## **Code Assignment 01**

- You should explain your answers in detail. Otherwise, no points will be given.
- Any form of academic misconduct will not be tolerated.
- 1. (5 pts) Choose any time series data that you want to analyze. You may download it from the following websites.
  - <a href="https://www.aihub.or.kr/open\_data\_board">https://www.aihub.or.kr/open\_data\_board</a>
  - <a href="https://www.kaggle.com/datasets">https://www.kaggle.com/datasets</a>
  - <a href="https://research.google/tools/datasets/">https://research.google/tools/datasets/</a>
  - https://www.investing.com/

You should describe what the data is about, other details (e.g., time period, frequency), and why you chose it.

- 2. (10 pts) Choose an appropriate deterministic trend for your data and estimate it. Then plot the trend with your data. Discuss whether the estimated trend fits your data or not.
- 3. (10 pts) Perform residual analysis. Discuss the results.

## *Note*

- Please refer to the attached Python Jupyter notebook file. You are free to just use it or modify it. (ie313\_code\_assignment\_01\_ENG.ipynb)
- You should submit a report (in pdf format) that shows your work and results on the above three questions. You do not need to submit your code.