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