Detection of Breast Cancer using Neural Network

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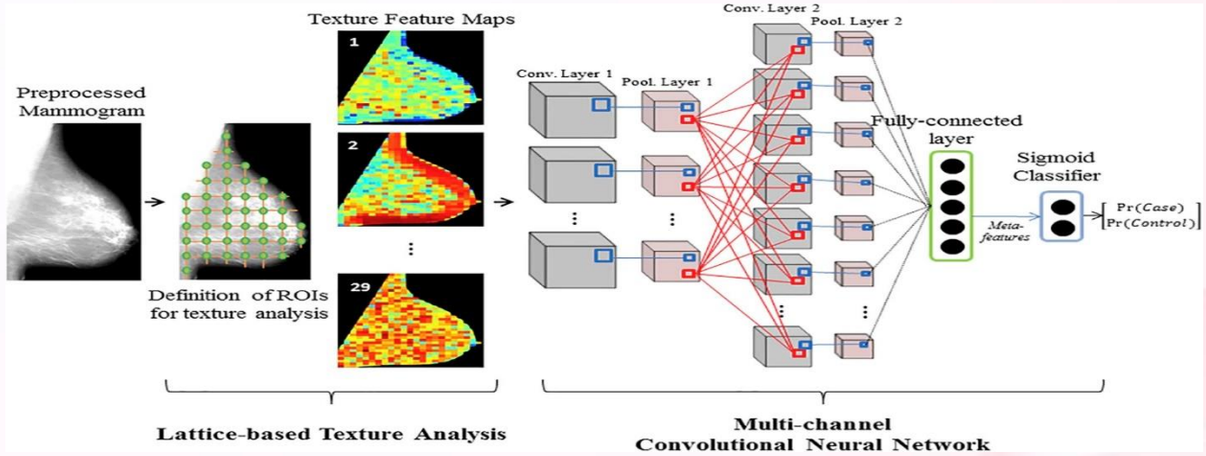
Research Purpose

The purpose of this research is to detect various stages of breast cancer with neural networks and how efficiently Neural networks analyse the early stages of Cancer.

The research questions of this research are

1. How can you detect breast Cancer using Neural networks?
2. How efficiently can it detect breast cancer?

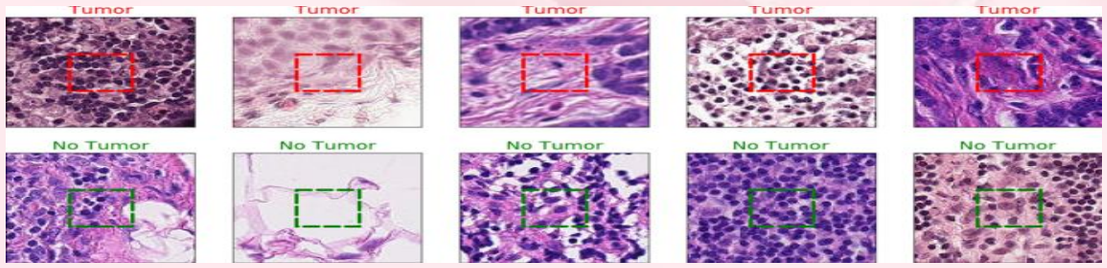


Professional, legal and ethical issues:

A number of professional, legal, and ethical issues applicable to breast cancer include informed consent, patient confidentiality, comfort in a discussion of their diagnosis, data ownership, and professional, legal & moral responsibility. Detailed discussion is necessary to consider what kind of neural network techniques are applied rather thus optimizing outcomes for patients who are diagnosing

Background Context

Breast Cancer is having lumps or areas of thickened breast tissue which is one of the major symptoms. It is the second-highest cancer among women, but the Mortality rate can be reduced if detected in the early stages. There are many traditional techniques to detect breast cancer but exposure to UV rays is harmful to health the problem is that accuracy depends on the environment and equipment, as well experience of observers and disease knowledge. With the advancement of neural networks, we can make the detection of breast cancer is becoming more active, and it is important to diagnose in the early stages and improve accuracy. In this research, we study the detection methods of breast cancer using neural networks and also the accuracy of detection.



Neural Network for detecting breast cancer tumors in microscopic Images

Research Methodology

In this research Qualitative methodology was implemented and multiple types of research were conducted in a sequence to arrive at the conclusion.

Applied Research

Applied Research and Problem-Oriented Research were considered, these are best suited for real-life problems, as the main scope of the research is around Breast Cancer.

Archival Research

The Archival-Research method was used for collecting and analyzing the data from different databases such as IEEE, ACM, and Science Direct.

Evaluation Methodology

Performance evaluation is a productive procedure that demonstrates the outcome of a task undergoing evaluation research. This method mainly focuses on the effect of the method rather than the procedure which will be unique for evaluating the effects of breast cancer detection using a neural network as it compares the research outcome to the original aim.

Scheduling

Time / Topic	Week 1-2	Week 3-5	Week 6-9	Week 10-11	Week 12	Week 13
Preparation & planning	■					
Data Collection		■				
Data Pre-Processing			■			
Main Findings & discussions				■		
Draft Report submission					■	
Final Submission & publishing						■

Expected Results

1. This analysis will help us to the early diagnosis of breast cancer which lowers the mortality rate.
2. Instead of undergoing several harmful lasers the help of a Neural network Cancer can be predicted accurately

Conclusion

In Conclusion, Neural Network techniques may improve the accuracy and robustness of breast cancer diagnosis techniques. The neural network worked much better than other traditional techniques. The implementation comprises of mixing various methodologies (e.g., Mammograph techniques) to increase robustness and performance.

References

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