School of Engineering and Computing

Computing-Based UG Programmes

Honours Project marks
Experimental style project

Student: Student JJ 10-11

Supervisor: Kapilan Radhakrishnan

Second marker: Richard Foley

Honours year: 2010/2011   **Date of report marking: 11_ /4_/11**

Agreed summary of marks

Interim report	mark out of 20	_____
Honours report	mark out of 70	___48.6/70 = 69%_____
Poster Presentation	mark out of 10	_____

Total mark out of 100   _____

Signed (Supervisor)   _____

Signed (Second Marker)   _____

Literature review update

This section is included to allow students to gain credit for improving their literature review following feedback on the interim report. Higher marks should be awarded where there is evidence of a substantial improvement in the students review or where there is little or no change and the initial review was of high quality. In general marks for the literature review relate to the identification of key issues and & proper referencing of literature relevant to project area. A review should be a concise and critical discussion of key issues and works relevant to project area. The literature review should clearly address the identified areas of the research question which is set out in the student's Introduction Chapter of the final report.

Grade	Description	Mark range
1st	Excellent improvement. Student has gone beyond the comments on the original review and produced a very well integrated critical discussion with a high percentage of journal articles. *Or* Little or no change and initial review section in interim report was rated as 1st class **(in this case award the lower value 70)**	70-100
2.1	Good improvement. Student has taken obvious note of the comments on the original review and produced a well-integrated critical discussion with a good percentage of journal articles. *Or* Little or no change and initial review section in interim report was rated 2.1. **(in this case award the lower value 60)**	60-69
2.2	Fair improvement. Student has taken some note of the comments on the original review and produced a discussion with some critical analysis and some journal articles. *Or* Little or no change and initial review section in interim report was rated 2.2. **(in this case award the lower value 50)**	50-59
3	Poor level of improvement. Student has taken little note of the comments on the original review. *Or* Little or no change and initial review section in interim report was rated 3. **(in this case award the lower value 40)**	40-49
Fail	No improvement. Student has taken no note of the comments on the original review. *Or* Little or no change and initial review section in interim report was rated Fail. **(in this case award <u>zero</u>)**	0-39

Mark awarded: ___75_____

Comment:
A slight increase in total sources (from an already excellent Interim Report) from 68 to 71. However, otherwise no real change. Thus the same solid 1st class level is awarded.

Development of Project Methodology

Marks relate to the clarity with which the student describes and justifies the primary research method adopted for their project; its general and detailed design, its selection of subjects/participants, configuration, materials, procedure and any associated data capture instruments, the extent to which the study could be duplicated by following the description in this section. It would be expected that the student would analyse the objectives of the project and the findings of the literature review in their discussion and presentation of the detailed methodology.

Grade	Description	Mark range
1st	Excellent. A very clear, complete methods section containing all relevant sub-sections. Choice of approach very well supported by references/ analysis of the problem and literature review conclusions.	70-100
2.1	Good. A clear and complete methods section containing all relevant sub-sections. Choice of approach supported by references/ analysis of the problem and literature review conclusions.	60-69
2.2	Fair. A description of the methods adopted is provided under all or most of the headings. Some justification is provided, with a degree of analysis and direct support from the students literature review..	50-59
3	Poor. While some description of the methods adopted exists it is in limited detail. Limited or no justification/analysis is provided.	40-49
Fail	Very poor. Very limited or no description of the methods adopted or why they were chosen.	0-39

Mark awarded: ___60____

Comment:
To be honest I was a bit disappointed at this section. Most of it was exactly the same as from the Interim Report. Whilst I would have expected (in a much larger methods section of a final report) that the "early" part would be similar, he would (by the end of the project) have actually constructed the proposed topologies in MATLAB (via a series of scripts) and actually trained the network with the two data sets. Thus I would have expected these procedures and the script development to have been presented and explained here. Instead he just refers me to the appendices at the end! He really should have "built up" that detail in the main report. After all he is constructing an experiment and so he must give me all of the details of that construction. The explanation of his hypotheses, however, was clear and so it is clear that they "Drive" the nature of his experiment and the data he is looking to collect and analyse.

