**Design and Implement a Full Stack Issue Reporting System**

**Fui Yi Qi**

**A project report submitted in partial fulfilment of the**

**requirements for the award of** **Bachelor of Software**

**Engineering with Honours**

**Lee Kong Chian Faculty of Engineering and Science**

**Universiti Tunku Abdul Rahman**

the month in which the report is submitted

**May 2025**

**DECLARATION**

I hereby declare that this project report is based on my original work except for citations and quotations which have been duly acknowledged. I also declare that it has not been previously and concurrently submitted for any other degree or award at UTAR or other institutions.

|  |  |  |
| --- | --- | --- |
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| Date | : | XXXXX |

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LIST OF SYMBOLS / ABBREVIATIONS

*cp* specific heat capacity, J/(kg⋅K)

*h* height, m

*Kd* discharge coefficient

*M* mass flow rate, kg/s

*P* pressure, kPa

*Pb* back pressure, kPa

*R* mass flow rate ratio

*T* temperature, K

*v* specific volume, m3

*α* homogeneous void fraction

*η* pressure ratio

*ρ* density, kg/m3

*ω* compressible flow parameter

ID inner diameter, m

MAP maximum allowable pressure, kPa

MAWP maximum allowable working pressure, kPa

OD outer diameter, m

RV relief valve

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## INTRODUCTION

### General Introduction

Subsequence paragraphs should be indented 1.5 cm (0.59 inches) from the left margin. General alignment for texts in a paragraph should be “justified”. Spacing between the last line of text and the next subsection title is 1.5 lines.

1.5 cm

### Importance of the Study

The first paragraph in a subsection should align with the left margin. General alignment for texts in a paragraph should be “justified”.

Subsequence paragraphs should be indented 1.5 cm (0.59 inches) from the left margin. General alignment for texts in a paragraph should be “justified”. Spacing between the last line of text and the next subsection title is 1.5 lines.

(Tab\13.35 cm\

Right-Aligned)

(Tab\7.25 cm\

Center-Aligned)

 (1.1)

where

*G1* = specific mass flow rate, kg/s

*ρ* = density, kg/m3

*T* = temperature, K

*ho* = xxx, m

Spacing between the equation and the first line of text is 1.5 lines. Equations should be centred, but its numbering should align with the right margin. This can be done by inserting a 7.25 cm center-aligned tab and a 13.35 cm right-aligned tab under the Paragraph Settings > Tabs.

**** (1.2)

where

*G2* = specific mass flow rate, kg/s

*ρ* = density, kg/m3

Spacing between the equation and the first line of text is 1.5 lines. Equations should be centred, but its numbering should align with the right margin.

### Problem Statement

The first paragraph in a subsection should align with the left margin. General alignment for texts in a paragraph should be “justified”.

Subsequence paragraphs should be indented 1.5 cm (0.59 inches) from the left margin. General alignment for texts in a paragraph should be “justified”. Spacing between the last line of text and the next subsection title is 1.5 lines.

### Aim and Objectives

The first paragraph in a subsection should align with the left margin. General alignment for texts in a paragraph should be “justified”.

Subsequence paragraphs should be indented 1.5 cm (0.59 inches) from the left margin. General alignment for texts in a paragraph should be “justified”. Spacing between the last line of text and the next subsection title is 1.5 lines.

### Scope and Limitation of the Study

The first paragraph in a subsection should align with the left margin. General alignment for texts in a paragraph should be “justified”.

Subsequence paragraphs should be indented 1.5 cm (0.59 inches) from the left margin. General alignment for texts in a paragraph should be “justified”. Spacing between the last line of text and the next subsection title is 1.5 lines.

## LITERATURE REVIEW

### Introduction

The first paragraph in a subsection should align with the left margin. General alignment for texts in a paragraph should be “justified”.

**When presenting your research paper, it is important that you provide references to the sources of information you have used in your research. Referencing is a method of acknowledging the contributions and work of others in your writing. You will have to provide brief information in the text and full bibliographic details of all SOURCES consulted in your Reference List at the end of your piece of work.**

**UTAR’s Lee Kong Chian Faculty of Engineering and Science (LKC FES) adopts the “Cite Them Right (CTR) Harvard Referencing Style” for citing and referencing information sources. The CTR Harvard style comprises two key components: (1) In-text Citation and (2) Full Reference. Table 2.1 provides examples of in-text citations and reference lists for various types of information sources. For further details, please refer to the document available through** [This Hyperlink](https://login.libezp2.utar.edu.my/login?url=https://library.utar.edu.my/documents/Guides/CiteThemRight_HarvardGuide_12thEdition.pdf) **or contact the UTAR Library during office hours via the ‘Live Chat’ feature at** <https://library.utar.edu.my/>**.**

