

Dionísio, R.P., Marques, P.J.C., Silva, F.P. Rodrigues, Carvalho, J.C.N. (2016) . Real-time tourists counting and tracking system for management of nature trails in naturtejo global geopark (Portugal).Romanian Review Precision Mechanics, Optics and Mechatronics. ISSN: 1584-5982. Nº 50, p. 7-15

Abstract

This paper presents a counting system project for the Naturtejo Global Geopark, which is structured in two phases. The objective of the first phase was to develop, install and test an electronic system able to remotely count the number of visitors on the Naturtejo Geopark walking routes and touristic sites. The data is reported through a web interface. A Pilot test is currently installed on Trail PR3 – “Fossil’s Route”, near the village of Penha Garcia. Since May 2015, more than 6000 tourists were monitored. The second phase of the project aims to track tourists based on the detection of Wi-Fi signals generated by their smartphones. Thanks to data mining algorithms, useful insights can be extracted that helps to understand the behaviour of tourists when they travel around the large territory of the Geopark.

Key-words: Geopark Naturtejo; Geotourism; Real time tracking of visitors; Smart counting system; Walking trails