

MEHLIKA INANICI

University of Washington
Department of Architecture Box 355720
Seattle, WA, 98105

206.221.5794
inanici@uw.edu
<https://faculty.washington.edu/inanici/>

[Education], [Academic Appointments], [Research], [Teaching], [Consultancy], [Service]

A. Education

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

Major: Environmental Technology (Lighting), Cognate: Computer Graphics

Dissertation: *Transformations in Architectural Lighting Analysis: Virtual Lighting Laboratory*, University of Michigan. ProQuest, AAT 3121949, 2004.

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

Doctoral studies, Middle East Technical University (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

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

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

B. Academic Appointments:

Professor with tenure (September 2022 – present),
University of Washington, Department of Architecture, Seattle, WA.

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

Director of Master of Science Program in Architecture, Design Technology track (June 2018 – 2023), University of Washington, Department of Architecture, Seattle, WA.

Associate Professor with Tenure (September 2011 – 2022), 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 and Grants] [Presentations and Workshops]

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

C.1.a. Book Chapters

Inanici M. and Islam S. "CH27 - Lighting simulations in greenhouses," Upcoming in Oliver Körner and Gundula Proksch (Eds.), *Advances in Controlled Environment Agriculture*, Burleigh Dodds Science Publishing (forthcoming).

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>.

Inanici M. "Lighting Analysis of Hagia Sophia," In: *Annals of Hagia Sophia Museum*, Eds. Z. Ahunbay, S. Mulayim, AB Yalcin, 14: 128-201, Istanbul, Turkey, 2014, (bilingual: in English and Turkish).

C.1.b. Journal Articles

Grytz R, El Hamdaoui, M, Yamashita T, D'Souza S, Khalaf Allah M, Inanici M, Lang RA. "Indigo light supplementation prevents myopia susceptibility in a near-primate: A hypothesis for the myopia boom", *Cell Reports Medicine*, 2026. <https://doi.org/10.1016/j.xcrm.2026.102999>

Knoop M, Balakrishnan P, Błaszczak U, Diakite-Kortlever A, Hernández Andrés J, Inanici M, Kenny P, Maskarenj M, Pierson C, Thorseth A. "Methodology to modify and adopt standardised spectral power distributions for daylight to account for geographical, seasonal and diurnal variations in practical applications," *Lighting Research and Technology*, 2025. <https://doi.org/10.1177/14771535251322386>

Knoop M, Balakrishnan P, Bellia L, Błaszczak U, Diakite-Kortlever A, Dumortier D, Hernández Andrés A, Inanici M, Kenny P, Kobav MB, Liang S, Luo T, Maskarenj M, O'Mahoney P, Pierson C, Thorseth A, and Xue P. "Our skies are too grey: Where is the colour?" *Lighting Research and Technology*, 2025. <https://doi.org/10.1177/14771535251322618>.

Chmielinski M, Yost M, Cohen M, Inanici M, Simpson C. "Non-Ionizing Radiation Modeling to Predict Ambient Irradiance in Work Areas at an Indoor Cannabis Farm," *Annals of Work Exposures and Health*, 2023. <https://doi.org/10.1093/annweh/wxad048>

Inanici M, Abboushi B, and Safranek S. "Evaluation of Sky Spectra and Sky Models in Daylighting Simulations," *Journal of Lighting Research and Technology*, 55(6): 2023, 502-529. (First published online July 2, 2022.) <https://doi.org/10.1177/14771535221103400>

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, Strømman-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://www.tandfonline.com/doi/full/10.1080/15502724.2022.2055428>
- 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>
- 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>
- 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>
- 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>
- 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>
- 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>
- 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>
- 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>
- 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>
- 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. [https://www.cad-journal.net/files/vol_9/CAD_9\(5\)_2012_691-705.pdf](https://www.cad-journal.net/files/vol_9/CAD_9(5)_2012_691-705.pdf)

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>

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>

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>

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/10.1191/1365782806li1640a>

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)

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)

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)

C.1.c. Conference Proceedings

Inanici M, Greenberg J, Lang RA, Struve J, Gruner KA. "Metrology for Neuropic response to light: A case study in a neonatal intensive care unit," International Commission on Illumination (CIE) 2025 Conference, July 4-11, 2025.

Knoop M, Bellia L, Błaszczak U, Dumortier D, Inanici M, Kenny P, Liang S. "A round robin for a worldwide daylight measurement campaign: insights, challenges, and lessons learned," International Commission on Illumination (CIE) 2025 Conference, July 4-11, 2025.

