**Cover letter**

Dear Editor and Reviewers,

The submitted manuscript is an extended version of a conference paper entitled “DAC testing: recent research directions” that was presented at the 2019 IMEKO TC4 International Symposium Electrical & Electronic Measurements Promote Industry 4.0.

The submitted paper deals with the DAC testing that has assumed and continues to assume increasing importance. Currently, the main DAC testing challenges include the reduction of the test time and cost, the measurement uncertainty computation and facing with the emerging Built-In Self-Test (BIST) solutions. To unambiguously clarify DAC terms, definitions and test methods the IEEE Std. 1658 has been developed and is currently under revision. The paper presents a brief overview of the latest research on DAC testing, focusing on static and dynamic test, figures of merit and measurement uncertainty issue, to provide worthwhile information for the revision of the IEEE standard dealing with the terminology and test methods of DACs.

With respect to the conference version of the paper, some extensions have been made. In particular, the introduction, the DAC research trends and conclusions sections have been revised and extended and a new section titled “DAC Figures of Merit” has been added.

We thank you in advance for your precious work.

Best Regards,

Eulalia Balestrieri, Pasquale Daponte, Luca De Vito, Francesco Picariello, Sergio Rapuano, Ioan Tudosa