

Event:  
Date:  
Place:

**ENERGY in BUILDINGS 2019**  
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#	<b>Eleni Patroni</b> Architect Engineer (MArch D.U.Th)	
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Presentation title:	<b>Lighting Design for the Visually Impaired</b>	
<p>Visual impairment is the condition in which an individual has lost his vision, to varying degrees and cannot be corrected, with means such as glasses or corrective surgery. Reduced vision affects a significant proportion of the population that reaches 1% for the general population and 4% for the population over 50 years of age.</p> <p>In each case, a personalized approach is needed, according to the patient's condition, needs and preferences. There are some rules that work positively in the majority of cases. The basic tools of design are increasing the intensity of lighting, increasing the color or tone contrast between different elements or surfaces, increasing the uniformity of light and reducing the glare. Increasing lighting levels and contrast intensify objects so that movement within the space and activities are done with convenience. The majority of the visually impaired people are very sensitive to glare, so it's best to avoid it as much as possible. High uniformity prevents the formation of spots of light and darkness, which disorientate people with visual impairment and increase the risk of accidents. During the architectural and lighting design process for a visually impaired person, the architectural study makes the space functional and welcoming for the user, the study and control of natural lighting is carried out, materials, textures and colours are selected and the design of the artificial lighting of the space takes place, based on the principles that have been mentioned before: high intensity of lighting, high contrast, high uniformity of light and limitation of glare. In conclusion, through study of theory, case study and research through interviews, the proper design aids effectively people with visual impairment in their everyday life and improves their lives on a practical, emotional and psychological level.</p>		
CV:		
<p>Eleni Patroni studied Architecture at Democritus University of Thrace, where she obtained her degree in 2014. She attended the postgraduate course of the Hellenic Open University, concerning Lighting Design and she graduated in 2018. Her research interests include the combination of lighting and architectural design and matters of accessibility.</p> <p>Since 2014 she has been working as an architect in collaboration with various architectural offices and for the past two years she is working at WoArchitects, specializing in residential and leisure/ hotel projects.</p>		