Table 2.1: CTR Harvard Referencing Style Examples.

|  |  |
| --- | --- |
| Reference List | In-Text Citation |
| Printed Journal Article with Four or More Authors  **Author, Initial(s). *et al.* (Year) ‘Title in article’, *Title of journal*. volume (part number / month / season) page reference / article number.**  Norrie, C. *et al.* (2012) ‘Doing it differently? A review of literature on teaching reflective practice across health and social care professions’, *Reflective Practice*, 13(4), pp. 565-578. | Norrie *et al.* (2012) holds the view that …  OR  In their review of the literature (Norrie *et al.*, 2012). |

Table 2.1 (Continued)

|  |  |
| --- | --- |
| Electronic Journal Article with Two Authors  **Author, A. and Author, B. (Year) ‘Title in article’, *Title of journal*. volume (part number / month / season) page reference / article number. Available at: DOI or URL (Accessed: date)**  Barke, M. and Mowl, G. (2016) ‘Malaga – a failed resort of the early twentieth century?’, *Journal of Tourism History*, 2(3), pp. 187-212. Available at: https://doi.org/1080/17555182X.2010.523145  Dutta, M. and Marjit, S. (2016) ‘Intra-country technology transfer’, Indian Economic Review, 51(1/2), new series, pp. 117-127. Available at: https://www.jstor.org/stable/44376239 (Accessed: 27 May 2024). | Barke and Mowl’s excellent study (2016)…  OR  Many scholars hold the view that … (Barke and Mowl’s, 2016).  An example cited by Dutta and Marjit (2016, pp. 120-121) …  OR  It is thought that … (Dutta and Marjit, 2016, pp. 120-121). |
|  |  |

### Literature Review

The first paragraph in a subsection should align with the left margin. General alignment for texts in a paragraph should be “justified”.

Subsequence paragraphs should be indented 1.5 cm (0.59 inches) from the left margin. General alignment for texts in a paragraph should be “justified”.

All tables must be numbered numerically, followed by a tab and the caption, for example, “Table 2.2:(tab)Processing Time”. All tables must be numbered with respect to the chapter using Arabic numeric. For example, Table 2.2 is the second table that appears in Chapter 2. Besides, all tables must have a caption, which should be positioned at the top of the table. Spacing between the last line of text and table is 1.5 lines. A new table must start on a new page.

Table 2.2: Processing Time (in hours) of Bread for Different Production Line in ABC Company.

hanging

\2 cm

(tab)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Bread** | **Production Line** | | | | |
| **1** | **2** | **3** | **4** | **5** |
| **A** | 30 | 18 | 26 | 17 | 15 |
| **B** | 23 | 22 | 32 | 25 | 30 |
| **C** | 17 | 31 | 24 | 22 | 29 |

Spacing between the table and the first line of text is 1.5 lines. If the caption is written in a single line, it should be centred. If the caption is more than one line, it should be aligned to the left. In both cases, the caption must be set with a hanging indentation of 2 cm under the Paragraph Settings. Besides, a table should be positioned after it has been cited for the first time in the text. All tables in the chapter can also be grouped together and positioned at an appropriate location. Tables that are presented in landscape format should be bound with the top of the table to the spine.

### Subsection Title

The first paragraph in a subsection should align with the left margin. General alignment for texts in a paragraph should be “justified”.

Subsequence paragraphs should be indented 1.5 cm (0.59 inches) from the left margin. General alignment for texts in a paragraph should be “justified”. Spacing between the last line of text and the next subsection title is 1.5 lines.

#### Sub-subsection Title

The first paragraph in a subsection should align with the left margin. General alignment for texts in a paragraph should be “justified”.

All figures must be numbered numerically, followed by a tab and the caption, for example, “Figure 2.1:(tab)UTAR Logo”. All figures must be numbered with respect to the chapter using Arabic numeric. For example, Figure 2.1 is the first figure that appears in Chapter 2. Besides, all figures must have a caption, which should be positioned at the bottom of the figure. If the caption is written in a single line, it should be centred. If the caption is more than one line, it should be aligned to the left. In both cases, the caption must be set with a hanging indentation of 2 cm under the Paragraph Settings.

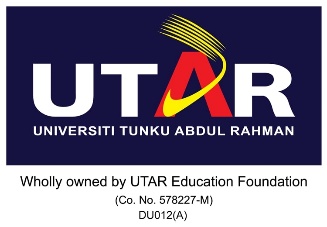


Figure 2.1: Universiti Tunku Abdul Rahman Logo.

