**CONTACT LESS HEART RATE MEASUREMETSYSTEM**

**PROBLEM STATEMENT:**

* We know that heart beat measurement is done by using the ECG or stethoscope, which requires appropriately placing electrodes in direct contact with skin, often causing irritation.
* Clinical examination say that these electrodes may react with the patient’s skin and in some case cause significant damages.Electrocardiogram measurement is not suitable for long-term measurement because it causes stress.
* When we use stethoscope, there will be a lack of accuracy depending upon the condition of equipment, environmental disturbance or doctor unable to hear it properly. Even a small mistake while monitoring leads to different treatment of the patient which causes severe health problems rather than curing.
* There is also physical discomfort while measuring the heart beat with stethoscope. So that we propose a contact less heart rate measurement method which can be used in any circumstances irrespective to the position of body.
* A slower than typical heartbeat can prevent the brain and other organs from getting enough oxygen, possibly causing chest pain, confusion, memory problems, dizziness, fainting.
* When the heart beats too fast, it may not pump enough blood to the rest of the body resulting, the organs and tissues not getting enough oxygen leading to sensation of a racing, pounding heartbeat or flopping in the chest.

**OBJECTIVE:**

* Contactless measurement of heart beat can be implemented at homes and operated easily at home without any presence of doctor.
* In addition, available contact sensors require exact positioning, while contactless methods allow to obtain a precise measurement for patients irrespective of positioning.
* It can be directly implemented in their homes, where a complete electrocardiogram (ECG) recording may not be easy to perform.

**REQUIREMENTS:**

* CW Doppler Radar
* Raspberry pi
* Monitor/Display unit
* ADC
* Power Supply

**BLOCK DIAGRAM:**

