Archive of Women in Architecture Center (IAWA) Milka Bliznakov Research Prize.

Published interviews:

External Interview:

- 2019 WINA radio show (based out of Charlottesville, VA), Live interview, Tuesday, 8/13/2019 at 4:08 p.m.
Title: "Industrial designers and biomedical engineers team up to address unmet needs of wounded veterans"

Internal Interview:

- 2019 Virginia tech Daily News, 9/8/19
Title: "Industrial designers and biomedical engineers team up to address unmet needs of wounded veterans"
Link: <https://vtnews.vt.edu/articles/2019/08/Industrial-designers-biomedical-engineers-address-unmet-needs-wounded-veterans.html>

C. Sponsored research and other grant awards (Internal and External)

External

Ongoing:

- 2021 Sponsor: Carilion Clinic (Contact Agreement)
Title: Student Experiential Learning Agreement
PI: **Morshedzadeh, E** (100% Effort)
Amount: \$1,500 Per Senior Project
Spring 2021 – renewing every year
- 2020 Sponsor: Center for Advancing Translational Sciences of the National Institutes of Health (CATSNIH) Title: Designing an Interactive Training System for Pediatric Telemedicine Cart Operations incorporating Augmented Reality
PI: **Morshedzadeh E**; Co-PIs: Schriver M; Lages W; Muelenaer A; Burton J, (80% Effort)
Amount: \$52,800
Feb 2021- Jan 2022

- 2020 Sponsor: SFCS Architecture Firm
 Title: SFCS Aging in Place Sponsored Studio
 PI: **Morshedzadeh, E**; Co-PI: Kirkland, B, (50% Effort)
 Amount: \$5,000
 Fall 2020
- 2020 Sponsor: University of Baltimore
 Title: Connection to Care
 PI: Dunkenberger M.B.; Allen, E.; Crandell, I.; Hanlon, A.; Horn, K.;
Morshedzadeh, E; Nagle, L.; Sharma, A.; Van Mullekom, J.; Wenzel,
 S., Bezar, E. (5% Effort)
 Amount: \$257527
 2019 (Extended to 2021 due to COVID)
- 2019 Sponsor: National Institute of Child Health & Human Develop
 (NICHD), National Institute of Health (NIH)
 Training the Future Biomedical Workforce to Recognize and Resolve
 Unmet Needs of our Wounded Warriors and their Healthcare Providers
 PI: VandeVord P; Co-PIs: Arena C, **Morshedzadeh E** (50% Effort)
 Amount: \$64,339
 May 2019 – April 2025

Internal

Completed:

- 2017-18 Sponsor: Institute for Critical Technology and Applied Science (ICTAS)
 Junior Faculty Award, Virginia Tech (2018).
 Title: Designing Interactive Human-Aware Academic Spaces to
 Enhance User Experience through Ubiquitous Information
 Management
 PIs: Rofigari-Esfahan, N, **Morshedzadeh, E**, Co-PI: Tom Martin (20%
 Effort)
 Amount: \$80,000
 Aug 2018- July 2020
- 2017 Sponsor: Institute for Creative Art and Technology (ICAT)
 Title: Envisioning an Effective Cyber Security for Seniors Aging in
 Place in 2025
 PI: **Morshedzadeh, E**; Co-PI: Sharma, A (50% Effort)
 Amount: \$3,000
 Fall 2017
- 2017 International Travel Supplemental Grant, The Office of the Vice
 President for Research and Innovation,
 Amount: \$1,000.
- 2017 New Faculty Mentoring Grant, The Office of the Vice President for
 Research and Innovation,
 Amount: \$1,500.

Ongoing:

- 2021 Sponsor: Funding to Support Project Based Work Opportunities with
 Local Employers Sponsored by the Destination Area, Provost Office
 Title: ID_BME In Healthcare Application for Project Based Work - GO
 Virginia,
 PI: **Morshedzadeh, E**; Co-PI: Arena, C (50% Effort)
 Amount: \$5,000

