|  |
| --- |
|  |
| 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\_5805** |
| Title of the Manuscript:  | **A Deep Learning System for Detecting Severe Lung Diseases: Tuberculosis, pneumonia, and COVID-19 Through Digital Chest X-rays** |
| Type of the Article | **Book Chapter** |

|  |
| --- |
| 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.** | **After careful reading of the manuscript, I have found that this is interesting work.**  **In this paper, Authors propose a deep learning-based model for multiclass classification to automatically diagnose these illnesses using chest X-ray (CXR) images. The model employs a Convolutional Neural Network (CNN) framework that has been trained on publicly available datasets to categorize CXRs as COVID-19, Pneumonia, Tuberculosis, and No-Findings.** |  |
| **Is the title of the article suitable?****(If not please suggest an alternative title)** | **The title of the article 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 of this article is comprehensive** |  |
| **Is the manuscript scientifically, correct? Please write here.**  | **The experiments are conducted, and the purpose of this study seems to be clear.** **The proposed model was evaluated with an accuracy rate of 98.5%, demonstrating strong performance throughout all classes, with precision, recall, and F1-score exceeding 96%. The Pneumonia category achieved the highest recall (99.8%), while the No-Findings category showed balanced performance with 99.4% recall and a 99.2% F1-score. The findings illustrate the model's reliability for practical application in clinical decision support systems. The project's future development will focus on enhancing the model's capability to handle various types of input data, including X-rays, CT scans, and other radiological imaging formats, to boost its versatility and effectiveness in multiple diagnostic contexts.** |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.****-** | I suggest of additional references : Puślecki, Z. W. (2022). International Business Theory and Policy in the Time of COVID-19. American Journal of Industrial and Business Management, 12, 1249-1271. <https://doi.org/10.4236/ajibm.2022.127069>; Puślecki Z.W. (2022), Bilateral Trade Agreements and the Rise of Global Supply Chains in the Modern International Business, Chapter 5 of the book, Current Aspects in Business, Economics and Finance Vol. 2, DOI:10.9734/bpi/cabef/v2/16886D; Puślecki, Z. W. (2019). Trends Reshaping International Business Theory and Policy. Warsaw: Publishing House ELIPSA). Puślecki, Z. W. , Structural Modifications of International Business Theory and Policy in the Time of Covid-19. American Journal of Management, 23(3), 2023. <https://doi.org/10.33423/ajm.v23i3.6425>.;  |  |
| Is the language/English quality of the article suitable for scholarly communications? | **Okay** |  |
| Optional/General comments |  |  |

|  |
| --- |
| **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:**

**Zdzislaw W. Puslecki, Poland**