Spacing between the figure caption and the first line of text is 1.5 lines. The figure should be positioned after it has been cited for the first time in the text. All figures in the chapter can also be grouped together and positioned at an appropriate location. Figures which are presented in landscape format should be bound with the top of the figure to the spine.

#### Listing Format

Texts of the list must be written in one (1) sentence. Long sentences should be avoided. Each list must describe an item or subject. The following guideline should be observed:

No spacing between the last line of text and the first line of the list.

Lists are numbered with Roman numerals (i, ii, iii, etc).

1.5 cm

The numbering should be indented 1.5 cm (0.59 inches) from the left margin.

The text should be indented 2.75 cm (1.08 inch) from the left margin. This can be set by adding the special indentation of 1.25 cm hanging.

Hanging\1.25 cm

All the lists should be ended with a full stop (.).

The spacing between the last line of list and the first line of text, table or figure etc. is 1.5 line spacing.

### Summary

The first paragraph in a subsection should align with the left margin. General alignment for texts in a paragraph should be “justified”.

A new paragraph should not begin on the last line of a page. A subsection title should not begin on the last line of a page. A new chapter must start on a new page.

A new paragraph should not begin on the last line of a page. A subsection title should not begin on the last line of a page. A new chapter must start on a new page. Spacing between the last line of text and the equation is 1.5 lines.

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## METHODOLOGY AND WORK PLAN

### Introduction

The first paragraph in a subsection should align with the left margin. General alignment for texts in a paragraph should be “justified”.

Subsequence paragraphs should be indented 1.5 cm (0.59 inches) from the left margin. General alignment for texts in a paragraph should be “justified”.

### Requirement/ Specification/ Standards (Optional)

The first paragraph in a subsection should align with the left margin. General alignment for texts in a paragraph should be “justified”.

Subsequence paragraphs should be indented 1.5 cm (0.59 inches) from the left margin. General alignment for texts in a paragraph should be “justified”.

#### Sub-subsection Title

The first paragraph in a subsection should align with the left margin. General alignment for texts in a paragraph should be “justified”.

Subsequence paragraphs should be indented 1.5 cm (0.59 inches) from the left margin. General alignment for texts in a paragraph should be “justified”.

Table 3.1: Processing Time (in hours) of Bread for Different Production Line.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Bread** | **Production Line** | | | | |
| **1** | **2** | **3** | **4** | **5** |
| **A** | 30 | 18 | 26 | 17 | 15 |
| **B** | 23 | 22 | 32 | 25 | 30 |
| **C** | 17 | 31 | 24 | 22 | 29 |

Spacing between the table and the first line of text is 1.5 lines. Spacing between the last line of text and figure is 1.5 lines.

Source

Reflected

Figure 3.1: Reflection from Smooth Surface.

Spacing between the figure and the first line of text is 1.5 lines. Subsequence paragraphs should be indented 1.5 cm (0.59 inches) from the left margin.

### Summary

The first paragraph in a subsection should align with the left margin. General alignment for texts in a paragraph should be “justified”.

Subsequence paragraphs should be indented 1.5 cm (0.59 inches) from the left margin. General alignment for texts in a paragraph should be “justified”.

A new paragraph should not begin on the last line of a page. A subsection title should not begin on the last line of a page. A new chapter must start on a new page. Spacing between the last line of text and the equation is 1.5 lines.

## PRELIMINARY RESULTS (OPTIONAL)

### Introduction

The first paragraph in a subsection should align with the left margin. General alignment for texts in a paragraph should be “justified”.

Subsequence paragraphs should be indented 1.5 cm (0.59 inches) from the left margin. General alignment for texts in a paragraph should be “justified”.

### Subsection Title

The first paragraph in a subsection should align with the left margin. General alignment for texts in a paragraph should be “justified”.

Subsequence paragraphs should be indented 1.5 cm (0.59 inches) from the left margin. General alignment for texts in a paragraph should be “justified”.

### Subsection Title

The first paragraph in a subsection should align with the left margin. General alignment for texts in a paragraph should be “justified”.

Subsequence paragraphs should be indented 1.5 cm (0.59 inches) from the left margin. General alignment for texts in a paragraph should be “justified”.

A new paragraph should not begin on the last line of a page. A subsection title should not begin on the last line of a page. A new chapter must start on a new page. Spacing between the last line of text and the equation is 1.5 lines.

#### Sub-subsection Title

The first paragraph in a subsection should align with the left margin. General alignment for texts in a paragraph should be “justified”.

Subsequence paragraphs should be indented 1.5 cm (0.59 inches) from the left margin. General alignment for texts in a paragraph should be “justified”.

A new paragraph should not begin on the last line of a page. A subsection title should not begin on the last line of a page. A new chapter must start on a new page. Spacing between the last line of text and the equation is 1.5 lines.

