

# Annual Conference of the IEEE Industrial Electronics Society (IECON 2021)

## Special Session on

## Efficient and Sustainable LED Lighting Systems

### Organized by

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## Call for Papers

### Theme:

Lighting systems based on LED technologies gain further significance as these technologies become mature. Unfortunately, LED lighting technologies also face a series of challenges that remain unsolved. Complex LED driver designs, required to drive LED lighting systems, still show limited efficiency. On the other hand, power electronic technologies required to drive LED lighting systems are unable to correspond with the longevity levels of LED devices. Accordingly, the development of efficient and reliable LED drivers ascertains itself as an interesting research topic. This Special Session focuses on the discussion of emerging solutions suitable to leverage the efficiency and sustainability of LED lighting systems.

Topics of interest include, but are not limited to:

- *Fault tolerant LED lamp configurations*
- *Alternative LED driver topologies*
- *Optimized control strategies for LED drivers*
- *Efficiency improvement of LED lighting systems*
- *Reliability prediction and physics of failure of LED devices*
- *OLED systems*
- *Color control in emerging color-mixing LED systems*
- *Passive LED drivers*
- *EMI/EMC issues in LED drivers*
- *LED/OLED modelling*

- *Temperature management in LED/OLED systems*
- *LED driving for visual light communication (VLC)*
- *New trends in lighting*
- *LED systems for horticultural lighting*
- *LED flicker: metrics, measurement, mitigations, ...*
- *Street lighting: smart controllers, embedded functions,*

**Submissions Procedure:** All the instructions for paper submission are included in the conference website: <https://attend.ieee.org/iecon-2021/>

**Deadlines:**

Full paper submission:	June 25, 2021
Paper acceptance notification:	July 30, 2021
Camera-ready paper submission:	Aug. 27, 2021

**IEEE IES Technical Committee Sponsoring the Special Session**

- IEEE-IES / Power Electronics Technical Committee
- IEEE-IES / PETC Subcommittee on Fault Diagnosis and Fault Tolerance