عنوان مقاله:

Internet of Things, construction and sustainability: Examination and Analysis

محل انتشار:

هفتمین کنفرانس بین المللی پژوهش های کاربردی در علوم و مهندسی (سال: 1402)

تعداد صفحات اصل مقاله: 14

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خلاصه مقاله:

The purpose of the current research is to examine the role the Internet of Things (IoT) can offer in sustainable construction. The current research is a descriptive-analytical that employs library archives for the purposes of collecting information. As such, databases and references such as Research Institute of Information Science and Technology of Iran, SID, and MagIran, among others, were queried for the research subject. Considering that in the aforementioned research methodology, the authors spend most of their research timeframe reviewing and analyzing papers and other archival materials, the first logical step would be to get familiar with the know-how of going through written materials, which inherently involves learning how to use querying services, and finding out the optimal keywords, among others. Nevertheless, employing a desirable security solution in the Internet of Things requires addressing the problems of memory consumption as well as the execution time and throughput. Accordingly, the memory consumption of the proposed method was examined in comparison with other common encryption solutions, the results from which revealed that the proposed method requires the lowest memory consumption. This can be attributed to the optimization of the cryptographic core, which is based on the Bluefish algorithm and elliptic curves, increasing throughput and reducing memory consumption as a result. The Bluefish algorithm is previously been shown to be one of the most optimal algorithms in terms of memory usage and execution time, as it occupies only ۴ kilobytes of random-access memory (RAM) space, rendering them a clear frontrunner, not only for older computers .and laptops, but also makes for use in smart cards and IoT devices as well

کلمات کلیدی:

Internet of Things, monitoring, sustainability criteria, construction sites