February16, 2015

Dear

Professor JánŠaliga and Professor Sergio Rapuano

Guest Editors of the Special Issue of Acta IMEKO

Associate Editors, and Reviewers,

We would like to submit the paper “*Time coordination of standalone measurement instruments by synchronized triggering*” for the publication in the ACTA Imeko*.*

It extends the research presented in:

*F. Lamonaca, D.L. Carnì, D. Grimaldi, "New Hardware interface to synchronize stand-alone measurement instruments", Proc. of 20th IMEKO TC-4 International Symposium Measurement of Electrical Quantities "Research on Electrical and Electronic Measurement for the Economic Upturn", 18th TC-4 Workshop on ADC and DAC Modelling and Testing, September 15 - 17, 2014, Benevento, Italy, pp.280-284.*

Respect to the Proceedings this paper:

* has a new title: “*Time coordination of standalone measurement instruments by synchronized triggering”,*
* is completely rewritten. Therefore, a supplementary file with marked changes is very difficult to supply,
* contains all new figures ,
* highlights the novelty of the proposal in the Introduction,
* upgrades the hardware and software architecture of the Hardware Interface (HI) to permit the compensation of the phase delay between clocks (see section II),
* modifies the synchronization procedure that for the upgraded HIs is organized in two successive steps. The former concerns with the evaluation and compensation of the clock delays by setting the programmable delay line. The latter, concerns with the synchronized start of the HI (see section II),
* upgrades the mathematical model of the delay between the trigger signals sent to the Measurement Instruments (see section III),
* includes experimental tests evaluating in real contest the performance of the proposed upgraded HIs to trigger the MIs in synchronized modality (see Section IV).

Attached there are the paper together with paper published in the proceedings of the congress.

Moreover, we declare no conflict of interests.

We look forward to hearing from you at your earliest convenience.

Best regards,

(Domenico Luca Carnì, in the name of all authors)