

# 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 Master of Science Program (computation track) in Architecture (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], [Technical Report], [Thesis], [Dissertation]

- 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," *International Building Performance Simulation Association (IBPSA) Conference*, Rome, Italy, September 2-4, 2019. [CP]
- Liu Y, Colburn A, and Inanici M. "Predicting Annual Equirectangular Panoramic Luminance Maps Using Deep Convolutional Neural Networks," *International Building Performance Simulation Association (IBPSA) Conference*, Rome, Italy, September 2-4, 2019. [CP]
- Inanici M. "Focusing on Daylight Spectra", *Illuminating Engineering Society (IES), Forum for Illumination Research, Engineering, and Science (FIRES)*, August 2019 (peer reviewed short technical memo).
- Jung BY and Inanici M. "Measuring Circadian Lighting through High Dynamic Range Photography," *Lighting Research and Technology*, 51(5), 742-763, 2019. [JA]
- Liu Y, Colburn A, and Inanici M. "Computing Long-term Daylighting Simulations from High Dynamic Range Imagery Using Deep Neural Networks," *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, February 2017. [JA]
- Inanici M. and Liu Y. "Robust Sky Modelling Practices in Daylighting Simulations," *Passive and Low Energy Architecture (PLEA) Conference*, Los Angeles, CA, July 11-13, 2016. [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," *Passive and Low Energy Architecture (PLEA) Conference*, Los Angeles, CA, July 11-13, 2016. [CP]
- Jakubiec A, van den Wymelenberg K, Inanici M., Mahic A. "Accurate Measurement of Daylit Interior Scenes using High Dynamic Range Photography," *CIE (International Commission on Illumination) Lighting Quality and Energy Efficiency Conference*, Melbourne, Australia, March 3-5, 2016. [CP]
- Inanici M., Brennan M, Clark E. "Spectral Lighting Simulations: Computing Circadian Light," *International Building Performance Simulation Association (IBPSA) Conference*, Hyderabad, India, 7-9 December, 2015. [CP]
- 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. [JA]
- 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. [JA]
- Inanici M. "Lighting Analysis of Hagia Sophia", *Annals of Hagia Sophia Museum*, No. 17, 128-201, Istanbul, Turkey, December 2014. [A]

