

LOBIN: E-textile and wireless-sensor-network-based platform for healthcare monitoring in future hospital environments

G. López, V. Custodio, J.I. Moreno

Abstract— This paper describes a novel healthcare IT platform developed under the LOBIN project, which allows monitoring several physiological parameters, such as ECG, heart rate, body temperature, etc., and tracking the location of a group of patients within hospital environments. The combination of e-textile and wireless sensor networks provides an efficient way to support noninvasive and pervasive services demanded by future healthcare environments. This paper presents the architecture, system deployment as well as validation results from both laboratory tests and a pilot scheme developed with real users in collaboration with the Cardiology Unit at La Paz Hospital, Madrid, Spain.

Index Terms— E-textile, healthcare, indoor location, wireless sensor networks (WSNs).

Due to copyright restriction we cannot distribute this content on the web. However, clicking on the next link, authors will be able to distribute to you the full version of the paper:

[Request full paper to the authors](#)

If your institution has an electronic subscription to IEEE Transactions on Information Technology in Biomedicine, you can download the paper from the journal website:

[Access to the Journal website](#)

Citation:

López, G.; Custodio, V.; Moreno, J.I. "LOBIN: E-textile and wireless-sensor-network-based platform for healthcare monitoring in future hospital environments", IEEE Transactions on Information Technology in Biomedicine, vol.14, no.6, pp.1446-1458. November, 2010.