



ISSN NO. 2320-5407

ISSN(O): 2320-5407 | ISSN(P): 3107-4928

International Journal of Advanced Research

Publisher's Name: Jana Publication and Research LLP

www.journalijar.com

REVIEWER'S REPORT

Manuscript No.: IJAR-57783

Title: A Comparative Deep Learning Framework for Automated Lung Cancer Detection and Classification Using CNN and Residual Networks.

Recommendation:

Accept as it is

Accept after minor revision.....

Accept after major revision

Do not accept (*Reasons below*)

Rating	Excel.	Good	Fair	Poor
Originality		Good		
Techn. Quality	Excellent			
Clarity	Excellent			
Significance	Excellent			

Reviewer's ID: Dr. Sumathi

Detailed Reviewer's Report

- 1. A lung cancer diagnosis begins with imaging tests—such as a chest X-ray or CT scan—to identify suspicious spots. A definitive diagnosis requires a biopsy, where a small tissue or fluid sample is removed and analyzed in a lab.**
- 2. Deep learning is an advanced subset of machine learning that utilizes multi-layered artificial neural networks to simulate human decision-making processes. By passing unstructured data through successive layers of mathematical algorithms, it automatically extracts intricate features and discovers patterns without requiring manual, rule-based programming.**
- 3. A Convolutional Neural Network (CNN) is a specialized deep learning algorithm primarily used for processing grid-structured data like images and video. Inspired by the human visual cortex, CNNs automatically and adaptively extract spatial features (like edges, shapes, and textures) through a process of kernel filtering and down sampling.**
- 4. Medical image classification uses Artificial Intelligence to automatically categorize medical scans (like X-rays, MRIs, and CT scans) into specific disease classes. By recognizing subtle, pixel-level**

REVIEWER'S REPORT

patterns, these models assist radiologists, reduce diagnostic errors, and speed up clinical workflows.

5. **Binary classification is a supervised machine learning task that categorizes input data into exactly one of two distinct classes (e.g., True/False, Spam/Not Spam, Fraudulent/Legitimate). It learns patterns from historical data to predict the correct category for new, unseen observations.**
6. **Multiclass classification is a supervised machine learning technique used to categorize data instances into one of three or more mutually exclusive classes. Unlike binary classification (which has only two possible outcomes), each data point in a multiclass problem is assigned one and only one label.**
7. **Feature extraction is a foundational preprocessing step in machine learning and data science that transforms raw, unstructured data (like text, images, or audio) into meaningful, numerical features. It preserves the most critical information of the original dataset while reducing dimensionality and complexity.**
8. **Healthcare AI utilizes machine learning, natural language processing, and data analytics to improve diagnostics, tailor personalized medicine, and automate administrative tasks. By accelerating patient care workflows and enhancing clinical decision-making, it aims to reduce operational costs and relieve physician burnout.**
9. **Key words are excellent.**
10. **Pictures are good with tables and graphs.**
11. **Summary points can be included.**
12. **Significant points are given appreciable.**
13. **References should be with alphabetical order.**
14. **After those changes good to publish in your journal.**