Coursework

Release Date: xxth month 202x

Submission Deadline: yyth month 202x.

Topics Covered: Applied Programming

Coursework Brief & Key Instructions

I. **Submit**:
   1. A **single Jupyter Notebook document** (with format .ipynb) with questions in ascending order. Explain in detail the physics and the mathematical steps behind each question in *Markdown cells* and write the code in *Code cells* that solves them. Remember to comment on your code, explaining your steps.
   2. The **(.csv) dataset file** you collected during the Stirling Engine Data collection lab session.

II. **Do not** write down your name, or student number, or any information that might help identify you in any part of the coursework. **Do not** write your name or student number in the title of your coursework document file. **Do not** copy and paste the coursework questions into your submission – Simply rewrite information where necessary for the sake of your argument.

III. For writing mathematical equations in Markdown cells, the link here could help.

IV. Aside from the data collection sessions, this is an **individual report** and you should work individually on each question and submit a single Jupyter Notebook document that has all your attempts for all questions.

V. For downloading your completed Jupyter file, use the "**File**" tab from Jupyter Notebook's navigation bar, choose "**Download As**" option and then choose the "**.ipunb**" type of format to download your submission.

VI. **Generative Artificial Intelligence (Gen AI) tools can be used in an assistive role.**

1. You are **not** permitted to use AI tools for code writing or generate any idea related to your coursework.
2. You can use these tools to receive feedback on or proofread your code.
3. You can use these tools to explain and understand error messages generated by Python.
4. You can use these tools to check the grammar and/or spelling of your written English.
5. If you use any of these tools**, you need to state in a *Markdown cell* the tool name, the output, and how you used it within your submission.**
6. Please note that if you fail to adhere to these instructions, you could face an academic misconduct and you might receive a 0 mark in this assessment.

This coursework counts towards **15%** of your final Mechanical Engineering and Practical Skills (MECH0004) module grades and comprises of one problem with two questions that add up to **15 marks.**