- 2021 Spring and Summer 2021
 Sponsor: Center for Excellence in Teaching and Learning for Instructional Innovation Grant
 Title: Student Design Sprint to Address Grand Challenges in Progressive and Chronic Kidney Disease
 PI: Arena, C; Co-PI: **Morshedzadeh, E**; Rodriguez-McGill, G, (50% Effort)
 Amount: \$2,000
- 2021 Spring and Summer 2021
 Sponsor: Institute for Creativity, Art and Technology (Mini SEAD Grant)
 Title: TRP-P: Telehealth Research Partnership Portal
 PI: Kelliher, Co-PI: A; Mann, J; Blevins, L; Muelenaer, A; Finley, P; Polys, N; **Morshedzadeh, E**; Rikakis, T. (10% Effort)
 Amount: \$3,000

D. Invited keynote presentations or lectures

International Keynote Presentations:

- 2020 Morshedzadeh, E., Bhandari, A., & Sharma, A. "Utilizing Concept Generation to Drive Business Decisions". *dmi: Academic Design Management Conference Impact the Future by Design*. Originally Toronto, Canada (Moved to online format). Retrieved from <https://www.dmi.org/page/admc2020>.
- 2018 Morshedzadeh, E. "Empathy and User Experience in Advertising and Design." Invited Keynote Speaker and Panelist. Idea School of Advertising and Design, Tehran, Iran. January 11. (Invited)
- 2017 Morshedzadeh, E. "Interaction Evaluation of Products Based on Affordance and Structural Equation Modeling. Tehran Alzahra University, Tehran, Iran

National Keynote Presentations (N/A)

Regional Keynote Presentations:

- 2020 Morshedzadeh E, Muelenaer A, Nelson M, "Telemedicine, Tailored Tools and Techniques for Pediatric Physical Examinations", Pediatric CME Conference Grand Rounds 2020, Roanoke, Virginia, 06 Aug 2020. 06 Aug 2020.

Invited Panelist: (National and International)

- 2020 COVID-19 Series: Design in Healthcare Operations, VTC Medical Design Club, Virginia Tech Carilion School of Medicine.
- 2018 The Importance of Empathy and User Experience in Advertising and Design, Idea School of Design and Advertising, Tehran, Iran.
- 2017 CAUS Community Narratives, College of Architecture and Urban Studies, Virginia Tech. <https://vtx.vt.edu/articles/2018/08/082408-dsa-diversityexhibit.html>

Guest Lectures (N/A)

E. Editorship, curatorship, etc.

1. **Journals or other learned publications**
- 2018-pres. International Archive of Women in Architecture IAWA Center News No.25 and No.26,
2. **Editorial boards**
- 2018-pres. International Archive of Women in Architecture IAWA Center News No.25 and No.26,
3. **Exhibitions, performances, displays, etc.**
- 2021 ID Program's Senior Graduation Exhibition, Burchard Hall, Virginia Tech, May.
- 2020 ID Program's Senior Graduation Online Exhibition.
- 2018 Exhibition Curatorship, Islamic Geometric Shapes in Art, Design & Architecture, An exhibition of sketches, paintings, prints, and product designs, Cowgill Hall Lobby, Virginia Tech, April 9–10,
- 2018 ID Program's Senior Graduation Exhibition, Cowgill Hall Lobby, Virginia Tech, May 9-12.

VI. International and Professional Service and additional Outreach and Extension Activities

- 2021 ID/BME/JLAB/Carilion Clinic Summer Design Sprint, in our Design Sprint collaboration with JLABS (mentioned on page 29, section D) our team focused on Women in STEM and recruiting %87.5 from female undergraduate students.

A. International programs accomplishments

2. **International research collaborations (N/A)**
- 2019 Tomer, S., Dunay, D., Zellner Bassett, P., Morshedzadeh, E., & Paget, M. (2019). Call for Papers 2020 IAWA Symposium. In S. Tomer (Ed.), 2020 IAWA Symposium - 1x1 - The Potential of the Singular.
- 2109 Exhibition contribution, 1x1 IN REAL TIME (No. Of Pieces: 23) [multiple two-dimensional media]. Stanford University, 2019, September 13.
- 2109 Exhibition contribution, 1x1 Toward 2020 (No. Of Pieces: 26) [Multiple two-dimensional media]. Greater Richmond Convention Center, 2019, November 6.
- 2017-pres. Collaborating with TEAM Malawi and representatives from Mzuzu University, Malawi on planning a trip during Summer 2020 in order to do Community-based participatory research for design solution and potential projects for Industrial Design Program.
3. **Other international activities**
- 2019 Presented a full paper at the Research & Education in Design (REDES 2019), Lisbon School of Architecture of the University of Lisbon, Lisbon, Portugal. (For more detail please see section b at Research and Creative Activities)
- 2019 "Jury for the 2019 Milka Bliznakov Research Prize", Participated in jury to select the Annual Milka Bliznakov Research Prize recipient. The call attracted a large and diverse pool of highly qualified international submittals yielding one prize recipient from Spain.

