Guidelines on Supervision, Assessment, Evaluation and Format for Students' Project

3<sup>rd</sup> Edition

# **FACULTY OF APPLIED SCIENCES**

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# FOREWORD Dean of Faculty



Since the inception of this Guideline by the Faculty in 2004, it has become an effective reference in guiding and advising students and academic staff in the supervision of undergraduate final year research project. This manual provides specific guidelines on supervision, formatting and evaluating of final year projects work. It is hoped that the concepts and principles stipulated in this guideline could facilitate the supervision and assessment of undergraduate research project.

The revised electronic edition of this guideline encompasses new ideas and suggestion based on feedbacks and comments from students and staff. The emphasis is to make this guideline a quick, accessible and easy reference using samples and illustrations. Students and supervisor are advised to closely follow the guidelines provided in this manual in order to minimize any inconsistency pertaining to assessment, evaluation and format of the undergraduate final year project report.

I wish to congratulate the Chairman and the members of the committee for their effort, dedication and hard work in improving the content of this revised edition. I hope that this guideline will contribute towards producing quality research work by the student and excellent supervisory skills by the academic staffs of the faculty.

Farida Zuraina Mohd Yusof, Ph.D Professor Dean of Faculty

March 2019

# PART A:

# GUIDE TO SUPERVISION

#### GUIDELINES ON SUPERVISION, ASSESSMENT, EVALUATION AND FORMAT FOR STUDENTS' PROJECT

This booklet is a guide for supervisors and students who are involved in the final year student project. It should be read together with the 'Peraturan Akademik: Program Sarjana Muda Universiti Teknologi MARA Pindaan 2017, Bilangan 1; or its latest version' which is referred to in this booklet as 'Peraturan Akademik'.

#### 1.0 INTRODUCTION

- a) The Faculty of Applied Sciences (FSG) is committed in undertaking research of the highest quality in all related areas of studies. Supervisors and students play vital roles in creating and sustaining a healthy research atmosphere and contributing to the advancement of knowledge. The Faculty seeks to provide a stimulating and supportive environment in which students can develop their skills and produce high quality research/project work.
- b) The Final Year Project (FYP) is part of the Faculty requirements (*Peraturan Akademik 2.4*) consisting of two parts. The first part involves writing a project proposal and some preliminary work while the second part involves conducting the experimental work, writing the final project report and oral presentation. **All students must pass these courses to graduate.**

#### 2.0 THE COMMITTEE FRAMEWORK

The Faculty Final Year Project Committee (FFYP Committee) and the School of Studies Final Year Project Committee (SFYP Committee) (Table 1) govern the conduct of the final year project.

#### 3.0 RESPONSIBILITIES OF THE FACULTY FINAL YEAR PROJECT (FFYP) COMMITTEE

This committee is chaired by the Deputy Dean (Academic Affairs) and is responsible for:

- a) Appointment of the SFYP Coordinators.
- b) Deciding the conduct and distribution of the supervision and the number of students supervised.
- c) Making recommendations to the Jawatankuasa Akademik Fakulti (JAF) on policies related to students' projects within the general guidelines laid down by the university.
- d) Creating conducive FYP ambience within the Faculty/Programme with respect to optimization of staff and equipment.
- e) Organising the induction and orientation of new and prospective supervisors in accordance with the guidelines laid down by the Faculty.
- f) Monitoring the quality of evaluation and assessment.
- g) Setting, organising and maintaining the FYP report in a standard database.

ITEM	Faculty FYP Committee	School of Studies FYP Committee
Chairman	Deputy Dean (Academic Affairs)	Programme Coordinators
Secretary	Assistant Registrar (HEA)	FYP Coordinator
Members	All FYP Coordinators	All member of the staffs /
		Supervisor
Additional	1 Professor	
Members		
Frequency of	Minimum of once in an academic	Minimum of two per semester
Meeting	calendar year	
Agenda	a. Appointment of members	a. Distribution and allocation of
	b. Enforcement of new academic	students/supervisors.
	policies	b. Update of Policy, Research
	c. Data on student performance	Titles and Scope.
	and Step for Improvement	c. Analyse, validate and endorse
	d. Disputes and Conduct of Supervisors and Students	marks before submitting to the Pra JAF.
	e. Research facilities and	d. Students training in research
	supports	skills and techniques.
	3000010	e. Dispute of student/s and
		supervisor/s conduct and
		progress.
		f. Other matters related to the
		conduct of the projects.

#### Table 1: The FYP Committee Framework

#### 4.0 RESPONSIBILITIES OF THE SCHOOL OF STUDIES FYP (SFYP) COMMITTEE

This committee is chaired by the Programme Coordinator and is responsible to coordinate the management of the FYP and to:

- a) Evaluate and approve the titles, scope, objectives, expected outcome of FYP proposal and report submitted by students.
- b) Analyse, validate and endorse the marks for the FYP proposal and reports before submitting to the Faculty.
- c) Ensure that students receive adequate training in both undergraduate research skills and techniques relevant to their chosen topics.
- d) Monitor and make recommendations to the FFYP Committee concerning the progress of students' projects.
- e) Consider and make decisions on dispute matters related to the projects.
- f) Ensure that supervisors follow these guidelines.

#### 5.0 RESPONSIBILITIES OF THE PROGRAMME FINAL YEAR PROJECT (PFYP) COORDINATOR

The coordinator is secretary to the PFYP committee and is responsible to:

- a) Brief the students and/or supervisors on the guidelines.
- b) Compile proposed projects and thesis (refer to respective coordinators).

- c) Organise students' presentation of their FYP proposals and reports.
- d) Advise on the allocation of students to supervisors, and on any subsequent changes in supervisory arrangements.
- e) Consider recommendations from supervisors for the nomination of a co-supervisor (if necessary).
- f) Arrange for temporary supervision when supervisors are absent.
- g) Manage information and records pertaining to the FYP and students in the Programme.
- h) Assist and encourage students to complete the FYP.
- i) Attend the FFYP Committee meetings and to de-brief the PFYP Committee on meeting minutes.

#### 6.0 ROLES, RESPONSIBILITIES AND RIGHTS OF SUPERVISORS

#### 6.1 Roles of supervisors

The main roles of the supervisors are to supervise, guide and train the students towards their development of the FYP.

#### 6.2 Responsibilities of supervisors

Supervisors are responsible to:

- a) Sign the appropriate semester contract form (*Appendix S1*).
- b) Ensure that students are aware on the safety and health regulations of laboratory handling.
- c) Endorse the requests on purchasing chemicals, and other related resources for project.
- d) Advice students on the availability of facilities and resources
- e) Guide the students in avoiding plagiarism, scientific fraud, and intellectual property rights (*Peraturan Akademik* 1.77 *dan* 2.24.3) by:
  - i. informing the students of appropriate referencing techniques and providing clear examples of what is acceptable
  - ii. explaining academic expectations and what constitutes plagiarism to students in course profile literature.
  - iii. cultivating with the students, a climate of mutual respect for original work.
- f) Identify and advise their students' training needs at the beginning of the FYP.

- g) Ensure that the students follow the procedure relating to the conduct of the FYP.
- h) Providing appropriate project topics and objectives of research.
- i) Inform to the PFYP Coordinator should the student fail to meet three (3) consecutive appointments.
- j) Ensure that students have the opportunity to develop communication skills.
- k) Provide regular progress reports to the PFYP Coordinator.
- I) Attend and evaluate students' oral presentation.
- m) Be prompt in responding to students work and request.
- n) Ensure that the report is written according to Faculty's requirements.

#### 6.3 Rights of supervisors

- a) To bring attention in writing during the semester the intention to withdraw from supervision with valid reasons to the PFYP Coordinator.
- b) To have the rights over the intellectual properties relating to the outcome of the FYP with the proper acknowledgement of the students contributions.
- c) To use the findings from the students' FYP for other academic purposes.

#### 7.0 ROLES, RESPONSIBILITIES AND RIGHTS OF STUDENTS

#### 7.1 Roles of students

The main role of the students is to conduct and complete their FYPs, which meet the standard requirements of the University with guidance from the supervisors.

#### 7.2 Responsibilities of students

- a) To meet the FYP coordinator regarding the assigning of a supervisor.
- b) Student will discuss with the supervisor the topic of research.
- c) Sign and submit the appropriate semester contract form (*Appendix S1*) to the PFYP Coordinator according to the schedule. A copy of the contract form must be submitted to the supervisor and co-supervisor (if necessary).
- d) Abide by the terms and conditions as stated in the contract.
- e) Attend the full session, conduct oral presentations and pass both oral presentations for the FYP proposal and report. Failure to do so will be given an F (**Gagal**) status (*Peraturan Akademik 2.4 dan 2.14*).
- f) Submit their **FYP proposal, the final draft thesis together with a copy of Turnitin report and hard bound thesis** to the FYP Coordinator (*Appendix* S9).

- g) Observe all deadlines as stated in the schedule as notified by the PFYP Coordinator.
- h) It is compulsory to submit progress report (*Appendix S8*) as schedule to PFYP Coordinator.
- i) Ensure that the Student-Supervisor Journal are signed at every meeting. (*Appendix S2*).
- j) Notify his/her supervisors as soon as possible when struck by illness or other emergencies. All illnesses must be supported by valid medical certification.
- k) Avoid plagiarism practices and abide the guidelines in the Avoiding Plagiarism: A Guide for Students Handbook https://hea.uitm.edu.my/v3/downloads/ebooks/plagiarism4s/index.html).
- I) Acknowledge all contributors of the FYP.

#### 7.3 Rights of students

- a) To have a choice in his/her project of interest based on the availability of the supervisors.
- b) To get help and advice from their supervisors in managing their research activities.
- c) To receive a fair evaluation of the completed FYP by the **supervisor and second** examiner.
- d) Students may appeal for reevaluation (Peraturan Akademik 1.57 dan 2.28).
- e) To have access to the necessary facilities needed to carry out their projects.
- f) After the contract has been signed, the students may request in writing a change of supervisor. The request should be made to the PFYP Coordinator and the decision will be made by the PFYP Committee.
- g) To be acknowledged for their contributions made towards any academic outputs from their FYPs.
- h) To bring to the PFYP Coordinator's attention, if the student is unable to resolve problems with the supervisor.

#### 8.0 PLANNING THE FYP

- a) FYP students should be encouraged to focus on the requirements of the degree from the start, and ensure they have a realistic appreciation of what is achievable in the period. It is therefore important to plan the FYP from the earliest stages to ensure that it can be completed within the specified period. (*Peraturan Akademik* 1.45 dan 2.6.2) (*Appendix S3*).
- b) Students are encouraged to identify their FYP topic of interest as early as one semester before. The viability of the FYP must be taken into consideration since sometimes experiments do not produce the expected results, facilities cease to

be available, or the FYP does not develop in the way expected. In such cases that students will depend upon their supervisors' expertise in balancing the need to complete the FYP within the period.

#### 9.0 COMPLETION OF FYP

#### 9.1 Project requirements

- a) Students are required to contribute to the knowledge of the subject and provide evidence of originality.
- b) The student must submit on the specified date to the FYP Coordinator \*two (2) copies of the final hardbound report that is to be returned to the student after it has been signed by appropriate personnel/\*two (2) electronic copy of the thesis on a CD based on the requirement of the programme. \*(one for student, one for supervisor).
- c) If a student is unable to submit the written proposal and/or FYP report, on a date specified by the FYP Coordinator, the supervisor should provide a written report stating the reasons and the possible extended period (maximum one week from the specified date of submission) to the FYP Coordinator.

#### 9.2 Writing-up

- a) The project report must be written in English in accordance with Part B of these Guidelines.
- b) The student's FYP proposal and report shall be assessed and evaluated by the supervisor, co-supervisor (if necessary), second examiner and moderator (if required) (*Peraturan Akademik 1.28*). The report will be assessed according to Part C of these Guidelines (*Appendix E1*).
- c) After the FYP report has been assessed and evaluated, the student will sign the Correction Notice form (*Appendix S4*).
- d) Students should submit the corrected FYP report by the agreed date as stated in the same form (*Appendix S4*).
- e) The supervisor shall inform the PFYP Coordinator on the status of the Project Report by filling the Submission Certificate form (*Appendix S5*).

#### 9.3 Oral/Poster Presentation

- a) There shall be an oral presentation/poster presentation for the FYP based on the requirement of the programme.
- b) The PFYP Coordinator shall advise students on the presentation date and should attend it upon the consent of the supervisor (*Appendix S7*).
- c) Students shall be evaluated by a minimum of two (2) panel members appointed by the PFYP.

- d) All registered students for the FYP reports must attend their program oral presentations throughout the sessions.
- e) The students should adhere to the specified time for the oral presentation.
- f) Students should follow proper dress code.
- g) The students are encouraged to use visual aids.
- h) Evaluated items for the oral presentations as elaborated in Part C of these Guidelines (*Appendix E1*).

#### 10.0 PLAGIARISM

Plagiarism is the act of misrepresenting as one's own original work the ideas, interpretations, words or creative works of another. These include published and unpublished documents, designs, music, sounds, images, photographs, computer codes and ideas gained through working in a group. These ideas, interpretations, words or works may be found in print and/or electronic media.

The University has defined plagiarism as written in Peraturan Akademik 1.77.

#### 10.1 Turnitin Report

Students must attach their Turnitin Report (*Appendix S9*) with Similarity Index **not more than 30%** during written proposal and final draft thesis submission. Failure to do so will be given an F (**Gagal**) status (*Peraturan Akademik 1.77*).

