CARDIOVASCULAR AND STRESS DETECTION USING DEEP LEARNING

[1st] Dr S Karthik
Department of ECE, College of Engineering and Technology
SRM Institute of Science and Technology, Vadapalani Campus, Chennai

[2nd] Akshay Prasad R, [3rd] Anila Anantha Narayanan
Department of ECE, College of Engineering and Technology
SRM Institute of Science and Technology, Vadapalani Campus, Chennai

This study investigates the application of Convolutional Neural Networks (CNN) for the automated classification of depression-related abnormalities in cardiovascular Electrocardiogram (ECG) images. Utilising state-of-the-art deep learning techniques, the study aims to develop a robust model for early detection of depression-associated cardiac conditions. Leveraging a diverse dataset of ECG images, CNN architectures are employed to extract pertinent features. The proposed CNN-based approach shows promising potential for accurate and efficient depression classification, thereby significantly impacting healthcare practices and patient well-being. Through rigorous evaluation and validation, the research demonstrates the feasibility and efficacy of the CNN algorithm in this critical domain. This study represents a significant advancement towards the development of AI-assisted tools for cardiovascular depression assessment, offering timely and precise diagnostic support to healthcare professionals.

 ISBN: - 978-81-968898-2-1