

# **MASTER PROJECT HANDBOOK**

*Master by Taught Course Programme  
UTM Razak School of Engineering and  
Advanced Technology*

Copyright © 2015 by UTM Razak School. All rights reserved.

No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the publisher, except in the case of brief quotations embodied in critical reviews and certain other non-commercial uses permitted by copyright law. For permission requests, write to the publisher, addressed “Attention: Permissions Coordinator,” at UTM Razak School of Engineering and Advanced Technology.

Published by:

UTM Razak School of Engineering and Advanced Technology

Universiti Teknologi Malaysia Kuala Lumpur

Level 7, Razak Tower

Jalan Sultan Yahya Petra, 54100 Kuala Lumpur

MALAYSIA

<http://razakschool.utm.my>

ISBN 978-967-13383-0-8

First Printing, May 2015

Published Online, March 2016

Printed in Malaysia

## Preface

All students taking a master by taught course programme at the UTM Razak School of Engineering and Advanced Technology are required to carry out a project, and to write it up and submit it in the form of a 'project report' which counts for a major component of awarded degree. This handbook is designed to provide general guidance from the School and from the course about the project work. Additional requirement along with all forms that need to be completed will be available on UTM's e-Learning website (<http://elearning.utm.my/14151/>) under the course site for the master programme.

Regardless of the type of master project, all include the following academic expectations:

- the mastery of an appropriate set of academic material;
- an understanding of the major steps of the scientific approach (research design) or decision analysis (evaluation of management alternatives) and the successful application of these steps to a project problem;
- the ability to demonstrate critical thinking about a project problem and the application of appropriate analytical techniques in solving that problem;
- experience in both writing an academic report and giving an oral presentation to panel of evaluators on the methodology, analysis and findings of the study; and
- supervisors' evaluation of the implementation and submitted project report.

This handbook has specific guidance regarding Master project coordinated by Master project Committee. Note that 'School-wide' information given in this handbook applies only to projects for master degree under the school regulations. Different guidance may apply for MSc of Sustainable Urban Design. In the event of any inconsistency between the information in this handbook and any other School document, please contact your Programme Coordinator. Where an interpretation may be required, advice should be sought from the Deputy Dean of Academic of the school.

Editors:

Dr. Habibah @ Norehan Haron  
Dr. Mohammad Hussaini Wahab  
Dr. Sa'ardin Abdul Aziz  
Dr. Samira Albaty Kamaruddin  
Dr. Fauziah Zakaria  
Dr. Siti Armiza Mohd Aris

Proof readers:

Assoc. Prof. Dr. Abdul Rahman Abdul Rahim  
Assoc. Prof. Dr. Astuty Amrin

# Contents

Preface	iii
1.0 Introduction	1
1.1 Programmes Offering Master Project	1
1.2 Synopsis of Master Project	3
1.3 Proposing A Master Project	4
2.0 Planning and Implementing the Master Project	6
2.1 Master Project 1	6
2.2 Master Project 2	8
3.0 Writing and Presenting the Master Project	10
3.1 Writing the Project Report	10
3.2 Short Guide to Good Writing	12
3.3 Documenting the Project Report	13
3.3.1 Abstract	14
3.3.2 Chapter 1: Introduction	14
3.3.3 Chapter 2: Literature Review	16
3.3.4 Chapter 3: Methodology	17
3.3.5 Chapter 4: Results and Analysis	19
3.3.6 Chapter 5: Discussions and Conclusions	20
3.3.7 Reference	21
3.3.8 Appendix	21
3.4 Presentations	22
4.0 Project Submission and Evaluation	23
4.1 Requirement for Project Submission	23
4.2 Turnitin Similarity Index Report	23
4.3 Assessment of the Master Project	24
Appendix 1 Forms Related to MP1 and MP2 Implementation	
Appendix 2 Cover Pages	

# 1.0 Introduction

## 1.1 Programmes Offering Master Project

UTM Razak School of Engineering and Advanced Technology (UTM Razak School) offers a wide range of postgraduate programmes at master and doctoral level. Programmes are designed to enhance the knowledge of professionals as well as to develop the innovative skills of graduates.

Being a multidisciplinary faculty, the programmes offered cover a wide range of areas and are uniquely inter-disciplinary in nature. This is indeed a global trend in postgraduate education and hence an advantage for students enrolled in UTM Razak School.

Programmes offering Master Project in UTM Razak School are as follows:

- Executive Master In Occupational Safety and Health Management (EMOSHM)
- Master of Science (Engineering Business Management) (MEBM)
- Master of Science (Systems Engineering)
- Master of Science (Sustainable Urban Design)
- Master of Professional Science

This handbook aims to provide students with a guide on how to accomplish the various stages of doing the master project and also include information on the formal system devised by the School to supervise and assess the master projects. Normally, the students will complete Master project 1 (MP1) and Master project 2 (MP2) in two consecutive semesters. The flowchart shown in Figure 1.1 can be used as a guide on important weeks for the MP1 and MP2 implementation.

The forms listed in Table 1.1 are available in Appendix 1. The forms are categorized according to the three following purposes.

