

## National Electrical Manufacturers Association (NEMA): Setting Standards for Excellence

### NEMA Celebrates Opening of California Lighting Technology Center

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(ROSSLYN, VA) - The University of California, Davis, has announced the opening of the California Lighting Technology Center (CLTC), established to develop energy-efficient lighting with market-friendly design. The National Electrical Manufacturers Association (NEMA) provided seed money to begin this collaborative effort, ultimately joining forces with the California Energy Commission and UC Davis, with some support provided by the U.S. Department of Energy. The Energy Commission's Public Interest Energy Research (PIER) Program and the UC Davis campus provided the initial funding for the newly constituted CLTC.

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"We stepped forward in 2002 to form a non-profit center in order to encourage design and production of innovative, energy-efficient lighting products," says NEMA President Malcolm O'Hagan. "The lighting industry views California not only as a key market, but also one that influences product design and acceptance, as well as that of energy regulation." The new center is just a stone's throw from the state capital of Sacramento.

Lighting accounts for nearly a fourth of the nation's electrical energy consumption, and thus say experts, represents a tremendous potential for energy savings. In California alone, lighting comprises almost 30 percent of commercial and 18 percent of residential electricity usage during peak demand.

The new UC Davis center is already introducing energy-efficient lighting into offices and homes through a partnership with utilities and manufacturers. The products include easy-to-install compact fluorescent downlights, hotel guestroom lighting, and outdoor lighting systems.

CLTC's specific mission is to foster the application of energy-efficient lighting by facilitating technology demonstrations, development, outreach, and educational activities, in partnership with the lighting industry, lighting professionals, and the electric utility community.

According to Energy Commissioner Art Rosenfeld, the center was created because his organization and the other industry stakeholders recognize the importance lighting holds in cutting down on energy use.

"By partnering with the Energy Commission, industry, and public utilities, the center ensures a hands-on practical approach to the creation of energy-efficient lighting that is also appealing to consumers," says Rosenfeld. "It holds great promise in sharply reducing the power consumed by lighting during crunch electricity periods."

O'Hagan says, "the center will ultimately benefit the consumer, the state of California, and the lighting industry, as well as serve as an example to other states." Several member companies in NEMA's Lighting Systems Division have entered into partnership arrangements with the center, and others are investigating opportunities.

Lighting specialists Michael Siminovitch and Konstantinos Papamichael, both formerly with the Lawrence Berkeley National Laboratory, head the new facility. The CLTC conducts both cooperative and independent activities with lighting manufacturers, electric utilities, and the design and engineering professional community. The program is strengthened via access to state-of-the-art lighting applications, development and testing facilities, and lighting-efficiency

training and educational programs.

The research facility includes full-scale lighting and daylighting application laboratories for the development and demonstration of next-generation, emerging lighting, and daylighting technologies. Comprehensive in-house and outreach training programs are being developed in cooperation with industry and utility groups to complement demonstration and application labs. Siminovitch has developed a number of innovative lighting products, such as the Berkeley Lamp, which saves three-quarters of the wattage used by traditional lamps. Papamichael's research has led to daylighting simulation methods and computer-based design tools for lighting and daylighting design.

The center is part of the school's design program, which UC Davis officials say is a good fit for both the campus and the mission of the program. "Your 'better light bulb' must be designed for widespread use and acceptance, otherwise it is merely a theoretical better light bulb," said Vice Chancellor for Research Barry Klein.

Current CLTC projects include:

- CFL downlights--Development of easy-to-install compact fluorescent downlight systems for use in existing commercial and residential applications.
- Hotel guestroom lighting--Development of a bathroom lighting fixture that includes night light and occupancy-based controls, targeted at hotels, dormitories, and similar types of applications.
- Exterior LED fixtures--Design, prototyping, and evaluation of a series of exterior lighting systems that integrate high-efficiency optics with solid-state technology and lighting controls into one system.
- Portable luminaires--Development of a floor-standing task/ambient luminaire with user and space management controls for ambient and task lighting, to be used in single and open office environments.
- Berkeley Lamp demonstration--A large number of Berkeley Lamps are installed in state office buildings with the objective of gaining understanding about performance in terms of energy savings under different operating conditions and in varied end-use applications, as well as understanding about operation and acceptance by building occupants.

For more information, go to the center's new [website](#). View this story on the [internet](#).

NEMA is the leading trade association in the United States representing the interests of electroindustry manufacturers. Founded in 1926 and headquartered near Washington, D.C., its 400 member companies manufacture products used in the generation, transmission and distribution, control, and end-use of electricity. Domestic shipments of electrical products within the NEMA scope exceed \$100 billion.

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