

TITLE: NON INVASIVE GLUCOMETER

- **PROBLEM STATEMENT:**

1. The Main criteria behind using this Non Invasive Glucometer is to detect glucose concentration in blood and also to detect the diseases or side effects caused due to diabetes like Alzheimer's, Hearing impairment, cardiovascular disease, nerve damage, Foot damage, Sexual and bladder problems, Kidney damage etc.

2. Actually, Diabetes is a metabolic disease in which blood glucose level in human body increases drastically from its normal level. The increase in sugar level is due to inadequate production of insulin blood cells or can be because of improper response of body cells. Diabetes may be of Type-1(the pancreas do not produce insulin in the body which results a weak immune system) or Type-2(the amount of insulin produced by pancreas is not sufficient to maintain glycemic profile of the body).

3. Hence regular monitoring of glucose level is very important. So diabetic patients regulate their glucose levels through proper diet as well as by injecting insulin. For the effective treatment of diabetes, patient have to measure the level of blood glucose periodically.

4. At present diabetic people are using invasive finger pricking instrument called glucose meter to know the concentration of blood glucose. As if frequent blood glucose testing is crucial for diabetic patients, invasive glucose meter(Finger Pricking) method is not benefit able.

5. In order to overcome this problem we are going for Non invasive Glucometer. Therefore the development and break through of new painless and stress free Non invasive glucose monitoring technology can directly benefit hundreds and millions of patients by avoiding the pain of blood collection and damage to human tissues.

- **REQUIREMENT LIST:**

Sl.no.	Component name	Specifications	Quantity
1	Capacitor	1 μ F-50v	2
2	Capacitor	2 A 104J	2
3	Transistor	BC547	1
4	IC Base	—	1

5	LM324 IC	–	1
6	Photo sensor	Tx & Rx	2
7	Resistor	1k Ω ,10k Ω ,120 Ω ,5k Ω	10
8	Cable	–	15
9	PCB	–	1
10	Micro Controller (Power supply)	7-12v	1
11	Display	12 c with 16 \times 2	1

- BLOCK DIAGRAM:

