

JENNIFER G. SCHEIB

JENNIFER.SCHEIB@COLORADO.EDU • 303-818-9411

WORK EXPERIENCE

Fall 2017 – Present **University of Colorado** Boulder, CO

Civil, Architectural, and Environmental Engineering, Instructor

- Teaches architectural lighting fundamentals courses (Illumination I, Radiative Transfer), and develops and teaches lighting applications courses that address changing professional practice and sustainable building design goals (Daylighting, Adaptive Lighting)
- Supports the Rocky Mountain Lighting Academy, an annual workshop for industry professionals, and helped develop the Graduate Certificate in Architectural Lighting, a first-of-its-kind online education program for lighting professionals: <https://www.colorado.edu/lightingprogram/>
- Collaborates with the National Renewable Energy Laboratory to develop project concepts for intelligent lighting solutions via a joint appointment

2009 – Fall 2017 **National Renewable Energy Laboratory** Golden, CO

Commercial Buildings Research Group, Multidisciplinary Engineer III

- Served as the technical project manager for the Wells Fargo Innovation Incubator program, in which NREL provides technical support to startups developing energy efficiency technologies for buildings
- Performed daylighting performance, occupant behavior, and building acquisition research projects that help owners/operators realize zero energy in building operation
- Supported field demonstrations of lighting and building control technologies

2006 – 2009 **Architectural Energy Corporation** Boulder, CO

Daylighting Analysis Group, Staff Engineer

- Provided development support for Sensor Placement + Optimization Tool (SPOT)
- Performed daylighting design and in-depth Radiance analysis for schools, airports, and offices

2003 **National Institute of Standards and Technology** Gaithersburg, MD

Optical Radiation Group, Research Assistant: Characterize the intensity distribution of LED sources

2002 **HLB Lighting Design** Los Angeles, CA

Lighting Design Intern: Prepared fixture layouts, schedules, presentation boards, and calculations

EDUCATION

1999 – 2004 **University of Colorado** Boulder, CO

Bachelor/ Master's Degree in Architectural Engineering, Building Systems Program

ACTIVITIES AND ACHEIVEMENTS

- Solar Decathlon faculty mentor: Fall 2018 to present: <https://www.cubouldersolardecathlon.com/>
- CU Boulder Civil, Environmental and Architectural Engineering (CEAE) Department Undergraduate Student Pathways Committee chair: Fall 2020 to present
- IESNA Education, Library and Office Lighting committee member: Spring 2019 to present
- CEAE Department Teaching Award: Spring 2020
- Architectural Engineering Student Appreciation Award: Spring 2019
- NREL's Outstanding New Partnership Award: Spring 2015
- NREL's President's Award for Excellence in Campus Development: Spring 2014

PUBLICATIONS

AEDG. (2019). *Advanced Energy Design Guide for Zero Energy Office Buildings*. American Society of Heating, Refrigerating and Air-Conditioning Engineers, Atlanta, Georgia.

<https://www.ashrae.org/technical-resources/aedgs/zero-energy-aedg-free-download>

Kung, T., Frank, S., **Scheib, J.**, Heredia, W.B., Pless, S. (2016). *Supervisory Control of Loads and Energy Storage in Next-Generation Zero Energy Buildings*. NREL/TP-5500-67007, National Renewable Energy Laboratory, Golden, Colorado.

<http://www.nrel.gov/docs/fy16osti/67007.pdf>

Walker, A., **Scheib, J.**, Turchi, C., Robi, R., Tomberlin, G., Burman, K., Hillesheim, M., Kroposki, B., Qu, M. (2016). *Integration of Renewable Energy Systems*. American Society of Mechanical Engineers Technologies for Sustainable Life (TSL) – Concise Monograph Series. ISBN: 9780791861240. 150 pages. <https://www.asme.org/products/books/ingegration-of-renewable-energy-systems>

Fregosi, D., Ravula, S., Brhlik, D., Saussele, J., Frank, S.; Bonnema, E., **Scheib, J.**, Wilson, E. (2015). “A Comparative Study of DC and AC Microgrids in Commercial Buildings Across Different Climates and Operating Profiles.” Presented at the *IEEE First International Conference on DC Microgrids*, Atlanta, Georgia. <http://www.nrel.gov/docs/fy15osti/63959.pdf>

Scheib, J., Pless, S., Coleman, E. (2015). *Realizing High-Performance Buildings: How To maintain Energy-Efficient Design Intent During Building Operation*. NREL/BR-5500-62530, National Renewable Energy Laboratory, Golden, Colorado.

