**Response to Reviewers’ comments**

The Authors thank the Editor and the Reviewers for the useful suggestions that improved the scientific content and readability of the manuscript.

In the following, the remarks of the Reviewer are reported in black, the corresponding Authors’ comment with details about the changes made on the paper for each comment in blue, while also the added text is reported in red for the sake of the review easiness.

**Reviewer A:**

The paper is about a very interesting topic and is well written. In my opinion is ready to be published in the journal.

The authors thank the Reviewer for the appreciation of their work.

By the way, in the following few minor modifications and suggestions:

* in the caption of figure 6, the indication of the related subfigure should be included

The text in the caption of Figure 6 was changed with the indication of the related subfigure.

Figure 6. The general architecture of a data acquisition system (a) [22] vs. the general architecture

of a data acquisition system with the CS applied to node-dependent data (b).

* in the text of section 5 and in the cation of figure 9 the reader can be confused. In fact, in section 5 you write: “As reported in [44], the localization techniques can be classified in: (i) connectivity-based methods, that use only connectivity information to locate the entire IoT system, and (ii) distance or angle-based methods that use distance or angle measurements to determine the location of the IoT node…… the adopted methods for localizing the receiver respect to the transmitters are [44](see Figure 9): (i) triangulation, (ii) trilateration, and (iii) multilateration.” But the caption of the figure 9 is “Classification of the IoT node localization methods [44]” so it seems related to the first sentence. The author can reformulate this part of the section.

The text in the caption of Figure 9 and in the Section 5 was changed according to the Reviewer’s comments.

Figure 9. Distance and angle-based methods for IoT node localization [44].

Distance and angle-based methods can reach higher resolution than the connectivity-based ones [44]. When at least three measurements of distance or angle between a receiver and the transmitters are provided, the adopted distance and angle-based methods for localizing the receiver respect to the transmitters are [44] (see Figure 9): (i) triangulation, (ii) trilateration, and (iii) multilateration.

* in section 6 a comparative table with the performance, the advantages and the disadvantages of the synchronization protocols taken into consideration would be useful.

The authors thank the Reviewer for the suggestion. Table 1 was added with the performance comparison between the synchronization protocols described in Section 6.

A performance comparison between the above mentioned protocols is reported in Table 1.

Table 1. Performance comparison of the analysed synchronization protocols.

|  |  |  |  |
| --- | --- | --- | --- |
| **Synchronization protocol** | **Accuracy** | **Advantages** | **Disadvantages** |
| Flooding Time Synchronization Protocol (FTSP) | 1.5 µs | It requires only a single master synchronization clock. | Low-energy performance. |
| Virtual High-resolution Time (VHT) | 0.125 µ | High-energy performance. | It requires two master synchronization clocks at high and low frequencies, respectively. |
| Reference Broadcast Synchronization (RBS) | 10 µs | The synchronization procedure does not depend uniquely on a single master node. | The nodes exchange each other their timestamps for estimating their clock errors. |
| IEEE 1588 Precision Time Protocol (PTP) | 1.1 ns | High accuracy;  The master node changes at each communication step. | At each communication step, the master node has to send the accuracy of its clock at all the slave nodes. |

**Reviewer B:**

Of the 59 well-chosen references (representative papers in the field), 13 are assumed by the co-authors, representing important contributions in the field. The paper is a comprehensive synthesis, mainly useful for those who are dealing with the compulsory measurements for the operation of an IoT system.

The authors thank the Reviewer for the appreciation of their work.

There are a number of small English errors that can be easily corrected while carefully reading again the text.

* In [33], the Authors propose (page 9, this paper has 2 authors)

The text was changed according to the reviewer comment.

* For example, in [17], the Authors propose (page 9)

The text was changed according to the reviewer comment.

* As reported in [44], the localization techniques can be classified in: (i) connectivity-based methods, that use only connectivity information to locate the entire IoT system, and (ii) distance or angle-based methods that use distance or angle measurements to determine the location of the IoT node.

(no comma before and; ”which” sounds better than ”that”)-page 9

The text was changed according to the reviewer comment.

* There are also some repetitions of the same words in the same sentence that could be avoided, for the benefit of the general ”sound” of the here proposed paper.

The authors thank the Reviewer for the comment. The text was revised and the repetitions of the same words in the same sentence were removed.