

# AI/Machine Learning Project/Paper

## Introduction

AI and Machine Learning is one of the most exciting developments of modern times. Its impact on all aspects of society will be profound, significant and fundamentally disruptive. For this exercise you can either create AI to solve a specific task OR research and write about some aspect of AI. This means that you will either produce an AI product OR produce a journal article on AI. If you write a journal article it is expected that you perform academic research into the subject and not reproduce or summarise others work....in other words it must be an original idea explored through scientific reasoning.

## Assessment Details

You must get approval for your topic from the tutor (either David or Neil) by e-mailing your title and a brief (less than half a page) overview to them. You can do this when you like but the earlier you do it, the more time you have to do the assessed work.

As with any academic paper, you should include full references to all source material. You will be expected to use the Harvard style referencing or the numbered referencing scheme as found in scientific papers.

## Information Sources

There are a number of possible sources of information. These include, but are not limited to, conference papers, academic journals and the Internet. A range of sources should be used. You should be aware of the academic credibility of your sources and ensure that you have provided sufficient robust evidence for your paper.

## Style

Different journal publishers require work presented in different styles, however, most do follow a standard format. Use the following as a guide in structuring your work.

Title	8-15 words
Abstract	100 – 200 words
Keywords	6 – 8 keywords
Introduction	250 – 500 words
Literature Review	1000 – 2000 words
Design	500 – 1000 words
Methodology	500 – 1000 words
Results	500 – 1000 words
Future Work	150 – 250 words

## Marking

Please see next page

## Marking Criteria

	Fail (0 – 39)	Pass (40 – 59) <i>must not meet fail</i>	Good Pass (60 – 69) <i>must also meet pass</i>	Excellent Pass (70+) <i>must also meet good pass</i>	
PRESENTATION	Article not presented in accordance with the advice given.	Article presented according to the guidance given (template used). There may be some formatting issues.	Well formatted and flowing article. Correct use of technical elements.	As good pass plus the use of language is clear and concise. The paper is presented professionally and fully adheres to the format of the IEEE template.	10%
ABSTRACT	Not clear or mostly an introduction to the topic.	The abstract captures the ideas presented in the paper.	It is clear from the abstract what has been achieved.	As good pass plus very short, powerful statement that fully describes the larger work.	10%
INTRODUCTION	Introduction is not clear, missing or not fully relevant.	Introduction is clear and mostly relevant. Aims are set.	Introduction is clear and explains the academic problem. Tells the reader what to expect from the paper.	As good pass plus concise and no omissions.	10%
LITERATURE REVIEW	No literature review or limited in sources or credibility	Literature review present with some key literature reviewed.	Good understanding shown when critically evaluating literature	A comprehensive review, critical analysis and highlighting of gaps or areas of research. All literature from credible sources.	10%
DESIGN	Work is mostly a review of literature and does not contain any novelty or contribution.	Design is appropriate but does not contain any novelty or contribution or the design is arbitrary. An attempt at discussion.	There are appropriate discussions of the design which is novel with an attempt of contribution to the field.	Clear, focused discussion of novelty aspect with clear justified parameters.	10%
METHODOLOGY/ IMPLEMENTATION	It is not clear how the design has been implemented.	The design is correctly implemented but fairly simple or the design is not fully implemented but quite complex.	The design is correctly implemented and there are various implementations so that comparisons can be drawn or there is a discussion and comparison of other authors implementation/results.	The implementation is original, novel and there is clear a contribution to the field. The aims have clearly been met.	10%
RESULTS	No results or no evidence of design simulated.	Results and screenshots prove the simulation works successfully.	There are appropriate discussions/analysis of simulation results.	There is an in-depth discussion/analysis of the results. With clear graphs/charts to make the results more digestible.	20%
FUTURE WORK	No future work or direction identified	Some future work identified	The future work identified is feasible	Realistic timescales, resources required and limitations identified.	10%
REFERENCING	No references or reference list provided	Limited number of appropriate references within text. Attempts at Harvard Style or IEEE style	Several appropriate references made within body of document; both these and Bibliography in Harvard style or IEEE style  References show a significant range of credible sources	Large number of appropriate references (both citations & quotations) to source material made within the body of the document; these are effectively used, correctly referenced and match the reference list.  Paper fully referenced from sources that are academically credible and shows a wide range of reading around the topic	10%

