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HEALTH CARE SYSTEM FOR MONITORING OLDER ADULTS IN A “GREEN” ENVIRONMENT USING ORGANIC PHOTOVOLTAIC DEVICES

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Abstract

In this paper, we propose to present real solutions for close self-monitoring of older adults, given the permanent assistance and rapid intervention needed in emergency medical situations. The recent medical devices integrate existing or in development technologies that are easy to use, affordable, accessible and sustainable solutions that address a range of needs because the ultimate goal is the ensuring of a “living actively and independently at home” environment for older adults. We propose to contribute to the improvement of ICT-based and E-Health Internet of Things solutions that can solve the growing demand for health care systems with limited environmental resources using the energy autonomy of the medical technologies based on high efficiency organic solar cells. We systematically studied the relationship between the device performance and the preparation parameters, including the film thickness, drying time, annealing temperature of the active layers. The goal of these proposed health care devices is to provide “green” and ICT-based solutions which integrate recent technologies that will support older patients in their homes.

Key words: e-Health, environmental resources, health care systems, Internet of Things (IoT), monitoring of the elderly adults, organic photovoltaic cells

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