2019 "2019 Milka Bliznakov Student Research Prize", An addition to the traditional Milka Bliznakov Research Prize, this prize is offered to students from the School of Architecture + Design, to raise the awareness of the existence of the IAWA and its mission and to promote research conducted with material held in the collections of women from the archive, therefore familiarizing the students with female precedents in architecture. Recipient this year: Daniela Urazan

B. Professional service accomplishments, such as:

**1. Service as an officer of an academic or professional association
Professional Appointment/Officer/Board Member:**

2021-Present Scientific Advisory Board (SAB). integrated Translational Health Research Institute of Virginia (iTHRIV)

Professional Membership:

2018-pres. American Society of Engineering Education (ASEE)

2017-pres. Industrial Design Society of America (IDSA)

2014-pres. Japanese Society for the Science of Design (JSSD)

2003-pres. Industrial Design Scientific Society of Iran

2. Other service to one's profession or field (e.g., service on committees)

2021 Juror, "the IDSA Student Merit Award 2021"

2020 Juror, "the IDSA Student Merit Award 2020"

2019 Juror, "IDSA Student Merit Award 2019"

2018 Juror, "IDSA Student Merit Award 2018."

2017 Reviewer, American Society for Engineering Education, Annual International ASEE (American Society for Engineering Education), Conference 2018.

C. Efforts to diversify the disciplines such as:

1. Disciplinary or interdisciplinary efforts to attract underrepresented students to different majors and graduate programs at Virginia Tech

2021 ID/BME/JLAB/Carilion Clinic Summer Design Sprint, in our Design Sprint collaboration with JLABS (mentioned on Page 14) our team focused on Women in STEM and recruiting %87.5 from female undergraduate students.

2. Participation in campus, local, regional, or national organizational efforts to promote diversity and inclusion in scholarly or professional fields

2020 VT a+d School Diversity, Equity, and Inclusion Working Party: Reviewing the school and Industrial Design program on this subject. For this party besides having weekly meetings, various activities have been done and some are still in progress:

- o Administrating focus groups,
- o Conducting interviews with professionals, faculty and students
- o Creating surveys with other members (for Faculty, and students)

- o Co-organizing town hall with community members.
- o Data collection and analysis
- o Co-creating a report for upcoming town hall

D. Additional outreach and extension activities and outcomes

- 2020-Pres. Building a relationship with the new Johnson and Johnson Innovation (JLABS) and Children’s National in DC Area with Dr. Arena, at BEAM
Outcomes: A Summer program (Design Sprint) Getting Dr. Friedlander, Executive Director, Fralin Biomedical, Research Institute, Virginia Tech Vice President for Health Sciences and Technology, Senior Dean for Research, School of Medicine Professor’s Support for refereeing expert matters during this program
- 2021-Pres. Building a relationship with Carilion Clinic in Roanoke and Dr. Harington, Vice Dean of Virginia Tech Carilion School of Medicine (VTCSM)
Outcomes: Access to Carilion Clinic Center for Simulation, Research and Patient Safety for the summer program (Design Sprint)
- 2021-Pres. Building a partnership with Carilion and Carilion Innovation
Outcomes: A contact that provides financial and information resources for healthcare related senior projects in Industrial Design program. (\$1500 per project)

