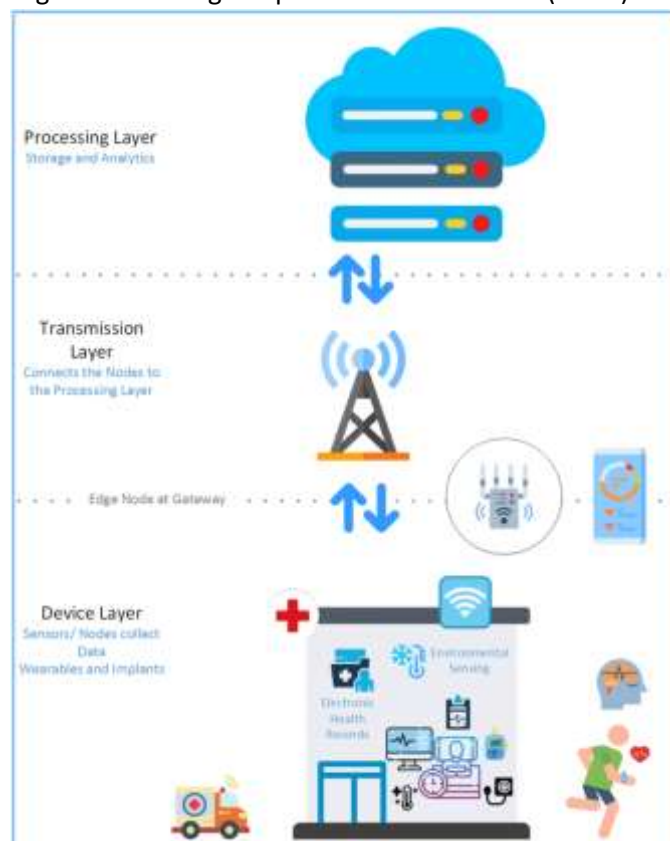Name : Nur Aiman Binti Mohd Fuad

Matric No.: 1716510

EMERGING TECHNOLOGIES: EMBEDDED SYSTEM IN HEALTHCARE

PUSH FACTORS: Encourage the people to leave their points of origin and settle elsewhere

1. Real-time monitoring and recording the patients' health status (H-IoT):

Three main technology areas underlie the development of this field:

(a) sensing;

Certain sensors can be used to monitor the patients' condition from the time to time such motion sensor and biosensors (it can sense and measure the biological indicative health or disease status such glucose, alcohol, immune cells, number of white blood cells and red blood cells.)

(b) communications;

Make it easier to communicate between doctor and doctor, patient and doctor.

(c) data analytics and inference;

The electronic health records which is a digital record will be upload to the cloud.
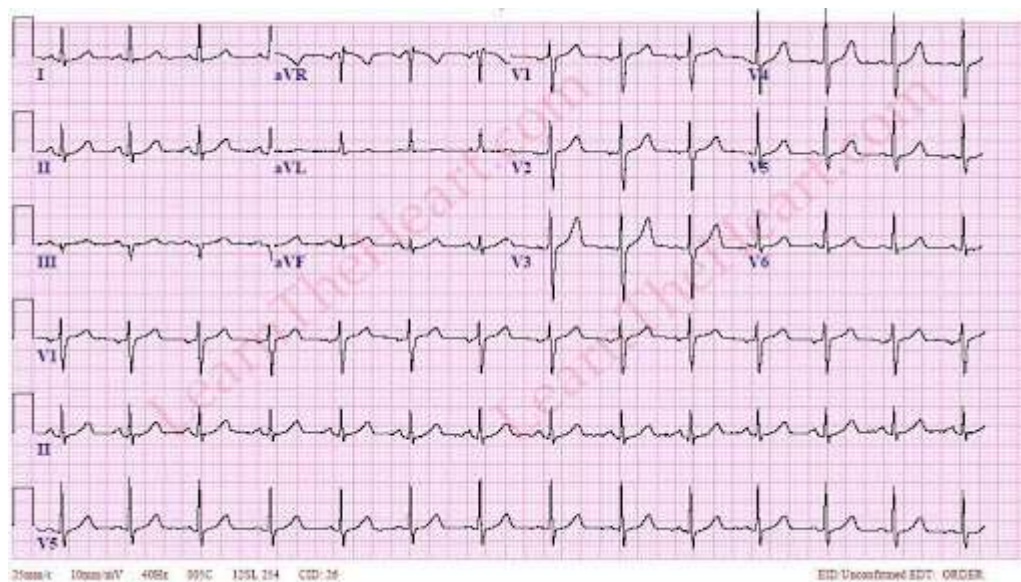
It makes the analysis easier and the user can view their status in real-time.