- 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. [JA]
- Inanici, M. "Dynamic Daylighting Simulations from Static High Dynamic Range Imagery using Extrapolation and Daylight Coefficient Methodologies," *International Building Performance Simulation Association (IBPSA) Conference*, Chambéry, France, August 25-28, 2013. [CP]
- Kumaragurubaran, V. and Inanici, M. "hdrscope: High Dynamic Range Image Processing Toolkit for Lighting Simulations and Analysis," *International Building Performance Simulation Association (IBPSA) Conference*, Chambéry, France, August 25-28, 2013. [CP]
- Van den Wymelenberg K and Inanici M. "Limitations of Common Lighting Metrics for Evaluating Human Visual Comfort in Spaces with Daylight," *Illuminating Engineering Society 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. [JA]
- Tai NC and Inanici M. "Space Perception and Luminance Contrast: Investigation and Design Applications through Perceptually based Simulations," *Spring Simulation Multi-conference, Symposium on Simulation for Architecture and Urban Design (SimAUD)*, Orlando, FL, April 12-15, 2010. [CP]
- Inanici M. "Evaluation of High Dynamic Range Image-based Sky Models in Lighting Simulation," *Luekos, Journal of the Illuminating Engineering Society*, 7(2), 69-84, October 2010. [JA]
- Van den Wymelenberg K, Inanici M and Johnson P. "The Effect of Luminance Distribution Patterns on Occupant Preference in a Daylit Office Environment," *Luekos, Journal of the Illuminating Engineering Society*, 7(2), 103-122, October 2010. [JA]
- 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," *Association of Computer Aided Design and Research in Asia (CAADRIA) Conference*, Hong Kong, April 7-10, 2010. [CP]
- Inanici M. "Applications of Image based Rendering in Lighting Simulation: Development and Evaluation of Image based Sky Models," *International Building Performance Simulation Association (IBPSA) Conference*, Glasgow, UK, July 27-30, 2009. [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 (PLEA) 2009 Conference*, Quebec City, Canada, June 22-24, 2009. (Finalist for Best Paper Award in PLEA 2009.) [CP]
- Tai NC and Inanici M. "Depth perception as a function of Lighting, Time, and Spatiality", *Illuminating Engineering Society (IES) 2009 Conference*, Seattle, WA, Nov. 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 (CAADRIA) 2009 Conference*, Yunlin, Taiwan, April 22-25, 2009. [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 (PLEA) 2008 Conference*, Dublin, Ireland, October 22-24, 2008. [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*, 2008 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 (IBPSA) 2007 Conference*, Beijing, China, September 3-7, 2007. [CP]
- Inanici M and Navvab M. "The Virtual Lighting Laboratory: Per-pixel Luminance Data Analysis," *Luekos, Journal of the Illuminating Engineering Society*, 3(2), 89-104, Oct. 2006. [JA]
- Inanici M. "Evaluation of High Dynamic Range Photography as a Luminance Data Acquisition System," *Lighting Research and Technology*, 38(2), June 2006, 123-136. [JA]
- Inanici M. "Per-pixel Lighting Data Acquisition and Analysis with High Dynamic Range Photography", *Proceedings of the International Commission on Illumination (CIE) 2005 Mid-Conference*, Leon, Spain, May 18 - 20, 2005. [CP]
- Inanici M. *Per-pixel Lighting Data Analysis*. Lawrence Berkeley National Laboratory, LBNL Report # 58659, 2005. Available from: [eScholarship Repository, University of California](#), and [U.S. Department of Energy, Office of Scientific and Technical Information](#). [TR]
- Lee ES, Selkowitz S, Clear R, Inanici M, Inkarojrit V, Lai J, Hughes G, Ward G, Mardaljevic M. *Daylighting the New York Times Headquarters Building: Final Report*. Lawrence Berkeley National Laboratory, Berkeley, CA. [LBNL Report# 57602](#), 2005. [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. Available from: [eScholarship Repository, University of California](#), and [U.S. Department of Energy, Office of Scientific and Technical Information](#). [TR]
- Inanici, M. "Transformations in Architectural Lighting Analysis: Virtual Lighting Laboratory," Dissertation, University of Michigan. Available from: ProQuest Information and Learning, AAT 3121949, 2004. [D]
- 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, Jan 2003. [JA]
- Inanici M. "Utilization of Image Technology in Virtual Lighting Laboratory," *Proceedings of the International Commission on Illumination (CIE) 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 (IBPSA) Conference*, Eindhoven, Netherlands, August 10 - 14, 2003. [CP]
- Inanici M. "Application of the state-of-the-art Computer Simulation and Visualization in Architectural Lighting Research," *Proceedings of the 7<sup>th</sup> International Building Performance and Simulation Association (IBPSA) Conference*, Rio de Janeiro, Brazil, August 13-15, 2001. [CP]

Demirbilek N, Yalciner U, Inanici M, Ecevit A, and Demirbilek O. "Energy Conscious Dwelling Design for Ankara," *Building and Environment*, 35(1), 33-40, Jan 2000. [JA]

Inanici M and Demirbilek 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, Jan 2000. [JA]

Ozdamar M, Inanici M and Yener C. "Daylighting in Atria," *Proceedings of the 2<sup>nd</sup> National Illumination Congress*, Istanbul, Turkey, November 26-27, 1998. [CP]

Demirbilek N, Sahmali E, and Inanici M. "A Passively Climatized Building, 2500 m Above Sea Level," *Proceedings of Australian and New Zealand Solar Energy Society*, Canberra, Australia, paper 56, Dec. 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:**

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

"Evaluation of High Dynamic Range Photography as a Luminance Measurement Technique" (Inanici, 2006) has been selected as one of the 25 "classic" papers in the 50 year history of the journal of *Lighting Research and Technology*, 50(1), January 2018.

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

*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", Co-PI with Bob Mugerauer, 2017.

Visiting Researcher: University of Cambridge, Department of Engineering, UK. *Energy Efficient Cities Initiative at Cambridge*, August 2013.

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

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

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

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

*Outstanding Performance Award*, Lawrence Berkeley National Laboratory, 2005.

U.S. Department of Energy, *Building Technologies Program*, “Lighting measurement, Simulation, and Analysis Toolbox”, Lawrence Berkeley National Laboratory, Lighting Research Group, Principal Investigator, 2004 – 2005.

