

Dear Editor,

this paper is an extended version of the paper with the title "Real-time monitoring system of the electricity consumption in a household using NILM techniques", presented during the IMEKO TC-4 2020 Symposium.

In the following, the major points of extension are reported:

- the proposed technique, which is described more in detail, has been now applied only to aggregated signals, for the sake of a more practical usability;
- the performance of the proposed solution with respect to the classification and the detection have been evaluated separately;
- the validity of the proposed technique has been further tested with respect to the Building-Level fully-labeled (BLUED) dataset for Electricity Disaggregation, often used in literature as benchmark. Then, the obtained results have also been compared with other techniques, already proposed in literature, that considers the same database.

Thanks for your consideration.

Daniele Carta, PhD

A handwritten signature in black ink, appearing to read 'Daniele Carta', written in a cursive style.