

General Structure of the Report (pg. 42)

The general structure of a project report is as follows:

1. Title Page
2. Authorship Declaration
3. Acknowledgements
4. Abstract

The purpose of an abstract is to provide the reader with the **essentials of your report** in a very condensed form. (In a published paper, it would provide a basis for the reader to decide whether to read it or not). This means it should **briefly summarise the nature of the project**, its context, **what work was carried out** and what the **major findings or conclusions** were. **Key technologies** or **approaches** used will normally be mentioned. The marking schemes explain exactly what should be in your abstract. It must be no more than one side in length. It relates to completed work – it should not talk about what you are planning to do or the structure of the report.

Preferable word counts – 150 - 200 words

Abstract MadLibs!!

This paper presents a _____ method for _____
(synonym for new) (sciencey verb)
the _____. Using _____, the
(noun few people have heard of) (something you didn't invent)
_____ was measured to be _____ +/- _____
(property) (number) (number)
_____. Results show _____ agreement with
(units) (sexy adjective)
theoretical predictions and significant improvement over
previous efforts by _____, et al. The work presented
(Loser)
here has profound implications for future studies of
_____ and may one day help solve the problem of
(buzzword)
_____.
(supreme sociological concern)

Keywords: _____ / _____ / _____
(buzzword) (buzzword) (buzzword)

Facial expressions are one of the defining features of what makes a person human. In the technological department, facial expressions recognition refers to the extraction of features and classifying them according to different emotions. It is currently one of the hotspots for research in computer vision, artificial intelligence and psychology as it can be used in various areas of work such as enabling chatbots to simulate human emotional intelligence. As a fairly new emerging branch of Artificial Intelligence, Deep Learning provides lots of new ways to tackle the difficulties in biometrics and emotional computing. In this paper, an 8 convolutional neural network model is proposed to train and classify facial expression data by using the FER2013 dataset. The network will also be benchmarked with the FER2013 leaderboard to show performance of the completed network. The project will also show by producing graph results of emotions predicted and real time emotional recognition with image processing techniques implemented.

This is an IoT project with aims to develop a smart padlock named as Arduilock which is powered by an Arduino Pro Micro microprocessor and it can be controlled by an Android-based application via a Bluetooth 4.0 connection. The purpose of developing Arduilock is to eliminate the issues that commonly found from a padlock user such as losing of physical key. The design idea of this project product is gather through the combination of the specification in some existing similar products. As the final product in the project development, the Arduilock app is supported to perform fingerprint or pattern authentication when user attempt to use it for controlling the Arduilock. Besides, passcode encryption and decryption are also available to prevent Arduilock being control by another smartphone which installed the same application. Then, the reset ability is also built in the system to let user reset the Arduilock when it is no longer needed to be used. However, due to the power consumption problem in the Arduilock, the Arduilock requires user to perform a manual way to lock the Arduilock. Furthermore, the alarm system was removed due to the inappropriate use of sensor. As to get the result of the fingerprint authentication, some volunteers are found to test with the fingerprint authentication system. Based on the testing done on fingerprint authentication, the security system have proven that it was able to function perfectly while the source code implementation in the system has passed all the test cases as well. In conclusion, although the product is working perfectly, but some enhancements are still needed for better usage in the future.

5. Table of Contents

6. Chapter 1: Introduction

Extract from your proposal and please include the following:

- Introduction
- Background of the project
- Proposed methodology /Proposed research methodology
- Problem statement (applicable for investigate report)
- Research questions (applicable for investigate report)
- Research objectives (applicable for investigate report)
- Proposed work
- Definition of key concepts

7. Chapter 2: Analysis
 - Literature review – the research discussion should align with key concepts
8. Chapter 3: Synthesis (Application project)
 - Commentary on the product deliverables
 - Requirements
 - Analysis models – UML diagrams
 - Design specifications – UI design
 - Product code – explanation on the PL used
 - Test plans and results
9. Chapter 3: Synthesis (Investigate project)
 - Discussion – Research methodology
 - Practical work – Data analysis
10. Chapter 4: Evaluation and Conclusions
 - Discussion and Evaluation of Findings
 - Evaluation – Evaluation of the project process
 - Conclusions
 - Conclusions
 - Recommendations
11. References/ Bibliography
12. Turnitin
13. Appendices
 - a. Project Proposal
 - Project proposal
 - Proposal review form
 - Ethical form
14. Other appendices
 - Code snippet
 - Test cases
 - UML diagrams
 - UI design
 - Other relevant documents to support the project