*Distinguished Dissertation Award*, Taubman College of Architecture and Urban Planning, University of Michigan, 2004.

University of Michigan, *Ph.D. Scholarship, Rackham Graduate School Dissertation Grant, Architectural Merit Award, Nathan Levine Architectural Scholarship*, 2002 - 2003.

*Michigan Teaching Fellow*, University of Michigan, Center of Research on Learning and Teaching, 2002.

Scholarship for Doctoral Education, *Board of the Higher Education Council of Turkey*, 1998 - 2002.

Study Trip Award, *Philips Lighting: Indoor, Outdoor, and Architectural Lighting Application Centers*, Holland and France, 1999.

## **Selected Presentations and Workshops:** [Invited] [Refereed Event]

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

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

"Measuring and Analyzing the Circadian Light: A Discussion on Units, Metrics, and Techniques," *DIVA Day (Environmental Performance Analysis in Design Practice + Research)*, Berkeley, CA, October 27th, 2017. [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 28th, 2017. [I]

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

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

“Introduction to High Dynamic Range Photography,” 3 hour workshop (with A. Jakubiec), PLEA Conference, Los Angeles, CA, July 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 17th, 2016. [R]

“Designing for Circadian Friendly Built Environments,” 3 hour workshop, *Lightfair International, Lightfair Institute*, to be held in San Diego, CA, April 24-28, 2016. [R]

- “Design for Well-being: A Metropolis Think Tank Program,” Panelist, Seattle, WA. The panel is published in Metropolis magazine - [Point of View: Working Smarter and Sleeping Better: Circadian Rhythm in Workplace and Healthcare Design](#), 2015. [I]
- “Designing Circadian Friendly Work Environments,” (with M. Brennan and E. Clark), webinar, General Service Administration, June 17, 2015. [I]
- “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”, Presented at the 4th DIVA Day: DIVA for Rhino (Environmental Performance Analysis in Design Practice + Research), Seattle, WA, October 2, 2014. [I]
- “From pixels to Sensors: Designing and Engineering Sustainable Buildings,” Lawrence Berkeley National Laboratory, Berkeley, CA, March 29, 2011. [I]
- “Informed Design Decision Making In Pursuit of Sustainability,” University of California, Berkeley, Department of Architecture, Berkeley, CA, 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]
- Workshop on High Dynamic Range Imagery and Glare Analysis*, Harvard University, Graduate School of Design, Cambridge, MA, October 21, 2009. [I]
- “Applications of Image based Sky Models in Daylighting Simulations”, *8<sup>th</sup> International Radiance Workshop*, Harvard University, Graduate School of Design, Cambridge, MA, October 22-23, 2009. [I]
- “Recording Light: High Dynamic Range Imagery,” 3 hour workshop, *Lightfair International, Lightfair Institute*, Las Vegas, NV, May 26, 2008. [I]
- “High Dynamic Range Imaging,” 3 hour workshop, *Lightfair International, Lightfair Institute*, New York, NY, May 6, 2007. [R]
- “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]
- “Lighting Measurement and Simulation, and Analysis Toolbox,” presented for an independent group of eight peer reviewers. Group was assembled by the *U.S. Department of Energy* to conduct a formal peer review of the Lighting Research and Development element of the Building Technologies Program. Washington D.C., January 2005. [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,” 2019, (Chair).

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

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”, 2010, (Chair).

#### *Other Schools and Institutions*

Lars Grobe, “Data-Driven Modeling of Daylight Redirecting Fenestration at Variable Directional Resolution,” Ph.D. Program in Architecture, Izmir Institute of Technology, 2019, (Committee member).

Priji Balakrishan, “Measuring and Modelling Equatorial Light”, Ph.D. Program in Architecture, Singapore University of Technology and Design 2018, (Committee member).

Marshal Shahu Maskarenj, “Assessment of Sky Luminance for Indoor Daylight Modeling,” Ph.D. Program in Energy Science and Engineering, Indian Institute of Technology, Bombay, 2018 (External Examiner).

Nathaniel Jones, “Development of GPU lighting simulation in naturally and artificially lit spaces,” Ph.D. Program in Building Technology, Massachusetts Institute of Technology, Department of Architecture, 2017, (Committee member).

