

Internet of things for Energy efficiency of buildings

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Abstract— Among the strategies for improving the energy performance of buildings, in addition to the building envelope characteristics and the integration of renewable energy sources, particularly important are those which focus on the efficient management of electrical systems and air conditioning systems, especially for existing buildings. In this scenario, the ongoing revolution of everyday objects wirelessly connected to the network, called the "Internet of Things" (IoT), is creating interesting and unexpected opportunities in reducing energy consumption and improving environmental comfort in buildings. The article offers an analysis of the state of the art of the Internet of Things applied to the management of buildings, highlighting the functions that can be monitored and controlled and the benefits that can be achieved in terms of comfort and energy savings in the various categories of equipment (mechanical, electrical, plumbing, lighting, etc.).

Keywords – Internet of things, Smart building, Home automation, Smart appliances, Energy efficiency of buildings, Sustainable architecture