<http://www.nrel.gov/docs/fy15osti/62530.pdf>

Pless, S., **Scheib, J.**, Torcellini, P., Hendron, B., Slovensky, M. (2014). *NASA Net Zero Energy Buildings Roadmap*. NREL/FS-5500-60838, National Renewable Energy Laboratory, Golden, Colorado. <http://www.nrel.gov/docs/fy15osti/60838.pdf>

Scheib, J., Pless, S., Torcellini, P. (2014). *An Energy-Performance-Based Design-Build Process: Strategies for Procuring High-Performance Buildings on Typical Construction Budgets*. NREL/FS 5500-61571, National Renewable Energy Laboratory, Golden, Colorado.

<http://www.nrel.gov/docs/fy15osti/62530.pdf>

Scheib, J. (2013). *Integrated Design Team Guide to Realizing Over 75% Lighting Energy Savings in High-Performance Office Buildings*. NREL/FS-5500-51665, National Renewable Energy Laboratory, Golden, Colorado. <http://www.nrel.gov/docs/fy14osti/51665.pdf>

Schott, M., **Scheib, J.**, Long, N., Fleming, K., Benne, K., Brackney, L. (2012). “Progress on Enabling an Interactive Conversation Between Commercial Building Occupants and Their Building To Improve Comfort and Energy Efficiency.” In *Proceedings of the 2012 ACEEE Summer Study on Energy Efficiency in Buildings*. Monterey, California.

<http://www.nrel.gov/docs/fy12osti/55197.pdf>

Guglielmetti, R., **Scheib, J.**, Pless, S., Torcellini, P., Petro, R. (2011). “Energy Use Intensity and its Influence on the Integrated Daylighting Design of a Large Net Zero Energy Building.” In *Proceedings of ASHRAE Winter Conference*, Las Vegas, Nevada.

<https://www.seventhwave.org/sites/default/files/49103.pdf>

SPEAKING ENGAGEMENT HIGHLIGHTS

Panelist, “What is Ideal Light?” Presentation and panel discussion on the potential value of novel spectral and spatial light distributions given at the *DOE Lighting R&D Workshop*, February 2021.

Panelist, “Will LED Lighting Systems Change Daylighting Design for Energy Efficient Buildings?” Presentation and panel discussion on daylighting design in the era of solid state lighting, given at the *DOE Solid-State Lighting Technology Trends Workshop*, November, 2017, Portland, Oregon.

Co-Presenter, “Real Performance for Real Buildings,” Conference lecture on zero energy building operation, given at *Rocky Mountain Green*, April, 2015, Denver, Colorado.

Presenter, “What’s Next for Lighting Systems,” Conference lecture on retail lighting system advancements, given at *RetailGreen*, December, 2014, Tucson, Arizona.

Presenter, “Energy-Performance-Based Design-Build: Strategies for Procuring High-Performance Buildings on Typical Construction Budgets,” Paper presentation on zero energy building procurement strategies, given at the *ACEEE Summer Study on Energy Efficiency in Buildings*, August, 2014, Monterey, California.

Co-Presenter, “The Evolution of Daylighting Design at the National Renewable Energy Laboratory,” Conference lecture surveying thirty-years of daylighting design approaches, given at *LightFair International*, June, 2014, Las Vegas, Nevada.

Co-Presenter, “The Largest Net Zero Energy Building: What's Under the Hood,” Conference lecture on the lighting systems at the National Renewable Energy Laboratory’s Research Support Facility, given at the *ASHRAE Annual Conference*, June, 2013, Denver, Colorado.

Co-Presenter, “High Dynamic Range Imaging: A Tool for Lighting Designers,” Conference workshop, given at *LightFair International’s Daylighting Institute*, May, 2012, Las Vegas, Nevada.

Co-Presenter, “High Dynamic Range Imaging for Glare Analysis,” Conference workshop, given at *LightFair International’s Daylighting Institute*, May, 2011, Philadelphia, Pennsylvania.