Siobhan Rockcastle, “Measuring the Perceptual Dynamics of Daylight in Architecture,” Ph.D. Program in Architecture, EPFL (Ecole Polytechnique Federale de Lausanne), Switzerland, 2017, (External examiner).

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

Avanish Kushal “Reconstruction and Visualization of Architectural Scenes”, University of Washington, Ph.D. Program in Computer Science and Engineering, 2014, (Graduate School Representative).

Alex Colburn “Image-Based Remodeling: A Framework for Creating, Visualizing, and Editing Image-Based Models”, University of Washington, Ph.D. Program in Computer Science and Engineering, 2013, (Graduate School Representative).

Wilmot Li, “Interactive Illustrations for Complex 3D Objects,” University of Washington, Ph.D. Program in Computer Science and Engineering, 2007, (Graduate School Representative).

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

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

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

Doaa Al-Sharif, “Parametric Exploration of Shading Screens: Daylight, Sun Penetration, and View Factor,” 2017 (Chair).

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

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

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

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

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

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

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

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

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

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

Chen Lien Yen, “Dual View Information Navigation,” University of Washington, 2007, (Committee member).

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

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

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

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

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

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

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

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

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

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

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

#### ***Students receiving awards under my supervision***

Bo Yun Jung, i) Master of Science Thesis Award, University of Washington, Department of Architecture, 2018, ii) Illuminating Engineering Society, Robert Thunen Memorial Scholarship, 2016 (Chair).

Yue Liu, i) Illuminating Engineering Society, Richard Kelly Award, 2018; ii) Microsoft Azure Research Award, 2017; iii) Illuminating Engineering Society, Robert Thunen Memorial Scholarship, 2017 (Chair).

Nicole Peterson, Illuminating Engineering Society, Robert Thunen Memorial Scholarship, 2014 (Chair).

Viswanathan Kumaragurubaran, Master of Science Thesis Citation, University of Washington, Department of Architecture, 2013, (Chair).

Kevin van den Wymelenberg, i) Edison Price Fellow, Nuckolls Fund, 2007; ii) Lighting Design Alliance Scholarship, International Association of Lighting Designers, 2007; iii) , Illuminating Engineering Society, Robert E. Thunen Memorial Scholarship, 2008; and iv) , Illuminating Engineering Society, Richard Kelly Grant, 2008; v) *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, (Chair).

Scott Crawford, Master of Architecture Thesis Citation, University of Washington, Department of Architecture, 2009, (Committee Member).

Nan-Ching Tai, 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 (Chair).

## 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.

## Service – Committees at the Department, College and University level:

Search committee for Asst. Professor in Digital Technologies and Design Computation, chair, 2018-19  
Steering committee and student admissions committee member for the Ph.D. in Built Environment, 2006 -  
Admissions committee for M.S. Program in Architecture (Computation track), chair, 2014, 2018 –  
College Council, member 2015-17, chair 2017-18  
Dean Search for the College of Built Environments, committee member, 2017-18  
Admissions committee for M. Arch. Program in High Performance Buildings, chair, 2015-18  
Landscape Architecture chair search committee member, 2016-17  
Thesis prize committee member, 2011, 2016  
Scholarships committee member, 2014  
Curriculum committee member, 2008-12  
Tenure, promotion, merit and review committee member, 2006-08  
Strategic Planning Committee, 2007  
Faculty search committees, 2005-08, 2010

## **Service – Peer Review:**

(ongoing basis, selected)

Journal of Lighting Research and Technology

Leukos: The Journal of Illuminating Engineering Society

Journal of Building and Environment

Journal of Building Performance Simulation

Journal of Technology | Architecture + Design

Journal of Energy and Buildings, ongoing basis.

Journal of Automation in Construction, ongoing basis.

Journal of Architectural Science Review, ongoing basis.

Journal of the Science of the Total Environment.

Journal of Building Research and Information.

Journal of Solar Energy

Journal of Energy and Buildings

Building Simulation (International Building Performance Simulation Association Conference)

SimBuild, IBPSA-USA, and eSim, IBPSA-Canada

PLEA, Conference of Passive Low Energy Architecture

National Science Foundation

Department of Energy, Building Technologies Office, Program Peer Review

## **Professional Membership and registrations:**

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

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

IBPSA - International Building Performance Simulation Association, 2002 – present

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