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Mr. Todor Stoilov
STSM Coordinator
TU1302 SaPPART

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SaPPART Short Term Scientific Mission (STSM) on error models applied to road user charging

Mr Miguel Ortiz made a two week Short Term Scientific Mission (STMS) in the Research and Development department of Q-Free ASA in Oslo, Norway between 7th and 18th March 2016.

During his stay, Mr Ortiz worked on the PVT error models and applied these to the tolling applications developed by Q-Free. One test trajectory from Frankfurt was selected as basis for simulations. Methods were developed to quantify the properties of the simulated tracks for statistical comparison with the recorded trajectory. Methods were developed and tested for sensitivity analysis by altering simulation parameters. A complete easy-to-use set of matlab program was developed to make it easy to run simulations and apply the tolling algorithms automatically and also to summarise performance according to well-defined metrics.

This work is closely related to the core tasks of SaPPART WG1 and WG2. It is of great importance for SaPPART and standardisation activities for GNSS and transport in general.

He made original work related to studies on how the simulation parameter could be altered to stimulate the tolling algorithms. It is expected that the results will be presented at ENC 2016 conference and in a IEEE periodical.

Sincerely,

Ola Martin Lykkja
Senior R&D Engineer

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