# PART B:

# GUIDE TO FORMATTING

#### 1.0 INTRODUCTION

This formatting guideline is to help students prepare their FYP reports. Every FYP report shall comprise as follows:

#### **1.1** Research Proposal shall comprise of the following:

- i. Title page
- ii. Table of contents
- iii. List of tables
- iv. List of figures
- v. Introduction
- vi. Literature review
- vii. Methodology
- viii. References
- ix. Gantt chart

#### **1.2 FYP** reports shall comprise of three parts as follows:

#### a) The **preliminaries**:

- i. Title page
- ii. Approval sheet
- iii. Abstract and Abstrak
- iv. Acknowledgements
- v. Table of contents
- vi. List of tables
- vii. List of figures
- viii. List of plates
- ix. List of symbols
- x. List of abbreviations
- b) The **text or main body** may include 5 chapters as follows:
  - i. Introduction
  - ii. Literature review
  - iii. Methodology
  - iv. Results and discussion
  - v. Conclusion and recommendations
- c) The **final part** includes the following:
  - i. References
  - ii. Appendices
  - iii. Curriculum Vitae

#### 2.0 RESEARCH GUIDELINES

#### 2.1 PROJECT TITLE

A proposal should begin with a title that succinctly describes the contents. A title should be brief, short and unambiguous, yet be an adequate description of the work. However, when desirable, a longer, more definitive title may also be given, it should not be more than three lines. In general, the title should contain the keywords addressing the subject studied, method and objective(s).

#### 2.2 CHAPTER 1 INTRODUCTION

This section sets forth the rationale, significance and objectives of the study. It includes details of the background, problem statement, reasons for carrying out the current research, and an outline of what the student intend to do.

#### a) Background and problem statement(s)

This section gives a short summary of the background, provides the content for the research study, and generates questions, which the researcher seeks to answer. Remember, the most important aspect of a research proposal is clarity on the research problem. There should be a statement explaining why the researcher feels the research project is important and therefore should be carried out.

#### b) Significance of study

This section explains the purpose of the study. Students should emphasize the findings of the study, its benefit and to what extent the research will enhance the existing knowledge.

Examples;
The research will be beneficial to
The project will be helpful to
The study will be a significant endeavor to

#### c) Objectives of study

The objectives are the main or specific issues that are being looked at. They must be measurable, either qualitatively or quantitatively and form a guide to the research methodology, data analysis and presentation of results. They may also be stated as questions, which the research seeks to answer, or as hypotheses to be tested. The number of objectives recommended is three or less. The verbs are appropriate to the subject matter of study. For examples:

- i. To analyse
- ii. To evaluate
- iii. To determine

#### 2.3 CHAPTER 2 LITERATURE REVIEW

This section includes a fully referred and discussions of previous studies including substantial findings as well as theoretical and methodological contribution to the research topic.

Students must include a review of the relevant literature especially the most current reports (the past five to ten years at the most) related to the study. It should contain a fully referenced review of previous studies, which may obtain from journals, books, proceedings or articles. Students must not duplicate texts in the Introduction section with text written in the Literature review.

#### 2.4 CHAPTER 3 METHODOLOGY

Research methodology must be clearly written and described precisely. It is the guide on how the study and the analysis of data will be conducted. It is a plan of action of how the objectives will be achieved. This section should provide relevant information on a description of the overall approach, its relevance, effectiveness, and innovativeness. It gives details on methodology, study place, study period, sample size, the population being addressed, and how anticipated problems will be managed. The methodology to be used should be cited from references.

Students must describe the research design and the appropriate statistical analysis to be used for verification of the results. The common statistical computer packages such as Excell, (Statistical Package for the Social Science (SPSS), Minitab and (Statistical Analysis System) SAS can be utilised for the data management and analysis. Students must have a clear view of the experimental design of the research to enable them to employ a suitable statistical method for data analysis.

#### 2.5 CHAPTER 4 RESULTS AND DISCUSSION

Students should interpret results in relation to the objectives identified for the FYP. The results are actual statements of observations, tables and graphs. It also includes the statistics which represent the findings of the research related information and possible interpretations of the data. Students may include positive as well as negative results. The S.I. units (cm, s, g, W) are to be used throughout the FYP report. The results can be written into logical segments by using subheadings.

Interpretation the results can be included in the discussion. Students are advised to write the major patterns, relationships, trends in the observations and generalizations of the results and relate or compare to the citation from previous study. Students must write logical arguments and coherent interpretation of the results. They also are advised to argue debate and make comments on the findings with the past reports and give reasons to agree or disagree with previously reported. Evidence or line of reasoning should be included for supporting each interpretation. It also highlights the main findings of the project, their significance and implications.

#### 2.6 CHAPTER 5 CONCLUSION AND RECOMMENDATIONS

This section concludes the entire of the study and the significant findings of the project. The conclusions should be drawn in line with the objectives of the research. Students are advised to give recommendations of the directions of future investigations related the topics. Students can also suggest the topic to be further research in order to fill in gaps or remedial action to solve the problem.

#### 2.7 REFERENCES

The reference must include the following:

- i. All the authors listed on the publication (or on the chapter if citing a book)
- ii. Year of publication (in bracket)
- iii. The title of the paper (or book)
- iv. Editors if a chapter of a book is cited
- v. Edition if a book is cited
- vi. Volume number
- vii. Issue number (some journals have an issue number)
- viii. Complete pagination (first and last page of the work cited)

#### 3.0 FORMAT OF THE FYP

#### 3.1 Spine (Appendix F1a)

The following particulars should be lettered in font size 14, Arial/Times New Roman, bold; in gold colour, imbedded; in capital letters from top to bottom in the following order:

- a) Name of student
   Long names should be shortened to fit the spine
   (E.g. Raja Sharifah Aloyah ~ Rj. Sh. Aloyah)
- b) Programme code/FSG
- c) Month of submission
- d) Year of submission

#### 3.2 Cover (Appendix F1a)

#### 3.2.1 Research Proposal

All copies must be made in comb binding, with a clear plastic cover that must be used for the front and back page.

#### 3.2.2 FYP Report

The final report should be in Hardcover bound/CD (*Appendix F1b*), which is maroon in colour (based on the requirement of the programme).

The following particulars should be printed in font size 14, Arial/ Times New Roman, bold; in gold colour imbedded; in capital letters; centre-justified in the following order:

- a) Title of final year project report (single spaced);
- b) Name of student;
- c) Degree;
- d) Faculty;
- e) Universiti Teknologi MARA;
- f) Month and year of submission.

#### 3.3 Preliminaries

The heading of every section must be in capital letters, bold and centred without punctuation, 3 cm from the top of the page.

#### 3.3.1 Title page (Appendix F2)

This page must contain the following information:

a) Title of final year project report

It should be 3 cm from the top, bottom, right and 4 cm from the left; centred; single-spaced; bold font Times New Roman, size 12; and all in capital letters.

b) Full name of student

It should be in the middle of the page; centred; single-spaced; bold, font size 12, Times New Roman; and in capital letters.

c) The following statement should be typed in bold, font size 12, Times New Roman; centred:

#### Final Year Project Report Submitted in Partial Fulfilment of the Requirements for the Degree of Bachelor of Science (Hons.) (name of programme) in the Faculty of Applied Sciences, Universiti Teknologi MARA

d) The month and year in which the project report is submitted for final assessment in the relevant registered semester.

#### 3.3.2 Approval sheet (Appendix F3)

This sheet bears the signatures of the Head of Programme; Project Coordinator; Supervisor and Co-supervisor(s) (if applicable); and the date.

#### 3.3.3 Abstract/Abstrak (Appendix F4 and F5)

The abstract should provide a brief and concise summary of the objectives, research method, findings or major results and conclusions. The length should be of one paragraph, approximately between 200 - 300 words in single spacing. Abstract generally do not have citations. Information in the title should not be repeated. Abstract is written both in English and Bahasa Malaysia in separate pages (*Appendix F4* and *F5*).

#### 3.3.4 Acknowledgements (Appendix F6)

The acknowledgement statement enables the student to convey his or her gratitude to all who have contributed in carrying out the research; intellectually (assistance or advice), technically (materials or supplies) or financially (individuals, department or organisation).

#### 3.3.5 Table of contents (Appendix F7)

The title of parts, sections or chapters and their principal subdivisions should be listed in the Table of Contents and must be worded exactly as they appear in the body of the report. It should be written in sentence case except for abbreviations (which should be in capital letters). Single spacing for preliminaries; and two single spacing between preliminaries and chapters; and two single spacing between chapter and the second main heading.

#### 3.3.6 List of tables, figures and plates (*Appendix F8, F9a* and 9b)

List of tables shows the exact titles of all tables in the text and appendices together with the page number of each table. List of figures includes graphs, diagrams, charts, maps, drawings, etc while list of plates are printed images, photos and other forms of illustration that is not a table. The exact title and page number of each figure is listed.

#### 3.3.7 List of symbols, abbreviations or nomenclature (*Appendix F9c* and *F10*)

If an assortment of abbreviations and acronyms are used in the project report, they are listed with their meanings in the List of Abbreviations, even though the full names are given at the first mention in the text, provided they are used more than five times. This list serves as ready reference to readers not familiar with the abbreviations.

#### 3.4 Main text (Appendix F11)

Default font: Size is 12 using Times New Roman.

All headings should be short and comprising not more than ten words.

**Text and text in table:** Should not be scripted or italicized except for scientific names and terms in a different language.

First main headings: Bold, capital letters, centred, and 3 cm from the top paper boundaries.

**Second main headings:** Bold, capital letters, centred and two double spacing from the main heading.

**Primary headings:** Sentence case, bold, and left justified; tab at **1.27** cm. It should be two double-spaced from the second main heading.

**Secondary headings:** Sentence case, bold, and left justified; tab at **1.27** cm. It should be two double-spaced from the last sentence of the previous paragraph. The tab setting is setup according to **Plate 3.4a**.

**Paragraph to paragraph:** sentence case, justified, font 12; Times New Roman. A new paragraph should be two double-spaced from the last line of the preceding paragraph. The page paragraph is setup according to **Plate 3.4b**.

	Tabs	? ×	Paragraph ? ×
	Tabs		Indents and Spacing Line and Page Breaks
Tab stop position:	<b>^</b>	Default tab stops: 1.27 cm	General Alignment: Left ♥ Qutline level: Body Text ♥ Indentation Left: 0 cm ♥ Special: By: Bight: 0 cm ♥ ● Mirror indents
Alignment <u>L</u> eft <u>D</u> ecimal Leader	○ <u>C</u> enter ○ <u>B</u> ar	○ <u>R</u> ight	Spacing Before: 0 pt  Une spacing: At: After: 0 pt  Double  V
1 None     1 None     4     Set     Set	○ <u>2</u>	_	Preview  Provide  Pro
	0	Cancel	Tabs Set As Default OK Cancel
Pla	ate 3.4a		Plate 3.4b

Symbols or special characters/notations: If these are not found on a computer keyboard, they shall be drawn with a mechanical guide in Black India ink or equivalent.

Footnotes: The use of footnote is unacceptable.

#### 3.5 Citations in the text

Students are advised to use the Endnote or other relevant software to provide a consistency of citations format based on the APA style.

If the authors of the paper are more than two, the first author's name is cited followed by et al.

E.g. Okamura et al. (1982) have identified anthrones and chromones in Aloe barbadensis.

Or

Other phenolic compounds have been identified by HPLC method (Park *et al.*, 1998; Wayne and Rooney, 1997).

In the text, *et al.* may be used for reference for more than two authors, but in the references, all names should be cited in full. *One author:* 

.... Benecke (1997)..... Benecke (1997) showed that.... ....(Benecke, 1997).

Two authors:

More than two authors:

....as noted by Harty et al. (2000).

Harty et al. (2000) claim that ...

.... (Harty et al., 2000).

Two or more journals by the same author:

Several studies (Mohamad Ali, 2008, 2009) showed ...

.... (Mohamad Ali, 2008, 2009).

\*Note that the works are separated by commas

Two or more works by the same author in the same year

According to Mohamad Ali (2007a) ...

... (Mohamad Ali, 2007a).

Several studies (Harty et al., 2000; Mohamad Ali, 2007a, 2007b)...

\*Note that the authors name are placed in alphabetical order, and that the various works are separated by semicolons whereas work by the same author are separated by commas.

#### 3.6 Tables (Appendix F12)

A table should begin with an introductory paragraph. It should contain the caption and the title of the table.

Captions for tables must be consecutively numbered in Arabic numerals. The number given to each table should correspond to the chapter in which the table is displayed in the text. The first number refers to the chapter and the second number represents the sequence the table appears in the text of the chapter.

Tables are centred in the page and should precede their full explanation. It is advice to format the content in the cell either to 'Align Center' Left or 'Align Center' where appropriate.

The font for the caption and the table content is 1 size smaller than the text (size 11). Only '**bold'** the caption number. Use '**bold'** or *italic* font for main row or column heading if necessary.

Table sources and notes should be placed directly below the table.

No vertical or horizontal line to be drawn inside the table. The next paragraph starts after one double spacing from the source.

#### 3.7 Figures/plates (*Appendix F9a/F9b*)

Introduce formally any figures/plates to be used in a paragraph preceding the figure/plate.

All captions must be consecutively numbered in Arabic numerals bearing their chapter numbers. Only **bold** the caption number.

Plates: A maximum number of two per page.

Figures: A maximum number of two per page for portrait and a maximum number of four per page for landscape orientation.

Figures/plates are centred on the page and should precede their explanation.

Sources and notes should be placed directly below figures/plates.

The next paragraph starts after two single spacing from the source.

#### 3.8 Cited references (Appendix F14a)

The cited references refer to the list of work referred.

The list of cited references should be on a new page. All entries shall be single spaced, with the first entry in a two single spacing below the main heading. It shall be arranged in alphabetical order (*Appendix F14a*).

Each entry is one single-spaced from the other.

The second of each entry is hanged 1.0 cm inward.

