**ABSTRACT**

The use of Artificial Intelligence (AI) has amplified in various fields, with remarkable results in medicine in recent times. Despite the potential of AI in the medical field, there are still many unexplored areas due to data unavailability. One such area is cardiac foetal anomaly diagnosis, which is poorly diagnosed globally with a rate of only 50%. The complexity of the task requires a high level of expertise to understand minute hints and conduct thorough exams for accurate image captures. In this research, the FoetalEcho\_V01 dataset was used for foetal cardiac anomaly diagnosis, consisting of pre-classified ultrasound images representing 15 different anomalies and a class representing normal heart images. The deep learning models which are efficient in producing potential classifiers for ultra sound scan images are identified. The models are CNN, AlexNet, VGG16 and ResNet50. The best performing deep learning models were used to produce classifiers, and their performance was evaluated. The results showed that the deep learning models performed well on the FoetalEcho\_V01 dataset images for diagnosing structural cardiac anomalies in the foetus, with consistent performance as demonstrated by the calculated standard deviation. The results obtained from the research for the FetalEcho\_V05 dataset are as follows. The CNN model achieved a precision of 0.94, recall of 0.89, accuracy of 0.90, and F1 score of 0.91. Comparatively, the AlexNet model demonstrated a precision of 0.92, recall of 0.87, accuracy of 0.89, and F1 score of 0.89. The VGG16 model exhibited precision of 0.91, recall of 0.85, accuracy of 0.87, and F1 score of 0.88. Lastly, the ResNet50 model displayed a precision of 0.93, recall of 0.90, accuracy of 0.93, and F1 score of 0.93. Among these models, the CNN model emerged as the best classifier for the FetalEcho\_V05 dataset, with its superior performance in terms of precision, recall, accuracy, and F1 score.