Year 3 Final Year Project

Supervisor: Dr Hermawan Nugroho
Moderator: Prof T. Nandha Kumar
Project Code: HN-BEng-23-01

Student Name: Koay Xian Cong
Student ID: 20418760

Legends: Moderator Meeting Week:
Project Milestone: ☆
Submission Dateline: ✖

Tasks	Autumn Semester												Study Week		Exam		Sem Break		CNY Break			Spring Semester						HR Break				Study Week	
	Sept	Oct					Nov				Dec				Jan				Feb			Mar					Apr				May	
	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	WEEK 15	WEEK 16	WEEK 17	WEEK 18	WEEK 19	WEEK 20	WEEK 21	WEEK 22	WEEK 23	WEEK 24	WEEK 25	WEEK 26	WEEK 27	WEEK 28	WEEK 29	WEEK 30	WEEK 31	WEEK 32	WEEK 33	WEEK 34	WEEK 35	WEEK 36	WEEK 37
Planning For Project Location and Item Requirements													Study Week		Exam		Sem Break		CNY Break									HR Break				Study Week	
Hazard Identification, Risk Assessment, Risk Control Form (HIRARC) Form																																
FYP Briefing and Discussion on Project Specification																																
Hardware Inspection and Sensor Component Research																																
Software, Tools and Application Research																																
Finalising Project Objectives and Project Specification			☆																													
Hardware and Software Research and Purchase Cost Estimation																																
Purchase Requisition				☆																												
Lab Space Booking																																
Obtaining Ethical Approval																																
Writing Project Outline and Planning Report																																
Submission of Project Outline and Planning Report						✖																										
Researching and Studying Heart Disease Detection and Prediction Methods																																
Researching of Common Application of Edge Computing																																
Literature Review of Common Heart Disease						☆																										
Literature Review of Heart Disease Detection using Machine Learning and Deep Learning						☆																										
Literature Review of Heart Disease Prediction Model						☆																										
Literature Review of STM32MP157F DK Edge Computing Device and Application						☆																										
Literature Review of Software Tools, Model and Architecture for Edge Computing						☆																										
Designing Solution/Application and Setting Up Edge Computer																																
Research and Learning the Function of STM32MP157F DK Edge Computer																																
Installing Virtual Machine to Set Up STM32 Software to Flash OS into the Edge Computer																																
Installing STM32 Cube Programmer in Ubuntu OS																																
Coding Program to Test Functions of Edge Computer																																
Integrating Heart Monitoring Sensor onto the Edge Computer																																
Coding Program to Test Sensors and Perform Experiments to Ensure Accurate Measurements of Sensors										☆																						
Designing Wearables of that can be Integrated with Heart Disease Detection and Prediction Solution											☆																						
Deployment of AI Model in Edge Computer																																
Setting Up Environment to Deploy Heart Disease Detection and Prediction Model																																
Coding Program to Deploy Heart Disease Detection and Prediction Model into Edge Computer																			☆													
Coding Program to Connect Sensor with AI Model																					☆											
Coding Program to Display Prediction Output on the LCD Display																						☆										
Development of User Interface to Monitor Heart Disease and Data Collected from Sensor																								☆								
Debugging Code to Solve Bugs Found, Improvement of Code/Model																																
Integrating Model, Sensor, Edge Computer Developed into Wearables																									☆							
Combining both Software and Hardware Developed into Wearables																																
Performing Testing on Real Live User																																
Obtaining User Experience, Feedback and Model Prediction Result																											☆					
Performance Improvement and Solving Bugs																																
Thesis, Documents and Presentation																																
Writing Sections of Draft Thesis																																
Draft Typed Thesis Submission																											✖					
Writing Sections of Final Thesis																																
Final Thesis, Logbook, Code and Miscellaneous Submission																															✖	
Preparation of Presentation																																
Presentation																																✖
Return of Project Items																																