Smart wearable applications for cardiovascular disease detection.

Mohammad Mosharab*

Department of Cardiology, University of Quebec at Rimouski, Rimouski, Canada

Health has always been one of the most important issues people were concerned with. Given the Prevalence of diseases and their impact on people's lives, researchers are always looking for ways to improve medical services and promote public health. Added to this is the aging of the population, the lack of trained medical personnel, and inequality in services, epidemic planning, and a host of other issues hamper the growth of public health around the world. However, advances in information and Communication Technologies (ICT) provide effective responses to these challenges. Artificial intelligence (AI) is considered promising in this context. Tool to improve medical care as it has the potential to be used virtually all areas of medicine and will transform healthcare for patients and patients Communities. This enormous contribution is not due to magic, but to AI Data processing capabilities that exceed human, especially when large calculations are performed in a short time. Despite Most AI applications in healthcare were developed after 2008, their meaning is obvious [1].

First, AI has improved the ability of computers to learn leading to better diagnostics and medical care. In addition, AI technologies can accept common sense and extract information from raw data, use human-like mindsets, deal with inaccuracies, adapt to a rapidly changing environment and even act on the basis of his knowledge. Are Features allow AI tools to think and behave similar to humans practically unprecedented level that allows them to articulate clinical patterns and Visions beyond human ability. Combining AI skills with humans Intelligence, sometimes called augmented intelligence, is probably the most effective way to improve health services. Cardiovascular diseases (CVD) are the leading cause of death and are therefore considered to be the most dangerous disease in the world. According to the latest World Health World Health Organization (WHO) statistics on heart disease, the number of CVD patients globally, it increased from 271 million to 523 million between 1990 and in 2019, and the number of deaths caused by this disease has increased from 12.1 million to 18.6 million over the same period, accounting for 32% of global mortality in 2019 [2].

For example, in the United States, a person dies from heart disease at least every 34 seconds, and in Canada someone dies a at least every 5 minutes In addition, cardiovascular diseases are one of the main causes of health and economic conflicts. Suffer. Expenditure panel study, total US cost is approximately CVD In 2017-2018 it was valued at $378.0 billion, of which $226.0 Billion in expenses and $151.8 billion Future lost productivity. Shows an increase in the number of cardiovascular diseases Illness and deaths worldwide between 1990 and 2019. Due to the life-threatening nature of cardiovascular disease require the development of effective solutions that enable early diagnosis and preferably anticipate its onset. The predictable power of modernity Technologies can help reduce the global prevalence of cardiovascular disease. Traditional Diagnostic methods for these diseases include an electrocardiogram, Echocardiography, coronary angiography, stress test, MRI intracoronary imaging or ultrasound. However, the new technologies are there Improve health services and facilitate the detection of cardiovascular diseases, especially information and communication technologies (ICT) e Development of artificial intelligence (AI) and its derivatives [3].

Short story Artificial intelligence approaches in cardiology have shown that is effective in delivery Accurate and less erroneous patient care that is medically significant e Financial Impact. It is more efficient and widely used because the tools and the applications offered are at an expert level and use real data. In the Overall, AI has fantastic potential to transform cardiology in the near future and is often seen as a revolutionary next step in the field Potential to accelerate and improve patient care. Artificial intelligence will also be available soon Revolutionize cardiovascular health because its tools have the potential outperform experts in detecting and predicting cardiovascular disease. Therefore, smart wearables combining AI and ICT are expected to be very popular useful for detecting and predicting cardiovascular disease [4].

Also known as smart wearable devices as a smart wearable technology or wearable gadget, it is a new type of compact, robust and powerful computing devices made possible by rapid development Information and communication technologies and advances in electronics, especially microprocessors. These devices are then welcomed ubiquitous technology generation after smartphones as they provide access to Data anytime, anywhere. The topic of smart wearables has have developed rapidly in recent years and their technologies are now being used in many other fields. This section defines “smart wearable devices” and a brief overview of the history of wearable technology. Also different Categories of smart wearables are discussed in the following sections [5].

***Correspondence to:** Mohammad Mosharab, Department of Cardiology, University of Quebec at Rimouski, Rimouski, Canada, E-mail: mohammad.mosharab@uqar.ca

***Received:** 02-Jan-2023, Manuscript No. AACMT-23-87120; **Editor assigned:** 03-Jan-2023, PreQC No. AACMT-23-87120(PQ); **Reviewed:** 14-Jan-2023, QC No. AACMT-23-87120; **Revised:** 20-Jan-2023, Manuscript No. AACMT-23-87120(R); **Published:** 28-Jan-2023, DOI:10.35841/aacmt-7.1.133*

***Citation:** Mosharab M. Smart wearable applications for cardiovascular disease detection. J Cardiovasc Med Ther. 2023;7(1):133*

References

1. Chen E, Jiang J, Su R, et al. A new smart wristband equipped with an artificial intelligence algorithm to detect atrial fibrillation. Heart Rhythm. 2020;17(5):847-53.
2. Marsili IA, Biasiolli L, Mase M, et al. Implementation and validation of real-time algorithms for atrial fibrillation detection on a wearable ECG device. Comput Biol Med. 2020;116:103540.
3. Saadatnejad S, Oveisi M, Hashemi M. LSTM-based ECG classification for continuous monitoring on personal wearable devices. IEEE J Biomed Health Inform. 2019;24(2):515-23.
4. Tang X, Tang W. An ECG Delineation and Arrhythmia Classification System Using Slope Variation Measurement by Ternary Second-Order Delta Modulators for Wearable ECG Sensors. IEEE Trans Biomed Circuits Syst. 2021;15(5):1053-65.
5. Li H, An Z, Zuo S, et al. Artificial Intelligence-Enabled ECG Algorithm Based on Improved Residual Network for Wearable ECG. Sensors. 2021;21(18):6043.

Citation: *Mosharab M. Smart wearable applications for cardiovascular disease detection. J Cardiovasc Med Ther. 2023;7(1):133*