- General
- Assessment
- Submission

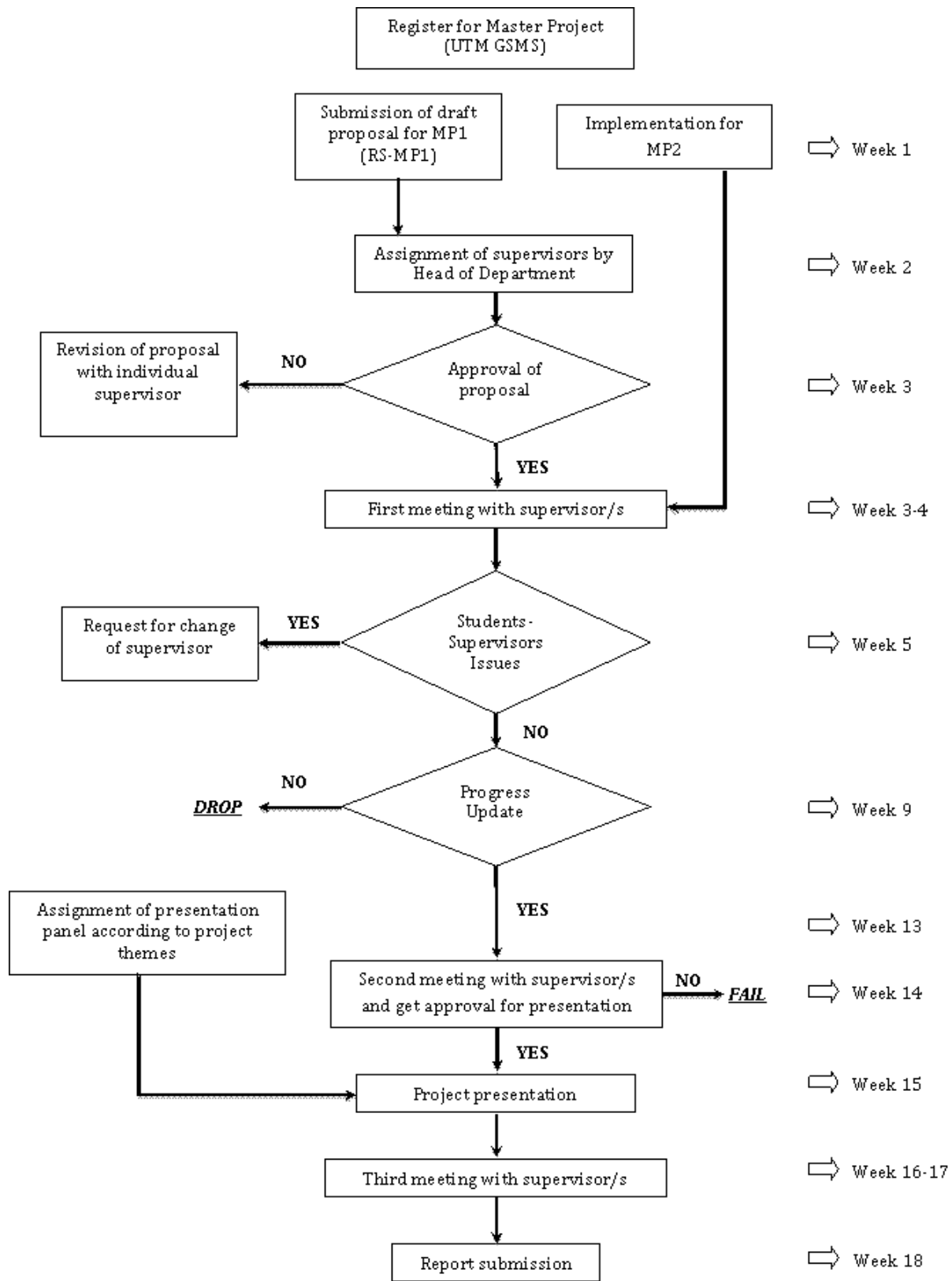


Figure 1.1 Flowchart for MP1 and MP2 implementation

Table 1.1 List of forms related to MP1 and MP2 implementation

List of forms	Reference no.
<i>General</i>	
Proposal by Student	RS-MP-DP
Proposal by Supervisor	RS-MP-SP
Application for Change of Supervisor	RS-MP-SV
Meeting Record	RS-MP-MR
Rubric Guideline for Supervisors	RS-MP-RG
<i>Assessment</i>	
MP1 Implementation	RS-MP1-I
MP1 Report	RS-MP1-R
MP1 Presentation	RS-MP1-P
MP2 Implementation	RS-MP2-I
MP2 Report	RS-MP2-R
MP2 Presentation	RS-MP2-P
<i>Submission</i>	
Checklist Submission MP1	RS-MP1-CL
Checklist Submission MP2	RS-MP2-CL
CD validation and submission MP2	RS-MP2-CD

## 1.2 Synopsis of Master Project

### *Master Project 1 (MP1)*

Master Project 1 requires a student to prepare a research proposal for his/her research for two semesters which covers Project 1 and Project 2. Master Project 1 includes:

- i. Introduction (problem statement, research objectives and scope)
- ii. Literature review
- iii. Methodology
- iv. Proposed method of solution and planning for Project 2.

In Project 1, the student is required to write a report as well as to present and defend his/her research proposal. Thus, student is expected to demonstrate ability to identify and plan solutions to the identified problems.

### *Master Project 2 (MP2)*

In Master Project 2, student executes his/her plan for project which has been approved in Project 1. As a continuation to Project 1, the activities of Master Project 2 include the following:

- i. Data collections
- ii. Data analysis and interpretation to address the identified problem.

The student is also required to write a complete report on his/her research as well as to present and defend the findings. Student is guided by his/her supervisor in completing the project.

## **1.3 Proposing a Master Project**

Students are going to spend a lot of time working on a proposed project. It is essential that students pick a project which they prefer and capable to do. Note that if students like a particular project, it does not mean they are qualified to do it. The students may not have taken all of the requisite courses or it may be a more theoretically-aligned project whereas students might be a more practically-oriented engineering student (or vice versa). Carefully think before making the final choice. At the very least, students should take the following steps in assessing and choosing an appropriate topic.

- 1) Find out what are the available options. A list of projects proposed by academic staff will be distributed to students in **Week 1**. Students should read all the descriptions, identify the ones that has their interest and read them again.
- 2) Students can propose their own project by using the descriptions from the listed projects. However, the feasibility and suitability of the proposal will have to be assessed before it can be approved. Submit the proposal to the Project Coordinator who will have it reviewed by an appropriate member of staff.
- 3) Discuss with the supervisors (i.e., the member of staff who proposed the project or the person nominated by the project coordinator in the case of students' own proposal).

The chart in Figure 1.2 shows on how to choose an appropriate topic for a master project.



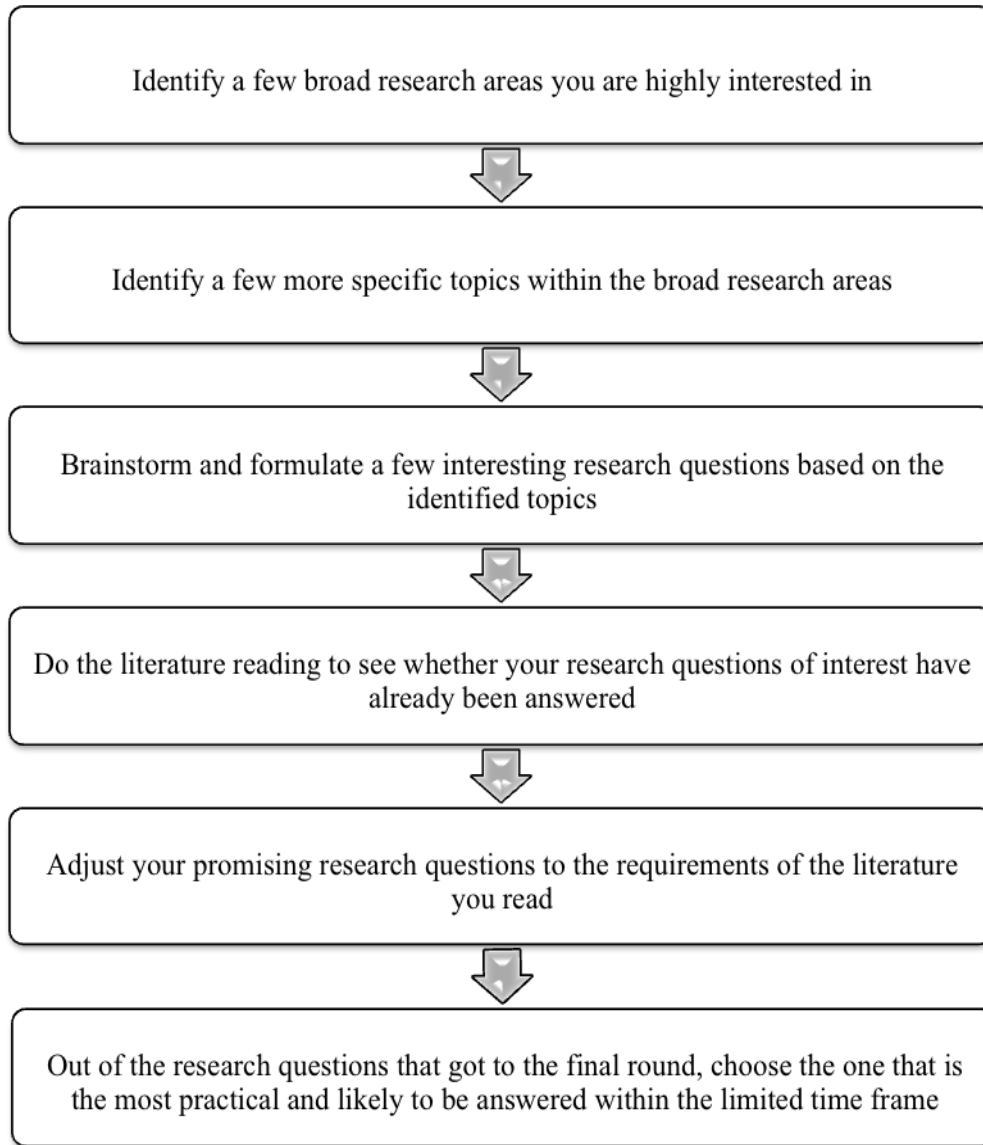


Figure 1.2 Guide on choosing the appropriate research topic

## 2.0 Planning and Implementing the Master Project

### 2.1 Master Project 1

The main purpose of the Master Project 1 is to help students organize ideas, material and objectives for their proposal, and to begin development of communication skills. Stages as shown in Figure 2.1 can be used as guidance to develop the MP1 in achieving main objectives to demonstrate the following abilities:

- to formulate a scientific question
- to present scientific approach to solve the problem
- to interpret, discuss and communicate scientific results in written form
- to gain experience in writing a scientific proposal