Table 4.1: Processing Time (in hours) of Bread for Different Production Line.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Bread** | **Production Line** | | | | |
| **1** | **2** | **3** | **4** | **5** |
| **A** | 30 | 18 | 26 | 17 | 15 |
| **B** | 23 | 22 | 32 | 25 | 30 |
| **C** | 17 | 31 | 24 | 22 | 29 |

Spacing between the table and the first line of text is 1.5 lines. Spacing between the last line of text and figure is 1.5 lines.

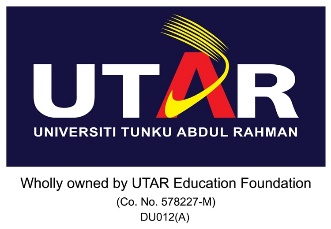


Figure 4.1: UTAR Logo.

Spacing between the figure and the first line of text is 1.5 lines. Subsequence paragraphs should be indented 1.5 cm (0.59 inches) from the left margin.

### Summary

The first paragraph in a subsection should align with the left margin. General alignment for texts in a paragraph should be “justified”.

Subsequence paragraphs should be indented 1.5 cm (0.59 inches) from the left margin. General alignment for texts in a paragraph should be “justified”.

A new paragraph should not begin on the last line of a page. A subsection title should not begin on the last line of a page. A new chapter must start on a new page. Spacing between the last line of text and the equation is 1.5 lines.

## PROBLEMS AND RECOMMENDED SOLUTIONS (OPTIONAL)

### Problems encountered

The first paragraph in a subsection should align with the left margin. General alignment for texts in a paragraph should be “justified” (Warner, 2002).

Subsequence paragraphs should be indented 1.5 cm (0.59 inches) from the left margin. General alignment for texts in a paragraph should be “justified”.

### Recommended Solutions

The first paragraph in a subsection should align with the left margin. General alignment for texts in a paragraph should be “justified”.

Subsequence paragraphs should be indented 1.5 cm (0.59 inches) from the left margin. General alignment for texts in a paragraph should be “justified”.

A new paragraph should not begin on the last line of a page. A subsection title should not begin on the last line of a page. A new chapter must start on a new page. Spacing between the last line of text and the equation is 1.5 lines.

## REFERENCES

General alignment for texts should be “justified”. Spacing between the references is the 1.0 line. A new reference should not begin on the last line of a page.

Please refer to the CTR Harvard Style provided by UTAR Library in [This Hyperlink](https://library.utar.edu.my/Plagiarism.php).

## APPENDICES

Appendix A: Graphs

All appendices must be numbered alphabetically, followed by a tab and the heading title, for example, “Appendix A:(tab)Graphs”. If the heading is written in a single line, it should be centred. If the heading is more than one line, it should be aligned to the left. In both cases, the heading must be set with a hanging indentation of 2.4 cm under the Paragraph Settings.

A graph that is presented in landscape format should be bound with the top of the graph to the spine. All graphs must be numbered with respect to the appendix. For example, Graph A-1 is the first graph that appears in Appendix A. All graphs must have a caption, which should be positioned at the bottom of the graph and written in Title Case. If the caption is written in a single line, it should be centred. If the caption is more than one line, it should be aligned to the left. In both cases, the caption must be set with a hanging indentation of 2 cm under the Paragraph Settings. Other than that, the spacing between the graphs is 1.5 lines.

Appendix B: Tables

All appendices must be numbered alphabetically, followed by a tab and the heading title, for example, “Appendix B:(tab)Tables”. If the heading is written in a single line, it should be centred. If the heading is more than one line, it should be aligned to the left. In both cases, the heading must be set with a hanging indentation of 2.4 cm under the Paragraph Settings.

A table that is presented in landscape format should be bound with the top of the table to the spine. All tables must be numbered with respect to the appendix. For example, Table B-1 is the first table that appears in Appendix B. All tables must have a caption, which should be positioned at the top of the table and written in Title Case. If the caption is written in a single line, it should be centred. If the caption is more than one line, it should be aligned to the left. In both cases, the caption must be set with a hanging indentation of 2 cm under the Paragraph Settings. Other than that, the spacing between the tables is 1.5 lines. .

Appendix C: Open Access to Image Rights

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A screenshot of a computer

Description automatically generated

Figure C-1: Reprinted with Permission from Copyright 2019 IEEE to Reuse

An Assistive Robotic Hand Orthosis (Farinha, et al., 2019) Image

in Figure XX.

A close-up of a device

Description automatically generated

Figure XX: An Assistive Robotic Hand Orthosis (Farinha, et al., 2019).

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