

SEMINAR ANNOUNCEMENT

Friday September 29th 2017, Time: 15.00-17.00
Room SOFTEL, Floor I, Ed. 3/A DIETI - Via Claudio, 21 NAPOLI

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LEDs in multispectral applications

Abstract: Recent years have brought a rapid growth of the importance of light-emitting diodes (LEDs) in the widely understood light technology. High power LEDs replace traditional light sources in all possible lighting application – from the interior and exterior lighting, through automotive industry, specialized equipment e.g. for medical applications to the attempts of creating LED-based reference sources. Rationale for such actions is - first of all - extremely high luminous efficacy of LEDs, that allows to achieve significant savings of energy consumed, and sometimes additional benefits arising from the possibility of controlling the optical properties of such sources, which is even more important in many specialized applications. During seminar selected issues of recent research based on applications of LEDs will be presented: tunable LED luminaire with very good color rendition, tunable LED source for medical applications and LED system for agriculture investigation. Selected analysis and results will be presented.

CV: Urszula Blaszczak received PhD in metrology of optical radiation in 2009. She conducts research and teaching activities at the Faculty of Electrical Engineering, Bialystok University of Technology, Poland. Her research interests focused on applications of light emitting diodes and application of CMOS/CCDs in photometry. Over 60 articles and conference papers. Several rewards including Gold medal with mention at Brussels INNOVA in 2014. Former Erasmus coordinator at FEE BUT, currently Dean's plenipotentiary for courses in English.

Selected problems on lighting energy efficiency for indoors

Abstract: Energy efficiency of lighting systems has been an important research topic in recent years. When evaluating the global illumination of interiors in buildings, outdoor areas, floodlighted objects or roads, it is necessary to incorporate the lighting conditions into consideration for the assessment of energy efficiency. During the seminar, the metrics for lighting energy efficiency assessment will be introduced, based on power installed and energy demand of lighting installations. The parameters influencing these metrics will be mentioned either. Next, the author's proposal of recommendations for assessing the lighting energy efficiency and the procedure for assessing the lighting energy efficiency of interiors in buildings will be discussed. Then, an example of using the author's system to assess the lighting energy efficiency of interiors for a selected building will also be presented. Some considerations for development of the system will summarize the presentation.

CV: Prof. Pracki is a Head of Lighting Division at the Warsaw University of Technology. Holds expertise on interior and road lighting. His main interests include human factors in lighting and lighting energy efficiency. Author and co-author of scientific and academic books and papers. Participated in scientific projects related to quality and energy efficiency of lighting systems in buildings. Active member of international lighting associations.

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