To indicate the page number and number of pages, the small letter 'p' has to be used in proper order:

Example	Explanation
10 pp	The total number of pages in a book / report is 10
10 p	Articles which are found in page number 10 in newspaper / abstracts
479-485	The page number of the article appeared in journals / proceedings / chapter in a book

**Appendix F14b** is a guide to identify the appropriate format for the source of references cited.

References from websites are not allowed.

#### 3.9 Appendices (Appendix F15)

Appendices are additional information that supplement the work and are not part of the main body. Information or data that are too detail for inclusion in the main body of the FYP report may be included as appendices. The appendices include original data, summary, preliminary tests, tabulations and tables that contain data of lesser importance. It can be arranged in sequence as they appear in the text using the appropriate headings.

#### 3.10 Curriculum Vitae (Appendix F16)

This gives a summary of the biographical, educational information and work experience of the student. It should include the name, date of birth, home address, hobbies, educational background, achievements and experiences if any.

#### 3.11 Header/Footer

No statement or logo should appear in the header or the footer.

#### 4.0 WRITING CONVENTIONS

#### 4.1 Units of measure

The quantity of any measurement must be spelled out if it appears at the beginning of a sentence.

All measurements shall use SI units such as:

Normal measurement	Abbreviation
4.6 metric tonne per hectare	4.6 mt ha-1
500 parts per million	500 ppm
25 millilitres	25 mL
15 kilogram	15 kg
15 gram	15 g
31.6 metric tonne	31.6 mt
2 kilometer	2 km
2.5 hectare	2.5 ha

30 litres	30 L
Ringgit Malaysia 450	RM450
37 degree Celcius	37°C
3 nanometer	3 x 10 <sup>-9</sup> m
4,312 kiloJoule per degree Celcius	4.312 x 10 kJ °C <sup>-1</sup>

#### 4.2 Numbers

Spell out all numbers less than 10, unless the numbers are part of a series of number or the numbers are attached to units of measurement.

Examples:

- a) There are six children walking to the play ground.
- b) The children were aged 2, 6, 7, 12 and 13 years old.
- c) The standard deviations for each group were 3, 4, 8 and 15.
- d) Its height and volume is 8 cm and 25 L respectively.

Use figures for quantities of 10 or more. Example: There are 12 mothers waiting outside the classroom.

#### 4.3 Percentage

The symbol % may be used in place of percentage; e.g. 25.5% and typed without a space. If the candidate prefers to use "25.5 percent" in full, then this should be consistent throughout the report.

#### 4.4 The use of ± signage

The symbol  $\pm$  must be typed without a space (e.g.  $6\pm0.5$ )

#### 4.5 Equations

Use Microsoft (MS) equation editor or equivalent for all equations.

Numbering of equations should be numbered consecutively bearing its chapter number and in Arabic numerals.

#### 5.0 CONCLUSION AND RECOMMENDATIONS

This section concludes the work done and major findings of the project and gives recommendations for further work.

The number of paragraph should follow in line with the number of objectives. The following paragraph will conclude the main finding of the entire study.

The recommendation paragraph should be placed at the end of this section.

#### 6.0 TECHNICAL SPECIFICATIONS

#### 6.1 Typing and printing

Use MS Word processor or equivalent for typing. Use laser printer for printing text and

illustrations on one side of each sheet. The paper size is setup according to **Plate 6.1a** while margins and layout are set according to **Plate 6.1b** and **Plate 6.1c** respectively.

Page Setup ? ×	Page Setup ? ×	Page Setup ? ×
Margins     Paper       Layout         Paper size:       A4       Width:       21 cm       Height:       29.7 cm       Paper source       First page:       Other pages:       Default tray (Auto Select)       Manual Feed       Tray 1       Tray 2       Tray 3	Margins Paper Layout Margins Top: 3 cm ÷ Bottom: 3 cm ÷ Left: 4 cm • Bight: 3 cm ÷ Gutter: 0 cm • Gutter position: Left v Orientation Portrait Landicape Pages Multiple pages: Normal v	Margins     Paper     Layout       Section     Section start:     Image: Constant Section start:       Suppress endnotes     Image: Constant Section start:       Headers and footers     Image: Constant Section Sec
Preview  Apply to: Whole document  Print Options  Set As Default  CK  Cancel	Preview  Apply to: Whole document  Set As Default  OK  Cancel	Preview

Plate 6.1a

Plate 6.1b

Plate 6.1c

#### 6.2 Paper quality

Use quality plain white simile paper (80 g) of A4 size (210 x 297 mm) for all copies of the report.

#### 6.3 Word count

The final report should not be more than 20,000 words excluding all illustrations, references and appendices. Literature review section should not be more than one quarter of the full report.

There is no prescribed length for the research proposal; however, a report of 20-25 pages is acceptable.

#### 6.4 Photocopy

Only good, clean and legible photocopies are accepted. Carbon copies are not acceptable.

#### 7.0 SUBMISSION

#### 7.1 Submission of Research Proposal

Students are reminded to submit two (2) copies of the corrected version of the research proposal including the student-supervisor journal (*Appendix S2*), Gantt Chart (*Appendix S3*) and consent for evaluation of proposal (*Appendix S6*) \*a week after the oral presentation. The Students also need to sign and submit the semester Contract Form (*Appendix S1*) and \*Order Form that will be provided by FYP coordinator. (\*based on the requirement of the programme).

#### 7.2 Submission of FYP Report

Students are reminded to submit two copies of the corrected version of the FYP report (comb binding) a week after the oral presentation to the FYP coordinator. Only one (1) copy of the FYP report (hard bound)/one (1) CD is to be submitted together with the approved correction and submission certification notice from supervisor/s (*Appendix S5*) to the FYP coordinator.

# PART C:

# GUIDE TO ASSESSMENT AND EVALUATION

#### 1.0 INTRODUCTION

Evaluation and assessment consist of three major components:

- a) commitment and effort
- b) written report; and
- c) oral presentation

Each of these components is allocated marks as shown in Appendix E1.

#### 2.0 ITEMS TO BE ASSESSED

#### 2.1 Commitment and effort

This is a continuous assessment of students' performance in conducting their projects. It is evaluated throughout the semester and involves the competency of students' experimental work, data collection, information gathering, etc. The frequency in meeting supervisor and the initiative, motivation, dedication, discipline and creativity will be taken into account.

#### 2.2 Written report

Students shall submit their written reports which will be evaluated by the supervisor and co supervisor (if applicable). The students are expected to write the report in proper English with relevant argument and reasoning. Students' level of understanding and control of their research topics, as well as their written skills are also assessed.

#### 2.3 Oral presentation

In the oral presentation, students shall present their proposals and/or FYP results before a panel of evaluators.

The purpose of the oral presentation is to allow students to show their understanding, have attained breadth and depth of the subject matter, as well as their communication skills.

The student may be questioned on any aspect of the project and will be asked to elaborate upon or defend issues arising from their work.

#### 3.0 DISTRIBUTION OF PERCENTAGES BY ASSESSORS

#### 3.1 Supervisor

A supervisor is the main assessor and has the prerogative over assessment matters. The supervisor is given the mandate to overview in particular the marks for commitment and effort; and the written report.

#### 3.2 Co-supervisor

A co-supervisor assists the supervisor in assessing the written report. The cosupervisor shall liaise with the supervisor in all related matters. He/she shall submit the final grades to the PFYP Coordinator on the required date.

#### 3.3 Second reader

A second reader shall be appointed by the Programme Coordinator to evaluate and assess a FYP report when there is need to do so on the advice of the PFYP Committee.

# **APPENDICES**

# PART A: GUIDE TO SUPERVISION

Appendix S1:	FYP Contract
Appendix S2:	Student-Supervisor Journal
Appendix S3:	FYP Gantt Chart
Appendix S4:	Correction Notice
Appendix S5:	Submission Certificate
Appendix S6:	Consent for Evaluation of Proposal
Appendix S7:	Consent for Defense of FYP Report
Appendix S8:	Progress Report Form
Appendix S9:	Turnitin Similarity Index Verification

## PART B: GUIDE TO FORMATTING

Appendix F1a:	Spine and Cover
Appendix F1b:	CD
Appendix F2:	Title Page
Appendix F3:	Approval Sheet
Appendix F4:	Abstract
Appendix F5:	Abstrak
Appendix F6:	Acknowledgements
Appendix F7:	Table of Content
Appendix F8:	List of Tables
Appendix F9a:	List of Figures
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Appendix F13a:	Examples of Figures
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Appendix F14a:	Cited References
Appendix F14b:	Source of Cited References
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Appendix F16:	Curriculum Vitae

## PART C: GUIDE TO ASSESSMENT AND EVALUATION

Appendix E1: Assessment and Evaluation

# Appendix S1: FYP CONTRACT

## **FYP Contract**



I (the student) agree to have the above-stated names as my supervisor and co- supervisor for the stated project title to the end of the semester.

I (the student) agree to observe the roles and responsibilities as stipulated in the "Guidelines on Supervision, Assessment, Evaluation and Format for Students Projects 3<sup>rd</sup> Edition." I will submit this contract to the coordinator for the project on the specified date.

I (the student) agree to submit my final draft proposal/thesis with **less than 30% Turnitin similarity index**. I understand that failure to do so will earn me an automatic F in accordance to *Peraturan Akademik* 1.77.

I/we, (supervisor and co-supervisor) agree to have the above-stated name as my/our student for the stated project title to the end of the semester.

I/we (supervisor and co-supervisor) agree to observe the roles and responsibilities as stipulated in the guidelines. I/we will make sure that the student submits this contract to the Coordinator for the project on the date as specified by him/her.

Student and supervisor/s agree to communicate on the above-stated day and time **every week** to discuss the progress of the project during the above- mentioned period. Signatures

Student:

Coordinator (Witness)

Date

\* Completed forms must be distributed each to student, supervisor, co-supervisor (if present) and coordinator.

## Appendix S2: STUDENT-SUPERVISOR JOURNAL

### **Student-Supervisor Journal**



Fakulti Sains Gunaan

Course code	:	FSG611 / FSG661
Document type	:	Proposal / Thesis
Semester	:	2018Sept-2019Jan
Part	:	5
Student name	:	Daniel bin Kamaruzaman
UiTM no	:	2017123456
Project title	:	Environmental Impacts of Oil Spill at Tanjung Pelepas
Supervisor	:	Prof. Madya Dr. Rusdini binti Selamat
Co-supervisor	:	Prof. Madya Dr. Shamsuri Ismail

Complete/ Not Reason (If Not Signature Due Date Action to be taken Task date Student Complete Complete) Supervisor 1. Discuss literature review Mon 29 1. Edit literature review and 1. Completed 1. -Mon 22 2. Do more on literature review Oct 18 2. Not 2. Difficult to find write in point form. 3. Discuss the flow of literature 2. Look up environment references in Oct completed 18 library review database 1. Continue lit review - focus on: Mon 5 1. On-going 1. Search more info. Mon 1. Lack of 29 oil spill pollution and effects 2. Not 2. Get right equipment, do Nov 18 references in 2. Start measurement on 2 sites completed Oct librarv experiments and take 2. Problem 18 to get benchmark data acquiring right equipment 1. No meeting at student's 1. Student ill 1. Set new appointment Mon -5 request Nov 18

FSG/PTA/08/2019/02

## **FYP Gantt-chart**



Fakulti TI Sains Gunaan

2 Sem 1 Activity No Mth 1 2 3 4 5 6 7 8 06 Wk 02 04 08 10 12 14 16 18 20 22 24 26 28 30 32 Х Х 1 Identify a proposed title Х 2 Submission of contract Х Х Х Х Х х Х Х Х Х Х 3 Literature review Х Х Х Plan of research design 4 Х 5 Finalise proposal Х 6 Presentation of proposal Х 7 Submission of proposal Х Х Х Х Assembly of apparatus 8 Х Х Х Х 9 Run experiment and compile data Х х Х Х 10 Analysis of data Х Х 11 Presentation of project х Х 12 Final draft of report (comb bound) Х 13 Submission of final report (hard bound)

FSG/PTA/08/2019/03

# **Appendix S4: CORRECTION NOTICE**

## **Correction Notice**



Fakulti Sains Gunaan FSG/PTA/08/2019/04

Course code	:	FSG611 / FSG661
Document type	:	Proposal / Thesis
Semester	:	2018Sept-2019Jan
Part	:	6
Student name	:	Daniel bin Kamaruzaman
UiTM no	:	2017123456

Dear student,

Your final year project document has been evaluated by your supervisor, co-supervisor and/or second reader. Please read the comments and corrections provided by them. Check <u>thoroughly every page</u> of your final year project document for detail errors and corrections.

You are given <u>a week notice from this date to complete the correction</u>. Please see your respective supervisor and co-supervisor if you require further deliberations. Then resubmit <u>two copies</u> of your final corrected project document together with the <u>two original marked copies</u> back to me.

Note:

For the final written project report - *do not bind* with the hardcover until you are permitted to do so.

