

Student Poster & Design Competition

U.S. Department of Energy Lighting R&D Workshop
Co-sponsored by the Illuminating Engineering Society

January 28-30, 2020 • San Diego, CA

Why Enter?



DISSECT today's most complex lighting challenges alongside industry experts and thought leaders



EXPOSE your research and prototypes to a wide variety of companies



NETWORK, NETWORK, NETWORK for possible employment opportunities



PRIZES

Two Grand Prize Winners receive free workshop registration and up to \$1300 each in travel reimbursement

Honorable Mentions receive free workshop registration

Submit a...

Poster highlighting your work to shape the future of lighting

or

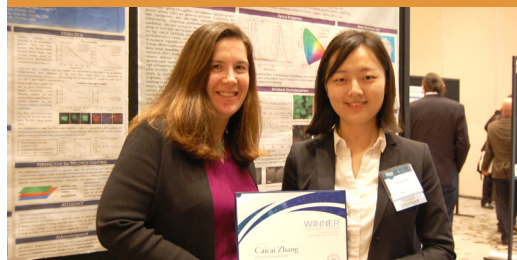
Lighting Concept Design showcasing your solution to one of today's lighting problems

Since 2003, the DOE Lighting R&D Workshop has drawn the **best and brightest** in the industry to share the latest on lighting technology advances. **Connect** with these top experts and thought leaders at the 17th annual Lighting R&D Workshop and poster session!

SUBMISSION DEADLINE: Monday, November 4, 2019

SELECTIONS ANNOUNCED: Thursday, November 21, 2019

FULL COMPETITION DETAILS: <https://www.energy.gov/eere-ssl/2020-lighting-rd-workshop-student-poster-and-design-competition>



U.S. DEPARTMENT OF
ENERGY

Office of ENERGY EFFICIENCY
& RENEWABLE ENERGY

IES Illuminating
ENGINEERING SOCIETY

PARTICIPATION CRITERIA

- Two submissions maximum per lead researcher.
- Previous winners may apply again, but the content must show significant progress if it is the same research topic.
- University must be in the United States.
- Post-docs are not eligible.
- Currently funded DOE SSL R&D projects are not eligible.

SUBMISSION INSTRUCTIONS

- Submit a one-page abstract outlining the background and relevance of your work, key achievements, and future work, plus one additional page with two or three sample figures.
 - PDF files only
 - File name format: Lastname_Firstname_University.pdf
- Send abstracts to sslworkshop@akoyaonline.com by 11:59 p.m. Pacific **Monday, November 4, 2019**.
 - Specify “Design” or “Poster” in the email subject.
 - Submitting party must be the lead author.

JUDGING

- Submissions will be judged based on:
 - Quality of research, novelty, and innovation (50%)
 - Impact toward advancing the field of solid-state lighting (30%)
 - Presentation quality and clarity (20%)
- Selections will be notified by **Thursday, November 21**.

All students receive 50% off the workshop registration fee.

Questions?

EMAIL: sslworkshop@akoyaonline.com

INFO: www.energy.gov/eere/ssl/2020-lighting-rd-workshop

ENTRIES MAY INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING TOPICS:

Materials & Devices

- Increased efficiency of amber and red LED emitter materials (conventional semiconductors or novel material systems)
- Novel OLED materials and structures for high efficiency and stability
- Cd-free quantum dot or perovskite down-converters
- Phosphors for high luminance applications
- Novel light extraction for OLED or LED devices
- LED/laser device innovations for visual light communication
- Advanced simulations for new materials discovery—LED emitters, phosphors, QDs

Lighting Product/System Concepts

- Dynamic optical control—beam steering, advanced color mixing, novel color sensors
- Advanced lighting concepts that demonstrate improvements to lighting application efficiency
- Additive manufacturing for luminaires
- Use of sustainable materials in luminaries (lower environment impact: reduced embedded energy, recyclability, lower weight)
- SSL drivers with wide-band gap power electronics—integration
- VR/AR approaches for lighting design and assessment

Lighting Science

- Human physiological responses to light
- Horticultural physiological responses to light
- Animal responses to light

Lighting Design Competition

- Additive manufactured luminaire
- New functionality integration into SSL luminaires
- Novel gesture controls for lighting
- Battery integrated lighting or in-home off-grid lighting (renewable energy connection ready)
- Simple, direct wireless controls (no wifi or hub necessary)
- Light switch with integrated power monitoring
- Apps for improved lighting effectiveness