MCAST

Institute of Information and Communication Technology

ITPRJ-506-1605

Project

Assignment Brief

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1. Aims & Objectives

The main aim of this project is to prepare the learner for their dissertation research project.

- Document the various aspects of a project
- Implement a prototype as proof of concept
- Gather and analyse data to evaluate and form an opinion
- Prepare the initial draft of the dissertation research proposal

2. Project Ideas

Several research papers repositories are being presented to you. This will help you identify potential research ideas that can then be discussed with your allocated project mentor.

3. Deliverables

3.1 Initial Proposal

For your initial proposal, you are to fill-in the appropriate form and present it to your lecturer. It is important to dedicate enough time for this task. Marks are allocated for this proposal form and its presentation to your mentor.

3.2 Logbook

You are required to maintain a logbook of your progress. The shall take the form of the official dissertation logbook and a GIT repository that will be shared with your mentor and project lecturer. Further guidance on the use of GIT will be provided during the lectures.

Ensure that you commit your work throughout the project (at least once every month) since the commit history will be your actual log of work. The repository should contain the following folder structure:

- **lit** – All literature used.
- **src** – Source code/configuration files of our prototype. Please do not include virtual machines or large datasets.
- **doc** – Paper document, Initial Proposal, Logbook and Poster.

Please note that you are free to use any structure of your choice within the above-mentioned folders, yet the above structure should be unchanged in your root folder.

3.3 Project Documentation

Documentation will be in the form of an IEEE-styled paper (3-5 pages excluding references). You should include at least 2 academic references and be concise in your writing.

The following sections need to be included in your paper:

1. Title (including full name, college details and personal college email address)
2. Abstract (approx. 100 words brief on your research)
3. Keywords (around 4 terms related to the research and techniques used)
4. Introduction (hypothesis, research question, aims, objectives, motivation and relevance of research)
5. Literature review / current research / alternatives
6. Research Methodology (the adopted approach)
7. Evaluation (Data gathered, interpretation and reflection)
8. Conclusion (assessment on project outcome and recommendations for future work)

3.4 Dissertation Proposal

The proposal for the dissertation being undertaken during your third year is to be submitted for review by the institute's board. Although this can be a continuation of your 2nd year project, it is important to point out how it will be extended.

3.5 Prototype

At the end of your project, you should have a working prototype/proof-of-concept for which you must present the following:

1. Clear usage instruction
2. A link to a 2-5 minutes YouTube (or equivalent) video demonstrating its use
3. Any accompanying source code/configuration files

3.6 Poster

A poster illustrating your research project needs to be submitted. A template shall be provided.

4. Allocation of Marks

LOGBOOK (AA1.1)	
Setup a GIT repository, commit and push your work regularly.	1
Keep a log of your mentor meetings in the dissertation logbook.	1
Share your repository with your lecturer and present work during review meetings with your mentor.	3
Present your work during your project unit lectures.	2
HYPOTHESIS, AIMS & OBJECTIVES (KU1.2)	
Hypothesis	1
Research question	3
Aim/s & Objectives	1
PROJECT METHODOLOGIES (KU1.3)	
Identify a project methodology and apply it to your project	3
Describe and justify your methodology in your research paper	2
SCHEDULE PLANNING (KU1.4)	
Provide a realistic project plan and present it to your mentor	2
Adhere to the provided project and provide justification when this was not possible	3
INITIAL PROPOSAL (KU1.5)	
Presentation of initial proposal document	3
Defence of initial proposal content during reviews with your mentor	2
LITERATURE REVIEW (KU1.1)	
Relevance and quality of selected research papers	2
Proper review of selected literature	3
PROTOTYPE/PROOF OF CONCEPT (KU2.1)	
Implement a prototype as a proof of concept of your research	4
Document the techniques used in the implementation	1

ANALYSIS OF PROTOTYPE (AA2.2)	
Implement techniques to analyse your prototype	5
Document the techniques	2
DATA (AA2.1)	
Identify the data that will be used	4
Justify how this data will be used to answer your research question	3
TESTING (KU1.6)	
Test your setup / solution	3
Justify your tests in the methodology	2
PROJECT EVALUATION (SE3.1)	
Assess your project	5
Propose improvements	5
VIDEO AND POSTER (AA3.1)	
Prepare a video of your project	3
Prepare a poster illustrating your project	4
FUTURE RESEARCH (AA3.2)	
Propose realistic extensions of this research	4
Defend the outlined future work during meetings with your mentor	3
DISSERTATION STATEMENT OF INTENT (SOI) (SE4.1)	
Submission of dissertation SOI to administration	3
Layout and structure of SOI document	3
Evidence of initial academic readings in SOI document	4
Please note that the marks awarded in this section do not have any impact on the acceptance/rejection of the submitted SOI document. The dissertation idea being presented in the document will be reviewed by the institute's board.	

ACADEMIC REPORT (SE4.2)	
Use of proper academic writing style	4
Adherence to IEEE paper template	2
Proper use of referencing	4