proceedings

Abstract

System Based on RFID Technology for Product Transport Tracking †

María Martínez Pérez *, Carlos Dafonte * and Ángel Gómez *

Department of Computer Science, Faculty of Computer Science, Campus Elviña S/N, University of A Coruña, E-15071 A Coruña, Spain

* Correspondence: maria.martinez@udc.es (M.M.P.); dafonte@udc.es (C.D.); agomez@udc.es (A.G.)

† Presented at the 5th International Symposium on Sensor Science (I3S 2017), Barcelona, Spain, 27–29 September 2017.

Published: 29 November 2017

This work focuses on the development of a radio-frequency identification (RFID) system devoted to real-time traceability of products shipped by transportation companies. This system provides control over a container (one or more products) or individual product, which can be configured and adapted to any desired environment.

In order to achieve the goals mentioned above, RFID tags are monitored by a dedicated hardware device based on a Raspberry Pi, easing the storage and analysis of both location and identification of any tracked product with no possibility of error.

It is worth mentioning the capability of the system to be adapted not only regarding the features of the products, but also the parameters that will be monitored. That is, the user must define an appropriate set of constraints so that the system can warn the user when a value for a monitored feature exceeds its specified limits.

This system can be considered a highly innovative one, since it integrates RFID technology to any transportation scheme, such as the sanitary environment, where stability and preservation conditions are exceptionally important to guarantee the patients' safety and to ensure the quality of the processes that are carried out within the daily clinical practice in a hospital.