Thank you

Project coordinator

Full name	:	Name of FYP Coordinator
Date	:	dd mmm yyyy
Signature	:	

#### **Student declaration**

I fully understand the above statement and have accepted the marked copies of my final year project document to be corrected for mistakes and errors. <u>I will return with two (2) copies of</u> the corrected version with the two (2) original marked copies before the date due as follows:

My due date is	: dd mmm yyyy	Date signed:
Student's Signature	:	dd mmm yyyy
Witnessed by Project Coordinator:	:	dd mmm yyyy

# Appendix S5: SUBMISSION CERTIFICATE

## **Submission Certificate**



UNIVERSITI TEKNOLOGI MARA

FSG/PTA/08/2019/05

:	FSG611 / FSG661
:	Proposal / Thesis
:	2018Sept-2019Jan
:	6
:	Daniel bin Kamaruzaman
:	2017123456
	:

#### To: Project Coordinator

I have reviewed the corrected final draft copy of the final year project document from the above student and would recommend that it is given the following grade (tick  $\checkmark$  in the appropriate box)\*:

Tick ✓	Remarks
✓	Requires no correction and permitted for binding:
	(note: hardcover for final report and comb for proposal)
	Requires minor errors/mistakes/amendments to be resolved/made
	Requires major errors/mistakes/amendments to be resolved/made
	Requires further deliberation by the final year students project committee

#### Thank you

#### Main supervisor / Co supervisor / Second reader \*\*

Full name :	Prof. Madya Dr. Rusdini binti Selamat
Date :	dd mmm yyyy
Signature :	

Note:

\* Tick  $\checkmark$  in the appropriate box

\*\* Strike out the appropriate line

### Appendix S6: CONSENT FOR EVALUATION OF PROPOSAL

### **Consent for evaluation of proposal**



Fakulti Sains Gunaan

FSG/PTA/08/2019/06

Instruction to students:

- 1. Complete the required information.
- 2. Please attach Table of Contents of proposal.
- 3. Obtain approval of consent from the Main Supervisor.
- 4. Duplicate the signed form for your reference.
- 5. Submit the original copy of the form to Coordinator.

#### Part 1: Student details

Name:	Daniel bin Kamaruzaman
Student ID:	2017123456
Mobile Phone No:	012 345 6789
E-mail:	daniel_kamaruzaman@hotmail.com
Programme:	AS229
Part:	6

#### Part 2: Project details

Project Title:	
Name of main supervisor: Name of co-supervisor (if any): I hereby declare that I have completed the report and ready to be evaluated.	Remarks and comments (if any) from supervisor
Student's Signature Date: dd mmm yyyy	

#### Part 3: Consent

Approval by Main Supervisor	Verified by Coordinator
I certify that the work of conducted by the above student is *completed/incomplete and *approve/disapprove for evaluation of research proposal.	Signature
Signature	
Prof. Madya Dr. Rusdini binti Selamat Name and Official Stamp Date: dd mmm yyyy	Name of Coordinator Name and Official Stamp Date: dd mmm yyyy

### Appendix S7: CONSENT FOR DEFENCE OF FYP REPORT

### **Consent for Defence of FYP Report**



Fakulti Sains Gunaan FSG/PTA/08/2019/07

Instruction to students:

- 1. Complete the required information two (2) weeks before the date of presentation.
- 2. Please attach Table of Contents of final year project report.
- 3. Obtain approval of consent from the Main Supervisor.
- 4. Duplicate the signed form for your reference.
- 5. Submit the original copy of the form to Coordinator.

#### Part 1: Student details

Name:	Daniel bin Kamaruzaman
Student ID:	2017123456
Mobile Phone No:	012 345 6789
E-mail:	daniel_kamaruzaman@hotmail.com
Programme:	AS229
Part:	6

#### Part 2: Project details

Project Title:	
Name of main supervisor: Name of co-supervisor (if any): I hereby declare that I have completed the report and ready to be evaluated for oral presentation.	Remarks and comments (if any) from supervisor
Student's Signature Date dd mmm yyyy	

#### Part 3: Consent

Approval by Main Supervisor	Verified by Coordinator
I certify that the work of conducted by the above student is *completed/incomplete and *approve/disapprove for oral defence presentation. (*incomplete/disapprove students will still have to do oral presentation)	Signature
Signature Prof. Madya Dr. Rusdini binti Selamat Name and Official Stamp Date dd mmm yyyy	Name of Coordinator Name and Official Stamp Date dd mmm yyyy

### **Progress Report Form**



Fakulti Sains Gunaan

FSG/PTA/08/2019/08

Report (circle) (1) (2) (3)

Name: Daniel bin Kamaruzaman Student No: 2017123456 Supervisor: Prof. Madya Dr. Rusdini binti Selamat Title: Environmental Impacts of Oil Spill at Tanjung Pelepas

Provide a summary of what you did in the past four weeks. Show data sample and results shown in your FYP laboratory log book as evidence.

Logbook Usage % :	
Supervisor's Commen	t(s):

Signature of Student:	Signature of Supervisor:
Name: Daniel bin Kamaruzaman	Name: Prof. Madya Dr. Rusdini binti Selamat
Student No: 2017123456	Official Stamp:
Date: dd mmm yyyy	Date: dd mmm yyyy

### **Appendix S9: TURNITIN SIMILARITY INDEX VERIFICATION**

### **Turnitin Similarity Index Verification**



Fakulti Sains Gunaan

FSG/PTA/08/2019/09

- 1. Complete the required information.
- 2. Please attach a copy of the Turnitin similarity index report.
- 3. Obtain verification the Main Supervisor.
- 4. Duplicate the signed form for your reference.
- 5. Submit the original copy of the form to Coordinator.

#### Part 1: Student details

Course code:	FSG611 / FSG661
Document type:	Proposal / Thesis
Student name:	Daniel bin Kamaruzaman
Student ID:	2017123456
Mobile Phone No:	012 345 6789
E-mail:	daniel_kamaruzaman@hotmail.com
Programme:	AS229
Part:	6

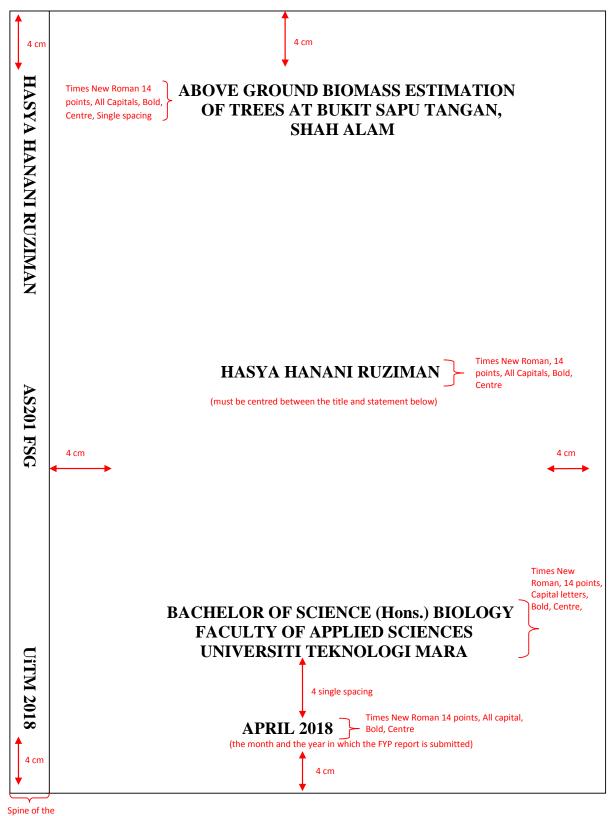
#### Part 2: Project details

Project Title:	
Name of main supervisor: Name of co-supervisor (if any): I hereby declare that I have submitted my final draft proposal/thesis with less than 30% Turnitin similarity index.	Remarks and comments (if any) from supervisor
Student's Signature Date: dd mmm yyyy	

#### Part 3: Verification

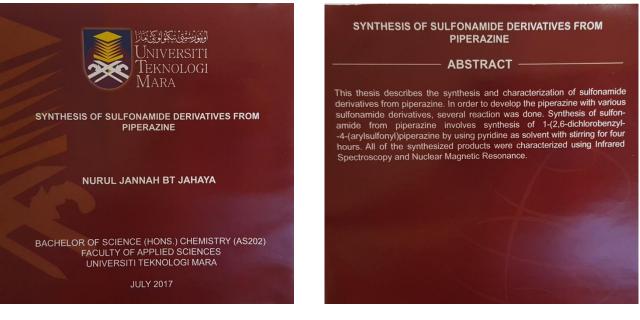
Verification by Main Supervisor	Verified by Coordinator
I certify that the above student has *submitted/not submitted the Turnitin similarity index report.	
% of similarity index (to be filled by supervisor)	Signature
Signature	Name of Coordinator
Prof. Madya Dr. Rusdini binti Selamat Name and Official Stamp Date: dd mmm yyyy	Name and Official Stamp Date: dd mmm yyyy

