

## Readme File for Case Study 2

Four m-files make up the simulations for Case Study 2. To run the entire simulation study from end to end, ensure that there is a directory named `New_Data` in the directory where `case_study_2_wrapper.m` is saved. Once you have created such a directory, simply run the m-script `case_study_2_wrapper.m` which will establish simulation configurations and initial condition. Then it calls `gen_traj_sensor_data.m` to generate trajectory and sensor data. The generated trajectory and sensor data is used in by `gnss_ins_EKF_2D.m` in simulating a 2-D GNSS/INS loose integration. The m-script `plot_EKF_results.m` will display the results on graphs. All relevant data is saved during each run in a directory named `New_Data`. Ensure that the directory structure is compatible with the location of the directory `gnss_ins_functions` as it contains functions that are required by the integration algorithms.

Some of the plots generated by the OCTAVE version of the m-scripts may axes labels (and other texts) that may be in Greek letters.

For a more detailed description of theoretical aspects associated with Case Study 2, refer to documentation found on the book web page.