

Adaptive Lighting and Daylighting for Improved Comfort and Energy Efficiency

22 July 2016 – ME Lecture Hall – 1300

Guest Lecturer Dr. Kosta Papamichael

Founding Co-Director of the Lighting Technology Center,
University of California, Davis



Dr. Kosta Papamichael

Abstract:

The presentation will be focused on adaptive lighting and daylighting, i.e., luminaires, windows and skylights that automatically change their state based on environmental conditions to optimize comfort and energy efficiency. The presentation will include an introduction to controls, followed by key strategies and technologies for adaptive lighting and daylighting. Benefits, issues and challenges will be presented and explained, referring to case studies of installations of existing technologies, and also to current research and development efforts on “ultra-smart” luminaires, windows and skylights.

Biography:

Konstantinos (Kosta) Papamichael is a Professor in the Department of Design and the Co-Director of the California Lighting Technology Center at the University of California, Davis. He holds an Architectural Engineering degree from the Aristotelian University of Thessaloniki, Greece, a Masters in Architecture from Iowa State University, and a Ph.D. in Architecture from the University of California at Berkeley. Kosta has been working on the development of energy efficiency strategies and technologies for buildings for almost 35 years, focusing on strategies, technologies and design tools for fenestration systems, daylighting, and the integration of fenestration, electric lighting and HVAC controls. He holds seven patents and is author/co-author of more than 100 publications. He is the author of the Daylight Chapter of the Advanced Lighting Guidelines, the Chair of the IES Daylighting Committee, and the recipient of the 2013 IES Presidential Award for leading the development of the new version of the IES Recommended Practice for Daylighting Buildings. Kosta is also serving in the Executive Committee and is the Communications VP of the US National Committee of the International Commission on Illumination.

