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INTRODUCTION

In view of the recent amendment made in the Patents Act, 1970 by the Patents (Amendment) Act, 2005 effective from 01st January 2005, the Official Journal of The Patent Office is required to be published under the Statute. This Journal is being published on weekly basis on every Friday covering the various proceedings on Patents as required according to the provision of Section 145 of the Patents Act 1970. All the enquiries on this Official Journal and other information as required by the public should be addressed to the Controller General of Patents, Designs & Trade Marks. Suggestions and comments are requested from all quarters so that the content can be enriched.

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(57) Abstract :
This deep learning-based non-contiguous respiratory audio classification system introduces a respiratory diagnostic through an advanced audio classification model. The process commences with capturing respiratory sounds using a microphone, followed by preprocessing and feature extraction, emphasizing Mel-frequency cepstral coefficients (MFCCs). The core innovation lies in deploying a Convolutional Neural Network (CNN) on a central processing unit, enabling real-time analysis and classification of respiratory conditions. The model's predictions, displayed with confidence scores, offer immediate insights for healthcare professionals. Optional data storage and transmission capabilities enhance its utility for extended analysis, record-keeping, and telemedicine. The invention's advantages include precision in multi-class classification, automated and objective diagnosis, accessibility with central processing unit integration, patient-centric engagement, early detection potential, data-driven adaptability, efficient technology use, and versatile real-world deployment. This comprehensive exploration underscores its potential as a paradigm-shifting tool in automated and patient-friendly respiratory diagnostics.

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