4. Presentations in area of expertise to community and civic organizations, including schools and alumni groups, etc.

- 2020 Morshedzadeh E, Muelenaer A, Nelson M, “Telemedicine, Tailored Tools and Techniques for Pediatric Physical Examinations”, Pediatric CME Conference Grand Rounds 2020, Roanoke, Virginia, 06 Aug 2020. 06 Aug 2020.
- 2019 [“Connection to Care: Opioid Epidemic”](#), Anna DiNardo, Blythe Rowe, Connor Howerton, Cristina Dunning, Wesley Rogers, Faculty Advisor: Morshedzadeh, E.; Sharma, A.; In collaboration with Virginia Tech Institute for Policy and Governance. Presented at Carilion Opiate Research Interest Community (CORRIC) 12/04/2019, at the Institute of Orthopedics and Neurology.
- 2017 Morshedzadeh, E. Fund Raising for Swensak Concept Maternal kit for Haiti. Washington DC.
- 2017 Morshedzadeh, E., & Sharma, A. Swensak Concept Maternal kit for Haiti. Center for International Research, Education and Development.
- 2017 Morshedzadeh, E., & Sharma, A. Birthing Kit: Concept Maternal kit for Haiti. TEAM Malawi, Virginia Tech

5. Outreach to underrepresented or underserved communities, in the Commonwealth, domestically, or internationally (N/A)

- 2019-pres. In “Training System for Pediatric Telemedical Encounter” our team’s ultimate goal is to make access to healthcare more inclusive and possible to residents in rural area, at first in Virginia and further in developing countries with limited access to resources.

- 2019-pres. "Connection 2 Care" research project, in collaboration with Virginia Tech Institute for Policy and Governance. (serving as Co-PI) we get the chance to work with local communities and providing service to this research group that are mostly from a vulnerable community or underrepresented population in local area.
- 2017-pres. Community-Based Participatory Research and Design Projects with TEAM Malawi and Haiti

8. Consulting that is consistent with university/department priorities

- 2021 Carilion Interactive Insulation Consulting. Several sessions of consulting and brainstorming sessions for designing of an interactive insulation for the new Carillion Children's Cancer Center. Myself along with other professors/professionals at ICAT.
- 2020 User Experience and Design Consult for NANOSAFE, INC., NANOSAFE, INC., 1800 Kraft Drive Suite 107, Blacksburg, VA, 24060-6370, 1800 Kraft Drive Suite 107, Blacksburg, VA, 24060, United States, I was reached out by a colleague from Engineering Department that we collaborated on a grant proposal together. The goal was to provide them consult on the design and user product of their water lead detecting product., 2020-Present
- 2020 Brainstorming for a new Carilion Cancer Center, Carilion Clinic, Roanoke, Virginia, United States, Due to previous projects and collaborations with Carilion Clinic and Simulation Center, I was reached out by Dr. Sarah Parker and Dr. William Fintel to join a team of specialist and healthcare professionals to join as a design and user expert. Several brainstorming sessions and meetings took place around different topics for planning a new Cancer Center in New River Valley.,

9. Recognitions and awards for outreach and extension effectiveness

- 2021 Excellence in Outreach award, School of Architecture and Urban Studies.

A. University meetings, panels, workshops, etc. led or organized

- 2021 Grant Reviewer, "CHCI Major Grant".
- 2018-pres. Grant Reviewer, Center for Human-Computer Interaction (CHCI)
- 2018-pres. Grant Reviewer, Milka Bliznakov Research Prize, International Archive of Women in Architecture (IAWA)
- 2018-pres. Juror for "Industrial Design Program Wide Competition"
- 2018 Juror for "Virginia High School Creativity and Innovation Summit", "Virginia High School Creativity and Innovation Summit", ICAT, Virginia Tech., 04/29/2018-04/30/2018

B. Department, college, and university service, including administrative responsibilities

1. Administrative Service:

2. Committee and advisory board involvement:

College Committee:

- 2019- pres. CAUS Curriculum Committee

- 2021-pres. Advisory Board Member, Office of Undergraduate Research (OUR)
- 2021-pres. Human Centered Design (HCD) PhD / Grad Program, Executive Committee Member
- 2020-pres. Center for Human Computer Interaction (CHCI), Executive Committee Member
- 2017-pres. International Archive of Women in Architecture (IAWA), Executive Board Member
- 2020-pres. Team Malawi Member and consultant for proposed research and projects,

School Committee:

- 2020 - pres. A+D Technology Committee
- 2020 – pres. A+D Health Design Committee

Department Committee:

- 2017 - 2018 Search Committee Member, for a new Tenure-Track Assistant Professor of Industrial Design.