Jung B, Cheng Z, Brennan M, Inanici M. "Multispectral Lighting Simulation Approaches for Predicting Opsin-driven Metrics and their Application in a Neonatal Intensive Care Unit," *International Building Performance Simulation Association (IBPSA) Conference*, China, September 4-6, 2023.

- 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.
- 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>
- 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>
- 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>
- 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>
- 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.
- 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/>
- 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/>
- 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.
- 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>
- 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

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

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.

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

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

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

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/>

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.

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

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

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.

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

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.

Inanici M. "Utilization of Image Technology in Virtual Lighting Laboratory," *Proceedings of the International Commission on Illumination Conference*, San Diego, June 26 - 28, 2003.

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

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

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

Sahmali E, Demirbilek N, and Inanici M. "National Observatory: Passively Climatized Building Design," *Solar Day Symposium* (in Turkish), 1-6, June 21-22, 1998.

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.

C.1.d. Conference Proceedings (Abstract published)

Grobe LO, Noback A, Inanici M. "Perspectives on light scattering by window glass in Hagia Sophia," *Forum Art of the Middle Ages, Light: Art, Metaphysics and Science in the Middle Ages*, September 27, 2024, Friedrich Schiller University, Jena, Germany.

Inanici M. "Inside-out evaluation of physically based rendering tools for architectural lighting of visualization and analysis," *Proceedings of the International Commission on Illumination Conference*, San Diego, June 26 - 28, 2003.

C.1.e. Technical Reports and Memos

Spectral Daylight Characteristics, International Commission on Illumination (CIE), Technical Committee (TC) 3-60, invited member, report in progress, 2021-present.

<https://cie.co.at/technicalcommittees/spectral-daylight-characteristics>

Heshong L, Inanici M, Talebi R, Kitayama M, Tseng VL, Coleman AL, Vemaraju S, Lang RA. The role of the built environment in the etiology of myopia,” McClung Lighting Research Foundation, September 5, 2024.

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.

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/>.

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>.

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>.

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>.

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.

C.2. Software

Kybele Greenhouse Simulation



Developed as part of the NSF Grant #2333843 (Mehlika Inanici and Shafiul Islam): 2025-present; released in Food4Rhino and Github. This is the first release of the Rhino/Grasshopper plugin (written in Python code). It customizes lighting simulations to assess plant growth in greenhouse environments. This first version includes the calculation of horticultural lighting metrics such as photosynthetically active radiation, daily light integral, and energy use.

<https://github.com/inanici/Kybele-GH>

<https://www.food4rhino.com/en>

Lark multi-Spectral Lighting



Lark multi-spectral lighting is a Grasshopper/Rhino plugin to investigate non-visual (circadian) impacts of light within a Radiance simulation workflow.

The beta version of Lark was released in 2015 (Mehlika Inanici, Ph.D., University of Washington and ZGF Architects LLP). Lark 1.0 was released in 2022.

Lark 2.0 was developed by others in 2022 based upon Lark Spectral Lighting v1.0. in 2022.

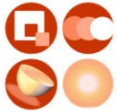
Lark 3.0 was released in September 2023. (Mehlika Inanici, Bo Jung, Zining Cheng, University of Washington, and ZGF Architects LLP).

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

https://github.com/larkspectral/Lark_Spectral_Lighting

http://faculty.washington.edu/inanici/Lark/Lark_home_page.html

hdrscope



hdrscope is a standalone lighting analysis tool, developed with former M.Sc. student Viswanathan Kumaragurubaran in 2012. *hdrscope* is capable of performing High Dynamic Range (HDR) image processing and analysis for architectural lighting design. We have been providing e-mail support to researchers and users around the world about inquiries since 2012.

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

C.3. Fellowships, Awards, Grants, and Recognition

C.3.a. Awards

CIE Best Paper Award for the paper “Metrology for Neuropic Response to Light: A Case Study in a Neonatal Intensive Care Unit”, CIE (International Commission on Illumination), July 9, 2025.

Society of Light and Lighting (SLL) Leon Gaster Award 2023, SLL Annual General Meeting, Awards and Presidential Address, May 14, 2024, Leeds Art Gallery, Leeds, England. The Leon Gaster Award, named after the founder of the Society, has been presented for the best paper in the SLL Lighting Research and Technology journal annually since 1926.

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.

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

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."

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

C.3.b. Grants and Research Collaborations

Partner Investigator, Partner Investigator, "Lighting the Path to Recovery: Addressing Delirium Risks in ICU Design", Australian Research Council, Discovery Projects, 2025-2029 (PI: Veronica Garcia-Hansen). Awarded on November 28, 2025.

UW CBE Johnston Hastings Travel Grant, June 2026, \$3000. Visited TU Berlin Daylighting and Indoor Lighting Chair to collaborate with Dr. Martine Knoop.

