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A. Education:

Ph.D. in Architecture, University of Michigan, Ann Arbor, MI, 2004.

Major: Environmental Technology (Lighting), Cognate: 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.

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.

B. Academic Appointments:

Professor (September 2022 – present)

University of Washington, Department of Architecture, Seattle, WA.

Director of Design Technology – Master of Science program in Architecture (2018 – present)

University of Washington, Department of Architecture, Seattle, WA.

Core Faculty, Ph.D. Program in the Built Environment (2006 – present)

College of Built Environments, University of Washington, Seattle, WA.

Associate Professor (September 2011 – 2022)

University of Washington, Department of Architecture, 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.

C. Research [Peer reviewed Publications] [Software] [Awards] [Grants] [Presentations and Workshops]

C.1. Peer-Reviewed Publications [Book Chapters] [Journal Articles] [Conference Proceeding] [Technical Reports] [Dissertation / Thesis]

Inanici M, Abboushi B, and Safranek S. "Evaluation of Sky Spectra and Sky Models in Daylighting Simulations," *Journal of Lighting Research and Technology*, July 2022.
<https://doi.org/10.1177%2F14771535221103400> [JA]

Ko WH, Schiavon S, Altomonte S, Andersen M, Batool A, Browning W, Burrell G, Chamilothori K, Chan YC, Chinazzo G, Christoffersen J, Clanton N, Connock C, Dogan T, Faircloth B, Fernandes L, Heschong L, Houser KW, Inanici M, Jakubiec A, Joseph A, Karmann C, Kent M, Konis K, Konstantzos I, Lagios K, Lam L, Lam F, Lee E, Levitt B, Li W, MacNaughton P, Malekafzali-Ardakan A, Mardaljevic J, Matusiak B, Osterhaus W, Petersen S, Piccone M, Pierson C, Protzman B, Rakha T, Reinhart R, Rockcastle S, Samuelson H, Santos L, Sawyer A, Selkowitz S, Sok E, Strømmand-Andersen J, Sullivan WC, Turan I, Unnikrishnan G, Vicent W, Weissman D, Wienold J. "Window View Quality: Why It Matters and What We Should Do," *Leukos, the Journal of the Illuminating Engineering Society*, 18(3): 2022, 259-267.
<https://doi.org/10.1080/15502724.2022.2055428> [JA]

Noback A, Grobe L, and Inanici M. "Pools of light: Illumination by Directional Sunlight in Hagia Sophia," Proceedings of the International Hagia Sophia Symposium II; History of an Old Monument", FSMVU Center for Hagia Sophia Studies, Istanbul, Turkey, May 27-29, 2022. [CP]

Inanici M. "Research Methods in Daylighting and Electric Lighting", In: *Advanced Research Methods in Building Technology and Science*, Ed. R. Azari and H. Rashed-Ali, Springer Nature Publishing Company, 2021. <https://www.springer.com/gp/book/9783030736910> [BC]

Parsae M, Demers CM, Lalonde JF, Potvin A, Inanici M, and Hébert 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, 2021.
<https://doi.org/10.1016/j.solener.2021.03.065> [JA]

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]

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]

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]

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]

- 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]
- 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]
- 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]
- 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]
- 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] <https://doi.org/10.1080/15502724.2015.1062392>
- 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]

- 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: *Annals of Hagia Sophia Museum*, Eds. Z. Ahunbay et al., 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 [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 [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 [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 [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 [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 [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 [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 [CP]
- 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 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. "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. [TR] <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. [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, 2003. [https://doi.org/10.1016/S0360-1323\(02\)00015-X](https://doi.org/10.1016/S0360-1323(02)00015-X) [JA]
- 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 [CP]
- 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 [CP]
- 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, 2000. [https://doi.org/10.1016/S0360-1323\(99\)00002-5](https://doi.org/10.1016/S0360-1323(99)00002-5) [JA]
- Demirbilek N, Yalciner U, Inanici M, Ecevit A, and Demirbilek 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, Demirbilek N, and Inanici M. "National Observatory: Passively Climatized Building Design," *Solar Day Symposium* (in Turkish), 1-6, June 21-22, 1998. [CP]
- Demirbilek 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]

