

# MEHLIKA INANICI

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## Education:

Ph.D. in Architecture, University of Michigan, Ann Arbor, MI, 2004.  
Major: Environmental Technology (Lighting), Minor: Computer Graphics

Master of Science in Architecture, University of Michigan, Ann Arbor, MI, 2001.  
Specialization: Environmental Technology (Lighting)

Doctoral studies, METU Department of Architecture, Ankara Turkey, 1996-1998.  
Specialization: Building Science

Master of Science in Building Science, METU, Department of Architecture, Ankara, Turkey, 1995.  
Specialization: Thermal Performance

Bachelor of Architecture, METU, Department of Architecture, Ankara, Turkey, 1993.

## Academic Appointments:

**Associate Professor with Tenure** (September 2011 – present)  
University of Washington, Department of Architecture, Seattle, WA.

**Director of Design Technology** (September 2020 – present)  
University of Washington, Department of Architecture, Seattle, WA.

**Director of Master of Science Program in Architecture, Design  
Computation/Technology track** (2018 – present), University of Washington,  
Department of Architecture, Seattle, WA.

**Core Faculty and Steering Committee Member, Ph.D. Program in the Built Environment** (2006 –  
present), College of Built Environments, University of Washington, Seattle, WA.

Assistant Professor (September 2005 – 2011)  
University of Washington, Department of Architecture, Seattle, WA.

Postdoctoral Research Fellow (2004 – 2005)  
Lawrence Berkeley National Laboratory, Building Technologies, Berkeley, CA.

Research / Teaching Assistant (1994 -1998)  
METU, Department of Architecture, Ankara, Turkey.

## Peer reviewed Publications:

[Journal Article], [Conference Proceeding], [Book Chapter], [Technical Report] [Thesis/Dissertation]

- Inanici M. "Research Methods in Daylighting and Electric Lighting," In: *Research Methods in Building Science and Technology*, Eds. R. Azari and H. Rashed-Ali, Springer Nature Publishing Company, 2021 (to be released on September 8, 2021). [BC]
- Altenberg Vaz N and Inanici M. "Syncing with the Sky: Daylight-Driven Circadian Lighting Design," *Leukos, the Journal of the Illuminating Engineering Society*, 17(3): 291-309, 2021. <https://doi.org/10.1080/15502724.2020.1785310> [JA]
- Noback A, Grobe L, and Inanici M. "Hagia Sophia's Sixth Century Daylighting," *Proceedings of the International Hagia Sophia Symposium*, Istanbul, Turkey, 687-706, September 24-25, 2020. <http://acikerisim.fsm.edu.tr:8080/xmlui/handle/11352/3239> [CP]
- Grobe L, Noback A, and Inanici M. "Challenges in the Simulation of Daylighting Distribution in Late Antique Hagia Sophia," *Proceedings of the International Hagia Sophia Symposium*, 661-685, September 24-25, 2020. <http://acikerisim.fsm.edu.tr:8080/xmlui/handle/11352/3239> [CP]
- Parsae M, Demers CM, Lalonde JF, Potvin A, Inanici M, and Hebert M. "Biophilic Photobiological Adaptive Envelopes for Sub-Arctic Buildings: Exploring Impacts of Window Sizes and Shading Panels' Color, Reflectance, and Configuration," *Solar Energy*, 220: 802-827, 2121. <https://doi.org/10.1016/j.solener.2021.03.065> [JA]
- Liu Y, Colburn A, and Inanici M. "Deep Neural Network Approach for Annual Luminance Simulations," *Journal of Building Performance Simulation*, 13(5): 532-554, 2020. <https://doi.org/10.1080/19401493.2020.1803404> [JA]
- Parsae M, Demers CM, Lalonde JF, Potvin A, Inanici M, and Hebert M. "Human-centric Lighting Performance of Shading Panels in Architecture: A Benchmarking Study with Lab Scale Physical Models under Real Skies," *Solar Energy*, 204: 354-368, 2020. <https://doi.org/10.1016/j.solener.2020.04.088> [JA]
- Inanici M. *Improving the Accuracy of Spectral Daylighting Simulations in Buildings*, Pacific Northwest National Laboratory (Department of Energy), Integrated Daylighting, Electric Lighting, and Controls Research, 2020. [TR]
- Inanici M. "Tri-stimulus Color Accuracy in Image-based Sky Models: Simulating the Impact of Color Distributions throughout the Sky-Dome on Daylit Interiors with Different Orientations," *Proceedings of the International Building Performance Simulation Association (IBPSA) Conference*, 1052-1059, Rome, Italy, September 2-4, 2019. <https://doi.org/10.26868/25222708.2019.210585> [CP]
- Liu Y, Colburn A, and Inanici M. "Predicting Annual Equirectangular Panoramic Luminance Maps Using Deep Convolutional Neural Networks," *Proceedings of the International Building Performance Simulation Association Conference*, 996-1003, Rome, Italy, September 2-4, 2019. <https://doi.org/10.26868/25222708.2019.210369> [CP]
- Inanici M. "Focusing on Daylight Spectra," *Illuminating Engineering Society (IES), Forum for Illumination Research, Engineering, and Science (FIRES)*, August 2019 (short technical memo, invited to submit, peer-reviewed). <https://www.ies.org/fires/focusing-on-daylight-spectra/>. [TR]