### Appendix F1a: SPINE AND COVER



thesis

### Appendix F1b: CD



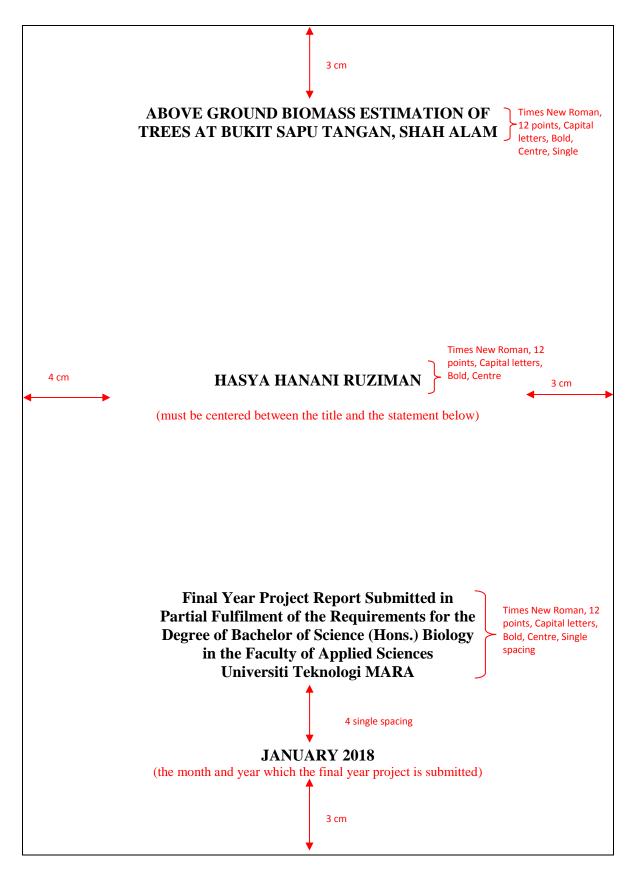
Front Cover

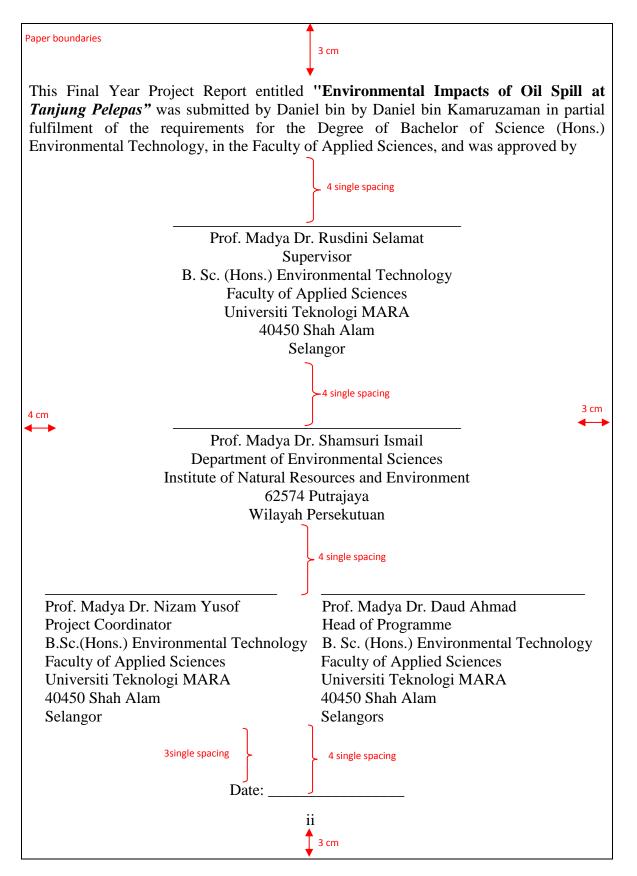


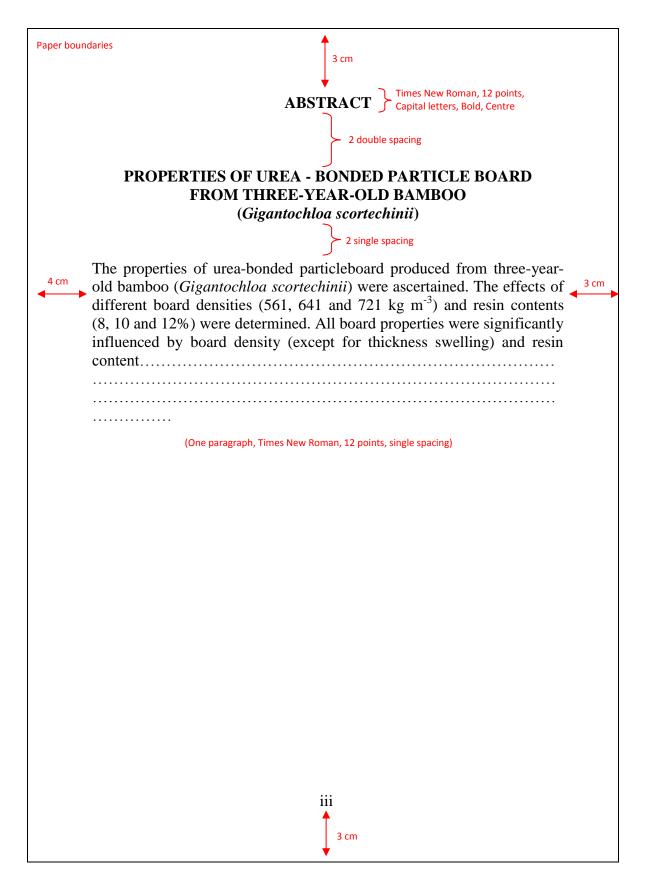


**ABSTRACT and CD** 

### Appendix F2: TITLE PAGE







# Appendix F5: ABSTRAK

<ul> <li>ABSTRAK Capital letters, Bold, Centre Capital letters</li></ul>	Paper boundar	ies
(Gigantochloa scortechinii) BERUMUR TIGA TAHUN 2 single spacing Ciri-ciri papan serpai urea dan papan serpai simen yang dihasilkan daripada buluh Gigantochloa scortechinii berumur tiga tahun telah dikaji. Kesan perbezaan ketumpatan papan (561, 641 dan 721 kg m <sup>-3</sup> ) dan kandungan perekat (8, 10 dan 12%) ke atas papan serpai dikaji. Kesemua ciri papan dipengaruhi oleh ketumpatan papan (kecuali pembengkakan ketebalan) dan kandungan		ABSTRAK Times New Roman, 12 points, Capital letters, Bold, Centre
<ul> <li>Ciri-ciri papan serpai urea dan papan serpai simen yang dihasilkan daripada buluh <i>Gigantochloa scortechinii</i> berumur tiga tahun telah dikaji. Kesan perbezaan ketumpatan papan (561, 641 dan 721 kg m<sup>-3</sup>) dan kandungan perekat (8, 10 dan 12%) ke atas papan serpai dikaji. Kesemua ciri papan dipengaruhi oleh ketumpatan papan (kecuali pembengkakan ketebalan) dan kandungan</li> </ul>		(Gigantochloa scortechinii) BERUMUR
daripada buluh <i>Gigantochloa scortechinii</i> berumur tiga tahun telah dikaji. Kesan perbezaan ketumpatan papan (561, 641 dan 721 kg m <sup>-3</sup> ) dan kandungan perekat (8, 10 dan 12%) ke atas papan serpai dikaji. Kesemua ciri papan dipengaruhi oleh ketumpatan papan (kecuali pembengkakan ketebalan) dan kandungan		2 single spacing
(kecuali pembengkakan ketebalan) dan kandungan	4 cm	daripada buluh <i>Gigantochloa scortechinii</i> berumur tiga tahun telah dikaji. Kesan perbezaan ketumpatan papan (561, 641 dan 721 kg m <sup>-3</sup> ) dan kandungan perekat (8, 10 dan 12%) ke atas papan serpai dikaji.
perekat		
		perekat
iv ↑ 3 cm		

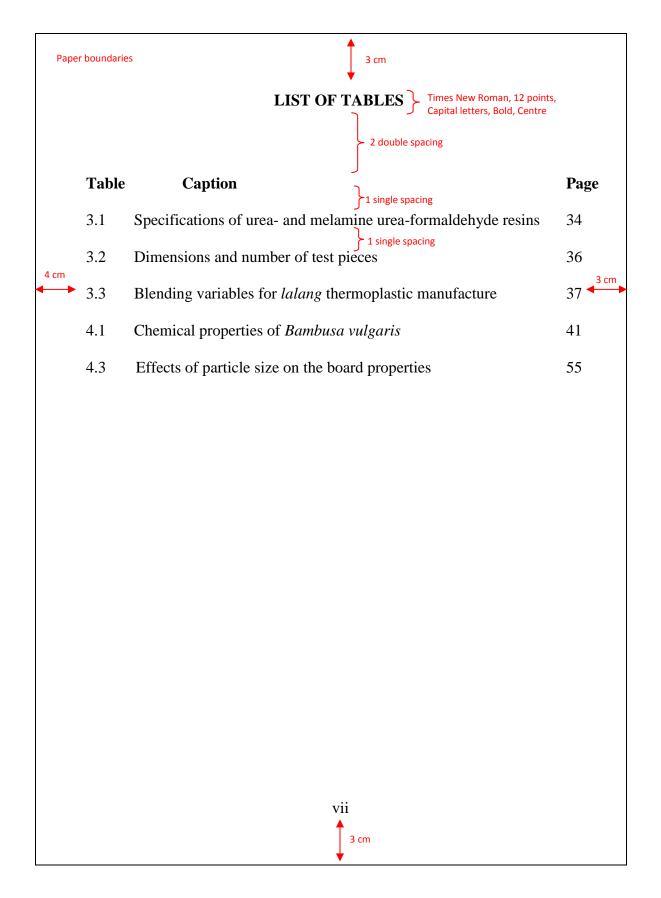
# Appendix F6: ACKNOWLEDGEMENTS

Paper bound	aries
	3 cm
	★ ACKNOWLEDGEMENTS Times New Roman, 12 points,
	ACKNOWLEDGEMENTS Times New Roman, 12 points, Capital letters, Bold, Centre
	➤ 2 double spacing
	Upon completion of this project, I would like to express my gratitude to many parties. My heartfelt thanks goes to my supervisor,
4 cm	
<b>4</b>	$\longleftrightarrow$
l	
	(Times New Roman, 12 points, single spacing)
	(Student's Name)
	V
	<b>3</b> cm

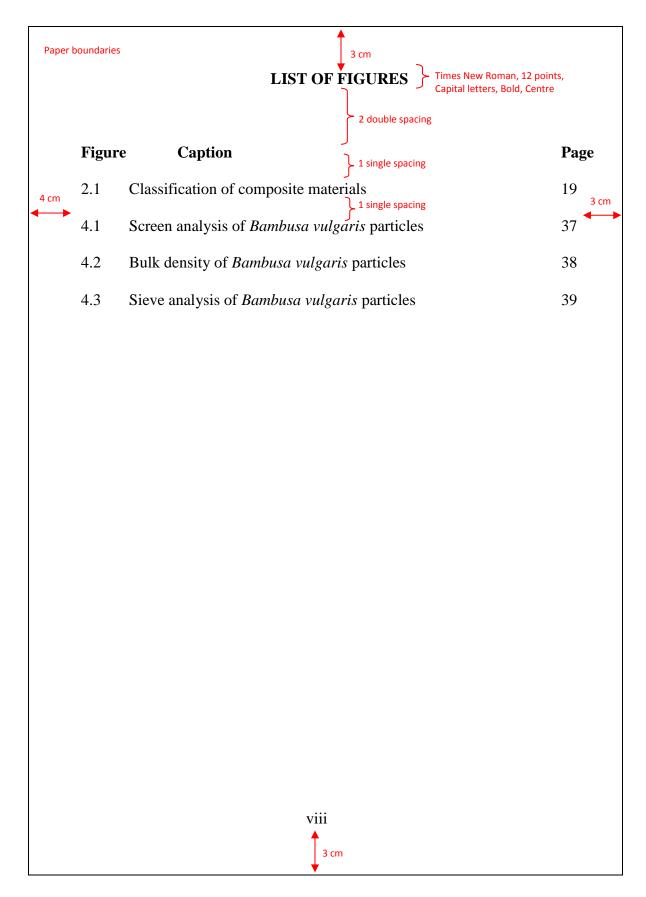
# Appendix F7: TABLE OF CONTENTS

Paper bou		oman, 12 points,
	TABLE OF CONTENTS       Filmes New R Capital letter         2 double spacing	oman, 12 points, s, Bold, Centre
	ACKNOWLEDGEMENTS TABLE OF CONTENTS LIST OF TABLES LIST OF FIGURES LIST OF ABBREVIATIONS ABSTRACT ABSTRAK (2 single spacing)	Page iii iv vi vii viii ix x
4 cm	<ul> <li>CHAPTER 1 INTRODUCTION</li> <li>1.1 Background of study</li> <li>1.2 Problem statement</li> <li>1.3 Significance of study</li> <li>1.4 Objectives of study</li> <li>(2 single spacing)</li> <li>CHAPTER 2 LITERATURE REVIEW</li> <li>2.1 Introduction</li> </ul>	$ \begin{array}{c} 1 \\ 4 \\ 5 \\ 6 \end{array} $
	<ul> <li>2.1 Infroduction</li> <li>2.2 Toxicity of mercury</li> <li>2.2.1 Cold vapour Atomic Absorption Spectrometry</li> <li>(2 single spacing)</li> </ul>	8 8 8
	CHAPTER 3 METHODOLOGY 3.1 Materials 3.1.1 Chemicals 3.2 Methods (2 single spacing)	20 20 20
	CHAPTER 4 RESULTS AND DISCUSSION (2 single spacing)	35
	CHAPTER 5 CONCLUSION AND RECOMMENDATIONS (2 single spacing)	50
	CITED REFERENCES APPENDICES CURRICULUM VITAE vi	53 55 60