C.2. Software

hdrscope

hdrscope is a stand alone lighting analysis tool, developed with Viswanathan Kumaragurubaran in 2012. *hdrscope* is capable of performing High Dynamic Range (HDR) image processing and analysis for architectural lighting design. <http://courses.washington.edu/hdrscope/>

Lark multi-Spectral Lighting

Lark is an open-source plugin for Rhino, developed with ZGF architects in 2016 (versions 0.0 and 1.0). It is developed to investigate circadian light metrics within a Radiance daylighting workflow.

<https://www.food4rhino.com/app/lark-spectral-lighting>
http://faculty.washington.edu/inanici/Lark/Lark_home_page.html

C.3 Awards and Recognition

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.

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

Outstanding Performance Award, Lawrence Berkeley National Laboratory, 2005.

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

C.4 Grants

Spectrophotometer installation and data collection at the roof of Gould Hall, funded by ZGF Architects and College of Built Environments Applied Research Consortium (ARC), 2020-present.

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

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.

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

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.

C.5. Presentations and Workshops: [Invited] [Refereed Event]

C.5.a. Invited

"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/>.

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

"High Dynamic Range Photography for Lighting Measurements," Prerecorded workshop, *University of Sydney, School of Architecture, Design, and Planning,* September 4, 2020.

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

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.

"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>

"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.

"Archiving Light: The Interplay of Measurements, Simulations, and Design," *MIT Building Technology Program Seminar,* Cambridge, MA, April 3, 2017.

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

"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/>.

- “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.
- “Designing Circadian Friendly Work Environments,” (with M. Brennan and E. Clark), webinar, *General Service Administration*, June 17, 2015.
- “Simulation-based Design Approaches in Architectural Education,” *Universidad del Bio Bio, Department of Architecture*, Concepcion, Chile, March 24, 2015.
- 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.
- “Computational Daylighting Design and Analysis,” *IlumiNa 2015: International Workshop on Advanced Daylighting Simulation*; Concepcion, Chile, March 18-20, 2015.
- “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>
- “Building Performance Simulation as a Design Tool,” *LMN Architects*, April 6, 2011.
- “From pixels to Sensors: Designing and Engineering Sustainable Buildings,” *Lawrence Berkeley National Laboratory*, March 29, 2011.
- “Informed Design Decision Making In Pursuit of Sustainability,” *University of California, Berkeley, Department of Architecture*, March 28, 2011.
- “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.
- “Creating a Sustainable Built Environment through Building Performance Simulations” *University of Southern California, School of Architecture*, March 5, 2010.
- 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.
- “High Dynamic Range Imaging,” 3-hour workshop, *Lightfair International, Lightfair Institute*, New York, NY, May 6, 2007.
- “Building Simulation, Analysis, and Design,” Cornell University, Department of Architecture, February 26, 2006.
- “High Dynamic Range Photography: Per-pixel Luminance Data Acquisition,” *Illuminating Engineering Society of North America– Puget Sound Section*, Seattle, WA, September 21, 2006.
- “Informed Decision Making through Building Performance Simulation,” *Olson Sundberg Kunding Allen Architects*, Seattle, WA, May 5, 2006.

“Luminance Measurements with High Dynamic Range Photography,” *Joint Daylighting / Lighting Seminar on Research and Practice*, Pacific Energy Center, San Francisco, CA, April 21, 2005.

“Virtual Lighting Laboratory and Computational Analysis,” *Georgia Institute of Technology, Doctoral program in Architecture*, Atlanta, GA, April 2005.

“Using Lighting Simulations in Design Decisions,” University of North Carolina at Charlotte, March 3, 2005.

