

G.Narayanamma Institute of Technology & Science

(For women)

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(An ISO 9001:2015 Certified Institution)

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CONTINUOUS GLUCOSE MONITOR

BY

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ABSTRACT

Diabetes is a serious, sometimes life-threatening disease. Over time it can affect every body part and may cause kidney damage, nerve damage, amputations and blindness. It also raises your risks for heart and blood vessel disease and stroke.

A continuous Glucose Monitor is a device that helps you monitor your glucose levels in the blood. Checking your blood glucose and maintaining a log every day will help you adjust foods and medications when necessary to help decrease your blood sugar levels. One of the ways to control blood sugar levels naturally is by checking your blood glucose and maintaining a log every day, this will help you adjust foods and medications when necessary to help control your blood sugar levels. This can be done using CGM (Continuous Glucose Monitor) that helps you monitor your glucose levels in the blood.

The CGM device has a needle that is put into the back of the arm. It measures glucose levels using a microprocessor and sends the data to the other part of the device, the transmitter which is connected to a mobile app using IoT. The app stores and shows glucose levels of the person continuously and alerts the person when the glucose levels are abnormal, by comparing the glucose levels to the previously collected patient data using data science.

SYSTEM REQUIREMENTS:

Software Requirements:

Platform	-	Visual studio for web application.
Front End	-	Web Application.
Development Tool	-	IoT, Data Science, Sensor Technology, Web Development.
Back End	-	Raspberry Pi, Arduino (Sensor), Web Application.

Hardware Requirements:

Name of the Processor		
Hard Disk Capacity	-	500GB to 1TB
RAM Capacity	-	at least 16GB