

- Run the “`main_ensdis.m`” and change the noise level interval manually in “`noise_injection.m`”.
- The proposed method includes the main code (`main_ensdis.m`) and 11 functions which are described below:
  1. Normalize: it scales a variable to have a values between 0 and 1.
  2. Noise\_injection: it randomly injects noise at different intervals. Change the interval manually.
  3. Train\_test\_split: it splits 20% data as a test set and the remaining 80% data as a train set without replacement.
  4. Ensemble\_MV: it detects noise using majority voting and it defines strong noise and weak noise.
  5. Knnpredict: K nearest neighbor classifier
  6. Checking\_noise: it compares the detected noise using majority voting from injected noise.
  7. Evaluation: it evaluates the noise detection using one-filter (majority voting) and two-filter (majority and distance filtering) in terms of Precision, Recall, F-measure.
  8. Distance\_filtering: it detects the real noise using distance filtering.
  9. Final\_noise: it determines the final strong noise and weak noise.
  10. Noise\_classification: it cleans the dataset using three techniques:
    - removes (strong noise & weak noise),
    - relabels (strong noise and weak noise),
    - REM-REL (relabel strong noise & remove weak noise).
  11. SVM\_ACC: calculate the accuracy of cleaned datasets.