SDEWES2014.0226

# A Smart Lighting Network Design for Urban Rehabilitation and Environmental Sustainability. A Case Study of Bagheria

M. Bonomolo[1], M. Beccali*[1], A. Galatioto[2], E. Pulvirenti[3]

[1]Università degli Studi di Palermo, Italy; [2]Università di Palermo, Italy; [3]Studio TRISKELES, Italy(*marco.beccali@dream.unipa.it)

## Abstract

The concept of smart cities, smart services, and smart grids has gained wide international attention in the last few years. The case study, Bagheria, Italy, is an urban area where many old buildings from the 18th century exist, hidden by the chaotic growth of the new city.Thus, the present paper addresses a project for lighting a town in Italy that aims to reduce energy consumption by using efficient lamps and control systems, to make the network useful for many purposes by integrating the ICT and to provide a new identity to the older part of the city by using new technologies and design concepts. A brand new multifunctional modular fixture called the StairLight is designed. The results show good energy savings with a commitment to the standard requirements and an improvement in the social and environmental management of the city.