A NOVEL APPROACH FOR DETECTION OF BREAST CANCER USING UWB IMAGING AND CONVOLUTIONAL NEURAL NETWORK

A project report submitted to Jawaharlal Nehru Technological University, Kakinada in the partial fulfillment of the requirements for the award of degree of

BACHELOR OF TECHNOLOGY

In

ELECTRONICS AND COMMUNICATION ENGINEERING

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CERTIFICATE

This is to certify that the project work entitled "A NOVEL APPROACH FOR DETECTION OF BREAST CANCER USING UWB IMAGING AND CONVOLUTIONAL NEURAL NETWORK" s being submitted for the partial fulfilment of requirements for the award of Bachelor of Technology in Electronics & Communication Engineering is a bonafide work done by A.S.S.VINEELA (17811A0407), M.ANJANI SAI (17811A0433), D.RAMA KRISHNA (17811A0413), R.RAMA KRISHNA (17811A0443) under the guidance during year 2020 -2021 and it has been found suitable for acceptance according to the requirements of the university.

INTERNAL GUIDE

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EXTERNAL EXAMINER

ABSTRACT

In this paper, a novel method is used for the automatic detection of breast cancer by using UWB. Breast cancer is the severe threat occurs especially in women. To slacken the death rate, diagnosis and detection is a significant concern needs to be done accurately. This proposed work works well in identifying the tumor by using new algorithm and approaches. To quantize the acquired image into samples, threshold based segmentation is applied. The obtained input image will be preprocessed by using median filter. Median filter clear out the noise present in the UWB image. So denoising of image is needed to uphold the quality of image by noise suppression. Quality of image and feature extraction algorithm becomes unreliable due to the presence of noise. After quantization, the feature extraction is performed by using GLCM and then it is optimized. Finally Convolutional Neural Network is performed for classifying the extracted feature and it analogizes the test data with trained data. To prove its effectiveness, it is compared with other existing works, it generates a high accuracy. The accuracy achieved in this proposed work is 92%.