**Please follow the steps below to ensure a smooth and correct evaluation of your codes:**

* Rename the folder name with your team's name (e.g., the name of the university).
* Put all your codes and related files into the subfolder "Model".
* Put all the output files into the subfolder "Result".
* For Python-based codes, follow the template in "Model\_Inference.py". Or for MATLAB-based codes, follow the template in "Model\_Inference.m".
  + Wrap your model or algorithm into the function "core\_loss", with inputs of data\_B (flux density waveform, N by 1024, in T), data\_F (frequency, N by 1, in Hz), and data\_T (temperature, N by 1, in C).
  + In the function "core\_loss", the volumetric core loss values will be calculated by your model or algorithm, and should be formatted in the shape of N by 1 with the unit of W/m3. The results are then written into a csv file. Please make sure the index order in the output file is consistent with that of the inputs. To guarantee a proper code evaluation, please also make sure the output file generated by this function is the same as the output file you submit.
  + For any functions called from other files, please use the relative path address to indicate the file locations, and make sure these functions can be correctly loaded and compiled.
  + Python users: for any functions called from other modules or packages, please create a requirement.txt file to indicate their names and versions. Please make sure these modules and packages are open sourced and accessible.
  + MATLAB users: for any functions called from any other specific toolboxes, please create a requirement.txt file to indicate their names and versions. Please make sure these toolboxes are public and accessible.
* For codes in languages other than Python or MATLAB, please try to pack your codes in a similar way as above. Make sure that the codes are fully executable, and can generate the same output files as those you submit.
* Put the report (.pdf file) into the folder. Please make sure to report the total number of model parameters, indicating your model size as a table in the document. These numbers will be confirmed during the code review process.
  + In this Challenge, we consider all the values that are related to the magnetic material characteristics as the parameters of the model, such as all the learnable parameters in the neural networks, or the fitting coefficients in the analytical models. Others such as those related to the indexing are not considered.
  + In your final report, please include the numbers of parameters in your model for each of the materials (A, B, C, D, and E). The table below shows an example:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Material | A | B | C | D | E |
| Number of Parameters | 16295 | 18116 | 18268 | 12648 | 19151 |

* Pack the entire folder as a ZIP file for submission.