3. Workshops, Exhibitions and Presentations Organized:

Event: (School Town Hall)

- Spring 2021 Type 1 Diabetes and its Challenges, Meeting with Sally Southard. **Morshedzadeh, E;** co-organized with Arena, C.; Rodriguez-McGill, C;
- Spring 2021 ID LAB IV Mid Semester Poster/Prototype Exhibition at the DOME, Organized by **Morshedzadeh, E;**
- Spring 2021 Industrial Design Online Senior Project Final Presentation - Class of '21, **Morshedzadeh, E;** co-organized with Sullivan M. & IDAB
- Spring 2021 Industrial Design Online Senior Invited Professional Critique - Class of '21, **Morshedzadeh, E;** co-organized with Sullivan M. & IDAB
- Spring 2021 Nestor, M; Scientific Engagement Lead JLABS, Intro to JLABS in DC Area, Johnson & Johnson Innovation, **Morshedzadeh, E;** co-organized with Arena, C.; Rodriguez-McGill, C;
- Spring 2021 VT a+d Technology Review Survey. Becker, E.; Betsky, A.; Hauptman, J.; Ishida, A.; Kennedy, B.; Kim, M.; **Morshedzadeh, E;** Pritchett, C.; Ruiz Geli, E.; Tural, E.,
- Spring 2021 IAWA Symposium. March 23rd, March 26th 2021, **Morshedzadeh, E;** co-organized with Dunay, D., Zellner Bassett, P., Tomer, S., Morshedzadeh, E., & Pagett, M.
- Spring 2021 ID Program's Graduation Online Exhibition, **Morshedzadeh, E;** co-organized with Sullivan M. & IDAB
- Spring 2020 ID Program's Senior Graduation Online Exhibition, **Morshedzadeh, E;** co-organized with Sharma, A;
- Spring 2020 ID Program's Senior Final Public Presentation, **Morshedzadeh, E;** co-organized with Sharma, A;
- Spring 2020 Needs Identification in Healthcare (Veteran) Public Presentation, **Morshedzadeh, E;** co-organized with Arena, C;

- Fall 2020 The Design Literature Review, Catharine Copper, Head, Art & Architecture Library, 09/02/2020. Organized by **Morshedzadeh, E;**
- Fall 2020 Crash Cart Usability Assessment, Matt Jesso, Human Factors Usability Lead, Quality & Patient Safety, Carilion Medical Center, 09/29/2020, Organized by **Morshedzadeh, E;**
- Fall 2020 Evaluating concepts, Michelle Avelis, Lead research and strategy guidance, 10/06/2020, Organized by **Morshedzadeh, E;**
- Fall 2020 Design Visualization, Bob Oderward, UX/UI Design Manager, 10/20/2020
- Fall 2020 Connecting the dots, Jasmine Orange, User Experience Designer, 11/10/2020, Organized by **Morshedzadeh, E;**
- Fall 2020 UI Design, Patrick Finley, Visual Communication Assistant Professor, 11/17/2020
- Fall 2020 Final Presentation Visual & Graphic Design Critique, three professors from School of Visual Art (SOVA), 11/09/2020, Organized by **Morshedzadeh, E;**
- Fall 2019 Graphic Design Crash Course, Jeff Joiner, Visual Communication Assistant Professor 09/03/2019, Organized by **Morshedzadeh, E;**
- Fall 2019 UX/UI Design, Patrick Finley, Visual Communication Assistant Professor, 11/17/2020, Organized by **Morshedzadeh, E;**
- Spring 2018 ID Program's Senior Graduation Exhibition, **Morshedzadeh, E;** co-organized with Green, B.; 05/09/2018-05/12/2018
- Spring 2018 D Program's Senior Final Public Presentation, **Morshedzadeh, E;** co-organized with Green, B.;
- Spring 2018 Islamic Geometric Shapes in Art, Design & Architecture Exhibition, An exhibition of sketches, paintings, prints, and product designs, **Morshedzadeh, E;** co-organized with Joiner, J.;04/09/2018-04/10/2018
- Fall 2017 Led the Presentation for "Caring for the Caregiver Hackathon": coached a multidisciplinary team of students from VT at the 3rd annual "Caring for the Caregiver Hack: Advancing Caregiver Health Through Innovations". The Lindsay Institute for Innovations in Caregiving, Richmond, Virginia
- Fall 2017 Morshedzadeh, E; Sharma, A; Cybersecurity and UX design, Series of Students' UX Project Presentations to professional and expert matters at the Washington-Alexandria Architecture Center. **Morshedzadeh, E;** co-organized with Sharma, A;
- Fall 2017 Steve Harrison, "The view from (of?) HCI" (Presentation), Professor of Computer Science, Virginia Tech, Organized by **Morshedzadeh, E;**
- Fall 2017 Patrick Finley, "IxD - Communication Design" (Presentation), Assistant Professor, Visual Communication Design, Virginia Tech, Organized by **Morshedzadeh, E;**