Co-Principal Investigator, "Belmont Forum Collaborative Research: Aquaponics optimization in a local climatic, economic, and cultural context," National Science Foundation, Award ID 2333843, \$445,000, 2024-2027 (PI: Proksch).

Principal Investigator, *Spectrophotometer installation and data collection at the roof of Gould Hall*, funded by ZGF Architects and College of Built Environments Applied Research Consortium, \$7,500, participant of CIE Technical Committee 3-30, 2020-present.

Principal Investigator, *Pacific Northwest National Laboratory Collaborative Grant, "Improving the Accuracy of Spectral Daylighting Simulations in Buildings,"* 2020, \$23,124.

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.

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, \$13,000.

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

Visiting Researcher, *University of Cambridge*, UK. *Energy Efficient Cities Initiative at Cambridge*, invited by Dr. Ruchi Choudhary, Department of Engineering, August 1-30, 2013.

Principal Investigator, *University of Washington Royalty Research Fund*, "Development and Validation of Image-based Sky Models for Daylighting Applications," 2009-2010, \$39,740.

Principal Investigator, *Nuckolls Funding for Lighting Education*, Development of a course titled "Computational Lighting Design," University of Washington, Department of Architecture, 2006 –2007, \$20,000.

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, \$150,000 (secured funding but left the position before the project started).

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, 2004 – 2005, \$465,000.

C.3.c. Fellowships and Scholarships

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

Ph.D. Scholarships, Taubman College of Architecture and Urban Planning, University of Michigan 2002-2003.

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

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

C.4. Presentations and Workshops: [Invited] [Refereed Event]

C.4.a. Invited

"Simulating Neuropic Response to Light," Daylight and Physiology Interest Group, November 19, 2025 (via Zoom).

"Measurement and Simulation Toolbox for Light & Health in Built Environment," presented at Science of Light Center, Cincinnati Children's Hospital, Sep 10, 2024.

“Melanopic HDR Capture,” International Radiance Workshop, Toronto, Canada, August 3, 2022 (Presentation prepared by Jung and Inanici, presented by Jung).

“Using High Dynamic Range Photography to Capture Visual and Non-Visual Stimuli in Built Environments,” OPTICA (formerly Optical Society of America) Lighting Applications Technical Group, Feb. 16, 2024, https://www.optica.org/events/webinar/2024/02_february/using_high_dynamic_range_photography_to_capture_visual_and_non-visual_stimuli_in_built_environments/ “Reflections on Glare Evaluations in Built Environments,” Joint Biennial CNC-CIE, CIE-USNC & CORM Conference, Educational Session on Glare Metrics, Models and Standards, Nov 7, 2023.

“Perspectives of a Building Scientist and Educator on Gender Equity,” United Nations General Assembly (UNGA78), Science Summit, Gender Equality in Science Education(130901), via zoom, September 13, 2023.

“Computational Lighting Research: The interplay of Measurement, Simulation and Research”, Discussions on Collaborations in Science of Light Center, Part 1, (via zoom July 8, 2022) and Part 2 (Seattle, August 25, 2022).

“Melanopic HDR Capture,” with BY Jung (presenter), *International Radiance Workshop*, Toronto, Canada, August 3, 2022, https://www.radiance-online.org/community/workshops/2022-toronto-canada/slides/day1/01a_jung/at_download/file

“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.4.b. Refereed Event

Metrology for Neuropic response to light: A case study in a neonatal intensive care unit,” International Commission on Illumination (CIE) 2025 Conference, July 4-11, 2025, Vienna, Austria.

“Tales from Sky Spectra,” International Radiance Workshop in Salt Lake City, Utah, August 27, 2024 (presentation prepared by Inanici and Knoop, presented by Inanici).

“Perspectives on light scattering by window glass in Hagia Sophia,” Forum Art of the Middle Ages, Light: Art, Metaphysics and Science in the Middle Ages, September 27, 2024, Friedrich Schiller

University, Jena, Germany. (Presentation prepared by Grobe, Noback, Inanici, presented by Grobe).

“Multispectral Lighting Simulation Approaches for Predicting Opsin-driven Metrics and their Application in a Neonatal Intensive Care Unit,” *International Building Performance Simulation Association (IBPSA) Conference*, Shanghai, China, via zoom, September 6, 2023.

“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.
- “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:

D.1.a. University of Washington, Department of Architecture (2005 – present)

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.1.b. 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
Arch 190 Introduction to Computer Applications

D.2. Dissertations and Thesis Supervised [Ph.D. in Built Environment] [Master of Science] [M. Architecture]

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

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

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

Sichen Lu, Multi-dimensional Studies for Advancing Human-centered and Energy Efficient Design and Operation, (chair: Athanasios Tzempelikos), Purdue University, Lyles School of Civil and Construction Engineering, (Committee member, 2025-2026).

James Sullivan, Measuring the Effects of Light Distribution on Spatial Brightness, (chair: Michael Donn), Victoria University of Wellington, New Zealand, (External examiner, 2021).

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).

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).

D.2.a.3. University of Washington, Graduate School Representative [GSR]¹

Max Chmielinski, Ultraviolet Radiation Exposure in Cannabis Farms, School of Public Health, Dissertation Proposal, 2020, Dissertation 2023.

Edward Zhang, Realistically Editing Indoor Scenes, Computer Science and Engineering, General Doctoral Exam, 2018, Dissertation Defense 2021.

Bitā Astaneh Asl, Effects of Using Virtual Reality on AEC Team Collaboration, Civil and Environmental Engineering, General Doctoral Exam, 2018.

¹ GSR is a voting member of a doctoral committee. GSR does not have an appointment in the student's and committee chair's department and participates in conducting both the general and final examinations.

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

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

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

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

Ka Kit Chui, Designing Shading Devices for Visual and Non-Visual Impacts, (Chair, 2024).

Bryant Callahan, Specularia: A Rhino Grasshopper Plugin for Spectral Daylight Simulation & Analysis in Controlled Environment Agriculture, 2023.

Amber Wu, Understanding the Effect of Daylight on Circadian Rhythms through High Dynamic Range Measurements and Simulations, 2023.

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: Daylight, Sun Penetration, and View Factor, 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, 2010.

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

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

Kana Takagi, Designing the Light and Shadow in an Elementary School, (Co-chair, 2025).

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 and fellowships under my supervision

Bo Yun Jung: Applied Research Consortium Fellow, UW College of Built Environments, 2022-23. Master of Science Thesis Award, UW, Department of Architecture, 2018. Illuminating Engineering Society, Robert Thunen Memorial Scholarship, 2016.

Zining Cheng: Applied Research Consortium Fellow, UW College of Built Environments, 2021-22.

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, Department of 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).

E. Professional practice [Professional Registration] [Consultancy] [Internships]

E.1. Professional Registration

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

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.

E.3. Internships during Education

Restoration of Apollo Smintheus Temple, Gulpinar, Canakkale, Turkey, July-August 1991.

Construction of an apartment complex, Mesa Construction, Ankara, Turkey, July-August 1990.

F. Service [Contributions to Profession] [Committees]

F.1. Contributions to the Profession [Memberships] [Peer Review]

F.1.a. Professional Memberships

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

CIE – International Commission on Illumination, 2021 - present

IBPSA - International Building Performance Simulation Association, 2002 - present

ACADIA - Association of Computer-Aided Design in Architecture, 2005 - 2012, 2018 – 2022.

F.1.b. Peer Review [Reviewer for Journals] [Reviewer for Book proposal] [Reviewer for Grants] [Reviewer for Conferences]

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

[Book proposal]: *Routledge*, *Taylor and Francis*.

[Competitive grants]: *National Science Foundation*, *Department of Energy*, *Building Technologies Office*, *Graduate Women in Science (GWIS) National Fellowship Program*, *Ralph Rowe Junior Faculty Scientific Research Awards Program DiGiTal – Digitalization: Formation and Transformation*, *Postdoctoral Grant Program*, *University of Washington Royalty Research Fund*, *Mid-America Transportation Center*, *University of Nebraska-Lincoln*.

[Conferences]: *Building Simulation* (International Building Performance Simulation Association Conference), *SimBuild-IBPSA-USA*, *eSim-IBPSA-Canada*, *SimAUD*, *PLEA- Conference of Passive Low Energy Architecture*, *Inside/Out Daylight in Sustainable Urban Design Conference*, *IIT Ph.D. Symposium*, *ICBEST*, *International Conference on Building Efficiency and Sustainable Technology*, *ICSDEC*, *Driving Sustainability into the Future*, *ACADIA*, *Association of Computer-Aided Design in Architecture Conference*.

F.2. Committee Responsibilities at the University of Washington [last 5 years]

Tenure, Promotion, Merit and Review Committee, Co-chair, 2025-present.

Ph.D. in Built Environments, Steering Committee Member, 2006 – present.

Master of Science in Architecture, Design Technology Track Program Evaluation, Member, 2025-2026.

Design Technology committee, student admissions for M.S. Program, Member 2024-present.

Cohort faculty search committee, Member, Fall 2021 – Winter 2022.