

Overview

In addition to the previously shared information, the teams should also consider following points:

- 1) Three data sets (Training (7 days) + Test (8th day)) are provided to fine-tune the developed model.
 - a. Training data is same as the previously shared data, test data is now provided to enhance the learning of the developed models.
 - b. Furthermore, the participants may note that both datasets (training & test) are at non-uniform sampling rate.
 - c. Final evaluation will also be done based on the similar philosophy, i.e., participants are required to predict the 8th day data at arbitrary time stamp (may or may not be uniform).
 - d. At final evaluation round, participants will be provided to separate data sets (MEO and GEO orbits) for training (7 days data).
 - e. Participants has to predict 8th day data at arbitrary time stamp; time stamps will be provided to each team.
- 2) For evaluation following criteria will be used for the residual error between the predicted and test samples for all the parameters like x error, y error, z error and clock error (equal weightage to be given for each of the parameters):
 - a. **Priority 1:** Shapiro-Wilk W statistic score, pValue (the probability of observing the given result by chance given that the null hypothesis is true), and Hypothesis test result (0 = fail to reject H₀, 1 = reject H₀; H₀: Data comes from a normal distribution) at Significance level (α) to be 0.05.
 - i. Higher the SW statistic score better will be the performance.
 - ii. Participants has to report the given scores that are averaged over each of the parameters (as each parameters are given equal weight).
 - iii. Participants has to develop their own code to evaluate the SW score along with the confidence interval on their preferred development platform.
 - iv. To benchmark the SW score reference benchmark dataset is attached and its parameters are as follows:
 1. Shapiro-Wilk W statistic score: 0.9810
 2. P-value: 0.5840
 3. Hypothesis test result: 0 (fail to reject H₀).
 - b. **Priority 2:** Participants are also required to report mean and standard deviation for the above mentioned residual error; this criteria will be used if two teams have equal score in priority 1.
 - c. **Priority 3:** Participants has display the Q-Q (Quartile-quartile) plot of the above-mentioned residual error. It will used to visualize the number of outliers; in case two have equal performance in priority 1 and priority 2.

All the best