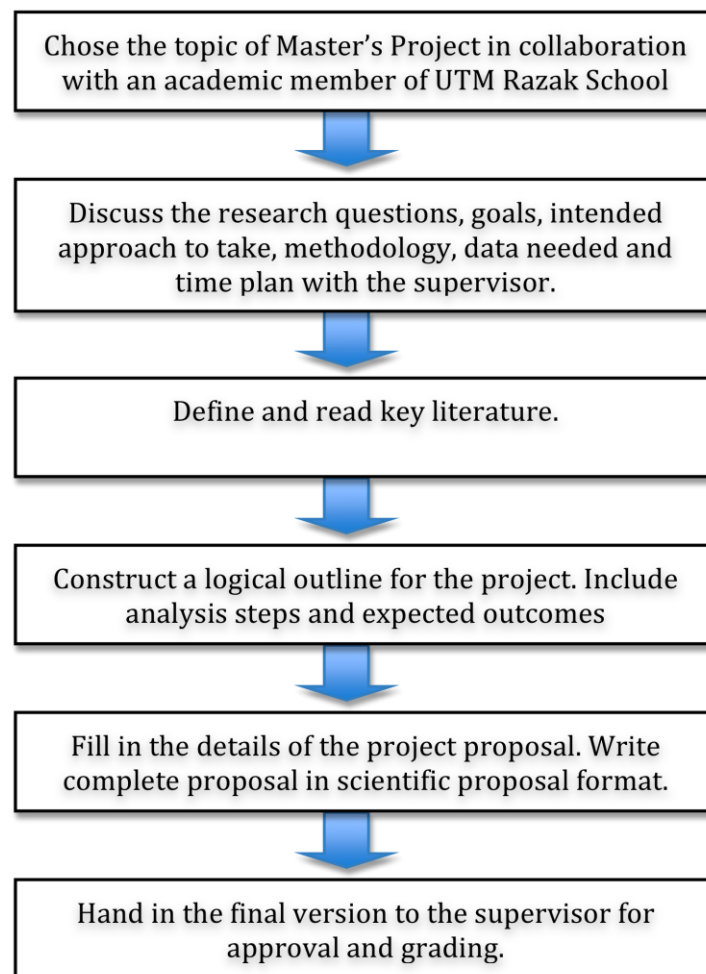


Figure 2.1 The stages of development for the MP1.

The structure listed below provides recommended guidelines for the MP1 report:

- 1) **Title:** Define a short, significant title which reflects clearly the contents of your report. The title page follows the guidelines of UTM Thesis Manual (2007).
- 2) **Abstract:** Succinct abstract of less than one page.
- 3) **Table of Content:** The table of content lists all chapters (headings/subheadings) including page number.
- 4) **Introduction:** Explain why this work is important giving a general introduction to the subject, list the basic knowledge needed and outline the purpose of the report. General background of the investigated problems may include introduction of the research study and its impact to the fundamental and practices of the key concepts. This section should frame the research questions that will address the subsequent research. List the main research question(s) to be answered. Explain whether the research will provide a definitive answer or simply contribute towards an answer. Include aim and objectives, scope and limitation to the study.
- 5) **Literature Review:** Past studies in the subject areas that you are researching. Theory/concept/framework/model of study.
- 6) **Methodology:** Explain the methods and techniques which will be used for your project depending on the subject: field work, laboratory work, modelling technique, interdisciplinary collaboration, data type, data acquisition, infrastructure, software, etc.
- 7) **Time Plan:** Give a detailed time plan. Show what work needs to be done and when it will be completed. Include other responsibilities or obligations.
- 8) **Expected Findings:** Explain what is striking / noteworthy about the results. Summarize the state of knowledge and understanding after the completion of your work. Discuss the results and interpretation in light of the validity and accuracy of the data, methods and theories as well as any connections to other people's work. Explain where the research methodology could fail and what a negative result implies for the research question.
- 9) **References:** List papers and publication you have already cited in your proposal or which you have collected for further reading. The style of each reference follows that of international scientific journals.
- 10) **Appendix:** Add pictures, tables or other elements which are relevant, but that might distract from the main flow of the proposal.

## 2.2 Master Project 2

This is the final report that is a critical part of the project. It presents ways on how the project is examined and assessed. In writing the MP2 report, students need to decide on its *content* and *structure*.

### *Content of the Report*

- 1) Clearly, the content of the report is going to vary from project to project and it is difficult to make any strict recommendations.
- 2) The Master project provides students with an opportunity to demonstrate their ability to use their judgement.
- 3) Students' main opportunity to display their talents at assimilation and synthesis comes when they describe the background material they read, the requirements, specification, and design phases of their work.
- 4) Critically appraising all material relevant to the field of study.
- 5) It is extremely important that students also appraise, or assess, their work critically, i.e., with objectivity and with a view to seeing how it could be improved.
- 6) Typically, students exercise their talents of critical appraisal at the end of the report in a discussion chapter.

### *Structure of the Report*

- 1) The structure of report will give impact to the report writing.
- 2) Students must provide clear points in logical order.
- 3) A logical structure: breaking up the 'story' into a sequence of messages which follow naturally one from the other and which lead to an interesting conclusion.

In general, the final MP2 report should be between 60 and 80 pages long, not including appendices and front matter. The report should be prepared and printed on A4 paper, single-sided, following the format given in the UTM Thesis Manual (2007). Note that copyright of the projects rests with the UTM Razak School as do all intellectual property rights associated with the project. In essence, this means that the report is confidential to the UTM Razak School and may not be copied, published, or otherwise disseminated without the prior written permission of the UTM Razak School management.

Students are expected to proceed and prepare their MP2 report in detail. The following required chapters must be added to the existing chapters in MP1 :

- **Results and Analysis:** Present results that have been achieved and analysis with a detailed and accurate explanation and interpretation. Include relevant photographs, figures or tables to illustrate the text.
- **Discussions and Conclusions:** Some comparisons with previous researchers should be included to show the improvements that have been contributed by the study.  
Eg: Management implication, Recommendation to management, conclusions.  
Details of this chapter can be referred to Section 3.3.6.

## 3.0 Writing and Presenting the Master Project

### 3.1 Writing the Project Report

The process of moving from an idea to a well-defined and complete counselling master project is sometimes a difficult experience. What students find particularly frustrating is that there is as much rewriting as writing. Below are some things you can do to expedite this process.

- 1) All students start with a project that is too large. Narrow the scope. Ask the supervisor/s for assistance in narrowing down your research study.
- 2) Find other graduate students at the same point in the process and form a support group. In addition to getting moral support and encouragement.
- 3) Good self-discipline reduces the amount of time needed. Accurate and complete records need to be maintained, which include a coding/filing system and log of materials read. In addition, it helps if students plan their daily and weekly work in advance by establishing tasks for the week to work on the project.
- 4) Set up a system to expedite the supervisor's response time. Schedule regular appointments with the supervisor. Provide the supervisor with all completed work several days before the meeting with a note asking the supervisor/s to return the work with comments at the meeting.
- 5) Set up a timeline for completion of the different parts of the project. Allot an amount of time for the initial literature review (the literature review will be continued throughout the master project process), instrument selection/development, piloting the instrument and/or procedure, data collection, data analysis, writing up the results, and proofreading, rewriting and editing.

The writing style needs to be:

- Written in the first or third person
- Clear and concise (yet often redundant)
- Non-biased (avoid editorializing and judgments)
- Adequately and appropriately cited
- Straight forward (non-creative)

Students are advised to keep the writing style and format consistent following the UTM Thesis Manual (2007) throughout the thesis. They should write either using UK English or US English.

Students are encouraged to use Academic Phrase bank as a general resource for academic writing. The resource can be found at <http://www.phrasebank.manchester.ac.uk/>. It aims to provide some examples phraseological "nuts and bolts" of writing. This website is useful for students whose English is not their first language. Many phrases in the website could assist students to think and write their ideas appropriately. The examples of phrases also may help students avoid plagiarism and enhanced their scientific writing skills. However, students need to be aware that these phrase bank is not discipline specific, and it does not claim to be comprehensive.