“Shade Fabric Analysis for the New York Times Headquarters Building,” *MechoShade Systems Inc.*, Long Island City, NY, November 11, 2004.

“Lighting Retrofits: Field Study at Marine Corps Base Camp Pendleton,” *Application Team Summit Meeting, Lawrence Berkeley National Laboratory*, Berkeley, CA, May 17, 2004.

“Architectural Lighting Analysis in Virtual Lighting Laboratory,” *Lawrence Berkeley National Laboratory*, CA, July 2003.

C.5.b. Refereed Event

“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.

“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.

“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.

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

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

“Robust Sky Modelling Practices in Daylighting Simulations,” *Passive and Low Energy Architecture Conference*, Los Angeles, CA, July 11-13, 2016.

“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.

“Designing for Circadian Friendly Built Environments,” 3-hour workshop, *Lightfair International, Lightfair Institute*, San Diego, CA, April 24-28, 2016.

“Spectral Lighting Simulations: Computing Circadian Light,” (with M. Brennan) *International Building Performance Simulation Association Conference*, Hyderabad, India, December 7-9, 2015.

“*hdrscope*: High Dynamic Range Image Processing Toolkit for Lighting Simulations and Analysis,” *International Building Performance and Simulation Association Conference*, Chambéry, France, August 28, 2013.

- “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.
- “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.
- “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.
- “Recording Light: High Dynamic Range Imagery,” 3-hour workshop, *Lightfair International*, Lightfair Institute, Las Vegas, NV, May 26, 2008.
- “Computational Approach for Determining the Directionality of Light: Directional to Diffuse Ratio,” *International Building Performance and Simulation Association Conference*, Beijing China, September 4, 2007.
- “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.
- “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.
- “Virtual Lighting Laboratory and Toolbox,” poster presented at the *Environmental Technologies Division - Director’s Review*, Lawrence Berkeley National Laboratory, May 13, 2004.
- “Utilization of Image Technology in Virtual Lighting Laboratory,” poster presented at the *International Commission on Illumination Conference*, San Diego, June 26-28, 2003.
- “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>
- “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.

D. Teaching: [Courses][Thesis Supervision][Student Awards]

D.1. Courses, University of Washington, Department of Architecture

Arch 524 Design Technology V, 3 credits (2019 – present)
Arch 592 Research Methods, 3 credits (2019-present)
Arch 582 Computational Lighting Design, 3 credits, (2006 – present),
Arch 598 Performance-Driven Design, 3 credits (2016 – present)
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 (2006 – 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)

D.2. Dissertations and Thesis Supervised [P_{h.D.} in Built Environment] [M.S.] [M.Arch]

D.2.a. Ph.D. Committees [University of Washington] [Other Universities] [Graduate School Representative]

D.2.a.1. University of Washington, Built Environments [Chair]

Bo Yun Jung, Sky Spectra Modelling in Lighting Simulations, (2021-present).

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

Kevin van den Wymelenberg, Evaluating Human Visual Preference and Performance in an Office Environment using Luminance-based Metrics, (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, (2005-2010).

D.2.a.2. Other Universities

Ayman Wagdy, Predicting Glare Open-Plan Offices Using Simplified Data Acquisitions and Machine Learning Algorithms, 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, Ph.D. Program in Architecture, Izmir Institute of Technology, (Committee member, 2016-2019).

Priji Balakrishnan, Measuring and Modelling Spectral Composition of Equatorial Light, 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, Ph.D. in Energy Science and Engineering, Indian Institute of Technology, Bombay, (External examiner, 2018).

Nathaniel Jones, Development of GPU lighting simulation in naturally and artificially lit spaces, 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, Ecole Polytechnique Federale de Lausanne (EPFL), Switzerland, (External examiner, 2017).

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

D.2.a.3. University of Washington, Graduate School Representative

Max Chmielinski, Ultraviolet Radiation Exposure in Cannabis Farms, School of Public Health, 2020-present.

