SIT225 Data Capture Technologies

HD Task: Use case implementation and conference paper

Overview

Publishing scholarly articles in venues such as conferences are great ways to communicate your work and build up networking. Your designed data capture and analytics use case can be a great way to solve a problem in a unique way which may be suitable for publishing in conferences.

Hardware Required

Any hardware module, as required.

Software Required

Any software module, as required.

Pre-requisites: You must do the following before this task

All weekly activities up to week 9 in the unit site.

Task Objective

In 9.1P task, you have designed a use case by identifying a problem you are passionate about solving, explored literature to seek existing methods, designed a novel method how you want to solve the problem identifying related hardware, software, and amount of programming required in microcontroller board or smartphone, and back-end software components such as Python scripts, and prepared a plan estimating a timeframe when the project can be finished. In this task, you will need to implement your plan and draft a conference paper for submission to a suitable conference very soon.

Steps:

1. You will need to follow your plan to implement the method you have identified in 9.1P use case design task.
2. You will need to draft a conference paper with sections including introduction, literature review, methods, results and discussion. A conference paper template is attached for reference.
3. Your method implementation should generate results to include in the Results section of your paper and discuss your findings in the Discussion section.
4. You can include a Conclusion and Future work section as a final section where you discuss the amount of pending work which can be done later.

5. The **amount of pending work** and the **project's impact** are indicators of the level of HD a student should be awarded. For example, a student targeting more than 90% marks should complete the project implementation to prepare the paper draft as ready as possible for an immediate submission to a conference.
6. HD targeting students should start working on the use case implementation as early as possible and engage with the tutors to collaboratively mature the use case design, ensure sensor availability in predictable time, implementation and drafting the paper.

Submission details

Q1. Draft a conference paper, following the supplied paper template, with separate sections including introduction, literature review, methods, results, discussions and future work.

Q2. Create a PowerPoint presentation describing your paper with no more than 10 slides.

Q3. Create a 3-minute video presentation in Panopto/CloudDeakin presenting your slides and share the video link here.

Q4. Create a subdirectory 'week-9' under directory 'SIT225_2024T2' in your drive where you copy resources including programming files, data files, report file and presentation file. Commit and push to changes to GitHub. Include the link to your repository here with a GitHub page screenshot of weekly folder content. A tutor may try to access your GitHub link, if necessary. Give access to your tutor by adding tutor's email address as a collaborator of your private repository.

Instructions

Consolidate outputs following the submission details above into a single PDF file. You should convert PowerPoint presentations as pdf and combine them with the main PDF file.

Submit your work

When you are ready, login to OnTrack and submit your pdf which consolidates all the items mentioned in the submission detail section above. Remember to save and backup your work.

Complete your work

After your submission, your OnTrack reviewer (tutor) will review your submission and give you feedback in about 5 business days. Your reviewer may further ask you some questions on the weekly topics and/or about your submissions. You are required to address your OnTrack reviewer's questions as a form of task discussions. Please frequently login to OnTrack for the task ***Discuss/Demonstrate*** or ***Resubmit*** equivalent to fix your work (if needed) based on the feedback to get your task signed as ***Complete***.