Since many facts and figures will be included in this chapter, students are advice to use signposting points wisely. Give brief introduction of flow of thought on what to be covered in each chapter. Show its relevance to the problem statement and research methodology. Arrange the ideas of reviews from general to specific theories. Make sure the reviews cover all important aspect of the research methodology from the existing studies. Discuss the recommended potential studies closely to the investigated problems. Provide summary of the discussion at the end of this reviews.

Students are also encouraged to use EndNote program for an effective bibliography management. The installer of current EndNote program can be downloaded from [cyberubp.utm.my](http://cyberubp.utm.my). Use a valid ACID username and password to enter the system. After successfully installed the program, one should find EndNote menu at the end of MS Word interface. By using this software students can simply organize and manage their citations and references almost instantaneously. Many ways can be used to download bibliographic citations in the EndNote. All these citations normally can be obtained from a free and subscribed database provider (e.g., use database subscribed by PSZ UTM). Students can simply download the citations via Google Scholar (the easiest way), Scopus, ScienceDirect, and many other scientific databases. Under the Insert Citation menu of EndNote, students are able to find the required reference and insert its citation automatically. The name of authors can be excluded through the Edit Citation menu or just simply modified from the options of right click instruction. The style of citations and references for the whole document should be done in the EndNote program itself using the Edit and Output Styles menus.

If students prefer to share their bibliography online, they can use Mendeley. Mendeley is a free reference manager and academic social network that can help students organize their research, collaborate with others online, and discover the latest research. Students may find the differences between Mendeley and some other bibliography from <http://www.mendeley.com/compare-mendeley/>.

## 3.2 Short Guide to Good Writing

Good writing takes practice and a willingness to revise the writing, many times. One of the best ways to learn how to write well is to read. Almost any reading material will do, as long as it is well written. For technical writing, students should at least read several previous project reports, conference papers, journal papers, magazine articles.

The following are some pointers to help students complete their writing.

- 1) Use simple sentences and make sure the sentences are complete.
- 2) A complete sentence has a subject followed (usually) by a verb, and then an object. For example: *“The compiler identified two syntax errors.”* Of course, we can add other words to enhance the descriptiveness and richness of the sentence: *“The C++ compiler identified two subtle syntax errors”*, and we can even add additional phrases (which will normally have a subject-verb-object structure of its own). For example: *“The C++ compiler identified two subtle syntax errors but, unfortunately, it was unable to find the semantic errors in my program.”*
- 3) Remember that, if all of the ancillary words is removed, leave with a valid sentence; if not, the sentence has written incorrectly. It is a good idea to check all sentences this way.
- 4) Good writing strikes a balance between short sentences and longer more descriptive ones. Just as in oral communication, the full stops mean pauses: too many pauses and the text sounds disconnected, too few and it can be hard to follow the story line. Strike a balance but favour brevity over complexity.
- 5) Make sure pictures and diagrams have a self-contained explanatory caption. Never refer to a picture or diagram in the main text without saying what it is. For example, never say *“Figure 2.3 shows the results of the noise test”* and then carry on to another topic. Help the reader. Summarize the content of the figure in a short sentence: *“Figure 2.3 shows the results of the noise test which demonstrate the robustness of the system to Gaussian noise with a standard deviation of 2.3 or less.”* If the figure has been copied from a book or article, cite the source.
- 6) Make the paragraph unit of construction. Each paragraph should bind one or more sentences about a given subject or idea. If the subject or idea changes, start a new paragraph.



- 7) Omit needless words. Unnecessary words distract the reader. Don't write, "*This is a system the performance of which is very useful*". Instead, write, "*This is a useful system*".
- 8) Write in a way that comes naturally. Speak the sentence. If it sounds correct, trust your ear and use the sentence. If it sounds unnatural, rewrite it.
- 9) Avoid fancy words; they do not impress anyone.
- 10) Be clear in each expression. If the needed idea to convey is getting lost in a sea of words and phrases, draw a line through the sentence and start again.
- 11) Do not take short-cuts. Explain what is the real meaning of constructed sentence. Explain all acronyms the first time of using them.
- 12) Revise and rewrite. Find the best way of expressing an idea with in the first attempt. Nonetheless, make that attempt and then be prepared to revise it, again and again.

Remember to do the two things to learn how to write a good report:

- read other good reports and
- practice writing.

### **3.3 Documenting the Project Report**

During the course of the year, as discussed in Sections 2.1 and 2.2, students have to write two reports:

- 1) Master Project 1 (MP1)
- 2) Master Project 2 (MP2)

These reports are important for several reasons. First, they are formal components of the assessment exercise. Second, and equally important, these reports are valuable milestones for the project. They help students focus on achieving concrete outcomes as the project progresses. The documentation of these outcomes is a difficult and time-consuming process; do not underestimate the importance or the magnitude of the task. The contents and structure for the project report are included in the following sub-sections. Students are required to follow the font type, numbering, spacing, margin, font size, labelling of diagrams etc, according to UTM thesis format writing (see Appendix 2).

### **3.3.1 Abstract**

The abstract should not be more than one page and written in only one paragraph. An abstract is a summary of your master project report and it is something that concentrates in itself the essential qualities of more extensive or more general master project report. It is the gist or essence of your work summarize in one page. By reading the abstract, the reader will have a feel of the rest of the report. The abstract should be written in a concise, explicit, clear, readable and complete manner which summarizes the whole content of the report. A good abstract explains in one line why the master project is important. It then goes on to give a summary of the major results. Do not write your own opinion or some literature review or citations in the abstract. The final sentence should explain major implications of your research work. Abstract must answer the question “*what did you do?*” and “*why did you do it?*” you must justify the importance of the project to the organization. “*What question were you trying to answer?*” The next one is “*how did you do it?*” Describe the methods employed in the research project particularly the data collection and analysis. Next question is “*what did you learn?*” state major results. “*Why does it matter?*” Point you at least one significant implication of your research project.

### **3.3.2 Chapter 1: Introduction**

Chapter one is to give the reader a taste of your report. It describes what is being studied and why and explain the core of the research. This chapter should only discuss the introduction to the project to give the reader a broad idea and overall picture of what you are doing and set the stage for other chapters. Chapter one will also act as a framework to the rest of the report.

#### **1) Introduction**

This section should briefly describe the introduction to the project to give the reader a general idea of what you are doing. It outlines the broad field of study which then lead to the importance and focus of the research. Start with broad field, macro or helicopter view and then narrow the focus to the research problem (micro). Use the funnel approach from general idea to a specific area of interest.

#### **2) Background of the Research**

Describe sequence of events that lead to the project. Start with the overall issue in the industry and then be more specific to your research area. Brief the overall review of the historical background of the project can be used to start of this section. You can also explain where the project will lead to.

### 3) **Problem Statement / Research Problem**

The purpose of problem statement is to identify the conditions, problems, or issues relevant to the project. This section does *not* describe the method address the need of problem; rather it provides a strong rationale for carrying out the project. The problem statement or the research problem cannot be answered by just a “yes” or “no” answer. It requires some thinking and a bit theoretical in nature. A problem statement expresses the words that will be used to keep the effort focused and it should represent a solvable problem. A carefully crafted problem statement focuses and directs the entire inquiry project. Well-constructed problem statements will convince the examiner that the problem is real and worth having investigated. The strategy is one of contrast: by situating the ideal scenario next to the situation as it exists, one can not only persuade the examiner that a problem exists, but also go on to emphasize the consequences of ignoring or addressing the problem. Problem statement provides an understanding of the need or problem as the basis for conceptualizing the solutions.

### 4) **Justification of the Research**

This section describes the justifications for the research. This section must answer the following questions:

- What are the issues of concern? How relevant it is to your company?
- Why there is a need to carry out the project?
- Explain the importance of the project. What is so important about the project?
- What are the potential benefits of your research to the company, society or the area of study? What are the economic and strategic benefits of the project?

