

**UNIVERSITI TEKNOLOGI MARA**

**HEALTH MONITORING CHAIR  
(HeMoniC) USING INTERNET OF  
THINGS TECHNOLOGY**

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**BACHELOR OF COMPUTER SCIENCE (Hons)  
DATA COMMUNICATION AND NETWORKING**

**JANUARY 2018**

**Universiti Teknologi MARA**

**Health Monitoring Chair (HeMoniC)  
Using Internet of Things  
Technology**

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**Final Year Project Report submitted in fulfilment of  
the requirements for  
Bachelor of Computer Science (Hons) Data  
Communication and Networking  
Faculty of Computer and Mathematical Sciences**

**January 2018**

## **SUPERVISOR'S APPROVAL**

### **HEALTH MONITORING CHAIR (HeMoniC) USING INTERNET OF THINGS**

By

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This final year project was prepared under the supervision of the project supervisor, Mohamad Hafiz bin Khairuddin. It was submitted to the Faculty of Computer and Mathematical Science and was accepted in partial fulfillment of the requirements for the degree of Bachelor in Computer Sciences (Hons) Data Communication and Networking.

Approved by

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Mohamad Hafiz Bin Khairuddin  
Project Supervisor

JANUARY 3, 2018

## **STUDENT DECLARATION**

I certify that this project to which it refers to is the product of my own work and that any idea or quotation from the work of other people, published or otherwise are fully acknowledged in accordance with the standard referring practices of the discipline.

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## **ABSTRACT**

Using Internet of Things in health monitoring can improve the hospital/ clinic facilities that is why the health monitoring chair (HeMoniC) is develop. This prototype is to help the medical officer to monitor the patient health in short and fast period of time. Using Raspberry Pi 3 as a master board and Arduino as the slave board, Raspberry Pi 3 act as the server that control and manage transition of data from Arduino to database (Raspberry Pi 3) to Android as the monitor to display the result and the number of Arduino connected. The Arduino manage and control the data that is received from the sensors and send the data to the database (MySQL) in Raspberry Pi 3. In order to develop this project, there are 5 phases that are used which are the requirement gathering, analysis and findings, design, development and testing. In the design phase will be the design of user interface (android apps) and the ERD database and for the development phase will be the development of the mobile apps, Arduino and sensors infrastructure, and communication between Raspberry Pi 3 and Arduino. As the result, based on the observation that are conducted at the Hospital Rehabilitation Cheras with this prototype it can reduce the waiting time for the patient to check for their daily medical check-up and only just one doctor or nurse can manage the check-up with ease as 1-4 patient per 10 minutes to improve the service, can reduce the number of staff that need to work on other tasks. In conclusion, this prototype can help to improve and enhance the hospital facilities and services else well reduce the waiting time for the patients to be checked for their daily medical check-up.