Results (Presentation and Initial Analysis)

The marks relate to: the quality and clarity of the presentation and initial analysis/discussion of summary results in tabular, list or graphical format. The clarity of the description of the key characteristics of results. Appropriate labelling of tables and graphs.

Grade	Description	Mark range
1st	Excellent. Results are very clearly and concisely laid out and well described. All key findings are highlighted and some initial discussion of their meaning in relation to the detail of the project is presented. Graphs and tables are selected intelligently and are appropriately and clearly labelled.	70-100
2.1	Good. Results are clearly and concisely laid out and well described. Key findings are highlighted with some initial discussion of them within the context of the investigation. Graphs and tables are appropriately labelled.	60-69
2.2	Fair. Results are laid out and described. Some key findings are highlighted with a degree of initial comment in relation to the context of the project investigation. Graphs and tables are labelled but not always clearly. Insufficient summarisation of data.	50-59
3	Poor. Results are not well laid out and may not be summarised. There is very little additional commentary within the context of the overall project given. Choice and presentation of tables and graphs is poor. Poor labelling.	40-49
Fail	Very poor. Limited and poorly presented results and/or lack of summarisation.	0-39

Mark awarded: __64_____

Comment:
To be honest, whilst his approach clearly has a significant degree of rigour, he could be much more concise in the presentation of his results. He carries out a series of very similar tests, for each codex and each algorithm, but with the number of hidden neurons varying between 1 and 10. He really should have presented these in some form of overall tabular fashion and then discussed the results in an "ensemble", rather than individually. For example, with his first codec, his results with 1 to 3 hidden neurons all exhibit similarity. Then with 5/6 he gets general improvement and then distinctive results with 7/10. But he spends 18 pages telling me this! Surely he could have split it into 3 subsections, used collective tables and thus concentrated on the analysis of the results, i.e. highlighted these key features more prominently! He could have also done this in a similar fashion when presenting his G711a codex. He obviously has good results, key findings and initial discussion, but it could be much better presented.

Final Discussion, Conclusions and further work:

The marks relate to: the degree to which the student summarises and explains the outcome of their project, the degree to which they put their results in the context of what is known about the topic area; the extent to which they discuss the relevance of the results to the stated research questions/hypotheses; the extent of the critical analysis of their own work, the quality and appropriateness of the suggested areas for further study.

Grade	Description	Mark range
1st	Excellent. A thorough, concise and critical evaluation of the results of the project in the context of what is known about the topic area. Good discussion about the meaning of the results in the light of the work of others. A clear and constructive critical analysis of the students own work, including the project results, but also the execution of the project methodology. The discussion clearly identifies the extent to which research questions were addressed and lays out interesting and innovative areas for further development/research. The student should set out the possible implications which aspects of their findings might have for the problem (and related) area(s).	70-100
2.1	Good. A critical evaluation of the results of the project in the context of what is known about the topic area with reference to the work of others. A constructive critical analysis of the students own work. The discussion identifies the extent to which research questions were addressed and lays out areas for further development/research.	60-69
2.2	Fair. Some evaluation of the results of the project in the context of what is known about the topic area with some reference to the work of others. Some critical analysis of the students own work. Some discussion of the research questions and the extent to which they were answered. Some discussion of further areas for development/research.	50-59
3	Poor. Little evaluation of the results of the project. Limited reference to what is known about the topic area and little or no reference to the work of others. Limited reference to the research questions and how they were answered. Limited critical analysis of the students own work. Limited discussion of further areas for development/research.	40-49
Fail	Very poor. No evaluation of the results of the project. Limited or no reference to what is known about the topic area and no reference to the work of others. No reference to the research questions and how they were answered. Limited or no critical analysis of the students own work. No discussion of further areas for development/research.	0-39