- Jung BY and Inanici M. "Measuring Circadian Lighting through High Dynamic Range Photography," *Lighting Research and Technology*, 51(5): 742-763, 2019. <https://doi.org/10.1177/1477153518792597> [JA]
- Liu Y, Colburn A, and Inanici M. "Computing Long-term Daylighting Simulations from High Dynamic Range Imagery Using Deep Neural Networks," *Proceedings of the Building Performance Analysis Conference and SimBuild* (co-organized by ASHRAE and IBPSA-USA), Chicago, IL, September 26-28, 2018. [CP]
- Inanici M and Hashemloo A. "An investigation of the daylighting simulation techniques and sky modeling practices for occupant centric evaluations," *Building and Environment*, 113: 220-231, 2017. <https://doi.org/10.1016/j.buildenv.2016.09.022> [JA]
- Hashemloo AR, Inanici M., and Meek C. "GlareShade: A Visual Comfort-based Approach to Occupant-centric Shading Systems," *Journal of Building Performance Simulation*, 9(4): 351-365, 2016. <https://doi.org/10.1080/19401493.2015.1058421> [JA]
- Inanici M. and Liu Y. "Robust Sky Modelling Practices in Daylighting Simulations," *Proceedings of Passive and Low Energy Architecture (PLEA) Conference*, Los Angeles, CA, 1: 663-668, July 11-13, 2016. <http://www.plea-arch.org/index.php/plea-proceedings/> [CP]
- Jakubiec A, Inanici M., van den Wymelenberg K, Mahic A. "Improving the Accuracy of Measurements in Daylit Interior Scenes using High Dynamic Range Photography," *Proceedings of Passive and Low Energy Architecture Conference*, Los Angeles, CA, 1: 649-656, July 11-13, 2016. <http://www.plea-arch.org/index.php/plea-proceedings/> [CP]
- Jakubiec A, van den Wymelenberg K, Inanici M., and Mahic A. "Accurate Measurement of Daylit Interior Scenes using High Dynamic Range Photography," *Proceedings of the CIE (International Commission on Illumination) Lighting Quality and Energy Efficiency Conference*, Melbourne, Australia, March 3-5, 2016. [CP]
- van den Wymelenberg K and Inanici M. "Evaluating a New Suite of Luminance-Based Design Metrics for Predicting Human Visual Comfort in Offices with Daylight," *Leukos: the Journal of the Illuminating Engineering Society*, 12(3): 113-138, 2016. <https://doi.org/10.1080/15502724.2015.1062392> [JA]
- Inanici M., Brennan M, and Clark E. "Spectral Lighting Simulations: Computing Circadian Light," *Proceedings of International Building Performance Simulation Association Conference*, 1245-1252, Hyderabad, India, December 7-9, 2015. <http://www.ibpsa.org/proceedings/BS2015/p2467.pdf> [CP]
- Inanici M. "Lighting Analysis of Hagia Sophia," In: *Annuals of Hagia Sophia Museum*, Eds. Z. Ahunbay, S. Mulayim, AB Yalcin, 14: 128-201, Istanbul, Turkey, 2014, (bilingual: in English and Turkish). [BC]
- van den Wymelenberg K and Inanici M. "A Critical Investigation of Common Lighting Design Metrics for Predicting Human Visual Comfort in Offices with Daylight," *Leukos: the Journal of Illuminating Engineering Society*, 10(3): 145-164, 2014. <https://doi.org/10.1080/15502724.2014.881720> [JA]
- Inanici M. "Dynamic Daylighting Simulations from Static High Dynamic Range Imagery using Extrapolation and Daylight Coefficient Methodologies," *Proceedings of International Building Performance Simulation Association Conference*, 3392-3399, Chambéry, France, August 26-28, 2013. [http://www.ibpsa.org/proceedings/BS2013/p\\_1454.pdf](http://www.ibpsa.org/proceedings/BS2013/p_1454.pdf) [CP]
- Kumaragurubaran V. and Inanici M. "hdrscope: High Dynamic Range Image Processing Toolkit for Lighting Simulations and Analysis," *Proceedings of the International Building Performance Simulation Association Conference*, Chambéry, France, August 26-28, 2013. [http://www.ibpsa.org/proceedings/BS2013/p\\_1194.pdf](http://www.ibpsa.org/proceedings/BS2013/p_1194.pdf) [CP]

- Van den Wymelenberg K and Inanici M. "Limitations of Common Lighting Metrics for Evaluating Human Visual Comfort in Spaces with Daylight," *Proceedings of the Illuminating Engineering Society (IES) Conference*, Huntington Beach, CA, October 26-29, 2013. [CP]
- Tai NC and Inanici M. "Luminance Contrast as Depth Cue: Investigations and Design Applications," *Journal of Computer-Aided Design and Applications*, 9(5): 691-705, 2012. [http://www.cad-journal.net/files/vol\\_9/CAD\\_9\(5\)\\_2012\\_691-705.pdf](http://www.cad-journal.net/files/vol_9/CAD_9(5)_2012_691-705.pdf) [JA]
- Inanici M. "Evaluation of High Dynamic Range Image-based Sky Models in Lighting Simulation," *Leukos, the Journal of the Illuminating Engineering Society*, 7(2): 69-84, 2010. <https://doi.org/10.1582/LEUKOS.2010.07.02001> [JA]
- Van den Wymelenberg K, Inanici M., and Johnson P. "The Effect of Luminance Distribution Patterns on Occupant Preference in a Daylit Office Environment," *Leukos, the Journal of the Illuminating Engineering Society*, 7(2): 103-122, 2010. <https://doi.org/10.1582/LEUKOS.2010.07.02003> [JA]
- Tai NC and Inanici M. "Space Perception and Luminance Contrast: Investigation and Design Applications through Perceptually based Simulations," *Proceedings of the Spring Simulation Multi-conference, Symposium on Simulation for Architecture and Urban Design (SimAUD)*, 61-68, Orlando, FL, April 12-15, 2010. [http://www.simaud.org/proceedings/download.php?f=SimAUD2010\\_Proceedings\\_HiRes.pdf](http://www.simaud.org/proceedings/download.php?f=SimAUD2010_Proceedings_HiRes.pdf) [CP]
- Tai NC and Inanici M. "Lighting in Real and Pictorial Spaces: A Computational Framework to Investigate the Scene based Lighting Distributions and their Impact on Depth Perception," *Proceedings of the Association of Computer-Aided Design and Research in Asia (CAADRIA) Conference*, 501-510, Hong Kong, April 7-10, 2010. [http://papers.cumincad.org/cgi-bin/works/paper/caadria2010\\_047](http://papers.cumincad.org/cgi-bin/works/paper/caadria2010_047) [CP]
- Inanici M. "Applications of Image-based Rendering in Lighting Simulation: Development and Evaluation of Image-based Sky Models," *Proceedings of the International Building Performance Simulation Association Conference*, 264-271, Glasgow, UK, July 27-30, 2009. [http://www.ibpsa.org/proceedings/BS2009/BS09\\_0264\\_271.pdf](http://www.ibpsa.org/proceedings/BS2009/BS09_0264_271.pdf) [CP]
- Van den Wymelenberg K and Inanici M. "A Study of Luminance Distribution Patterns and Occupant Preferences in Daylit Offices," *Proceedings of the Passive and Low Energy Architecture Conference*, Quebec City, Canada, June 22-24, 2009. <http://www.plea-arch.org/index.php/plea-proceedings/> [CP]
- Tai NC and Inanici M. "Depth perception as a function of Lighting, Time, and Spatiality," *Proceedings of the Illuminating Engineering Society Conference*, Seattle, WA, November 15-17, 2009. [CP]
- Tai NC and Inanici M. "Depth Perception in Real and Pictorial Spaces: A Computational Framework to Represent and Simulate the Built Environment," *Proceedings of the Association of Computer-Aided Design and Research in Asia Conference*, Yunlin, Taiwan, April 22-25, 2009. [http://papers.cumincad.org/cgi-bin/works/paper/caadria2009\\_063](http://papers.cumincad.org/cgi-bin/works/paper/caadria2009_063) [CP]
- Greivulis Z and Inanici M. "Composing with Light: An Inside-out Evaluation of the Role of Intuition and Simulation throughout the Design Process," *Proceedings of the Passive and Low Energy Architecture Conference*, Dublin, Ireland, October 22-24, 2008. [http://plea-arch.org/ARCHIVE/websites/2008/content/papers/oral/PLEA\\_FinalPaper\\_ref\\_354.pdf](http://plea-arch.org/ARCHIVE/websites/2008/content/papers/oral/PLEA_FinalPaper_ref_354.pdf) [CP]
- Cheney K and Inanici M. "Image-based Rendering: Using High Dynamic Range Photographs to Light Architectural Scenes," *[Architecture] in the age of [Digital] Reproduction, Proceedings of the ACSA West Central Fall Conference*, University of Illinois Champaign-Urbana, October 23-26, 2008. [CP]

- Inanici M. "Computational Approach for Determining the Directionality of Light: Directional to Diffuse Ratio," *Proceedings of the International Building Performance and Simulation Association Conference*, 1182-1187, Beijing, China, September 3-7, 2007. [http://www.ibpsa.org/proceedings/BS2007/p408\\_final.pdf](http://www.ibpsa.org/proceedings/BS2007/p408_final.pdf) [CP]
- Inanici M and Navvab M. "The Virtual Lighting Laboratory: Per-pixel Luminance Data Analysis," *Leukos, the Journal of the Illuminating Engineering Society*, 3(2): 89-104, 2006. <https://doi.org/10.1582/LEUKOS.2006.03.02.001> [JA]
- Inanici M. "Evaluation of High Dynamic Range Photography as a Luminance Data Acquisition System," *Lighting Research and Technology*, 38(2): 123-136, 2006. <https://doi.org/10.1191/1365782806li164oa> [JA]
- Inanici M. "Per-pixel Lighting Data Acquisition and Analysis with High Dynamic Range Photography," *Proceedings of the International Commission on Illumination Conference*, Leon, Spain, May 18 - 20, 2005. [CP]
- Inanici M. *Per-pixel Lighting Data Analysis*, Lawrence Berkeley National Laboratory, LBNL Report # 58659, 2005. eScholarship Repository, University of California, <https://escholarship.org/uc/item/688137zg> and U.S. Department of Energy, Office of Scientific and Technical Information, <https://doi.org/10.2172/891345>. [TR]
- Lee ES, Selkowitz S, Clear R, Inanici M, Inkarojrit V, Lai J, Hughes G, Ward G, and Mardaljevic M. *Daylighting the New York Times Headquarters Building: Final Report*, Lawrence Berkeley National Laboratory, Berkeley, CA. LBNL Report# 57602, 2005. <http://eta-publications.lbl.gov/sites/default/files/daylighting-nytimes-final-web.pdf>. [TR]
- Inanici M and Galvin J. *Evaluation of High Dynamic Range Photography as a Luminance Mapping Technique*, Lawrence Berkeley National Laboratory, LBNL Report # 57545, 2004. eScholarship Repository, University of California, <https://escholarship.org/uc/item/9h61f5h8> and U.S. Department of Energy, Office of Scientific and Technical Information, <https://doi.org/10.2172/841925>. [TR]
- Inanici M. *HID Lamp Retrofit with T-5 Fluorescent Lamps: Field study at Marine Corps Base Camp Pendleton*, Lawrence Berkeley National Laboratory, prepared for Federal Energy Management Program (FEMP), February 2004. A brief article featured in FEMP Focus Newsletter, Fall 2004: "New Lighting Solutions for High-Bay Spaces: High-output T5 Lamps and Luminaires at Camp Pendleton," [https://www1.eere.energy.gov/femp/pdfs/fempfocus\\_fall\\_2004.pdf](https://www1.eere.energy.gov/femp/pdfs/fempfocus_fall_2004.pdf). [TR]
- Inanici M. *Transformations in Architectural Lighting Analysis: Virtual Lighting Laboratory*, University of Michigan. ProQuest, AAT 3121949, 2004. [D]
- Inanici M. "Utilization of Image Technology in Virtual Lighting Laboratory," *Proceedings of the International Commission on Illumination Conference*, San Diego, June 26 - 28, 2003. [CP]
- Inanici M. "Transformation of High Dynamic Range Images into Virtual Lighting Laboratories," *Proceedings of the International Building Performance and Simulation Association Conference*, 539-546, Eindhoven, Netherlands, August 10 - 14, 2003. [http://www.ibpsa.org/proceedings/BS2003/BS03\\_0539\\_546.pdf](http://www.ibpsa.org/proceedings/BS2003/BS03_0539_546.pdf) [CP]
- Demirbilek N, Yalciner U, Ecevit A, Sahmali E, and Inanici M. "Analysis of the Thermal Performance of a Building Design located at 2465m: Antalya - Saklikent National Observatory Guesthouse," *Building and Environment*, 38(1): 177-184, 2003. [https://doi.org/10.1016/S0360-1323\(02\)00015-X](https://doi.org/10.1016/S0360-1323(02)00015-X) [JA]

Inanici M. “Application of the state-of-the-art Computer Simulation and Visualization in Architectural Lighting Research,” *Proceedings of the International Building Performance and Simulation Association Conference*, 1175-1182, Rio de Janeiro, Brazil, August 13-15, 2001. [http://www.ibpsa.org/proceedings/BS2001/BS01\\_1175\\_1182.pdf](http://www.ibpsa.org/proceedings/BS2001/BS01_1175_1182.pdf) [CP]

Inanici M and Demirebilek N. “Thermal Performance Optimization of Building Aspect Ratio and South Window Size in Five Cities having Different Climatic Characteristics of Turkey,” *Building and Environment*, 35(1): 41-52, 2000. [https://doi.org/10.1016/S0360-1323\(99\)00002-5](https://doi.org/10.1016/S0360-1323(99)00002-5) [JA]

Demirebilek N, Yalciner U, Inanici M, Ecevit A, and Demirebilek O. “Energy Conscious Dwelling Design for Ankara,” *Building and Environment*, 35(1): 33-40, 2000. [https://doi.org/10.1016/S0360-1323\(98\)00069-9](https://doi.org/10.1016/S0360-1323(98)00069-9) [JA]

Ozdamar M, Inanici M, and Yener C. “Daylighting in Atria,” *Proceedings of the National Illumination Congress* (in Turkish), Istanbul, Turkey, November 26-27, 1998. [CP]

Sahmali E, Demirebilek N, and Inanici M. “National Observatory: Passively Climatized Building Design,” *Solar Day Symposium* (in Turkish), 1-6, June 21-22, 1998. [CP]

Demirebilek N, Sahmali E, and Inanici M. “A Passively Climatized Building, 2500 m Above Sea Level,” *Proceedings of Solar’97 Conference*, Australian and New Zealand Solar Energy Society, Canberra, Australia, paper 56, December 1-3, 1997. [CP]

Inanici M. *Thermal Performance Optimization of Passive Solar Building Components in Five Different Climatic Regions*, M.Sc. Thesis, METU, 1996. [T]

## **Fellowships, Awards, Grants and Recognition:**

*Spectrophotometer installation at the roof of Gould Hall*, funded by ZGF Architects and College of Built Environments Applied Research Consortium (ARC) to support an ARC research fellow and project that will start in Autumn 2021, 2020-present.

External Collaborator, *Biophilic Design in the Arctic: Immersive Community Co-creation to reconcile Well-being and Energy performance in Ikaluktutiak Architecture*, Sentinel North Research Grant, Université Laval, 2020-2024. <https://sentinelnorth.ulaval.ca/en/research/biophilic-design-arctic-immersive-community-co-creation-reconcile-well-being>.

Principal Investigator, *Pacific Northwest National Laboratory Collaborative Grant*, “Improving the Accuracy of Spectral Daylighting Simulations in Buildings,” 2020.

*Best Paper Award, SimBuild 2018 Conference*: Liu Y, Colburn A, and Inanici M. “Computing Long-term Daylighting Simulations from High Dynamic Range Imagery Using Deep Neural Networks,” 2018.

*Classic papers collection, the Journal of Lighting Research and Technology*, “Evaluation of High Dynamic Range Photography as a Luminance Measurement Technique” (Inanici, 2006) has been selected as one of the “classic” papers in the 50-year history of the *Journal of Lighting Research and Technology*, (Boyce PR and Carter DJ. “Lighting Research and Technology: Past, Present, and Future.” 50(1), 5-13, January 2018), <https://journals.sagepub.com/lrt/classicpapers>.

*Faculty Frame Award*, for contributions to service at the Department of Architecture, University of Washington, 2018.

Visiting Researcher, *San Gobain Glass*, Paris, France, Buildings energy performance & Daylighting group, invited by Laura Thuillier, Project leader and development engineer, July 27-29, 2017.

Co-Principal Investigator, *Built Environments Innovations Collaborative Grant*, University of Washington, College of Built Environments, "Combining Quantitative and Qualitative Analysis of the Interactions of Light, Vision, and Perception in Built Environments," (with Bob Mugerauer), 2017.

Principal Investigator, *University of Washington Royalty Research Fund*, "Development and Validation of Image-based Sky Models for Daylighting Applications," 2009-2010.

*Faculty Development Award*, College of Built Environments, University of Washington, 2008.

Principal Investigator, *Nuckolls Funding for Lighting Education*, Development of a course titled "Computational Lighting Design," University of Washington, Department of Architecture, 2006 –2007.

*Gerald William Faculty Prize*, University of Washington, Department of Architecture, 2006.

*Outstanding Performance Award*, Lawrence Berkeley National Laboratory, 2005. Awarded by the LBNL director for "the outstanding work preparing and delivering a presentation at the U.S. Department of Energy Peer Review and carrying out underlying technical work [*High Dynamic Range imagery for qualitative and quantitative assessment of lighting and daylighting conditions*], which is well above what is expected of a Post Doc, and lays the groundwork for additional research and development at the Lawrence Berkeley National Laboratory."

Principal Investigator, *U.S. Department of Energy, Assistant Secretary for Energy Efficiency and Renewable Energy, Office of Building Technology, Building Technologies Program Grant*, "Luminance Based Lighting Controls," Lawrence Berkeley National Laboratory (LBNL), Environmental Energy Technologies Division, Department of Building Technologies, Lighting Research Group, 2005.

Principal Investigator, *U.S. Department of Energy, Assistant Secretary for Energy Efficiency and Renewable Energy, Office of Building Technology, Building Technologies Program Grant*, "Lighting measurement, Simulation, and Analysis Toolbox," Lawrence Berkeley National Laboratory, Lighting Research Group, Principal Investigator, (Contract No. DE-AC02-05CH11231), 2004 – 2005.

## Software:

*hdrscope* (stand alone analysis tool, developed with former student V. Kumaragurubaran), 2012. *hdrscope* is a software program capable of performing High Dynamic Range (HDR) image processing and analysis for architectural lighting design.

<http://courses.washington.edu/hdrscope/>

*Lark Spectral Lighting* (plugin for Rhino, developed with ZGF architects Martin Brennan and Edward Clark), 2016. *Lark* was developed to investigate circadian light metrics within a Radiance daylighting workflow.

[http://faculty.washington.edu/inanici/Lark/Lark\\_home\\_page.html](http://faculty.washington.edu/inanici/Lark/Lark_home_page.html).

<https://www.food4rhino.com/app/lark-spectral-lighting>.

## Selected Presentations, Workshops and Panels: [Invited] [Refereed Event]

“Expanding the View into Post-Professional Degree Programs: Master of Science in Architecture at the University of Washington,” *Association of Collegiate Schools of Architecture (ACSA) Webinar* (Moderators: Chris Ford and Marc Neveu), April 6, 2021 (via Zoom). <https://www.acsa-arch.org/webinars/expanding-the-view-into-post-professional-degree-programs/>. [I]

*Workshop on Integration of Daylighting and Electric Lighting*, Lawrence Berkeley National Lab, teleconference, September 22, 2020 (via Zoom). [I]

“High Dynamic Range Photography for Lighting Measurements,” Pre-recorded workshop, *University of Sydney, School of Architecture, Design, and Planning*, September 4, 2020. [I]

“Tri-stimulus Color Accuracy in Image-based Sky Models: Simulating the Impact of Color Distributions throughout the Sky-Dome on Daylit Interiors with Different Orientations,” *International Building Performance Simulation Association Conference*, Rome, Italy, September 2-4, 2019. [R]

“Computing Light,” *University of Southern California, Viterbi School of Engineering, i-Lab (Innovation in Integrated Informatics)*, October 18, 2018 (delivered via teleconference). [I]

*International Workshop on Connecting Woman Faculty in Sustainable Building Research (WISB)*. This workshop is funded by the U. S. National Science Foundation (NSF) and the Dalian University of Technology. Dalian, China, July 5-6, 2018. [I]

“Computing Long-term Daylighting Simulations from High Dynamic Range Photographs Using Deep Neural Networks,” with Y. Liu (presenter) and A. Colburn, *International Radiance Workshop*, Portland, OR, August 21-25, 2017. [https://www.radiance-online.org/community/workshops/2017-portland-or/presentations/04\\_YL\\_DNN\\_Rendering.pdf](https://www.radiance-online.org/community/workshops/2017-portland-or/presentations/04_YL_DNN_Rendering.pdf). [R]

“Capturing the Circadian Lighting through HDR Photography,” with BY Jung (presenter), *International Radiance Workshop*, Portland, OR, August 21-25, 2017. [https://www.radiance-online.org/community/workshops/2017-portland-or/presentations/07\\_BJ\\_CircadianHDR.pdf](https://www.radiance-online.org/community/workshops/2017-portland-or/presentations/07_BJ_CircadianHDR.pdf). [R]

“Measuring and Analyzing the Circadian Light: A Discussion on Units, Metrics, and Techniques,” *DIVA Day (Environmental Performance Analysis in Design Practice + Research)*, October 27, 2017, Berkeley, CA. <https://www.solemma.com/events-2017/#talks> [I]

“The play of Light, Shadows, and Reflections: Capturing the Luminous Environment, Understanding the Human Visual Comfort,” *Saint Gobain Daylighting Community Program*, Paris, France, June 28, 2017. [I]

“Archiving Light: The Interplay of Measurements, Simulations, and Design,” *MIT Building Technology Program Seminar*, Cambridge, MA, April 3, 2017. [I]

Session chair/moderator, B2 Strategies, Tools, Simulation Methods, *Passive and Low Energy Architecture (PLEA) Conference*, Los Angeles, CA, July 11-13, 2016. [I]

“Designing for Circadian Rhythms,” (with E. Clark) *Greenbuild*, Los Angeles, CA, October 5, 2016. [R]

“Introduction to High Dynamic Range Photography,” 3-hour workshop (with A. Jakubiec), *Passive Low Energy Architecture Conference*, Los Angeles, CA, July 13, 2016. [R]



- “Robust Sky Modelling Practices in Daylighting Simulations,” *Passive and Low Energy Architecture Conference*, Los Angeles, CA, July 11-13, 2016. [R]
- “Designing for Circadian Light and Health Outcomes in Architectural Practice,” (with M. Brennan and E. Clark), *Architectural Institute of British Columbia, Annual Conference*, Vancouver, BC, May 17, 2016. [R]
- “Designing for Circadian Friendly Built Environments,” 3-hour workshop, *Lightfair International, Lightfair Institute*, San Diego, CA, April 24-28, 2016. [R]
- “Design for Well-being: A metropolis Think Tank Program,” Panelist, Seattle, October 14, 2015. *Metropolis* magazine published an article on the panel: “Point of View: Working Smarter and Sleeping Better: Circadian Rhythm in Workplace and Healthcare Design,” <https://www.metropolismag.com/architecture/workplace-architecture/working-smarter-and-sleeping-better-circadian-rhythm-in-workplace-and-healthcare-design/>. [I]
- “Designing for Circadian Light and Health Outcomes in Architectural Practice,” (with M. Brennan M and E. Clark), *Architectural Institute of British Columbia, Annual Conference*, Vancouver, BC, May 17, 2016. [I]
- “Designing Circadian Friendly Work Environments,” (with M. Brennan and E. Clark), webinar, *General Service Administration*, June 17, 2015. [I]
- “Spectral Lighting Simulations: Computing Circadian Light,” (with M. Brennan) *International Building Performance Simulation Association Conference*, Hyderabad, India, December 7-9, 2015. [R]
- “Simulation-based Design Approaches in Architectural Education,” *Universidad del Bio Bio, Department of Architecture*, Concepcion, Chile, March 24, 2015. [I]
- Day-long workshop on “Use of High Dynamic Range Photography in Lighting Research and Practice (Part 1: HDR Image Capture; Part2: HDR Image Analysis; Part3: HDR Image Display; Part 4: Applications),” *IlumiNa 2015: International Workshop on Advanced Daylighting Simulation*, Concepcion, Chile, March 20, 2015. [I]
- “Computational Daylighting Design and Analysis,” *IlumiNa 2015: International Workshop on Advanced Daylighting Simulation*; Concepcion, Chile, March 18-20, 2015. [I]
- “Prediction of Dynamic Daylighting Simulations from a Limited Number of High Dynamic Range Photographs,” *4th DIVA Day: DIVA for Rhino (Environmental Performance Analysis in Design Practice + Research)* Seattle, October 2, 2014. <https://www.solemma.com/events-2014/#talks> [I]
- “*hdrscope*: High Dynamic Range Image Processing Toolkit for Lighting Simulations and Analysis,” *International Building Performance and Simulation Association Conference*, Chambéry, France, August 28, 2013. [R]
- “Dynamic Daylighting Simulations from High Dynamic Range Imagery using Extrapolation and Daylight Coefficient Methodologies,” *Proceedings of the International Building Performance and Simulation Association 2013 Conference*, Chambéry, France, August 28, 2013. [R]
- “Building Performance Simulation as a Design Tool,” *LMN Architects*, April 6, 2011. [I]
- “From pixels to Sensors: Designing and Engineering Sustainable Buildings,” *Lawrence Berkeley National Laboratory*, March 29, 2011. [I]

- “Informed Design Decision Making In Pursuit of Sustainability,” *University of California, Berkeley, Department of Architecture*, March 28, 2011. [I]
- “Validation and Applications of Image-based Sky Models in Architectural Lighting Simulations,” *Pecha Kucha at NSF Workshop – Collaborative Practice: When Engineering Design Meets Architecture*, Philadelphia, PA, November 4, 2010. [I]
- “Creating a Sustainable Built Environment through Building Performance Simulations” *University of Southern California, School of Architecture*, March 5, 2010. [I]
- Workshop on High Dynamic Range Imagery and Glare Analysis*, Harvard University, Graduate School of Design, Cambridge, MA, October 21, 2009. [https://www.radiance-online.org/community/workshops/2009-boston-ma/Presentations/inanici\\_HDR-2009.pdf](https://www.radiance-online.org/community/workshops/2009-boston-ma/Presentations/inanici_HDR-2009.pdf). [I]
- “Applications of Image-based Sky Models in Daylighting Simulations,” *International Radiance Workshop*, Harvard University, Graduate School of Design, Cambridge, MA, October 22-23, 2009. [https://www.radiance-online.org/community/workshops/2009-boston-ma/Presentations/inanici\\_Radiance2009.pdf](https://www.radiance-online.org/community/workshops/2009-boston-ma/Presentations/inanici_Radiance2009.pdf). [R]
- “Applications of Image-based Rendering in Lighting Simulation: Development and Evaluation of Image-based Sky Models,” *International Building Performance and Simulation Association Conference*, in Glasgow, UK, July 27-30, 2009. [R]
- “Recording Light: High Dynamic Range Imagery,” 3-hour workshop, *Lightfair International, Lightfair Institute*, Las Vegas, NV, May 26, 2008. [R]
- “Computational Approach for Determining the Directionality of Light: Directional to Diffuse Ratio,” *International Building Performance and Simulation Association Conference*, Beijing China, September 4, 2007. [R]
- “High Dynamic Range Imaging,” 3-hour workshop, *Lightfair International, Lightfair Institute*, New York, NY, May 6, 2007. [I]
- “Building Simulation, Analysis, and Design,” Cornell University, Department of Architecture, February 26, 2006. [I]
- “High Dynamic Range Photography: Per-pixel Luminance Data Acquisition,” *Illuminating Engineering Society of North America– Puget Sound Section*, Seattle, WA, September 21, 2006. [I]
- “Informed Decision Making through Building Performance Simulation,” *Olson Sundberg Kunding Allen Architects*, Seattle, WA, May 5, 2006. [I]
- “Luminance Measurements with High Dynamic Range Photography,” *Joint Daylighting / Lighting Seminar on Research and Practice*, Pacific Energy Center, San Francisco, CA, April 21, 2005. [I]
- “Virtual Lighting Laboratory and Computational Analysis,” *Georgia Institute of Technology, Doctoral program in Architecture*, Atlanta, GA, April 2005. [I]
- “Using Lighting Simulations in Design Decisions,” University of North Carolina at Charlotte, March 3, 2005. [I]

- “Lighting Measurement and Simulation, and Analysis Toolbox,” presented for an independent group of eight peer reviewers. The U.S. Department of Energy assembled a group *to conduct a formal peer review of the Lighting Research and Development element of the Building Technologies Program*. Washington D.C., January 2005. [R]
- “Image-based Lighting Measurements,” *U.S. Department of Energy, Assistant Secretary for Energy Efficiency and Renewable Energy, Building Technologies Program*. Washington D.C., September 2004. [R]
- “Virtual Lighting Laboratory and Toolbox,” poster presented at the *Environmental Technologies Division - Director’s Review, Lawrence Berkeley National Laboratory*, May 13, 2004. [R]
- “Utilization of Image Technology in Virtual Lighting Laboratory,” poster presented at the *International Commission on Illumination Conference*, San Diego, June 26-28, 2003. [R]
- “Shade Fabric Analysis for the New York Times Headquarters Building,” *MechoShade Systems Inc.*, Long Island City, NY, November 11, 2004. [I]
- “Lighting Retrofits: Field Study at Marine Corps Base Camp Pendleton,” *Application Team Summit Meeting, Lawrence Berkeley National Laboratory, Berkeley, CA*, May 17, 2004. [I]
- “Architectural Lighting Analysis in Virtual Lighting Laboratory,” *Lawrence Berkeley National Laboratory, CA*, July 2003. [I]
- “Post Processing of Radiance Images: Virtual Lighting Laboratory,” *International Radiance Workshop: Scientific Applications Using Radiance*, University of Applied Sciences of Western Switzerland, Fribourg, Switzerland, September 30 – October 1, 2002. <https://www.radiance-online.org/community/workshops/2002-fribourg/inanici/index.html>. [R]
- “Application of the state-of-the-art Computer Simulation and Visualization in Architectural Lighting Research,” *International Building Performance and Simulation Association Conference*, Rio de Janeiro, Brazil, August 13-15, 2001. [R]

## Courses:

### *University of Washington, Department of Architecture (2005 – present)*

#### Arch 524 Design Technology V, 3 credits (2019 – present)

It is a required course in the Master of Architecture program. It focuses on computational simulation tools and techniques to evaluate the performance of a design or design alternatives, starting at earliest conceptual design phases to help architects to make informed design decisions. The topics include solar, shading, and lighting simulation and analyses.

#### Arch 582 Computational Lighting Design, 3 credits (2006 – present)

It is an advance elective course that is based on an innovative program that draws from recent developments in lighting simulation, visualization, per-pixel data measurement and analysis techniques. The content of the course is presented through a series of lectures and lab sessions. The development of this course was funded by the Nuckolls Fund Grant for Lighting Education. This course is a core requirement for the Architecture Department Lighting Certificate.

Arch 592 Research Methods, 3 credits (2019-present)

It is a required course in the Master of Architecture program (co-taught). This course provides an overview of the role and practice of research methods in architecture in relation to the themes of product, process and performance. The goal of the class is to demonstrate the larger need for research in architecture and the ways that new knowledge can contribute to the growth of the practice and the study of the built realm.

Arch 598 Performance Driven Design, 3 credits (2016 – present)

It is an advance elective course that focuses on performative feedback into the design workflows. Students explore parametric modeling techniques (Rhino + Grasshopper) along with performance evaluation tools (DIVA for daylighting and thermal performance). Performative design case studies and guest lectures demonstrate the current practices in various offices and projects.

Arch 599, Thesis Preparation (ongoing basis)

Arch 600, Independent Study (ongoing basis)

Arch 700, Master's Thesis (ongoing basis)

BE 587, Directed Readings (ongoing basis)

BE 600, Independent Study (ongoing basis)

BE 800 Doctoral Dissertation (ongoing basis)

Arch 588 Research Practice, 3 credits (2016 – 2019)

Arch 533 Advanced Environmental Systems, 3 credits (2011 – 2018)

Arch 598 Simulation based Design (2006-2010)

Arch 581 Advanced Rendering (2006-2010)

Arch 380 Introduction to Computers (2005-2015)

*METU, Ankara, Turkey (Teaching Assistant) (1995-1998)*

Arch 503 Building Science Workshop

Arch 487 Solar Control and Utilization in Architecture

Arch 462 Computer Aided Drafting and Design

Arch 461 Computer Literacy in Architecture

Arch 282 Design of Energy Efficient Buildings

Arch 281 Introduction to Environmental Factors

## **Thesis Committees:**

***Ph.D. University of Washington, Built Environments***

Yue Liu, Computing Long-term Daylighting Simulations from High Dynamic Range Imagery Using Deep Neural Networks, (Chair, 2013-2019).

Kevin van den Wymelenberg, Evaluating Human Visual Preference and Performance in an Office Environment using Luminance-based Metrics, (Chair, 2006-2012).

Nan-Ching Tai, Depth Perception and its Dependency on Scene based Lighting Patterns: Perceptual Study of Built Environment through Lighting Simulation and High Dynamic Range Imagery, (Chair, 2005-2010).

### ***Ph.D. Other Schools and Institutions***

Edward Zhang, Realistically Editing Indoor Scenes, Computer Science and Engineering, General Doctoral Exam, 2018, Dissertation Defense, (Graduate School Representative, 2021).

Max Chmielinski, Ultraviolet Radiation Exposure in Cannabis Farms, School of Public Health, Dissertation Proposal, (Graduate School Representative, 2020).

Ayman Wagdy, Predicting Glare Open-Plan Offices Using Simplified Data Acquisitions and Machine Learning Algorithms, (chair: Veronica Garcia Hansen), Ph.D. Program in the School of Design, Creative Industries Faculty, Queensland University of Technology, Australia (External examiner, 2020).

Lars Grobe, Evaluation of Daylight Redirecting Systems using Data-Driven Models, (chair: Tugce Kazanasmaz), Ph.D. Program in Architecture, Izmir Institute of Technology, (Committee member, 2016-2019).

Priji Balakrishnan, Measuring and Modelling Spectral Composition of Equatorial Light, (chair: Alstan Jakubiec), Ph.D. Program in Architecture, Singapore University of Technology and Design, (Committee member, 2018).

Marshal Shahu Maskarenj, Assessment of Sky Luminance for Indoor Daylight Modeling, (chair: P.C. Ghosh and R. Banerjee), Ph.D. in Energy Science and Engineering, Indian Institute of Technology, Bombay, (External examiner, 2018).

Bitu Aastaneh Asl, Effects of Using Virtual Reality on AEC Team Collaboration, Civil and Environmental Engineering, General Doctoral Exam, (Graduate School Representative, 2018).

Nathaniel Jones, Development of GPU lighting simulation in naturally and artificially lit spaces, (chair: Christoph Reinhart), Ph.D. in Building Technology, Massachusetts Institute of Technology, Department of Architecture, (Committee member, 2015-2017).

Siobhan Rockcastle, Measuring the Perceptual Dynamics of Daylight in Architecture, (chair: Marilyne Andersen), Ecole Polytechnique Federale de Lausanne (EPFL), Switzerland, (External examiner, 2017).

Alstan Jakubiec, The Use of Visual Comfort Metrics in the Design of Built Spaces, (chair: Christoph Reinhart), Ph.D. in Building Technology, Massachusetts Institute of Technology, Department of Architecture, (Committee member, 2014).

Avanish Kushal, Reconstruction, and Visualization of Architectural Scenes, Computer Science and Engineering, Dissertation Defense, (Graduate School Representative, 2014).

Alex Colburn, Image-Based Remodeling: A Framework for Creating, Visualizing, and Editing Image-Based Models, Computer Science and Engineering, Dissertation Defense, (Graduate School Representative, 2010).

Wilmot Li, Interactive Illustrations for Complex 3D Objects, Computer Science and Engineering, Dissertation Defense, (Graduate School Representative, 2007).

***Master of Science in Architecture, University of Washington:***

Zining Cheng, Non-Visual Light Health in Neonatal Intensive Care Units through Lighting Measurement, Simulation, and Design, (Chair, 2021-present).

Shakiba Ahmadi, An Analysis of Urban Form and Canyon for Performative Daylighting Design, (Chair, 2019).

Bo Yun Jung, Measuring Circadian Light through High Dynamic Range Photography, (Chair, 2017).

Doaa Al-Sharif, Parametric Exploration of Shading Screens: Daylight, Sun Penetration, and View Factor, (Chair, 2016).

Alireza Hashemloo, Time-series Luminance Distribution Maps: Implementation of Annual Daylight Simulation methods for Occupant Visual Comfort, (Chair, 2016).

Nicole Peterson, Computer-based Lighting Analysis throughout design stages: A Critical Evaluation of Practices, Metrics, and Techniques, (Chair, 2015).

Peter Schiller, Guerilla Productivity: Gamification and Design Related Touch Interfaces, (Committee Member, 2014).

Viswanathan Kumaragurubaran, High Dynamic Range Image Processing Toolkit for Lighting Simulations and Analysis, (Chair, 2012).

Randolph Fritz, Interactive Modeling of Luminaires for Lighting Simulations and Architectural Visualizations, (Chair, 2010).

Chih-Pin Hsiao, Vision-based Tangible User Interfaces for Architecture, (Committee member, 2009).

Kathleen Cheney, Image-based Rendering as an Architectural Visualization and Analysis Technique, (Chair, 2008).

Daniel Belcher, Augmented Reality, Architecture, and Ubiquity: Technologies, Theories, and Frontiers, (Committee member, 2008).

Dipti Shah, Sense, Response, Adapt: An Architecture to Mitigate Natural Disasters, (Co-Chair, 2007).

Hoda Homayouni, A Genetic Algorithm Approach to Space Layout Planning Optimization, (Committee member, 2007).

Chen Lien Yen, Dual View Information Navigation, (Committee member, 2007).

***Master of Architecture, University of Washington:***

Saeed S. Al-Shidhani, The Contemporary Public Market: A Sustainable Design Approach to Low-Cost Operating Public Markets in Oman, (Chair, 2021).

Nathan Altenberg, Syncing with the Sky: Daylight Driven Circadian Lighting Design, (Chair, 2019).

Guanzhou Ji, Occupant Centric Daylight in Housing: Daylight Availability and Occupant Visual Comfort in Seattle Multi-Family Housing, (Chair, 2019).

Arian van den Aar, Washington Waysides: Curating an Experience of the given at Tipsoo Lake, (Committee member, 2018).

Stephanie Baker, Eco-Grids for Resilient Communities, Master of Architecture in High-Performance Buildings, (Chair, 2017).

Alireza Hashemloo, GlareShade: A Visual Comfort based Approach to Adaptive Shading Devices, (Chair, 2014).

Eric Brooks, Critical Color: The Use of Color in Nature for Energy Performance and Its Applications to Building Skins, (Chair, 2012).

Steve Duncan, The Architecture of Light: An Evidence-based Design Approach to Treating Winter Depression in Seattle, (Chair, 2011).

Chih-Yin Chou, Sustainable Design for Panda Exhibition and Research Center, (Committee member, 2009).

Scott Crawford, Architecture of Relationships: Built on the use of Generative Approaches and Evaluative Analysis in Design, (Committee member, 2008).

Zigurds Grevulis, Composing with Light: Simulation-based Design of Library at Seattle Center, (Chair, 2007).

***Students receiving awards under my supervision:***

Bo Yun Jung (Chair of M.Sc. committee)

Master of Science Thesis Award, UW, Department of Architecture, 2018.

Illuminating Engineering Society, Robert Thunen Memorial Scholarship, 2016.

Yue Liu (Chair of Ph.D. committee)

Illuminating Engineering Society, Richard Kelly Award, 2018.

Microsoft Azure Research Award, 2017.

Illuminating Engineering Society, Robert Thunen Memorial Scholarship, 2017.

Nicole Peterson, (Chair of M.Sc. committee)

Illuminating Engineering Society, Robert Thunen Memorial Scholarship, 2014.

Viswanathan Kumaragurubaran, (Chair of M.Sc. committee)

Master of Science Thesis Citation, UW, Department of Architecture, 2013.

Kevin van den Wymelenberg, (Chair of Ph.D. committee)

Edison Price Fellow, Nuckolls Fund, 2007.

Lighting Design Alliance Scholarship, International Association of Lighting Designers, 2007.

Illuminating Engineering Society, Robert E. Thunen Memorial Scholarship, 2008.

Illuminating Engineering Society, Richard Kelly Grant, 2008.

Finalist for Best Paper Award in *Passive and Low Energy Architecture (PLEA) Conference* with the paper (co-authored with Inanici), "A Study of Luminance Distribution Patterns and Occupant Preferences in Daylit Offices," 2009.

Scott Crawford, (Member of M.Arch committee).

Master of Architecture Thesis Citation, UW, Department of Architecture, 2009.

Nan-Ching Tai, (Chair of Ph.D. committee)

Young CAADRIA Award (Computer-Aided Architectural Design Research in Asia) for the paper (co-authored with Inanici), titled "Depth Perception in Real and Pictorial Spaces: A Computational Framework to Represent and Simulate the Built Environment," 2009.

## **Consultancy:**

Hagia Sophia Museum, Istanbul, Turkey, 2013.

Performed lighting measurements and analysis to enhance visitor experience. Provided recommendations to the museum staff on operation of electric light sources, and preserving the unique features of daylighting and sunlighting.

New York Times Headquarters, NYC, Visual Comfort Studies.

Lawrence Berkeley National Laboratory, Windows and Daylighting Research Group, 2004 for the New York Times Company, the New York State Energy Research and Development Authority, and the U.S. Department of Energy, 2004. Member of a daylighting consultancy team, performed measurements and analyses to evaluate the performance properties of shading fabric and its impact on task visibility and visual comfort for the New York Times Headquarters.

Low Glare Outdoor Luminaire - California Energy Commission's Public Interest Energy Research (PIER) Buildings Program. Lawrence Berkeley National Laboratory, Lighting Research Group, 2004.

Performed lighting simulations and per-pixel luminance measurements to evaluate visual comfort for an LED based outdoor luminaire.

New Lighting Solutions for High-Bay Spaces – Federal Energy Management Program (FEMP). Lawrence Berkeley National Laboratory, Lighting Research Group, 2004. Evaluated the energy and visual quality benefits resulting from retrofitting high intensity discharge fixtures with high output T5 fluorescent fixtures in industrial spaces.

Thermal Performance Analysis of Saklikent National Observatory Guesthouse. Gunarda and METU Research Coordination and Industrial Liaison Office, Ankara, Turkey, 1994. Performed thermal performance measurement, simulation, and analysis to inform design decisions to find satisfactory solutions with the constraints of an astronomy facility.

Energy Conscious Dwelling Design for Ankara. Yuksel Project and METU Research Coordination and Industrial Liaison Office, Ankara, Turkey, 1993 – 1994. Performed parametric thermal performance simulations and developed optimal performance solutions for residential buildings.

## **Professional Membership and registrations:**

Registered Architect, Chamber of Architects, Ankara, Turkey, 1993 – present

ACADIA - Association of Computer-Aided Design in Architecture, 2005 - 2012, 2018 - present

CIE – International Commission on Illumination, 2021 - present

IBPSA - International Building Performance Simulation Association, 2002 - present

IESNA - Illuminating Engineering Society of North America, 1998 – present



## Service:

### *Peer review:*

*Peer reviewer for journals:* Building and Environment, Lighting Research and Technology, Leukos: The Journal of Illuminating Engineering Society, Building Performance Simulation, Energy and Buildings, Building Research and Information, Architectural Science Review, Science of the Total Environment, Solar Energy, Applied Ergonomics, Perkins+Will Research Journal, Journal of Optical Society of America, Pattern Analysis and Applications, Façade Design and Engineering, Automation in Construction.

*Peer reviewer for conferences:* Building Simulation Conference (IBPSA, International Building Performance Simulation Association), SimBuild Conference (IBPSA-USA), eSim Conference (IBPSA-Canada), Conference of Passive Low Energy Architecture (PLEA).

*External Reviewer of manuscripts for academic press:* Routledge

*External reviewer of faculty members' qualifications for promotions*

*External reviewer for proposals:* National Science Foundation, Department of Energy, Building Technologies Office, Program Peer Review, Mid-America Transportation Center, University of Nebraska-Lincoln, University of Washington Royalty Research Fund

### ***Committees at the Department, College and University level:***

Design Technology committee, Chair, 2020 – present.

Steering committee and student admissions committee member for the Ph.D. in Built Environment, 2006 - present

Student admissions committee for M.S. Program in Architecture (Computation/Technology track), Member 2005-08, 2014, Chair 2018 – present.

Tenure, Promotion, Merit and Review committee, Member, 2006-08, Spring 2015, 2020-21.

Search committee for Asst. Professor in Digital Technologies and Design Computation, chair, 2018-19.

Student admissions committee for M. Arch. Program in High-Performance Buildings, Chair, 2015-17, Member in 2018.

Thesis Prize committee, Member, 2011, 2016.

Scholarships committee, Member, 2014.

Curriculum Committee, Member, 2008-12.

Strategic Planning Committee, Member, 2007.

NAAB Committee, Member, 2006.

Faculty Search Committee for Assistant Research Professors, Member, 2006, 2011.

Faculty search committee for Design Computing, Member, 2005-06, 2006-07, 2007-08.

Faculty Member of Design Machine Group, 2005 – present.