### 5) **Methodology**

Briefly describe the methods that you will use during the course of the project. How do you plan to carry out the research? A general flowchart can be used to assist the explanation. You must describe the methodology in general terms. Detail methodology should be left out and described in Chapter 3.

### 6) **Objectives**

What are the deliverables? What are you trying to achieve? What do you expect to show at the end of the semester? Focus on research areas. Is it a system, design, model or prototype, new process, procedures, methods, experiments, simulation study, framework, guidelines etc. that you want to produce? The objectives must be something tangible that you can claim yours. The objectives must be concise and clear and start with a verb. For example; to develop, to design, to produce, to fabricate, to simulate, etc. Do not mix

objectives with methods. Avoid the verb “to study, to review, to learn” which do not produce any tangible results and difficult to quantify.

#### **7) Scope**

Scope is the outline or the boundary of the project. Limit on the area of your project so that it will not include factors beyond your control. For example the scope only covers certain activities or processes, equipment or location, one department and not the whole workplace, only proposal and nor including implementation etc. scope is very important because it will determine the amount of work that you have to carry out. Do not confuse scope with methodology. By clearly defining the scope, you can better focus your project. A scope which is too broad might be difficult to archive given the time and resource constraints that you have. A scope which is too shallow might not justify your degree.

#### **8) Definition of Term**

All acronyms, abbreviations and the most commonly used word (i.e. keywords) must be briefly defined. The length of the description can be as long as two or three sentences. This is to ensure that the meaning of the word or term is what you want the reader to understand. The use of any acronym and abbreviations must be consistent throughout the text.

#### **9) Project Contributions**

The project contributions are highlighted in this section. Some of the considerations that need to be emphasized are:

- What would be your contributions at the end of the semester? Design, prototype, procedures, framework, guidelines, business/management models etc.
- What are the deliverables?

#### **10) Outline of the Report**

Give a brief outline of the chapters in the report. You can make a flow chart to show the flow of the chapters with a short description of each chapter to show continuity of the report.

### **3.3.3 Chapter 2: Literature Review**

A literature review surveys scholarly articles, books and other sources (e.g. dissertations, journal articles, conference proceedings, periodicals) relevant to a particular issue, area of research, or theory, providing of description, summary, and critical evaluation of each work. The purpose is to offer an overview of significant literature published on a topic. Literature review will give a theoretical background or foundation to your project. This chapter should only discuss material

from the literature. Avoid giving your own opinions or statement. Start with general topics to give the foundations of the research. Then move to more focused area and not contain disciplines not directly relevant to the research area. Review the current research carried out by various researchers – materials should come from journals, conference paper, periodicals and the like. Do not just focus on reporting what others have done but critically analyzed their works to determine the gap.

### **3.3.4 Chapter 3: Methodology**

This chapter should discuss only the methods that you specifically employ in your research. The method described must be in detail in which if somebody wants to duplicate or replicate your research, he/she can do it without any difficulty – just like a cook book. You can discuss methods used by other researchers as well (journals, past thesis) to justify the methods that you are employing.

You can use a flow chart to show the process of your research work. The methodology can start with literature review and followed by other works. If you want to design something, you must describe the design process. You can start from determining customer requirements, developing the specifications, develop concept design, devise design selection process, select final design and analyze the design using software such as finite element analysis software or simulation software.

#### **1) Introduction**

This chapter describes the research design of the project.

#### **2) Justification for the Methodology**

You must explain why you employ the methods and justify everything. For example:

- Why did you choose a case study in a particular industry?
- Why did you carry out interview or questionnaire?
- A qualitative or quantitative case study?
- How many case studies that you do or how many questionnaires send out?

#### **3) Research Procedures**

Describe every single step (in detail) used in carrying out your research – use flow chart to aid in the description. You must explain how do you collect data? Is it through experiment, observation, document review or direct interview? What are the instruments used in data collection. If you use questionnaire then you must describe the instruments in the questionnaire, how to select the samples, how many samples send out to which company.

Once data collection method has been described, you must explain how you analyze the data. Describe the techniques that you used – percentage, graphical techniques, correlation, pie chart etc. you must also discuss how you propose a new scheme / systems/ procedures/ methods/ techniques/ framework/ model. The step in developing your proposed solutions must be clearly described. Solutions do not just come from the sky unless it is copied from other sources.

If your project involves design, design then you must describe the design process from identifying the user, determining user's requirements, developing technical specifications, produce concept design, design selection and final design, analysis, fabrication and testing.

#### **4) Validation**

Finally you must show how you validate your work. How do you know what you propose is practicable, valid and can be used? Validity means that correct procedures have been applied to find answers to a question. Is it done through computer simulation, expert validation or mathematical modelling of your experimental results? In productivity improvement type of project, a comparison before and after the improvements must be made and you must describe the parameters that you want to use as benchmarking parameters.

The validity and reliability of the data collection instruments, such as questionnaire, must be ensured so that the instruments are valid, clear, understandable and can be used. The findings, results or recommendations of the research must also be validated. There are many ways to validate the research. Expert validation is one of the common methods.

#### **5) Reliability**

Reliability refers to the quality of measurement procedure that provides repeatability and accuracy. Reliability is the extent to which an experiment, test, survey or any measuring procedure yields the same result on repeated trials. High reliability research will able researchers to replicate research procedures, use research tools and procedures that yield consistent measurements and able to satisfactorily draw conclusions, formulate theories, or make claims about the generalization of their research.

#### **6) Triangulation**

Triangulation is the act of combining several research methods to study one thing. They overlap each other somewhat, being complimentary at times, contrary at others. Combine different techniques that balance each other's out: quantitative versus qualitative,

individual versus group, face-to-face versus remote, self-reported versus facilitated, short engagement versus long engagement etc. Commonly used triangulation methods are:

- Documentation study
- Observation
- Interview
- Survey questionnaire
- Focus group
- Delphi method

## 7) Summary

- Describe every single step (in detail) used in carrying out your project – use flow chart to aid in the description.
- What are the instruments used in data collection?
- How do you collect data? Interview, document search, observation etc. Who do you interview, what documents that you study or refer etc.
- How do you analyze the data?
- How do you propose a new scheme / systems / procedures / methods / techniques / framework / model?
- How do you validate your work to ensure that it is practical and valid and can be used or applied?

### 3.3.5 CHAPTER 4: RESULTS AND ANALYSIS

This chapter presents the results and analysis of the project. The content of this chapter is as follows:

#### 1) Introduction

A brief description of Chapter 4 is written here.

#### 2) Data Collection

Data collection is an important aspect of any type of research study. Inaccurate data collection can impact the results of a study and ultimately lead to invalid results. Data collection must be relevant to research questions and research objectives. Data collection could be in the form of experiment, survey, statistical analysis, interview, simulation or case study. Data is collection of facts and data analysis is changing data into information which can be used to make decision. Quantitative data collection methods rely on random sampling and structured data collection instruments that fit diverse experiences into predetermined response categories. They produce results that are easy to summarize, compare, and generalize. Data analysis adds value to the

master project. Brief description of the type of the data collected, case study companies etc. are useful to assist the reader to better understanding the project.

Show data collection through tabulation, engineering drawing of existing design, layout, quality control records, pictures, videos, results of safety audits etc. and describe the data. If data collection is from observation, then you should be able to quantify that. Use your technical background to engineer the problem. For instance, the problem in manual handling, you can use free body diagram to show various forces acting on the body and how this forces affect the inter-vertebral disks and the nerves which can lead to slip disc.

### **3) Data Analysis**

Data analysis is when raw data is translated into usable form for the research. Use pie charts, bar charts, statistical analysis, hypothesis testing, QFD matrix, SPC charts, cause and effects diagrams, cause and effect matrix, value stream mapping, tables etc. to analyze your data. Simulation software could also be used to analyze data of present practice or process. For occupational safety related projects, use risk matrix for risk assessment to determine the level of risks. Other techniques that can be used include Risk Assessment Matrix, Failure Mode and Effect Analysis (FMEA), Fault Tree Analysis (FTA) or Hazard and Operability Studies (HAZOP). Data analysis must be quantified.

