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| Book Name: | [**New Horizons of Science, Technology and Culture**](https://bookstore.bookpi.org/product/new-horizons-of-science-technology-and-culture-vol-1/) |
| Manuscript Number: | **Ms\_BPR\_5906** |
| Title of the Manuscript: | **ChatGPT and the learning of the integral factor of the differential equation (y3 + x)dx + xy2dy = 0 in engineering students at the University of Antofagasta-Chile** |
| Type of the Article | **Book Chapter** |

**Special note:**

**A research paper already published in a journal can be published as a Book Chapter in an expanded form with proper copyright approval.**

**Source Article:**

**This chapter is an extended version of the article published by the same author(s) in the following journal.**

**Journal of Physics: Conference Series 3027 (2025) 012038.**

**Doi:10.1088/1742-6596/3027/1/012038**

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| PART 1: Comments | | |
|  | Reviewer’s comment **Artificial Intelligence (AI) generated or assisted review comments are strictly prohibited during peer review.** | Author’s Feedback *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.** | **This manuscript offers timely evidence on how conversational AI can deepen engineering students’ grasp of core mathematical techniques, specifically the integrating factor for non-exact differential equations. By presenting a detailed, qualitative case study, it illuminates the ways ChatGPT supports problem-solving strategies, conceptual clarity and self-paced learning. These insights help bridge the gap between traditional teaching methods and emerging AI-augmented instruction, guiding educators in integrating such tools responsibly. Ultimately, the findings pave the way for more research on AI’s role in STEM education and curriculum design.** |  |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | **The title of the artile is suitable.** |  |
| Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here. | **The abstract is comprehensive.** |  |
| **Is the manuscript scientifically, correct? Please write here.** | **The manuscript is scientifically correct.** |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.**  **-** | **The references are recent but not sufficient. Please provide minimum 10 references.** |  |
| Is the language/English quality of the article suitable for scholarly communications? | **The quality of the language is good.** |  |
| Optional/General comments | **Literature review section should be added. Discuss the related work by emphasizing the methodology, results, advantages, and limitations of each study. Incorporate an additional 15-20 references and ensure they are thoroughly discussed. Conclude this section with a final review analysis to enhance the paper's readability. Include recent publications also from 2023-2025.**  **The chapter is publishable if and only if literature review section is properly taken care off.** |  |

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| **PART 2:** | | |
|  | Reviewer’s comment | Author’s comment *(if agreed with the reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Are there ethical issues in this manuscript?** | ***(If yes, Kindly please write down the ethical issues here in detail)*** |  |

**Reviewer details:**

**Anshit Mukherjee, India**