Abstract

It is important to determine the cardiac risk of a patient in advance to prevent premature death. This paper gives a brief of the methods used so far to determine the cardiac risk of a patient from a PPG signal. It also compares the effectiveness of each article in various criteria including cost and the paper also presents a novel technique to determine the cardiac risk of a patient at reduced cost. The paper states to find the cardiac risk of a patient form a Photoplethysmographic Signal. Arterial stiffness leads to cardiac disorders, the degree of arterial stiffness can be obtained by calculating the augmentation index of a pulse wave. Augmentation Index is an important factor of cardiovascular risk. Augmentation Index is the measure of Arterial stiffness derived from the ascending aortic waveform. Thus by calculating the augmentation index the degree of arterial stiffness can be calculated by which cardiac risk to the patient can be diagnosed. The augmentation index is determined by implementing an algorithm.
An Early Prediction of Cardiac Risk using Augmentation Index Developed based on a Comparative Study


An Early Prediction of Cardiac Risk using Augmentation Index Developed based on a Comparative Study

- Michael F. O’rourke, M. D., D. Sc., And Wilmer W. Nichols, Ph. D. *


- Delpha Jacob1, Manimegalai Vairavan2, Dr Thanuskodi3 “Analysis of Pulse Wave to Determine the Cardiac Risk of the Patient”; International journal of Advanced Scientific and Technical Research Issue 1, Vol 2 December 2011 ISSN 2249-9954


- http://terpconnect.umd.edu/~toh/spectrum/Differentiation.html#Applications

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- “Biophotonics optical sciences and engineering for the 21st century”; by Xun Shen and Roeland Van Wijk

**Index Terms**

- Computer Science
- Signal Processing

**Keywords**

- Augmentation Index
- Cardiac Risk
- Early prediction
- Photoplethysmograph
- Real-Time