Mark awarded: ___68_____

Comment:
He provides a good overall summary of the results in relation to his research question and also in relation to each hypothesis. It does actually give the reader a clear picture of his project conclusions and the merit of undertaking it. However, I saw little point in his section 5.2 where he "ticked" off each of his objectives. Project objectives are not "end points", but the various "tasks" which he follows in the development of his project. Thus they are of no specific consequence in a final conclusions/discussion of "Results". To be honest, I also think that he is a little "hard" on himself when talking about his "project limitations". He always mentions "due to time constraints" that certain things were not undertaken. Does he really mean that or is it not the case that all of these extra things are beyond the scope of a "standard" Undergraduate final year project in his discipline area? After all, in terms of the subject area and the new skills he has had to develop, his BSc does not provide any coverage of a tool such as MATLAB, nor any coverage of Artificial Neural Networks and (of course) the basic learning algorithms he is investigating and comparing against. For example, even the basic PESQ benchmark algorithm is not something which is taught in any of his modules! Has he at least identified a framework/process whereby he could easily incorporate more complex versions of these 2 basic algorithms to investigate a possible practical solution? If so, what would be the detail and level of that? What might it involve in terms of amendments/additions/ or development of scripts/coding in MATLAB (or a similar mathematical modelling tool). It is claimed that Sir Isaac Newton said that he could "only see further, because he stood on the shoulders of giants". Now I am not in any way claiming that this student is either Sir Isaac Newton or a "giant" (probably he is extremely far away from either comparison)! However, in terms of a well-bounded and clearly focussed investigatory project has he provided a firm basis of other students (either a BSc or MSc level) to take forward this basic project framework and develop it and/or its ideas that little bit further? If that is the case then he has done a very good and competent job and he should present it as such with some further specific detail in relation to that. Thus he does have some

Richard Foley – 2nd Marker

critical analysis of his work and some (even if a little brief) context of the topic area and other work, but it could have been presented in a much more significant manner with a greater degree of depth.

Richard Foley – 2nd Marker

Final Documentation:

The marks relate to: the quality of the presentation of the report (format, discursive content, analysis and writing style); the appropriateness of the structure of the report; and the presence of the appropriate and specified sections within the report and the overall depth given in these sections.

Grade	Description	Mark range
1st	Excellent. Exceptionally well structured and presented report. All sections complete and appropriate.	70-100
2.1	Good. Well structured and presented report. All sections complete and appropriate.	60-69
2.2	Fair. Adequate presentation and attention to structure. All sections complete and appropriate	50-59
3	Poor. Inadequate presentation and attention to structure. One section may be incomplete or missing.	40-49
Fail	Very Poor. Little attention to appearance and structure. Several sections may be incomplete or missing.	0-39

Mark awarded: ___85_____

Comment:
This is a very well presented and complete report. The general academic writing and reporting style is excellent.

Supervisor only

Student effort and self reliance

The marks relate to: the effort that the student put into the project work; the extent to which the student needed staff support.

Grade	Description	Mark range
1st	Excellent. Student consistently worked above levels normally expected at honours and/or was extremely self reliant.	70-100
2.1	Good. Student worked hard on project and/or was generally self reliant	60-69
2.2	Fair. Adequate effort applied to project but student needed additional support in some areas.	50-59
3	Poor. Inadequate effort applied to project and/or student needed high levels of support.	40-49
Fail	Very Poor. Appeared to make little effort and/or student needed constant support.	0-39

Mark awarded: ___85____

Comment: (awarded by supervisor)

Richard Foley – 2nd Marker

Summary of marks for honours report

Section	Section mark (out of 100)	Weighting (70%)	Weighted mark
Literature review	75	0.05	**3.8**
Development of Project Methodology.	60	0.15	**9**
Results (Presentation and Initial Analysis)	64	0.2	**12.8**
Final Discussion, Conclusions and further work	68	0.15	**10.2**
Final Documentation	85	0.1	**8.5**
Student effort and self reliance	85	0.05	**4.8**
		0.70	Total out of 70: 48.6

Supervisor mark (out of 70):   _____**48.6**_____

Second marker mark (out of 70):   _____

Agreed mark for honours project (out of 70):   _____

Comment: