

Correction of Table I of submission to IEEE Transactions on Intelligent Transportaion Systems

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R Project: *Study5A verificacion datos Alexis.Rproj.*

This report intends to correct an error in the values reported to validate the simulator described in the first version of our paper titled **Cycling meets Technology:A Cooperative Cycling Cyber-physical System**.

First, we want to clarify that the validation procedure was correct but the results written in the table are not from the final dataset but from a preliminary calibration dataset. The validation procedure followed was to compare the results of *precision* (renamed *consistency* in the reviewed edition of the paper) and *accuracy* obtained from both the actual leader-follower cyclists and the simulator. In order to adjust the settings of the two bicycles used to measure leader-follower data, we ran a series of preliminary trials. Once calibrated, we used the same bicycles to conduct the experiment. By mistake, the empirical studies reported in the *Table I. Comparison of precision and accuracy from experiments and simulations* correspond to results of filtered calibration measurements, instead of the actual final measurements.

Herein we confirm the existence of two datasets named *preliminary* and *final*. We made them available for reviewers scrutiny at http://github.com/jsalam/datasets_TransactionsITS.

Descriptive statistics of preliminary dataset

Dataset: preliminary.csv

Table 1: Main descriptive statistics of preliminary dataset

| Bicycle | Data points | Average CACC m/s ² | Average speed | Average acc. m/s ² |
|----------|-------------|-------------------------------|---------------|-------------------------------|
| leader | 199 | NA | 3.248 | 0.018 |
| follower | 198 | 0.251 | 3.046 | 0.013 |

Table 2: Consistency and accuracy of preliminary dataset filtered with 1 SD

| Hits | Miss | Data points | Precision | Average Accuracy | SD Accuracy |
|------|------|-------------|-----------|------------------|-------------|
| 115 | 83 | 198 | 0.581 | 0.414 | 0.482 |

Descriptive statistics of final dataset

Dataset: final.csv

Table 3: Main descriptive statistics of final dataset

| Bicycle | Data points | Average CACC m/s ² | Average speed | Average acc. m/s ² |
|----------|-------------|-------------------------------|---------------|-------------------------------|
| leader | 199 | NA | 3.248 | 0.018 |
| follower | 570 | -0.001 | 3.329 | 0.016 |

Table 4: Consistency and accuracy of final dataset unfiltered

| Hits | Miss | Data points | Precision | Average Accuracy | SD Accuracy |
|------|------|-------------|-----------|------------------|-------------|
| 363 | 207 | 570 | 0.637 | 0.241 | 0.31 |