### **4) Summary**

Summarize the content of Chapter 4.

## **3.3.6 CHAPTER 5: DISCUSSIONS AND CONCLUSIONS**

Chapter 5 discusses the findings of the project, relating them to the research objectives and literature review. From the discussions, conclusions of the study are derived. Recommendations for future study are also presented.

### **1) Introduction**

A brief description of Chapter 5 is written here.

### **2) Conclusions**

Conclude each of the research question or project objectives. Highlight the significant of your research or project work. You need to briefly summarize the project starting from the beginning to the end.



### **3) Research Implications and Contributions**

Describe the research implication and contributions of your work. Is the result of your work make the world a better place? Why?

### **4) Limitation**

You must also explain the limitation of your work, such as difficulty in getting real life data or delay in receiving certain specimens for the experiments. Do not overemphasize cost and time as your main limitations. This could expose your weaknesses.

### **5) Future Works**

If somebody were to continue with your research, what would be the issues that the individuals can work on? Future works must reflect higher thinking order to foresee ahead the problems or other improvement areas that anybody can work on.

#### **3.3.7 Reference**

All references must be listed including the reference from the internet. Use only one type or standard for references. Double check any missing references. Follow UTM format. Separate or divide into two reference list – one for printed material and the other one for internet reference (must include the name of the website, article name, its URL, date accessed)

References should appear in a separate Reference section at the end of the master report, typed 1.5 spaced in alphabetical order. References to original (not secondary) sources for cited material is to be listed together at the end of the paper and should be justified ragged right. References should be published materials (excluding computer program manuals) accessible to the public. Internal technical reports may be cited only if they are easily accessible to the public or any reader. Private communications should be acknowledged with text, not referenced (e.g., [Coyle, personal communication]). List of References shall be arranged in alphabetical order of last name of first-named author for articles with more than one author. Do not number them.

#### **3.3.8 Appendix**

All appendices must be arranged in the order of appearance in the main text. If the appendix is obtained from other sources than the source of the materials must be quoted, for example from certain standards or tables. Make sure that all printed materials are legible. All appendices must be referred to in the main text.

### 3.4 Presentations

During the course of the project, students will be required to present their proposal for MP1 and results and findings for MP2. Students can adopt all presentation skills during their time in the UTM Razak School. However, a few pointers may help to give a professional and impressive presentation.

- 1) Do not depend too much on PowerPoint slides because the speech itself is the presentation and the slides supposed to support the speech (not the other way around).
- 2) Short one-second rests create dramatic impact and also give audience time to assimilate what have been said. Of course, presenters also have to maintain continuity and flow; otherwise assessors will be lost. It is a question of balance.
- 3) Arrive early and make sure to know where all the equipment is. Know how to use it.
- 4) Look at the audience, not at the slides.
- 5) Project the voice but do not shout.
- 6) Smile and enjoy giving the presentation.
- 7) Be confident to show some completed great work. Here is the opportunity to get credit for it.
- 8) The people in the audience *are* on the good side (though sometimes they disguise it well!). If they ask a question that is difficult to understand, ask them to explain, and ask nicely. If still cannot be understood, do not bluff. Admit the ignorance and suggest ways of how to overcome that lack of knowledge.
- 9) Nobody knows everything; but that is no excuse for not trying to know everything. A knowledgeable person knows enough to do his job well, a wise person knows that he does not know everything, and an intelligent person knows how to find out what he does not know. Be knowledgeable, wise, and intelligent.

## 4.0 Project Submission and Evaluation

### 4.1 Requirement for Project Submission

The project report is assessed by the respective supervisor/s. Students must provide sufficient information in the project report to allow them make an appropriate assessment. Only one final agreed implementation and report assessment from two supervisors will be used for the grading. Students are required to submit checklist, forms and items shown in Table 4.1 during submission of MP1 and MP2. Some forms may require signature from the main supervisor.

Table 4.1 List of required document for MP1 and MP2 submission

Document	MP1	MP2	Remark
Checklist of MP1 Submission	✓		
Soft bound report	✓		
Checklist of MP2 Submission		✓	
Turnitin Report of MP2		✓	
CD Validation and Submission Form		✓	
Hard bound report		✓	Need to be submitted to each supervisor
1 CD of the report		✓	
Meeting Record	✓	✓	

### 4.2 Turnitin Similarity Index Report

*What is Turnitin?*

Turnitin is plagiarism checker software which has been used extensively in most of the academics bodies. The software detects for any potential unoriginal content by comparing all of the submitted or published papers.

*Why is it important?*

In order to maintain the writing originality, Turnitin is preferred during the final edition of the UTM students' final report. The Turnitin software can be obtained from the supervisors or

directly contact the IT Manager of UTM Razak School of Engineering and Advanced Technology.

### *Requirement for the Students*

All MP2 students are required to submit the Turnitin report upon the submission of hard cover report to the administrative counter. The similarity percentage must not exceed 20% as set by UTM Razak School.

## **4.3 Assessment of the Master Project**

Projects are assessed according to several criteria and at several points during the year. This assessment will be based on how you carry out your project, your report and presentations. The assessment criteria are presented in Table 4.2. Condition to pass the project is a minimum of 60% from the TOTAL of all three (3) components of evaluation (implementation, report and presentation). Students who fail to do the presentation scheduled at the end of the semester or fail to submit their report on time; inevitably their master project is considered fail. Table 4.3 shows a normal grading system in UTM that is applied for both MP1 and MP2.

Table 4.2 Distribution of marks for MP1 and MP2

Assessment	Criteria	Allocated marks (%)	
		MP1	MP2
Implementation	1) Independence and Taking Responsibility	55	35
	2) Commitment and discipline		
	3) Strategy, organization and execution		
	4) Problem solving Approaches, ideas and creativity		
	5) Ethical consideration and behaviour		
Report of MP1	1) Problem statement, objectives and scope of project are justified	20	-
	2) Literature is critically reviewed		
	3) Methodology and detailed method of execution		
	4) Initiate Findings and Expected Results		
	5) Demonstrate basic knowledge and address research problem		
	Organization, structure of report, format, abstract according to guideline		

Report of MP2	<ol style="list-style-type: none"> <li>1) Introduction, problem context (organization and literature review), methodology</li> <li>2) Follow methodology, produce, organize, analyze, data and deduce findings</li> <li>3) Critically evaluate and organize findings, compare with other results and draw appropriate conclusion. develop action plans</li> <li>4) Demonstrate basic knowledge and address complicated problem</li> <li>5) Ethics and plagiarism</li> <li>6) Organization and structure report, style and grammar, abstract and physical specifications of report</li> </ol>	-	40
Presentation	<ol style="list-style-type: none"> <li>1) Content</li> <li>2) Organizational of presentation, time management</li> <li>3) Speaking skills</li> <li>4) Presentational technology, graphics, visual aids</li> <li>5) Response to questions</li> <li>6) Preparedness and effort</li> </ol>	25	25
<b>Overall total</b>		<b>100</b>	<b>100</b>

\* Marks for each component of evaluation should refer to the “Rubric Guideline for Supervisors” (RS-MP-RG)

Table 4.3 Normal grading system in UTM

Marks	Grade	Points	Status
90 – 100	A+	4.00	Excellent Pass
80 – 89	A	4.00	
75 – 79	A-	3.67	
70 – 74	B+	3.33	Good Pass
65 – 69	B	3.00	
60 – 64	B-	2.67	Pass
55 – 59	C+	2.33	Fail
50 – 54	C	2.00	
45 – 49	C-	1.67	
40 – 44	D+	1.33	
35 – 39	D	1.00	
30 – 34	D-	0.67	
00 – 29	E	0.00	