Source:
https://www.researchgate.net/publication/336401465_A_Survey_of_Healthcare_Internet-of-Things_HIoT_A_Clinical_Perspective
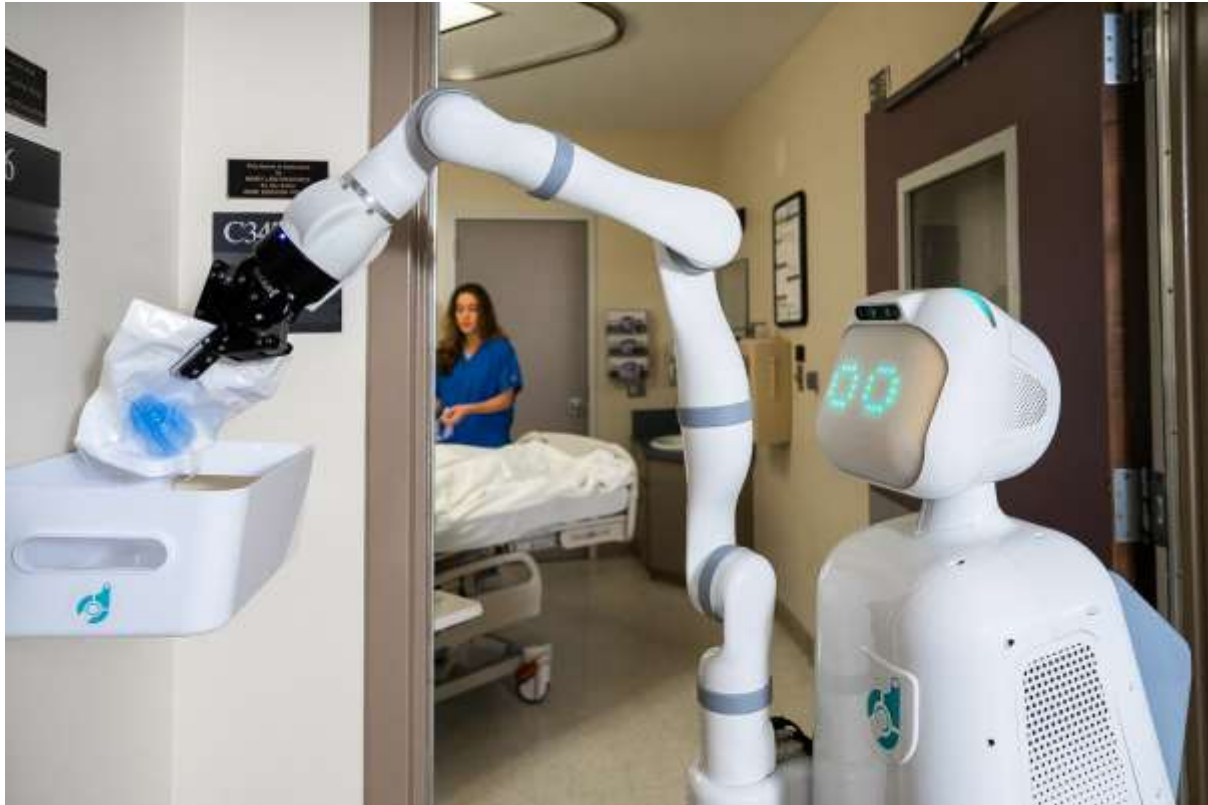
2. Early Risk Detection:

This ERD can help us to deal with many types of problems such as early depression detection (EDD). It is important to have EDD which can detect the depression accurately in order to ensure that the potential depressed paper receives the treatment as soon as possible. Many technologies are been introduced. For instant, EEG (electroencephalogram) and ECG (electrocardiogram). Major depression can be detected by ECH based on the heart rate reading for 30 minutes, the longer the duration of the reading, more accurate the result. The role of embedded system is the sensor on the electrode that will be used to detect the heart rate and process the information.

3. Assist the doctor and nurse:

Robot can help the doctors and nurse in the healthcare. Especially during the pandemic where many doctors and nurses are needed. For example, the robot that deal with healthcare delivery or the surgery robot, rehabilitation robot that can help the patient. The robot has its own embedded sensors that can help it to do its job such as the GPS, pressure sensors and CCD image sensors.

In conclusion, the common issues of these three push factors is the burden of the doctors and nurses are been increased due to the pandemic. Hence, with the emerging technologies (ET), it can reduce their burdens and works.