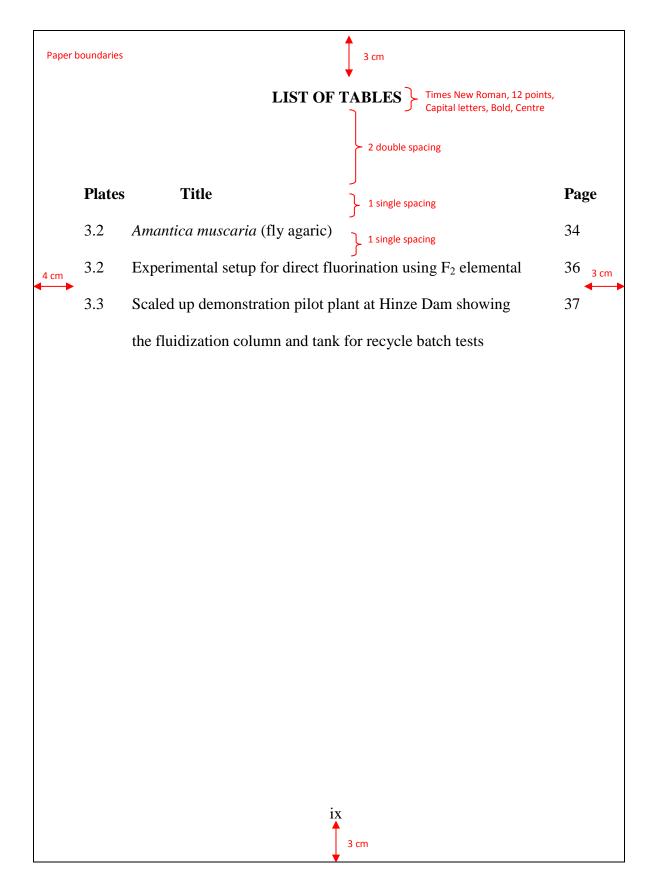
## Appendix F8: LIST OF TABLES



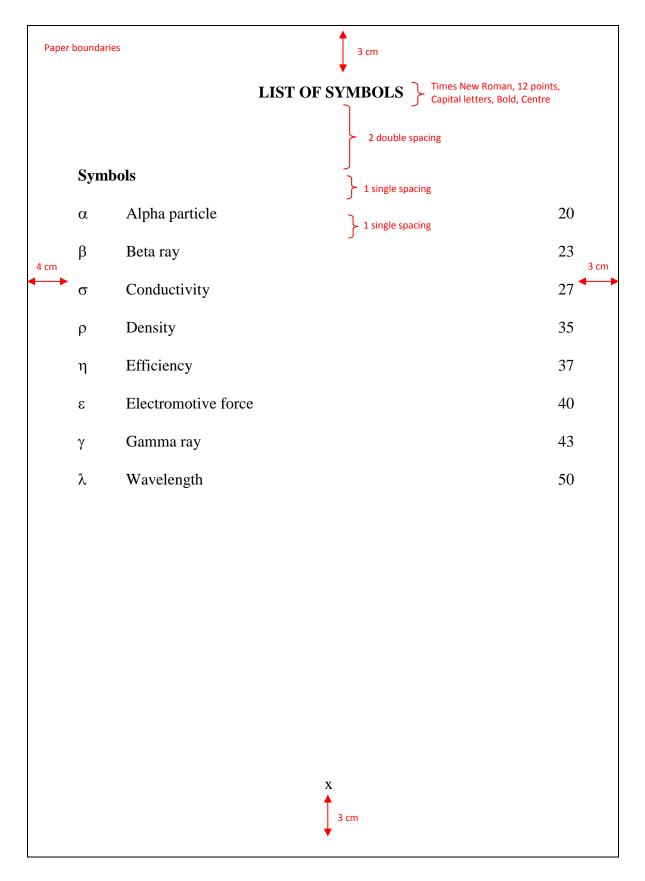
### Appendix F9a: LIST OF FIGURES



### Appendix F9b: LIST OF PLATES



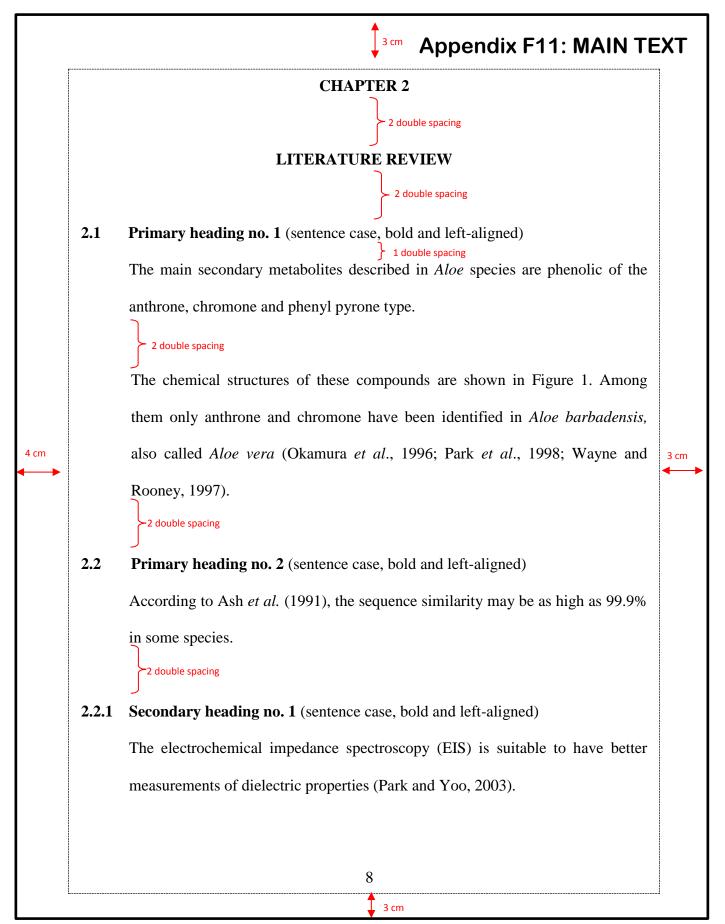
## Appendix F9c: LIST OF SYMBOLS

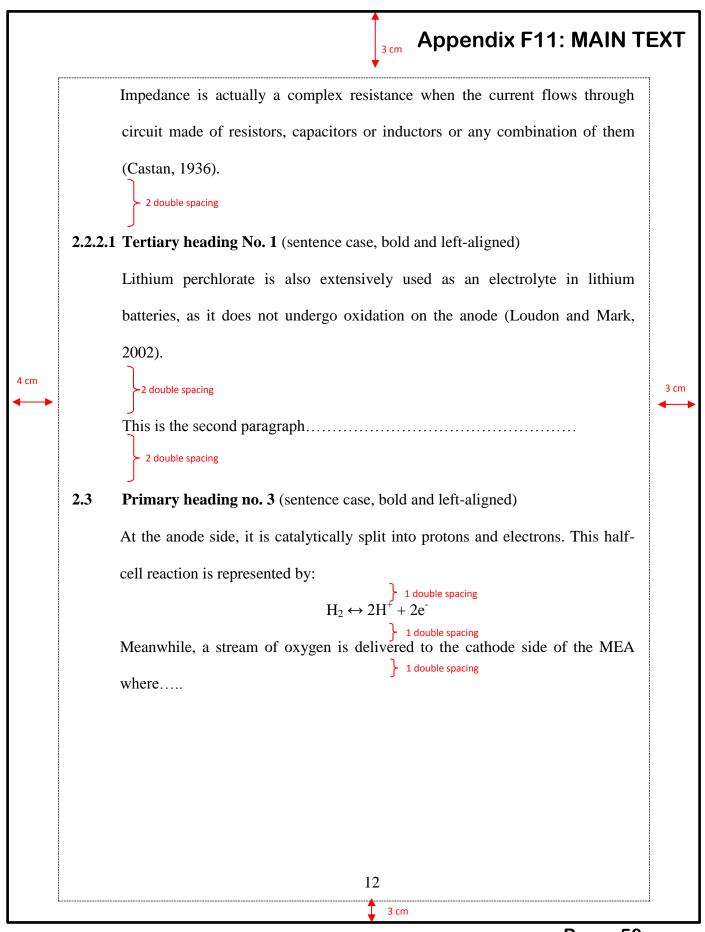


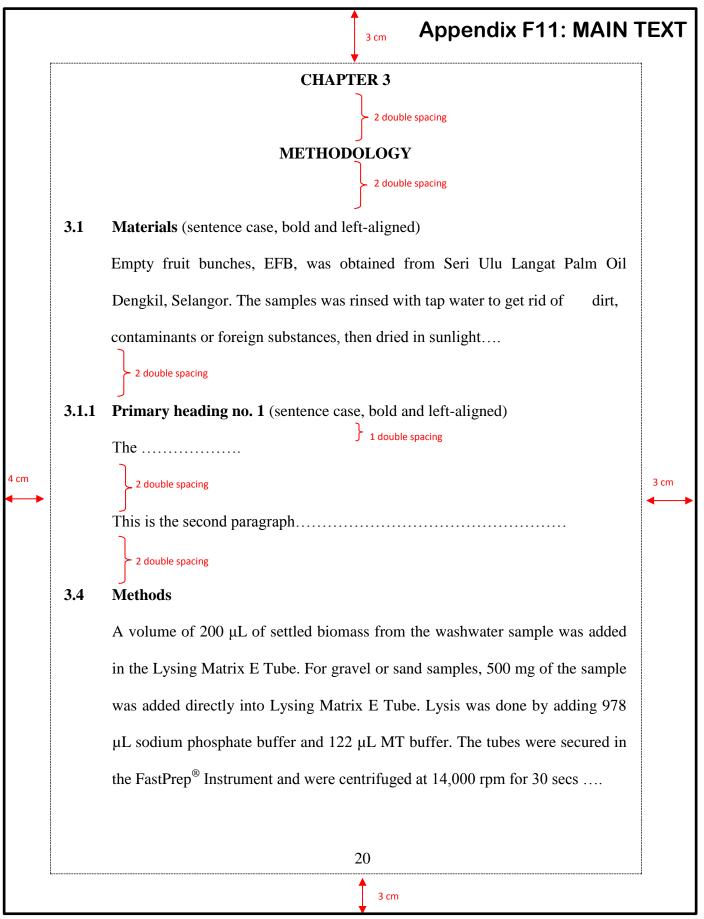
### Paper boundaries 3 cm Times New Roman, 12 points, Capital letters, Bold, Centre LIST OF ABBREVIATIONS 2 double spacing Atomic Absorption Spectrometry AAS : 1 single spacing ANOVA : Analysis of Variance 1 single spacing **British Standard** BS : DNA Deoxyribonucleic acid : Forest Research Institute Malaysia FRIM : 4 cm 3 cm Megapascal MPa : PP Polypropylene : Polyvinylchloride PVC : SMI's Small and Medium-sized Industries : USEPA United States Environmental Protection Agency : xi 3 cm

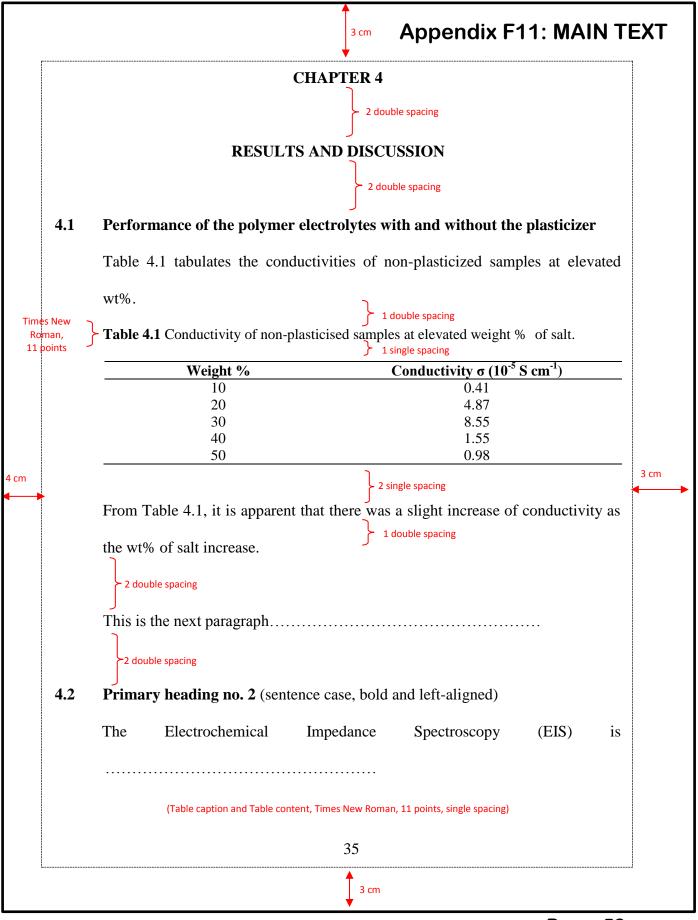
## Appendix F10: LIST OF ABBREVIATIONS

	Paper bou	ndaries	3cm Appendix F11: MAIN TEXT		
	Text	boundaries CHAP	TER 1 Times New Roman, 12 points, Capital letters, Bold, Centre 2 double spacing		
		INTROD	UCTION		
			2 double spacing		
	<b>1.1 Background and problem statement</b> (sentence case, bold and left-aligned).				
		Epoxy is a thermosetting epoxide pol	ymer that polymerizes when mixed with a double spacing		
		catalyzing agent or hardener	1 double spacing		
4 cm		2 double spacing	3 cm		
<b>←</b> →		This is the second paragraph		-	
	1.2	ر Significance of study (sentence case			
		Statistics indicate that Small and M	double spacing edium-sized Industries (SMI's) represent a		
		big portion of industries	1 double spacing		
		➤ 2 double spacing			
	1.3	<b>Objectives of study</b> (sentence case, )			
		The intention of this research is to	investigate the presence and diversity of		
		Pedomicrobium in an expanded be	d bioreactor for manganese removal using		
		molecular techniques previously dev	veloped (PCR and qRT-PCR). The specific		
		objectives of the project include to:-	1 double spacing		
		1. Use specific PCR tests to dete	cct		
		1			
	L	·····	3 cm		
		•			





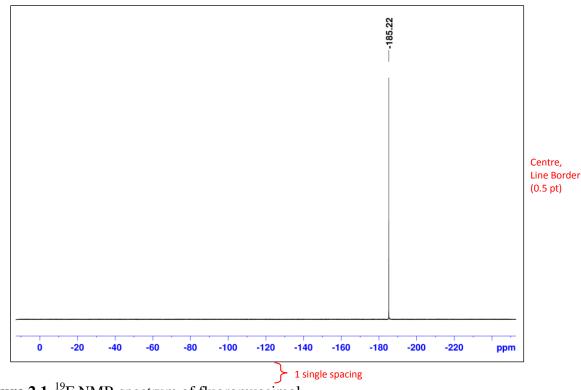




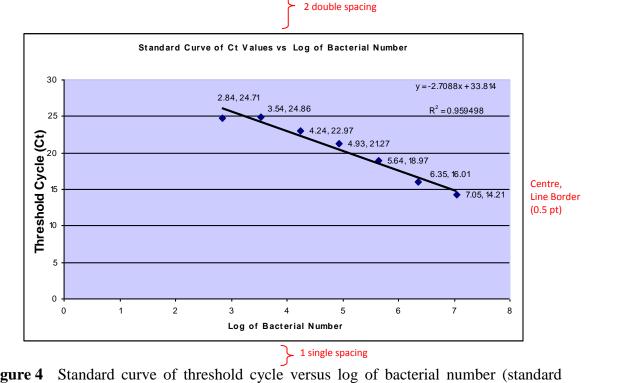
	Appendix F11: MAIN TE	EXT
	CHAPTER 5	
	➤ 2 double spacing	
	CONCLUSION AND RECOMMENDATIONS	
	► 2 double spacing	
	In conclusion, by using ENR-50 as the polymer host, the SPE could be prepared by the	
	solution cast technique. The highest conductivity of the non-plasticised SPE was 8.55 x	
	$10^{-5}$ Scm <sup>-1</sup> , while plasticized SPE was 2.2 x $10^{-4}$ S cm <sup>-1</sup> . The addition of PC has	
	increased the dielectric constant and helped to increase the dissociation of the salt thus	
1.000	producing more free ions for conducting and hence increases the ionic conductivity.	
4 cm	The discharge capacity of the cell with the implied current of 1.0 mA is 880 mAh $g^{-1}$ .	3 cm
	2 double spacing	
	This is the next paragraph	
	50	
	<b>3</b> cm	

# Appendix F12: EXAMPLES OF TABLES

compare	d to fluorine-18	hip of posit	- } 1 dou	ble spacing	ues of carbon-11
-	: The relations	hip of posit	ر ر		n travel range of
Table 9			ron energy	and positron	n travel range of
			→ 1 singl	e spacing	
Nuclide	Common production method	Max energy (keV)	Mean energy (keV)	Max. range in water (mm)	Theoretical and (practical) radioactivity (GBq/µmol)
C-11	$^{14}N(p,\alpha)^{11}C$	960	386	4.1 mm	$3.4 \times 10^5$ (110-2600)
F-18	<sup>18</sup> O(p,n) <sup>18</sup> F ong (2004). (Font 3	640	250	2.4 mm	$6.3 \times 10^4$ (180-3700)
factor. T different <b>Table 3.</b>	number of cells in all dilutions was estimated by dividing by the dilution factor. The expected numbers of cells present in each dilution over the different dilutions are summarized in Table 3.5. <b>Table 3.5</b> Expected number of cells per 25 µL reaction estimated from direct microscopic enumeration counts. 1 single spacing				
	Dilution			on Cells p	•
	$.00(1/5^{0})$		,976,563		10,976,563
	$0.2(1/5^{-1})$		195,313		2,195,313
	.04 (1/5 <sup>-2</sup> ) 008 (1/5 <sup>-3</sup> )		139,063 87,813		439,063 87,813
	microscopic en Dilution	numeration concentration conce	ounts.	ngle spacing	er 25 μL reaction (actual)
( 0	$\begin{array}{c} 0.2 \ (1/5^{-1}) \\ 0.04 \ (1/5^{-2}) \end{array}$	10 2, 4	,976,563 195,313 139,063		10,976,563 2,195,313 439,063



**Figure 2.1** <sup>19</sup>F NMR spectrum of fluoromuscimol. Source: Abdul Manan, *et al.* (2017).



**Figure 4** Standard curve of threshold cycle versus log of bacterial number (standa 1.00 to dilution 0.00064).

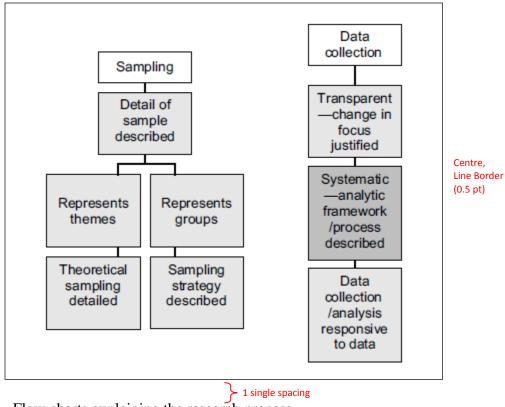


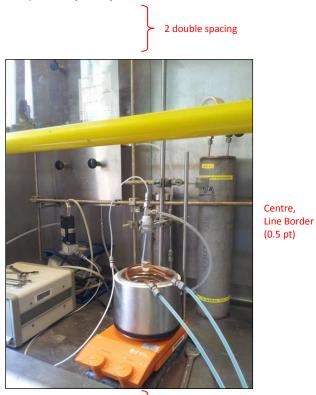
Figure 9 Flow charts explaining the research process. Source: Meyrick (2006).