# **Appendix 1**

## **Forms Related to MP1 and MP2**

### **Implementations**



**PROPOSAL BY STUDENT (MEBM) RS-MP-DP/2016**

<b>PROGRAMME NAME AND COURSE CODE</b>		
<b>SEMESTER (circle one): 1 / 2</b>	<b>SESSION:</b> _____	<b>PROGRAM TYPE (circle one): Full / Part time</b>
<b>NAME</b>	: _____	
<b>I/C / PASSPORT NO :</b>	_____	
<b>EMAIL</b>	: _____	<b>SIGNATURE:</b> _____
<b>CONTACT NO.</b>	: _____	<b>DATE:</b> _____

**TITLE** : \_\_\_\_\_

**PROJECT SUMMARY (problems and scope):** \_\_\_\_\_

**OBJECTIVES of study:** \_\_\_\_\_

**PROPOSED SUPERVISOR (if any):** \_\_\_\_\_

Proposal reviewed by (name): Date: Signature:	Approved by Project Coordinator Name & signature: Date:
Reviewer's comment:	



**PROPOSAL BY SUPERVISOR *RS-MP-SP/2016***

<b>PROGRAMME NAME:</b> _____	<b>COURSE CODE:</b> _____
<b>SEMESTER (circle one):</b> 1 / 2	<b>SESSION:</b> _____
Supervisor's Name: ..... Signature _____	
Co-supervisor's name: (if any, limited to two only)	
1. Name: .....	Signature _____
2. Name: .....	Signature _____
<b>TITLE:</b>	
<b>OBJECTIVES:</b>	
<b>PROJECT SCOPE:</b>	

**Note: Please indicate any pre-requisite (if any) and the number of students can be accepted for the proposed title.**

This form must be submitted to UTM Razak School Master project Committee.

---





## APPLICATION FOR CHANGE OF SUPERVISOR *RS-MP-SV/2016*

### Notes to Student

- 1 The request to change supervisor/s is **only allowed for Project 1**.
- 2 In the case of **Project 2** the request will only be considered for students who had failed in the previous semester.
- 3 The change of supervisor is only allowed once.
- 4 This application form should be submitted to RS Academic office (attention: Ms Sabrina) **before end of week 5** of the current semester. Late request will not be entertained.

### I. PARTICULARS OF STUDENTS

Name: \_\_\_\_\_

Student ID: \_\_\_\_\_

Programme Name & Course Code: \_\_\_\_\_

### II. APPLICATION DETAILS (\*Please cancel as appropriate)

Name(s) of Current Supervisor(s) <i>(/) Tick the relevant box</i>	<input type="checkbox"/> Main Supervisor: _____ <input type="checkbox"/> Co-supervisor: _____
Name of Proposed Supervisor	Main Supervisor / Co-supervisor *: _____ Email and department: _____
Reasons for change request	_____ _____ _____ _____
Date	

I am requesting to replace the current supervisor/co-supervisor for the reason/s stated above. I take responsibility for any problem (including personal), which may affect the progress, quality and completion of my study, if that should occur as a result of this request.

Signature (student): \_\_\_\_\_

Date: \_\_\_\_\_

**III. DECLARATION BY CURRENT SUPERVISOR**

1. I am / am not\* willing to release my role as the **Main Supervisor/Co-supervisor\***.

Reason/s:  
.....

2. I am / am not \* encouraging the decision made by the student.

Name: \_\_\_\_\_

Signature (current supervisor): \_\_\_\_\_ Date: \_\_\_\_\_

**IV. DECLARATION BY PROPOSED SUPERVISOR**

1. I accept the proposal to become the **Main Supervisor/Co-supervisor\*** for this student. I am confident of my competence in guiding him/her until completion of the project.
2. I am not over-loaded with other supervision tasks assigned to me. If it is so, I will get the consent from the Postgraduate Academic Manager.

Name: \_\_\_\_\_

Signature (proposed supervisor): \_\_\_\_\_ Date: \_\_\_\_\_

**V. DECLARATION BY MASTER PROJECT COORDINATION PANEL**

We confirm that the change of supervisor is supported by the Master project Coordination Panel, with the consent from the Postgraduate Academic Manager and the Head of Master project Coordinator. We are confident that the new supervisor/s has/have the necessary expertise to guide the student through the rest of the project period.

Signature: \_\_\_\_\_  
(Master project Coordinator)

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
(Postgraduate Academic Manager)

Date: \_\_\_\_\_



**MEETING RECORD *RS-MP-MR/2016***

**PROGRAM NAME & COURSE CODE:** \_\_\_\_\_

**SEM: ..... SESSION: .....**

**Student Name :** \_\_\_\_\_

**Student ID :** \_\_\_\_\_

**Project Title :** \_\_\_\_\_

**Supervisor/s :** (i) \_\_\_\_\_ (ii) \_\_\_\_\_

DATE	SUMMARY OF DISCUSSION	SUPERVISOR'S SIGNATURE

*Note: Must be submitted at the end of the semester together with the Project Report.*

**Rubric Guideline for Supervisors RS-MP-RG/2016**

If max marks allocated is						OVERALL MARK	LEVEL OF ACHIEVEMENT	COMPONENT DESCRIPTOR
30	25	20	15	10	5			
28-30	23-25	19-20	14-15	9-10	5	>90%	Outstanding	<p>Illustrates a complete conceptual understanding of the subject matter. Demonstrates an extremely high level competence in selecting appropriate techniques/tools in solving problem and interpreting results. Source of reference is correctly cited. Shows exceptional written communication skills with faultless grammar and spelling. Tables/ diagrams/charts are appropriately labelled. An extremely independent candidate.</p>
23-27	19-22	15-18	12-13	7-9	4	75-90%	Excellent	<p>Shows a high degree of conceptual understanding of the subject matter. The work is very well thought through and well argued. A high level of technical competence with only insignificant errors through the selection of techniques/tools/references. A high level of written communication skills with few grammatical and spelling errors. Tables/ diagrams/charts are well presented. An independent candidate.</p>
20-22	16-18	13-14	10-11	6-7	3	65-74%	Good Pass	<p>Shows a sound and thorough grasp of the subject matter. Ability to make critical points and substantiate them. Effective presentation, showing generally good written communication skills with good spelling and grammar. Good overall structure and complete argument. Candidate shows good effort.</p>
18-19	15-16	12	9	6	3	60-64%	Pass	<p>Shows a grasp of the subject matter, a fair understanding of the concepts with possibly some confusion or gaps but none that is major. There is sensible comment on the evidence and materials used. Overall structure is generally correct. Candidate requires a lot of guidance.</p>
0-17	0-14	0-11	0-8	0-5	0-2	<60 %	Fail	<p>Shows some familiarity with the subject matter, but with major gaps and serious misconceptions. Many areas of confusion. Incomplete and lack of critical academic argument. Lacking in logical structure, making it difficult to comprehend. Candidate lacks initiative.</p>



**MASTER PROJECT 1 (IMPLEMENTATION) [55%] RS-MPI-I/2016**

Student's Name: \_\_\_\_\_

Project title : \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

PROGRAM NAME

COURSE CODE

ITEMS		MAX MARKS ALLOCATED	MARKS GIVEN
1	Independence and Taking Responsibility	20	
2	Commitment and Discipline	20	
3	Strategy, Organization and Execution	20	
4	Problem Solving Approaches, Ideas and Creativity	20	
5	Ethical Consideration and Behavior	20	
>90% : Outstanding 75-90% : Excellent 65-74% : Good Pass 60-64% : Pass <60 % : Fail		<b>TOTAL MARKS (TM)</b>	
<b>FINAL MARKS</b>		<u>TM × 55</u> 100	

Supervisor's Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Supervisor's Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Name: \_\_\_\_\_

**MASTER PROJECT 1 (REPORT) [20%] RS-MPI-R/2016**

Student's Name : \_\_\_\_\_

Project title : \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_PROGRAM NAME COURSE CODE 

