**KIEN-OLALI AYEBAWATRI KINGGS**

**18/ENG05/027**

**MECHATRONICS ENGINEERING**

**ENG 224 ASSIGNMENT**

1. Conceptualization:

This is a web-based application that tests, detects, stores and transmits information on Covid-19.

1. Specification:

The modus of the program are:

1. Testing
2. Detection
3. Display rate of infection
4. Store data received
5. Transmit data received
6. Design:
7. Algorithm:
8. Start
9. Register patient
10. Perform check up
11. If temperature >=37
12. Print Positive

Display Rate of infection

Else

Print Negative

 6. Store data on server

 7. Transmit to web

 8. Stop

Flow Chart:

REGISTER PATIENT

PERFORM CHECK UP

IF TEMEPERATURE >=37

 FALSE TRUE

PRINT POSITIVE

PRINT NEGATIVE

DETERMINE RATE OF INFECTION

PRINT DEGREE OF INFECTION

STORE INFORMATION

TRANSMIT TO WEB

1. The program is written in a high level language including the necessary features
2. A dry run is carried out to know the state of the program and bugs are removed.
3. The program is released to all health organisations worldwide. It is updated based on new discoveries about Covid-19.

2. The program has both hardware and software features;

The hardware include the clinical equipment, computer equipment and network servers

Software include covid-19 detection system, storage system and transmitting system.

The process begins with the patient getting to any testing station to test for covid-19

The patient registers into the system (computer systems)

After which the patient is put through a series of tests to confirm if infection has occurred (a function of the clinical equipment).

If positive the system will detect and determine the degree of infection (hardware and software work hand in hand).

There after the results are stored and transmitted through signals to the web (servers).

The information is made available to medical practioners and experts for analysis.

3.

1. Algorithm:
2. Start
3. Register patient
4. Perform check up
5. If temperature >=37
6. Print Positive

Display Rate of infection

Else

Print Negative

 6. Store data on server

 7. Transmit to web

 8. Stop

Flow Chart:

REGISTER PATIENT

PERFORM CHECK UP

IF TEMEPERATURE >=37

 FALSE TRUE

PRINT POSITIVE

PRINT NEGATIVE

DETERMINE RATE OF INFECTION

PRINT DEGREE OF INFECTION

STORE INFORMATION

TRANSMIT TO WEB

Covi-19 Detection System

 HARDWARE SOFTWARE

Clinical Computer Input & Data Base Fever GUI

Equipment Equipment Output Software Detection

 & Servers Devices Software