## Appendix F13b: EXAMPLES OF PLATES



1 single spacing

Plate 2.1 Scaled up demonstration pilot plant at Hinze Dam showing the fluidisation column and tank for recycle batch tests. Source: Okamura, et al. (1996).



- ➤ 1 single spacing
- Experimental setup for direct fluorination using F<sub>2</sub> elemental. Plate 9 Source: Abdul Manan, et al. (2017).

### Appendix F14a: CITED REFERENCES

#### **CITED REFERENCES**

(two single spacing)

Alfitra Salam, (1999). Kerjasama dan potensi konflik dalam hubungan Indonesia-Malaysia 1966-1991. Tesis Dr. Fal. Universiti Kebangsaan Malaysia. 178 pp. (one single spacing)

→ 1 single spacing

American Public Health Association. (1980). Standard methods for the examination of wastewater. (15<sup>th</sup> ed.). Am. Public Health Assoc., New York. 4-9.

Anon. (1984). Computer programmes for your radio? Agri-Marketing, 22(6), 66 pp.

- Campbell, G.S., (1997). Simulation of water uptake by plant roots. In *Agronomy abstracts*. ASA, Madison, WI. 10 p.
- Donahue, R.L., Miller, R.W. and Shickluna, J.C., (1983). Soils: An introduction to soils and plant growth. (5<sup>th</sup> ed.). Prentice Hall, Englewood Cliffs, NJ. 45 pp.
- Fauziah, I. (2000). Personal communication. Senior Researcher, Crop Protection Department, Faculty of Applied Sciences, Universiti Teknologi MARA, Shah Alam, Selangor, (September 20, 2000).
- Fauziah, I., (1989). Insecticides cross-resistance against diamondback moth (Plutella xylostella). Ph.D. Thesis. University of London, United Kingdom. 266 pp.
- Griffis, C.L., Ritter, D.W. and Matthews, E.J., (1983). Simulation of rotary spreader distribution patterns. *Trans. ASAE*, *26*, 33-37.
- Laiman, R., (2003). Evaluation of carbon dioxide capacity used in production of hydrogen by unmixed reforming. M.Sc. diss. University of Leeds, United Kingdom. 200 pp.
- Low, S.M., (2000). Mechanical spraying of insecticide in highland tea plantation. *Malaysian Agriculture*, 36(7), 18-19.
- Moss, J.P., Spielman, I.V., Burge, A.P., Singh, A.K. and Gibbon, R.W., (1981). Utilization of wild *Arachis* species as source of *Cercospora* leafspot resistance in groundnut breeding. In *Perspective in cytology and genetic*. (Vol. 3), Manna, G.K. and Sinhu, U. (eds.). Hindasia Pbl., Delhi, India. 673-677.
- Okamura, N., Asai, M., Hine, Y. and Yagi, A., (1996). High performance liquid chromatographic determination of phenolic compounds in *Aloe* species, *J. Chromatogr.*, A 746, 225-231.

### Appendix F14a: CITED REFERENCES

Park, M.K., Park, J.H., Kim, N.Y., Shin, Y.G., Choy, Y.S., Lee, J.G., Kim, K.H. and Lee, S.K., (1998). Analysis of 13 phenolic compounds in *Aloe* species by high performance liquid chromatography, *Phytochem. Anal.*, 9, 186-191.

1 single spacing

- Reeder, J.D., (1981). Nitrogen transformation in revegetated coal spoils. Ph.D. Thesis. The University of Tennessee, Knoxville. Dissertations Abstracts International, 81/26, 447 pp.
- Roslan, H., (1999). Erosion in the Cameron Highlands. New Straits Times. 2 March. 10 p.
- Sabant, N.K. and DeDatta, S.K., (1982). Nitrogen transformation in wetland rice soils. *Adv. Agron.*, 35, 241-302.
- Simon, A., (2000). Perceptual comparisons through the mind's eye. *Memory & Cognition, 23, 635-647.*
- Soil Survey Staff. (1975). Soil taxonomy: A basic system of soil classification for making an interpreting soil surveys. *USDA-SCS Agric. Handb.*, U.S. Gov. Print. Office. Washington, DC. 100-110.
- Titcomb, S.T. and Juers, A.A., (1976). Reduced calorie bread and method of making same. U.S. Patent 3 979 523. Date issued: 7 September.
- U.S. Environmental Protection Agency. (1981). Process design manual for land treatment of municipal wastewater. *USEPA Rep.* 625/1-77-088(COE EM1110-1-501). 10 pp.
- Uehara, G., Trangmar, B.B. and Yost, R.S., (1985). Spatial variability of soil properties. *Proc. Workshop ISSS and SSSA: Soil spatial variability*, Nielson, B.R. and Bouma, J., (eds.) Las Vegas, NV 30 Nov-1 Dec 1984. PUDOC, Wagenigen, Netherlands. 61-95.
- Vigerust, E. and Selmer-Olson, A.R., (1981). Uptake of heavy metal by some plants from sewage sludge. (In Norwegian.) *Fast Avfall.*, *2*, 26-29.
- Wadleigh, C.H., (1968). Waste in relation to agriculture and forestry. USDA Misc. Publ., 1065, U.S. Gov. Print. Office, Washington. 4-6.

### Appendix F14b: SOURCE OF CITED REFERENCES

#### FORMAT FOR THE SOURCE OF REFERENCES

#### **Articles from Journals**

- Griffis, C.L., Ritter, D.W. and Matthews, E.J., (1983). Simulation of rotary spreader distribution patterns. *Trans. ASAE*, *26*, 33-37.
- Okamura, N., Asai, M., Hine, Y. and Yagi, A., (1996). High performance liquid chromatographic determination of phenolic compounds in *Aloe* species, *J. Chromatogr.*, A 746, 225-231.
- Park, M.K., Park, J.H., Kim, N.Y., Shin, Y.G., Choy, Y.S., Lee, J.G., Kim, K.H. and Lee, S.K., (1998). Analysis of 13 phenolic compounds in *Aloe* species by high performance liquid chromatography, *Phytochem. Anal.*, 9, 186-191.
- Sabant, N.K. and DeDatta, S.K., (1982). Nitrogen transformation in wetland rice soils. *Adv. Agron.*, 35, 241-302.
- Simon, A., (2000). Perceptual comparisons through the mind's eye. *Memory & Cognition*, 23, 635-647.

#### Book

Donahue, R.L., Miller, R.W. and Shickluna, J.C., (1983). Soils: An introduction to soils and plant growth. (5<sup>th</sup> ed.). Prentice Hall, Englewood Cliffs, NJ. 45 pp.

#### Chapter in a Book

Moss, J.P., Spielman, I.V., Burge, A.P., Singh, A.K. and Gibbon, R.W., (1981). Utilization of wild *Arachis* species as source of *Cercospora* leafspot resistance in groundnut breeding. In *Perspective in cytology and genetic*. (Vol. 3), Manna, G.K. and Sinhu, U. (eds.). Hindasia Pbl., Delhi, India. 673-677.

#### Article with no Identifiable Author

(Avoid using it if possible)

Anon. (1984). Computer programmes for your radio? *Agri-Marketing*, 22(6), 66 pp.

#### Magazine or Newspapers Articles

Roslan, H., (1999). Erosion in the Cameron Highlands. New Straits Times. 2 March. 10 p.

Low, S.M., (2000). Mechanical spraying of insecticide in highland tea plantation. *Malaysian Agriculture*, 36(7), 18-19.

### Appendix F14b: SOURCE OF CITED REFERENCES

#### **Technical Report**

U.S. Environmental Protection Agency. (1981). Process design manual for land treatment of municipal wastewater. *USEPA Rep.* 625/1-77-088(COE EM1110-1-501). 10 pp.

#### **Conference, Symposium, or Workshop Proceedings**

- (Include page numbers, editor(s), title, location and dates, publisher's name and location)
- Uehara, G., Trangmar, B.B. and Yost, R.S., (1985). Spatial variability of soil properties. *Proc. Workshop ISSS and SSSA: Soil spatial variability*, Nielson, B.R. and Bouma, J., (eds.) Las Vegas, NV 30 Nov-1 Dec 1984. PUDOC, Wagenigen, Netherlands. 61-95.

#### **Dissertation/Thesis**

- Laiman, R., (2003). Evaluation of carbon dioxide capacity used in production of hydrogen by unmixed reforming. M.Sc. diss. University of Leeds, United Kingdom. 200 pp.
- Fauziah, I., (1989). Insecticides cross-resistance against diamondback moth (Plutella xylostella). Ph.D. Thesis. University of London, United Kingdom. 266 pp.
- Reeder, J.D., (1981). Nitrogen transformation in revegetated coal spoils. Ph.D. Thesis. The University of Tennessee, Knoxville. Dissertations Abstracts International, 81/26, 447 pp.
- Alfitra Salam, (1999). Kerjasama dan potensi konflik dalam hubungan Indonesia-Malaysia 1966-1991. Tesis Dr. Fal. Universiti Kebangsaan Malaysia. 178 pp.

#### **Translated Article**

Vigerust, E. and Selmer-Olson, A.R., (1981). Uptake of heavy metal by some plants from sewage sludge. (In Norwegian.) *Fast Avfall.*, *2*, 26-29.

#### Patent

Titcomb, S.T. and Juers, A.A., (1976). Reduced calorie bread and method of making same. U.S. Patent 3 979 523. Date issued: 7 September.

## Appendix F14b: CITED REFERENCES

#### **Miscellaneous Publication**

Wadleigh, C.H., (1968). Waste in relation to agriculture and forestry. USDA Misc. Publ., 1065, U.S. Gov. Print. Office, Washington. 4-6.

#### **Corporate Author of Article**

American Public Health Association. (1980). Standard methods for the examination of wastewater. (15<sup>th</sup> ed.). *Am. Public Health Assoc.*, New York. 4-9.

#### **Government / Private Sector Publication**

Soil Survey Staff. (1975). Soil taxonomy: A basic system of soil classification for making an interpreting soil surveys. *USDA-SCS Agric. Handb.*, U.S. Gov. Print. Office. Washington, DC. 100-110.

#### Abstract

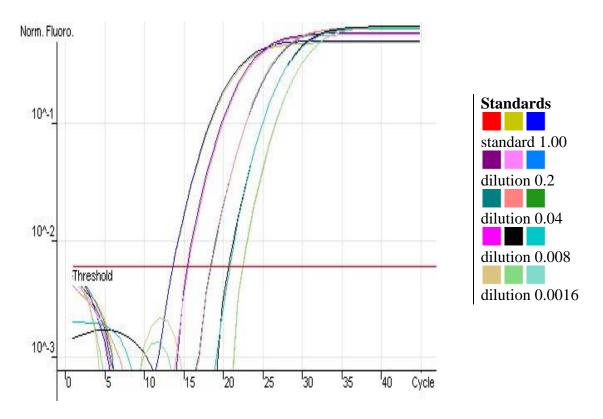
Campbell, G.S., (1997). Simulation of water uptake by plant roots. In Agronomy abstracts. ASA, Madison, WI. 10 p.

#### **Personal Communications**

- (Personal communications should provide sufficient information to enable the reader to contact the person cite. It may be things such as email message, interviews and telephone conversations)
- Fauziah, I. (2000). Personal communication. Senior Researcher, Crop Protection Department, Faculty of Applied Sciences, Universiti Teknologi MARA, Shah Alam, Selangor, (September 20, 2000).

### **Appendix F15: APPENDICES**

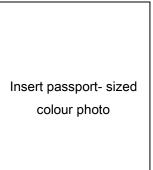
### APPENDIX A



Amplification plot of *Pedomicrobium* sp. ACM 3067 dilution series from standard 1.00 to dilution 0.0016 in triplicates.

### A. Personal profile (Font: Arial 16, bold)

Full name National IC no Birth date Citizenship Place of birth Gender Correspondence address Telephone no. (H) Telephone no. (HP) Email address	Daniel bin Kamaruzaman 990924 01 0007 24 <sup>th</sup> September 1984 MALAYSIA Selangor, MALAYSIA Male No. 007, Jalan Asmara, Section 2, 40000 Shah Alam, Selangor. 603 755 2525 6012 345 6789 Daniel kamaruzaman@hotmail.com	Ir
Email address	Daniel_kamaruzaman@hotmail.com	



## B. Hobbies and interests

I enjoy reading, travelling and exploring places. I like to meet new people, learn about cultures and the arts and learn new things. I listen to light and easy music and enjoy classical Malay music.

I am very fluent in written and spoken Malay and English and have basic knowledge of German.

