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App Based Digital Audiometer

Ambika L G[1], Deepak B K[2], Kamal C D[3], Manoj A[4], Mohammed Saheb I[5]
Assistant Professor, Department of Information Science and Engineering[1]
Under Graduate Students, Department of Information Science and Engineering[2,3,4,5]
S J C Institute of Technology Chikkballapur, India

Abstract: *Hearing impairment is a widespread health concern on a global scale that affects individuals across all age groups. The timely identification and regular monitoring of one's hearing ability are crucial factors for prompt intervention and an improved overall quality of life. However, the traditional method of audiometry comes with limitations such as the need for specialized equipment and professional supervision making it inaccessible and expensive for many individuals seeking hearing assessments. To address this issue a cutting-edge approach has been developed in the form of a Digital Audiometer App offering a convenient cost-efficient and user-friendly means of assessing one's auditory function. This innovative tool utilizes the widespread use of smartphones and wearable devices allowing for a portable and accessible method of hearing assessment. The system integrates advanced signal processing techniques intuitive interfaces and reliable calibration processes to guarantee precise and consistent results. Additionally, the audiometer is compatible with both iOS and Android platforms ensuring its availability to users worldwide*

Keywords: Hearing impairment, Audiometry, Timely identification, Regular monitoring, Digital Audiometer App, Cost-efficient, User-friendly