ITEMS		MAX MARKS ALLOCATED	MARKS GIVEN
1	Problem statement, objectives and scope of project are justified	25	
2	Literature is critically reviewed	25	
3	Methodology and detailed method of execution	20	
4	Initiate Findings and Expected Results	5	
5	Demonstrate basic knowledge and address research problem	5	
6	Organization, structure of report, format, abstract according to guideline	20	
>90% : Outstanding 75-90% : Excellent 65-74% : Good Pass 60-64% : Pass <60% : Fail		<b>TOTAL MARKS (TM)</b>	
<b>FINAL MARKS</b>		<u>TM</u> ×20 100	

**Supervisor's Comments:**\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_**Supervisor's Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_**Name :** \_\_\_\_\_

**MASTER PROJECT 1 (PRESENTATION) [25%] RS-MPI-P/2016**
**Student's Name :** \_\_\_\_\_

**Project title :** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**PROGRAM NAME**  **COURSE CODE** 

ITEMS		MAX MARKS ALLOCATED	MARKS GIVEN
1	Content	30	
2	Organization of presentation, time management	15	
3	Speaking skills	15	
4	Presentational technology, graphics, visual aids	15	
5	Response to questions	15	
6	Preparedness and effort	10	
>90% : Outstanding 75-90% : Excellent 65-74% : Good Pass 60-64% : Pass <60 % : Fail		<b>TOTAL MARKS (TM)</b>	
<b>FINAL MARKS</b>		<u><b>TM</b></u> × 25 100	

**Examiner's Comments:** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Examiner's Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Name:** \_\_\_\_\_



**MASTER PROJECT 2 (IMPLEMENTATION) [35%] RS-MP2-I/2016**

Student's Name: \_\_\_\_\_

Project title : \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

PROGRAM NAME  COURSE CODE

ITEMS		MAX MARKS ALLOCATED	MARKS GIVEN
1	Independence and Taking Responsibility	20	
2	Commitment and Discipline	20	
3	Strategy, Organization and Execution	20	
4	Problem Solving Approaches, Ideas and Creativity	20	
5	Ethical Consideration and Behavior	20	
<b>&gt;90% : Outstanding 75-90% : Excellent 65-74% : Good Pass 60-64% : Pass &lt;60% : Fail</b>		<b>TOTAL MARKS (TM)</b>	
<b>FINAL MARKS</b>		<b><math>\frac{TM \times 35}{100}</math></b>	

Supervisor's Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Supervisor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name: \_\_\_\_\_





**MASTER PROJECT 2 (REPORT) [40%] RS-MP2-R2016**

Student's Name: \_\_\_\_\_

Project title : \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

PROGRAM NAME  COURSE CODE

ITEMS		MAX MARKS ALLOCATED	MARKS GIVEN
1	Introduction, Problem Context (Organization and Literature Review), Methodology	20	
2	Follow Methodology; Produce, Organize, Analyze, Data and Deduce findings	20	
3	Critically Evaluate and Organize findings, compare with other results and draw appropriate conclusion. Develop Action Plans	25	
4	Demonstrate basic knowledge and address complicated problem	10	
5	Ethics and Plagiarism	5	
6	Organization and Structure Report, Style and Grammar, Abstract and Physical Specifications of Report	20	
>90% : Outstanding 75-90% : Excellent 65-74% : Good Pass 60-64% : Pass <60% : Fail		<b>TOTAL MARKS (TM)</b>	
<b>FINAL MARKS</b>		<u>TM</u> × 40 100	

Supervisor's Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Supervisor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name: \_\_\_\_\_



**MASTER PROJECT 2 (PRESENTATION) [25%] RS-MP2-P/2016**

Student's Name: \_\_\_\_\_

Project title : \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

PROGRAM NAME

COURSE CODE

ITEMS		MAX MARKS ALLOCATED	MARKS GIVEN
1	Content	30	
2	Organization of presentation, time management	15	
3	Speaking skills	15	
4	Presentational technology, graphics, visual aids	15	
5	Response to questions	15	
6	Preparedness and effort	10	
<p>&gt;90% : Outstanding 75-90% : Excellent 65-74% : Good Pass 60-64% : Pass &lt;60% : Fail</p>		<b>TOTAL MARKS (TM)</b>	
<b>FINAL MARKS</b>		<u>TM</u> ×25 100	

**Examiner's Comments:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Examiner's Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Name:** \_\_\_\_\_

**CHECKLIST** *RS-MP1-CL/2016***SUBMISSION OF MASTER PROJECT 1 REPORT**

*All items must be submitted (latest) by Week 18*

<b>No.</b>	<b>Item</b>	<b>Remarks (date)</b>
1.	2 ring bound reports (submit 1 to each supervisor)	
2.	Meeting record form (submit to office)	

**CHECKLIST** *RS-MP2-CL/2016***SUBMISSION OF MASTER PROJECT 2 REPORT**

*All items must be submitted (latest) by Week 18*

<b>No.</b>	<b>Item</b>	<b>Remarks (date)</b>
1.	2 hardcover reports (submit 1 to each supervisor)	
2.	1 electronic copy (CD)	
3.	Meeting record form	
4.	CD validation and submission form	
5.	Turnitin report (similarity index must be below 20%)	

*NOTE: Items 2-5 to be submitted to the office*



**CD VALIDATION & SUBMISSION *RS-MP2-CD/2016***

PROGRAM NAME

COURSE CODE

SEM: ..... /SESSION: .....

PROJECT TITLE : \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

I (student name/ID), \_\_\_\_\_

I (supervisor), \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

declare that the softcopy version of my  
project report is according to the format.

verify that the softcopy version the project  
report is according to the format.

\_\_\_\_\_  
*Signature of the student*

\_\_\_\_\_  
*Signature of the supervisor*

Name : \_\_\_\_\_

Name : \_\_\_\_\_

Contact No: \_\_\_\_\_

Date : \_\_\_\_\_

Date : \_\_\_\_\_

*Note: this form must be submitted to the Department together with two (2) copies of the CD.*

OFFICIAL USE: (RAZAK SCHOOL PERSON IN CHARGE IS TO SIGN UPON RECEIVING THE CDs).	
NAME : _____	SIGNATURE: _____
DATE : _____	

# Appendix 2

## Cover Pages

THESE PAGES ARE THE COVER PAGES FOR  
PROJECT 2 REPORT

The following items must be arranged according to the following sequence:

- a) The title page is for the hard cover
- b) Two blank pages must be inserted before item c)
- c) Declaration of master project report and copyright
- d) Supervisor statement

TITLE OF PROJECT REPORT

STUDENT NAME

UNIVERSITI TEKNOLOGI MALAYSIA

**UNIVERSITI TEKNOLOGI MALAYSIA****DECLARATION OF MASTER'S PROJECT REPORT AND COPYRIGHT**

Author's full name :

Date of birth :

Title :

Academic Session :

I declare that this report is classified as :

**CONFIDENTIAL**

(Contains confidential information under the Official Secret Act 1972)\*

**RESTRICTED**

(Contains restricted information as specified by the organization where research was done)\*

**OPEN ACCESS**

I agree that my report to be published as online open access (full text)

I acknowledged that Universiti Teknologi Malaysia reserves the right as follows:

1. The report is the property of Universiti Teknologi Malaysia.
2. The Library of Universiti Teknologi Malaysia has the right to make copies for the purpose of research only.
3. The Library has the right to make copies of the report for academic exchange.

Certified by :

\_\_\_\_\_  
**SIGNATURE**\_\_\_\_\_  
**SIGNATURE OF SUPERVISOR**\_\_\_\_\_  
**(NEW IC NO. /PASSPORT NO.)**\_\_\_\_\_  
**NAME OF SUPERVISOR**

Date :

Date :

**NOTES :** \* If the report is CONFIDENTIAL or RESTRICTED, please attach with the letter from the organization with period and reasons for confidentiality or restriction.



We hereby declare that we have read this project report and in our opinion it is sufficient in terms of scope and quality for the award of the degree of  
**(REPLACE WITH)** Name of your Master program

Signature : .....

Name of Supervisor : .....

Date : .....

Signature : .....

Name of Co-Supervisor: .....

Date : .....