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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.** | The manuscript aligns well with the interdisciplinary scope of the book New Horizons of Science, Technology and Culture. It investigates the pedagogical application of ChatGPT in the mathematical learning process of engineering students—specifically, their understanding of integrating factors in non-exact differential equations. The work contributes to ongoing discussions on the role of AI in STEM education by documenting real-world classroom practices and student perceptions. While exploratory in nature, it highlights how generative AI tools can scaffold conceptual understanding and encourage metacognitive reflection among learners. |  |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | **Yes, the title is suitable and clearly reflects the scope of the study.**  **Also consider titles like**  **Exploring ChatGPT’s Role in Learning Integrating Factors in Differential Equations: A Case Study of Engineering Students at the University of Antofagasta, Chile** |  |
| 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 mostly clear and outlines the study’s intent, context, and findings.**  **consider minor refinements like**  ** Specify the number of interview participants directly in the abstract.**  ** Briefly mention the type of qualitative analysis or thematic outcome.**  ** Replace “the most important stages” with “key stages of the intervention.”** |  |
| **Is the manuscript scientifically, correct? Please write here.** | **Yes, The qualitative case study is logically structured and the intervention is sound for a classroom context.** |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.**  **-** | **The references are relevant but limited in number and outdated in parts. inclusion of more recent literature from 2023–2024** |  |
| Is the language/English quality of the article suitable for scholarly communications? | Yes, some grammatical issues need attention. |  |
| Optional/General comments | Figures 1–3 should be better integrated with narrative explanations or thematic labels. |  |

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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:**

**Sudheer Devaraju, USA**