**Precision LED drivers for viewing and digital imaging**

Presenters:
- Scott Geffert, Advanced Imaging Manager at the Metropolitan Museum of Art, New York
- Gé Hulsmans, director specifier service, ELDOLed

The technology behind precision LED control for viewing and imaging. Learn about precision LED control and real-world applications for cultural heritage. Scott Geffert, Advanced Imaging Manager at the Metropolitan Museum of Art, New York, will discuss the application of precision tuneable multispectral LED flash light sources for cultural heritage imaging applications. Gé Hulsmans will explain the deep technical detail and secrets of LED dimming, the cause of light flicker and its effect on viewers.

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**Neuropsychological methods for lighting design and research**

Presenters:
- Anya Hurlbert, Professor of Visual Neuroscience, Newcastle University; Scientific Trustee, National gallery London
- Panos Andrikopoulos, PhD researcher, UCL Institute for Sustainable Heritage

Recent technological developments have allowed the production of low cost scientific equipment democratising research in physiological activity. This workshop will discuss the integration of novel methods for understanding the effect of light on humans using neuroscience, technology and cognitive science. Methods such as Electroencephalography and Electrodermal Activity will be demonstrated and explained as a tool for lighting design and research.
Relighting the Petrie Museum: Smart Lighting and Proximity Aware Services in Museums

Presenters:
- Boris Pretzel, Head of the Science Section, Victoria and Albert Museum
- Stephen Elliot, Managing Director, Llama Digital

The new lighting for the Petrie Museum will be revealed. For the purpose of this workshop the Petrie Museum of Egyptian Archaeology will be relit, using the latest LED light sources with bluetooth beacons for remote control and indoor positioning. After a summary of what smart lighting can offer museums, proximity aware services will be demonstrated in the Petrie Museum with a standard application. This workshop will explore the capabilities of smart lighting and will produce an expanded brief on what this application could ideally achieve. The follow-up is for the organisers to implement, as far as possible, this brief.

Modern Colour Science for Museum Lighting

Presenter:
- David Aurelien, Principal Scientist Soraa

This Workshop will teach various aspects of colour rendition for museum lighting. After an introduction to colour science fundamentals, it will present the concept of colour metrics with particular focus on the recently-published TM-30 method. It will then explain how these concepts can specifically be harnessed in museum illumination. The Workshop will be supported by live visual demonstrations of spectral tuning and its impact on object colours.