Chapter 12
Investigating Diabetic Subjects on Their Correlation With TTH and CAD:
A Statistical Approach on Experimental Results

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ABSTRACT

Digital technology is modernizing healthcare. Large volumes of data refer to big data by digitising health information that can quickly be processed by machines. Digital healthcare analysis is the ability to diagnose and suggest ways to reduce costs; provide quality patient care and outcomes, available 24/7; reach to patients located in vast distant geographical areas; and avert preventable diseases. Artificial intelligence (AI) is an autonomous real-time machine system in comparison to natural information analyzed by humans. Diabetes is a serious, under-reported, life-threatening disease affecting millions of people of all ages, and researchers have identified it to be a major public health problem that is approaching epidemic proportions globally. The purpose of this study is to investigate diabetes analysis from CAD and other diseases using the latest advanced digital technologies to analyze information extracted from IoT and big data and stress correlation (TTH) on human health.

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INTRODUCTION

Machine Vision

Machine Vision is the in which computer has the ability to display and use one or more video cameras, analog-to-digital (ADC), and digital signal processing (DSP). The obtained data is controlled by computer or robot. The scene of a machine is similar in complexity to speech recognition. Each visual sensitivity and resolution system has two important features.

- Sensitivity is the ability of a device to detect weaknesses in weak light or invisible wavelengths.
- Resolution is how much the device can differ between objects. In general, resolution tends to limit the field of view. The sensitivity depends on the transparency. All other factors remain constant, reducing sharpness sensitivity and reducing sensitivity resolution.

The human eye is sensitive to electromagnetic radiation in the 390-770 nm range. Video cameras are sensitive to a wide range of wavelengths. Some of the vision systems in this device work with infrared wavelengths, ultraviolet light or x-rays.

The sight requires a computer with an advanced processor. In detail, high-resolution cameras require large amounts of random access memory (RAM) and AI programming. Equipment venues are used in various medical and industrial applications.

Here's an example:

- Electronic component analysis
- Identify signature
- optical character recognition
- Handwriting recognition
- Finding Object
- pattern recognition
- Content inspection
- make money
- Medical image analysis

The term device often refers to industrial computer programs, but computer terms are often used to describe digital computers, data processing and any kind of technology for which some of them are recorded.

Components of Machine Vision System are different but in most cases there are many factors. These elements are as follows:

- Digital or analog camera to capture images
- Instruments for digitizing images like camera interfaces
- Processor

When these three components are connected to the device, it is known as a smart camera. The car's visual system can be obtained from smart cameras equipped with the following add-ons.