C. Service that promotes diversity and inclusion

1. Professional:

20218-pres. Team Malawi and Haiti Member and consultant for proposed research and projects

2. College Committee:

2017-2020 CAUS Diversity Equity and Inclusion

3. School Committee:

2020 - pres. A+D Diversity Equity and Inclusion Working Party

4. Workshops, Exhibitions and Presentations Organized:

- 2021 (Survey preparation for a+d DEI – Curriculum Analysis) Tomer, S.; Turel, E.; Morshedzadeh, E.; Tucker, L.; Basset, J.; Bohannon, C.L.; Betsky, A.; VT a+d Diversity, Equity and Inclusion Working Party Town Hall I, October 29.
- 2021 (Co-organizing) Tomer, S.; Turel, E.; Morshedzadeh, E.; Tucker, L.; Basset, J.; Bohannon, C.L.; Betsky, A.; VT a+d Diversity, Equity and Inclusion Working Party Town Hall II, February 16
- 2020 (Co-organizing) Tomer, S.; Turel, E.; Morshedzadeh, E.; Tucker, L.; Basset, J.; Bohannon, C.L.; Betsky, A.; VT a+d Diversity, Equity and Inclusion Working Party Town Hall I, October 29.
- 2020 (Survey preparation for a+d DEI – Staff/Faculty/Students) Tomer, S.; Turel, E.; Morshedzadeh, E.; Tucker, L.; Basset, J.; Bohannon, C.L.; Betsky, A.; VT a+d Diversity, Equity and Inclusion Working Party Town Hall II, February 16

D. Service to students—involvement in co-curricular activities, advising student organizations, etc.

- 2020-pres. Meeting individual and/or focus group of students about topics related to DEI
- 2020-pres. By Whom? For Whom? Committee Member, Students Organization
- 2017 Caring for the Caregiver Hackathon: Coached a multidisciplinary team of students from VT at the 3rd annual “Caring for the Caregiver Hack: Advancing Caregiver Health Through Innovations”. The Lindsay Institute for Innovations in Caregiving, 7501 Boulders View Drive, Suite 201, Richmond, Virginia, 23225, United State, 2017-2017.
(This has been also mentioned in Section C, page 11)

A. Submitted and under review:

Peer Reviewed Publication

- 2021 Designing Interactive Human-Centered Buildings to enhance User Experience through Ubiquitous Data Management

Grant

External

- 2021 Sponsor: National Institutes of Health (NIH)
Title: NIH U01 SCENT Dog Chip
PI: Agah, M. Co-PIs: Eldardiry, H, **Morshedzadeh E**, Nazhand-Ali, L.
Amount: \$4,357,581 (20% Effort)
March 2022- Apr 2027
- 2021 Sponsor: National Institute of Biomedical Imaging and Bioengineering (NIBIB), National Institute of Health (NIH)
Title: Transdisciplinary Biomedical Team Training: Advancing Healthcare Solutions Through Engineering, Design, and Business
PI: Arena, C; Co-PIs: **Morshedzadeh, E.**, Haines, K, Muelenaer, M, Queen, R

Amount: \$200,000 (18% Effort)
March 2022- Apr 2027

Conference Proceedings Peer Reviewed Publication

Upcoming

- 2021 Teaching Strategies and Models Considering Interdisciplinary Practice in Industrial Design Curriculum, International Applied Human Factors and Ergonomics Conference 2021, New York, US, 25 Jun 2021 - 29 Jun 2021
- 2021 Identifying Factors for Designing a Successful Telemedical Training System for Remote Pediatric Physical Exams, DESIGN CULTURE (OF) NEW NORMAL, Rome, Italy, 08 Jun 2021 - 12 Jun 2021

B. Work in progress

Establishing Health Design and Policy Research Center - This center's goal is to create a foundation and structure for various creative activities and researches that are undergoing in CAUS with internal (VT disciplines) external collaborators in healthcare.

