

# Table of Contents

<b>Acronyms</b>	<b>ii</b>
<b>Symbols</b>	<b>iii</b>
<b>1 Introduction</b>	<b>1</b>
1.1 Background . . . . .	1
1.2 Motivation . . . . .	3
1.3 Objectives and Specifications . . . . .	3
1.4 Major contribution of the Dissertation . . . . .	3
1.5 Organisation of the Dissertation . . . . .	3
<b>2 Methodology</b>	<b>4</b>
2.1 Performance Parameters . . . . .	4
2.2 Package Style . . . . .	4
2.3 Wiring . . . . .	5
2.4 Substrate . . . . .	5
<b>References</b>	<b>6</b>

# Acronyms

<b>NN</b>	Neural Network
<b>ML</b>	Machine Learning
<b>DL</b>	Deep Learning
<b>FCN</b>	Fully Convolutional Network
<b>CNN</b>	Convolutional Neural Network
<b>RCNN</b>	Region Based Convolutional Neural Network
<b>DCNN</b>	Deep Convolutional Neural Network

# Symbols

$\Pi$  An Pi Symbol  
 $\beta$  An Beta Symbol  
 $\sigma$  An Sigma Symbol  
 $\alpha$  Another Alpha Symbol

# Chapter 1

## Introduction

The first chapter of the dissertation is almost invariably the Introduction. Generally, its purpose is to lead the readers into the problem you intend to attack in the project, to set the scene. The main points here consist of the background to the problem and your motivation in solving it. This then leads into the objectives and the scope of the project. It is good to conclude your Introduction with a section on the layout of the dissertation. It prepares the readers for what is to come

### 1.1 Background

Background goes here. Also you can put in some references .

Here is a sample of table in Table 1.1

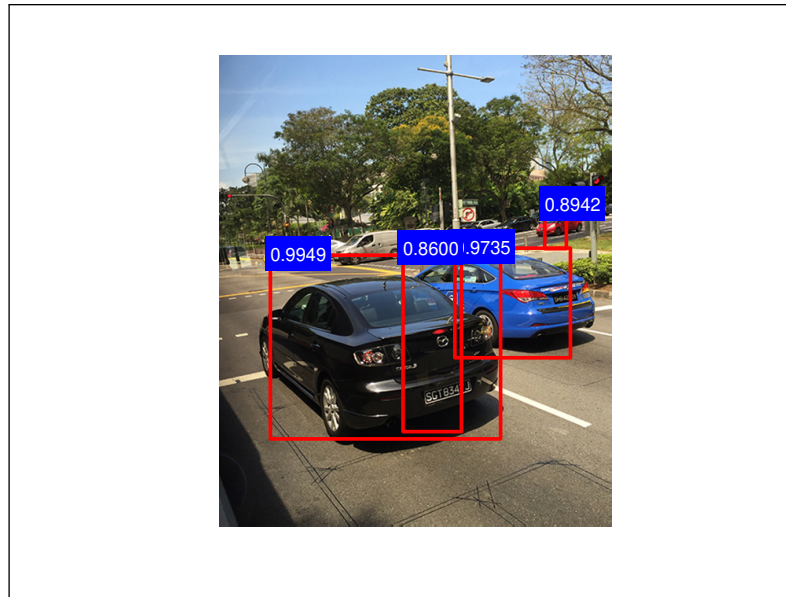
**Table 1.1: A table without vertical lines.**

	Treatment A	Treatment B
John Smith	1	2
Jane Doe	–	3
Mary Johnson	4	5

Use `\newpage` to force start a new page.

Also can try to refer to this image in Figure 1.1. Notice that the .eps and .pdf format vector graphs are favoured, because:

1. they can be zoomed-in to check the detail.
2. text in such formats are search-able.



**Figure 1.1: Bounding-box example of cars.**

Try to insert a math equation as in Equation 1.1. If you wanna try the in-line mathematical, here is a sample  $\alpha = \pi \cdot \frac{1}{\Theta}$ .

$$e^{ix} = \cos x + i \sin x \tag{1.1}$$

Also here is a sample for footnote and hyperlink url<sup>1</sup>.

When mention some file formats can use music.mp3, latex.pdf, etc.

If there are any update of the dissertation standard, or you want to contribute

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<sup>1</sup><https://github.com/doem97>

to the NTU-EEE-MSc-Dissertation-Template project too, kindly send an E-mail to me. Thank you :)

## **1.2 Motivation**

## **1.3 Objectives and Specifications**

## **1.4 Major contribution of the Dissertation**

## **1.5 Organisation of the Dissertation**

# **Chapter 2**

## **Methodology**

After an introduction on the development history and a brief on design criteria, this chapter goes deeper into reviewing design methodologies of MCM. For the rest of this chapter, the analysis of MCM will focus on specific components. Through the explanations for key methodologies, a detailed view on MCM design will be given.

### **2.1 Performance Parameters**

### **2.2 Package Style**

The package style refers to the macro arrangement for the whole MCM, determining the existances of specific components. Classical choices of package styles include

assembly techniques (surface mount, chip and wire) 9.11 p.11 [1]

## **2.3 Wiring**

conductor materials: 9.9 p.220. [1]

wiring design: 8.6 p.338. [2]

chip and wire assembly

## **2.4 Substrate**

The whole chapter 9 [1]

Substrate is another critical factor in MCM design.

C: thick-film, HTCC, LTCC. D: inorganic dielectrics on Si, organic dielectric on Si. L: laminated board

substrate technologies (how to carry dies) 9.10 p.220 [1]



## References

- [1] Wai-Kai Chen. *The VLSI Handbook, Second Edition (Electrical Engineering Handbook)*. CRC Press, Inc., USA, 2006.
- [2] Rao R Tummala et al. *Fundamentals of microsystems packaging*. McGraw-Hill New York, 2001.