



# IESNA TEXAS CAPITAL SECTION

## NEWSLETTER

3/8/07 Issue-06: 6

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**PRESIDENT:** BRENT ANDREWS-512-835-4971  
**VICE-PRESIDENT:** DAVID RIGSBY-512-443-6888  
**SECRETARY:** HERBERT DEAZVEDO-512-835-4971  
**TREASURER:** SHARON BICKFORD-512-475-8427  
**MANAGERS:** KYLE HEMMI-512-372-8778 EXT. 105  
DEBORAH FRANKHOUSER-512-346-1386  
JENNIFER JAQUES-512-353-3890



The  
LIGHTING  
AUTHORITY

**Topic: Emerging LED Technology,  
What's it doing? Where's it going?**

**When: Wednesday, March 28<sup>th</sup> at  
11:30am**

**Where: Joe's Crabshack, Riverside  
Drive**

**Cost: \$20/non-members, \$15/members**

**RSVP to David Rigsby,  
david@mikecapt.com**

*2006-2007 CALENDAR*  
*3/6-4/10-ED-150 CLASS*  
*3/28-LED TECHNOLOGY*  
*4/18-FIELD TRIP*  
*5/23-CUSTOM FIXTURE TOUR*

### Kevin Dowling, PhD, VP of Innovation

As Vice President of Innovation, Dr. Dowling oversees many programs and initiatives designed to keep Color Kinetics at the forefront of LED lighting. He joined the company in early 1999 as Director of Engineering, and continues to be integral to the research and development fueling many of Color Kinetics' successful products, technologies and market applications. He is an inventor and co-inventor on numerous Color Kinetics patents, and also leads the company's government programs.

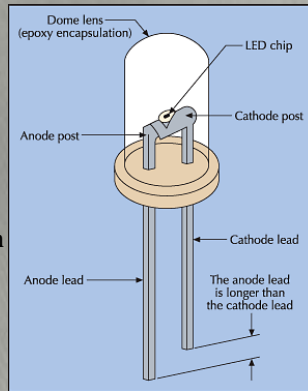
Beyond his work at Color Kinetics, Dr. Dowling actively engages with many industry organizations to advance adoption of LED lighting, including the creation of much-needed industry standards. He currently serves as Technical Chairman of the National Electrical Manufacturers Association (NEMA) Solid-State Lighting Section, and as Chairman of the Next Generation Lighting Industry Alliance (NGLIA). He was instrumental in the formation of the Solid-State sub-committee within the Illuminating Engineering Society (IES) Testing Procedures Committee (TPC).

**ED-150 UPDATE:** The first ED-150 class for this year was held 3/6/07 at American Light Conference room. (thanks to American Light for the use of their space again this year!) There are 15 students attending the class. Deborah Frankhouser was the first instructor and kicked off the evening with a rousing presentation about Establishing Lighting Goals and Guidelines. Kyle Hemmi missed the class; but he had a good excuse. His wife had a baby and they were both released from the hospital about the time class started. Congratulations Kyle and family! He says he'll be at the next class-we'll see....

# Light-emitting diode-(LED)

from Wikipedia, the free encyclopedia

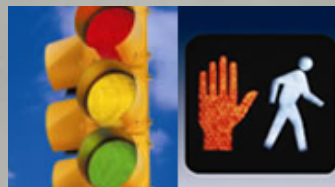
A **light-emitting diode (LED)** is a **semiconductor** device that emits **incoherent** narrow-spectrum **light** when electrically **biased** in the forward direction. This effect is a form of **electroluminescence**. LEDs are small extended sources with extra optics added to the chip, which emit a complex **intensity** spatial distribution. The **color** of the emitted light depends on the composition and condition of the semiconducting material used,



and can be **infrared**, **visible** or near-**ultraviolet**. **Rubin Braunstein** of the **Radio Corporation of America** first reported on infrared emission from **gallium arsenide (GaAs)** and other semiconductor alloys in 1955. Experimenters at **Texas Instruments**, Bob Biard and Gary Pittman, found in 1961 that gallium arsenide gave off infrared (invisible) light when electric current was applied. Biard and Pittman were able to establish the priority of their work and received the patent for the infrared light-emitting **diode**. **Nick Holonyak Jr.** of the **General Electric Company** developed the first practical visible-spectrum LED in 1962.



*LEDs may be little, but new high-brightness models are producing a considerable amount of light.*



First used as status and indicator lamps, and more recently in under-shelf illumination, accent lighting, and directional marking applications, high-brightness LEDs have emerged within the last six years. But only recently have they been seriously looked upon as a feasible option in general purpose lighting applications.

Excerpt from:  
[ecmweb.com/mag/electric\\_understanding\\_led\\_technology.com](http://ecmweb.com/mag/electric_understanding_led_technology.com)

## From the Section VP:

I'd just like to remind everyone that there are many ways to stay involved in IESNA and to stay informed about the lighting industry. The spring has several events of interest. If you are interested in serving as an officer in our local chapter, or just seeing how things are going for the Southwest Region, you are welcome to attend the Spring REC, to be held April 21 in Puerto Vallarta. Also, anyone with an interest in lighting is welcome to attend this year's Lightfair, to be held May 8-10 in New York; this year, daylighting will be highlighted, along with many other topics.

Of course, everyone is invited to the monthly meetings, which, recent acoustics problems notwithstanding, have had a lot of good information to assist you in your lighting design. In recent months, we've seen how NOT to design lighting (with lots of examples, thankfully from no one around here), and we've learned what the 2006 International Energy Conservation Code (which, we were told, the City of Austin will be adopting within a couple of months) will mean for our designs. With the trends toward energy-efficient design and better lighting sources, it is an exciting time to be a lighting designer. I hope to see you at our next meeting!

David Rigsby, Vice-President, Texas Capital Section