Term-paper (CLL:113)

Term-paper report:

Report should at-least contain (more sections may be added as necessary) :

* **Title**

*__Author names__ (all 4 team members who contributed) with entry numbers

* **Abstract** (brief summary of the content of the report and the key results obtained)

* **Introduction** (briefly introduce the problem being solved providing the background of prior work in the area.

Introduction is, in essence, the motivation and literature survey. In this section, you cite all the relevant papers, which are listed in the references at the end. Write in your own language, plagiarism will not be tolerated.)

* **Problem formulation** (Clearly state all equations to be solved numerically, along with any boundary conditions and sketch of the geometry, if any. You may skip the derivation of the equations, ONLY if it is too lengthy, else you may show the steps. All the equations must be numbered.)

* **Numerical analysis** (Discuss the problem solving approach indicating the method(s) being employed. Provide the numerical values of all the parameters used with proper units.)

* **Results and discussion** (Discuss **ONLY** the results **"obtained by you". DO NOT SHOW** any results/plots from the journal article. Only your results should be discussed. In case of no results, do not include any plots and write down the difficulty faced in not being able to produce any results. If you show your results, it is necessary to provide a detailed discussion of each and every figure/data presented as results.)

* **Path forward** (optional - indicate the possible extension of the study. How your code, if working, may be used to produce promising results in future.)

* **Conclusion** (a brief summary of key findings and the impact of your results)

* **Self-assessment** (Minimum 150 words - An honest assessment of the report by you.

First state if it is

Level 0 (no codes - only literature review) Marks: 0-50%,

Level 1 (codes developed - either working or not) Marks: 50-80%,

Level 2 (report goes beyond reproducing results and contains ORIGINAL results, extended to understanding of newer physics). Marks: 80-100%,

State if the working codes were developed. If not, state possible reasons. Clearly state the extent to which you were able to reproduce results from the article. In case, you were able to extend the project to level 2, clearly make a claim for level 2 efforts and explain the new physics added to the original problem. Also, briefly explain how level 2 results are qualitatively different from the results in the article and other literature. Basically for level 2, try to convince why do you think that you have interesting original results worth publishing in a high quality international journal, not published earlier in any journal. Please be honest in self-assessment.)

* **References** (All references MUST BE written in a consistent format, typically, but not necessarily, in style – author names, article title, journal name, volume, page number, year.)

Submission: One per team. Submit a single zip file. The zip file should contain - **programming codes, report (pdf format), turnitin check report and most importantly, the journal article on which your project is based.**

Note:

The zip file must contain report in PDF format, (containing all the results obtained by you) else it will not be evaluated.

Also, it is compulsory to write one paragraph (minimum 150 words) in self-assessment.

Results and Discussion should contain only YOUR results obtained from YOUR code (supported by code submission), inclusion of any other results (taken from the journal article or elsewhere) will be considered an act of plagiarism.

Any kind of plagiarism in report writing will not be tolerated and will be penalized to the extent of awarding F grade in the course (to all the team members). **Plagiarism should be checked using turnitin**. **Non-submission is advisable than submitting a copied report. The plagiarism report will be rechecked so do not submit a wrong turnitin report either.**