Peer Reviewed Publication

(Invited Paper)

Transdisciplinary Design Education in Biomedical Engineering and Industrial Design Towards Identifying Unmet Needs of US Veterans and their Healthcare Teams

Grant Funding

- 2022 Sponsor: National Institute for Nursing Research (NINR), National Institute of Health (NIH)
Title: Designing an Interactive Training System for Pediatric Telemedicine Cart
Operations incorporating Augmented Reality
PI: **Morshedzadeh E**; Co-PIs: Schriver M; Lages W; Muelenaer A; Burton J
- 2022 Sponsor: National Institute on Deafness and Other Communication Disorders (NIDCD), National Institute of Health (NIH)
Title: Designing an Inclusive Interactive System for students with hearing impairment to maximize their learning experience, integrating smart building
PI: **Morshedzadeh E**; Co-PIs: Roofigari-Esfahan, N, Gabbard, Joe,

IX. Other Pertinent Activities

A) Professional development activities

- 2019 [SIRC] COI CITI Training Online, Research compliance training data provided by the Office of the Vice President for Research and Innovation, 05/20/2019
- 2019 [TMS 2.0] Government Ethics – The Essentials, U.S. Department of Veterans Affairs, 12/19/2019

- 2019 [TMS 2.0] Emergency Preparedness Management Program, U.S. Department of Veterans Affairs, 12/19/2019
- 2019 [TMS 2.0] Fire and Life Safety Module - SAM, U.S. Department of Veterans Affairs, 12/19/2019
- 2019 [TMS 2.0] VA Privacy and Information Security Awareness and Rules of Behavior, U.S. Department of Veterans Affairs, 9/4/2019
- 2019 [TMS 2.0] Privacy and HIPAA Training, U.S. Department of Veterans Affairs, 9/4/2019
- 2020 [SIRC] COI CITI Training Online, Research compliance training data provided by the Office of the Vice President for Research and Innovation, 2020
- 2020 [TMS 2.0] Government Ethics – The Essentials, U.S. Department of Veterans Affairs, 2020
- 2019 [TMS 2.0] Emergency Preparedness Management Program, U.S. Department of Veterans Affairs, 12/19/2019
- 2020 [TMS 2.0] Fire and Life Safety Module - SAM, U.S. Department of Veterans Affairs, 2020
- 2020 [TMS 2.0] VA Privacy and Information Security Awareness and Rules of Behavior, U.S. Department of Veterans Affairs, 2020
- 2020 [TMS 2.0] Privacy and HIPAA Training, U.S. Department of Veterans Affairs, 2020

Professional and/or Educational Workshop

- 2020 Office of Sponsored Project: Pre-Award Workshop, University, 08/04/2020
- 2020 Strategic Planning: Affinity Group "Engagement", College, 06/03/2020
- 2020 Authorship Ethics for Research and Scholarly Publications Webinar, University, Virginia Tech, Scholarly Integrity & Research Compliance, 05/28/2020

B) IRB Protocol Approval for Human Research Studies

- 2021 March 26, 2021, Approved Carilion IRB
Title: Designing an Interactive Training System for Pediatric Telemedicine Cart Operators Incorporating Augmented Reality
- 2020 Jun 10, 2020, Approved (No human subject research) VT IRB
Title: Telemedicine Cart Training System Task and Interaction analysis for Pediatric Practice Considering the Need for More Feasible Usage of Telemedicine During COVID-19 Pandemic
- 2020 Apr 16, 2020, Approved VT IRB
Title: Transdisciplinary Design Education in Biomedical Engineering and Industrial Design Towards Identifying Unmet Needs of Wounded Warriors
- 2020 Jan 21, 2020, Approved (No Research) VT IRB
Title: Healthcare Design Roundtable: Aging in place and access to healthcare
- 2020 Apr 16, 2020, Approved VT IRB
Title: Designing Interactive Human-Aware Academic Spaces to Enhance User Experience Through Ubiquitous Information Management