Edward Zhang, Realistically Editing Indoor Scenes, Computer Science and Engineering, 2021.

Avanish Kushal, Reconstruction, and Visualization of Architectural Scenes, Computer Science and Engineering, 2014.

Alex Colburn, Image-Based Remodeling: A Framework for Creating, Visualizing, and Editing Image-Based Models, Computer Science and Engineering, 2013.

Wilmot Li, Interactive Illustrations for Complex 3D Objects, Computer Science and Engineering, 2007.

D.2.b. Master of Science in Architecture, University of Washington [Chair]

Zining Cheng, Visual and Non-Visual Effects of Light on Health in Neonatal Intensive Care Units, 2022.

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

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

Doaa Al-Sharif, Parametric Exploration of Shading Screens, 2016.

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

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

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

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

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

D.2.c. Master of Architecture, University of Washington [Chair]

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

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

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

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

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

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

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

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

D.3. Students receiving awards, work done under my supervision

Bo Yun Jung: Master of Science Thesis Award, UW Architecture, 2018; Illuminating Engineering Society, Robert Thunen Memorial Scholarship, 2016.

Yue Liu: Illuminating Engineering Society, Richard Kelly Award, 2018; Microsoft Azure Research Award, 2017; Illuminating Engineering Society, Robert Thunen Memorial Scholarship, 2017.

Nicole Peterson: Illuminating Engineering Society, Robert Thunen Memorial Scholarship, 2014.

Viswanathan Kumaragurubaran: Master of Science Thesis Citation, UW Architecture, 2013.

Kevin van den Wymelenberg: 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.

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.

E. Professional practice [Professional Registration] [Consultancy]

E.1. Professional Registration

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

E.2. Consultancy

Hagia Sophia Museum, Istanbul, Turkey, 2013. Provided guidance on the use of electric lighting in order not to interfere with the daylighting design of the building and to enhance the visitor experience.

New York Times Headquarters, NYC, New York Times Company, New York State Energy Research and Development Authority, and U.S. Department of Energy, 2004. Member of a daylighting consultancy team at Lawrence Berkeley National Laboratory, Windows and Daylighting Research Group. Performed computational analysis 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, 2004. Member of a team at Lawrence Berkeley National Laboratory, Lighting Research Group. Performed lighting simulations and per-pixel luminance measurements.

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

Thermal Performance Analysis of Saklikent National Observatory Guesthouse, 1994. Member of an energy consultancy team at METU Research Coordination and Industrial Liaison Office, Ankara, Turkey. Performed thermal performance measurement, simulation, and analysis.

Energy Conscious Dwelling Design for Ankara, 1993 – 1994. Member of an energy consultancy team at METU Research Coordination and Industrial Liaison Office, Ankara, Turkey. Performed parametric thermal performance simulations and developed optimal performance solutions for residential buildings.

F. Service [Professional Memberships] [Peer Review] [Committees]

F.1. Professional Memberships

CIE – International Commission on Illumination, 2021 - present
IBPSA - International Building Performance Simulation Association, 2002 - present
IESNA - Illuminating Engineering Society of North America, 1998 - present

F.2. Peer Review

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*, *Facade Design and Engineering*, *Automation in Construction*.

Competitive grants (selected): National Science Foundation, Department of Energy, Building Technologies Office, Mid-America Transportation Center, University of Washington Royalty Research Fund.

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

F.3. Committee Responsibilities at the University of Washington [Recent - Selected]

Ph.D. in Built Environment, Steering Committee Member (2006 – present)
Design Technology Committee Chair (2018 – present)
Student admissions for Ph.D. and MS programs (2006-present)
Faculty Search Committees (Chair 2019, Member 2022)
Tenure, Promotion, Merit, and Review Committee Member (2021)
College Council (Member 2015-17, Chair 2018)
Dean Search for the College of Built Environments (Member, 2018)
Landscape Architecture Chair Search Committee, Member, 2016-17.