## C. Academic qualifications

Degree	Area	Institution	Year awarded
B.Sc. (Hons.)	Environmental	Universiti Teknologi MARA, Malaysia	2019
	Technology		
Diploma	Industrial Chemistry	Universiti Teknologi MARA, Malaysia	2016
S.P.M	Science	Sek Menengah Seksyen 1, Selangor	2012

### D. Work experience

Post	Place	Year
Asst Chemist	Kerteh Oil Refinery, Kerteh, Terengganu, Malaysia	2016-2017
Sales promoter	Jomalina Palm Oil, Banting, Selangor, Malaysia	2013

### E. Related experience

Post	Place	Year
President	Tae Kwon Do Club, Universiti Teknologi MARA, Shah Alam	2014-2016
Facilitator	Motivational Programme, Faculty of Applied Sciences, UiTM, Shah Alam	2013-2014
Member	Team member of "Terjun Payung Team", UiTM	2013-2015

### F. Awards

Туре	Name of award / awarding organisation	Date
Certificate	Dean's List Award 2018, Universiti Teknologi MARA, 40450	28 Nov 2018
	Shah Alam, Malaysia	
Certificate	Dean's List Award 2016, Universiti Teknologi MARA, 40450	28 Oct 2016
	Shah Alam, Malaysia	
Medal	Gold medal for Portable Oil Spill Tester Kit, National	2-5 Aug 2016
	Inventor's Exposition, PWTC, Kuala Lumpur, Malaysia.	

## G. Other Relevant Information

Daud, A. (2018). Concepts and fundamentals of EIA. *FSG Young Scientists Workshop*, UiTM, 16 Jan 2018. Shah Alam.

## Appendix E1: ASSESSMENT AND EVALUATION FORM

### ASSESSMENT AND EVALUATION FORM

Name of student	Daniel bin Kamaruzaman	
Name of evaluator	Prof Dr David Russell	
Signature of evaluator		
Supervisor (tick one only)	Second examiner	<b>^</b>
Program code	AS229 % Turnitin 2	25
Date of submission	dd mmm yyyy	

(To be fill	ed by SUPERVISOR only)			
		FSG611 (A)	FSG611(B)	FSG661
	ITEMS	Full Marks	Full Marks	Full Marks
	ommitment and effort (supervisor)			
2. 3. 4.	Initiative and resourcefulness Enthusiasm, attitude and rapport Preparation, organization and information gathering Frequency of meeting with supervisor Experimental work	15	15	15
A2. C	ommitment and effort (coordinator)	5	NA	NA
(To be fill	ed by SUPERVISOR and SECOND EXAMI			
	ITEMS	Full Marks	Full Marks	Full Marks
	ucture of written report			
	osis/Abstract		r	
	Precise, coherent			
	Summarizes the entire research work			_
8.	The significant methods, findings are	NA	NA	5
	clearly drawn			
	Conclusions are highlighted			
	Il Structure, Organization & Quality		Γ	
	Format and layout			
	Clarity and neatness	24	15	5
3.	Table of content (list of table, figure, abbreviation)	24	15	5
1	Language, spelling, grammar and syntax			
	luction			
	Background and problem statement			
	Significant of Study	16	15	5
	Objectives of Study		10	J. J
Litera	ture Review			
	Relevancy of information			
	Continuity of review	16	10	10
	Depth and Width of Coverage		10	10
	Elements of Critical Review			
	ials and Methods		Γ	
	Adaptation to Method and Procedure			
2.	Experimental design and statistical	16	10	5
2	analysis Innovative and creativity			
ა.	innovative and creativity			

Results and Discussions						
<ol> <li>Data presentation (charts, tables, graphs)</li> <li>Data analysis</li> <li>Relate, argue and reason the findings</li> <li>Continuity and element of creativity</li> </ol>	NA	NA	20			
Conclusion and Recommendation						
<ol> <li>Summarize of findings</li> <li>Objective achieved</li> <li>Suggestions for further research</li> </ol>	NA	NA	5			
References						
<ol> <li>Format</li> <li>Number of journals</li> <li>Cited authors all listed</li> </ol>	8	5	5			
Total Marks	80	55	60			
<ul> <li>C. Oral</li> <li>1. Gesture and fluency</li> <li>2. Technique visual aids creativity</li> <li>3. Presentation content</li> <li>4. Clarity of presentation</li> <li>5. Question and answer</li> </ul>	NA	30	25			
Grand total (A+B+C)	100	100	100			

## PART D:

## FORMS

• Form 1: FYP Contract

- Form 2: Student-Supervisor Journal
  - Form 3: FYP Gantt Chart
  - Form 4: Correction Notice
  - Form 5: Submission Certificate
- Form 6: Consent for Evaluation of Proposal
- Form 7: Consent for Defense of FYP Report
  - Form 8: Progress Report Form
- Form 9: Turnitin Similarity Index Verification

#### Form 1: FYP Contract

UNIVERSITI TEKNOLOGI MARA	Fakulti Sains Gunaan	FSG/PTA/08/2019/01
Course Code Title Semester Part		
Student Name UiTM no Telephone Email		
Supervisor name Tel/Fax Email	:	Signature:
Co-supervisor name Tel/Fax Email	:	Signature:
Consultation day and time	:	

I (the student) agree to have the above-stated names as my supervisor and co- supervisor for the

stated project title to the end of the semester.

I (the student) agree to observe the roles and responsibilities as stipulated in the "Guidelines on Supervision, Assessment, Evaluation and Format for Students Projects 3rd Edition." I will submit this contract to the coordinator for the project on the specified date.

I (the student) agree to submit my final draft proposal/thesis with less than 30% Turnitin similarity index. I understand that failure to do so will earn me an automatic F in accordance to Peraturan Akademik 1.77.

I/we, (supervisor and co-supervisor) agree to have the above-stated name as my/our student for the stated project title to the end of the semester.

I/we (supervisor and co-supervisor) agree to observe the roles and responsibilities as stipulated in the guidelines. I/we will make sure that the student submits this contract to the Coordinator for the project on the date as specified by him/her.

Student and supervisor/s agree to communicate on the above-stated day and time every week to discuss the progress of the project during the above- mentioned period. Signatures

Student:

Coordinator (Witness)

Date

<sup>\*</sup> Completed forms must be distributed each to student, supervisor, co-supervisor (if present) and coordinator.

### Form 2: Student-Supervisor Journal



Fakulti Sains Gunaan

Course code	:
Document type	:
Semester	:
Part	:
Student name	:
UiTM no	:
Project title	:
Supervisor	:
Co-supervisor	:

 Date
 Task
 Due date
 Complete/Not Complete
 Reason (If Not Complete)
 Action to be taken
 Signature

 Image: Imag

FSG/PTA/08/2019/02

### Form 3: FYP Gantt-chart



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FSG/PTA/08/2019/03

		Sem	1 2															
No	Activity	Mth	1		2		3		4		5		6		7		8	3
		Wk	02	04	06	08	10	12	14	16	18	20	22	24	26	28	30	32
1	Identify a proposed title																	
2	Submission of contract																	
3	Literature review																	
4	Plan of research design																	
5	Finalise proposal																	
6	Presentation of proposal																	
7	Submission of proposal																	
8	Assembly of apparatus																	
9	Run experiment and compile data																	
10	Analysis of data																	
11	Presentation of project																	
12	Final draft of report (comb bound)																	
13	Submission of final report (hard bound)																	

### Form 4: Correction Notice

: : : : :



Fakulti Sains Gunaan

FSG/PTA/08/2019/04

Course code			
Document type			
Semester			
Part			
Student name			
UiTM no			

Dear student,

Your final year project document has been evaluated by your supervisor, co-supervisor and/or second reader. Please read the comments and corrections provided by them. Check <u>thoroughly every page</u> of your final year project document for detail errors and corrections.

You are required to make the corrections and see your respective supervisor and co-supervisor if you require further deliberations. Then resubmit your final corrected project document to your respective supervisors / second reader for approval.

Note:

For the final written project report - do not bind with the hardcover until you are permitted to do so.

Thank you

**Project Coordinator** 

Full name	:
Date	:
Signature	:

#### **Student declaration**

I fully understand the above statement and have accepted the marked copies of my final year project document to be corrected for mistakes and errors. <u>I will return with two (2) copies of</u> the corrected version with the two (2) original marked copies before the date due as follows:

My due date is	:	Date signed:
Student's Signature	:	
Witnessed by Project Coordinator:	:	

### Form 5: Submission Certificate



Fakulti Sains Gunaan

FSG/PTA/08/2019/05

Course code	
Document type	
Semester	
Part	
Student name	
UiTM no	

#### To: Project Coordinator

I have reviewed the corrected final draft copy of the final year project document from the above student and would recommend that it is given the following grade (tick  $\checkmark$  in the appropriate box)\*:

Tick 🗸	Remarks
	Requires <u>no correction</u> and permitted for binding: (note: hardcover for final report and comb for proposal)
	Requires minor errors/mistakes/amendments to be resolved/made
	Requires major errors/mistakes/amendments to be resolved/made
	Requires further deliberation by the final year students project committee

#### Thank you

Main supervisor / Co-supervisor / Second reader \*\*

Full name	:
Date	:
Signature	:

Note:

\* Tick  $\checkmark$  in the appropriate box

\*\* Strike out the appropriate line

### Form 6: Consent for Evaluation of Proposal



Fakulti Sains Gunaan

FSG/PTA/08/2019/06

Instruction to students:

- 1. Complete the required information.
- 2. Please attach Table of Contents of the proposal.
- 3. Obtain approval of consent from the Main Supervisor.
- 4. Duplicate the signed form for your reference
- 5. Submit the original copy of the form to Coordinator.

#### Part 1: Student details

Name:	
Student ID:	
Mobile Phone No:	
E-mail:	
Programme:	
Part:	

#### Part 2: Project details

Project Title:	
Name of main supervisor: Name of co-supervisor (if any): I hereby declare that I have completed the report and ready to be evaluated.	Remarks and comments (if any) from supervisor
Student's Signature Date:	

#### Part 3: Consent

Approval by Main Supervisor	Verified by Coordinator
I certify that the work conducted by the above student is *completed/incomplete and *approve/disapprove for evaluation of research proposal.	Signature
Signature	
Name and Official Stamp Date:	Name and Official Stamp Date:

### Form 7: Consent for Defence of FYP Report



Fakulti Sains Gunaan

FSG/PTA/08/2019/07

Instruction to students:

- 1. Complete the required information two (2) weeks before the date of presentation.
- 2. Please attach Table of Contents of final year project report.
- 3. Obtain approval of consent from the Main Supervisor.
- 4. Duplicate the signed form for your reference
- 5. Submit the original copy of the form to Coordinator.

#### Part 1: Student details

Name: Student ID:	
Mobile Phone No:	
E-mail:	
Programme:	
Part:	

#### Part 2: Project details

Project Title:	
Name of main supervisor: Name of co-supervisor (if any): I hereby declare that I have completed the report and ready to be evaluated for oral presentation.	Remarks and comments (if any) from supervisor
Student's Signature Date:	

#### Part 3: Consent

Approval by Main Supervisor	Verified by Coordinator
I certify that the work conducted by the above student is *completed/incomplete and *approve/disapprove for oral defence presentation. (*incomplete/disapprove students will still have to do oral presentation)	Signature
Signature	
Name and Official Stamp Date:	Name and Official Stamp Date:

### Form 8: Progress Report Form



Fakulti Sains Gunaan

FSG/PTA/08/2019/08

Report (circle) (1) (2) (3)

Name:

Student No:

Supervisor:

Title:

Provide a summary of what you did in the past four weeks. Show data sample and results shown in your FYP laboratory log book as evidence.

Logbook Usage % :	
Supervisor's Comment(s):	

Signature of Student:	Signature of Supervisor:
Name:	Name:
Student No:	Official Stamp:

### Form 9: Turnitin Similarity Index Verification



Fakulti Sains Gunaan

FSG/PTA/08/2019/09

- 1. Complete the required information.
- 2. Please attach a copy of the Turnitin similarity index report.
- 3. Obtain verification from the Main Supervisor.
- 4. Duplicate the signed form for your reference.
- 5. Submit the original copy of the form to Coordinator.

#### Part 1: Student details

Course code:	
Document type:	
Student name:	
Student ID:	
Mobile Phone No:	
E-mail:	
Programme:	
Part:	

#### Part 2: Project details

Project Title:	
Name of main supervisor: Name of co-supervisor (if any): I hereby declare that I have submitted my final draft proposal/thesis with less than 30% Turnitin similarity index.	Remarks and comments (if any) from supervisor
Student's Signature Date:	

#### **Part 3: Verification**

Verification by Main Supervisor	Verified by Coordinator
I certify that the above student has *submitted/not submitted the Turnitin similarity index report. % of similarity index (to be filled by supervisor)	Signature
Signature	Name and Official Stamp Date:
Name and Official Stamp Date:	

## PART E:

## **EXTENDED ABSTRACT FORMAT**

#### **Extended Abstract Template**

### TITLE

(TIMES NEW ROMAN, 24 FONT SIZE, BOLD, ALL CAPS, CENTERED)

Author's Name and Surname<sup>1</sup>, Author's Name and Surname<sup>2</sup> (12 font size) <sup>1</sup>Affiliation *E-mail* 

*Abstract:* Abstract should be written with 10 font size, Times New Roman, single line spacing. Summarize in this section **objective, method** and **findings**.

Keywords: This section should contain maximum 5 words separated by commas.

#### **GENERAL GUIDELINES**

The extended abstract must contain the following sections: <u>Abstract and Keywords, Introduction,</u> <u>Methodology, Findings, Conclusion, and References</u>. Section can be named differently and subsections can be included.

The extended abstract shall be written in font **Times New Roman**, single line spacing and 11 font size. The extended abstract should contain a minimum of 500 words and a maximum of 2500 words. Extended abstracts can contain figures, tables and/or images which are not included in the word count. The references are not included in the word count as well. Page format should be A4 page size with margins 2.5 cm wide from the right, left, top and bottom. **Extended abstracts should not exceed 2 pages including the references** and pages should not be numbered.

Supporting figures, tables and images of the results (no more than two figures and two tables) may be included in the extended abstract.

All the tables, images and figures should be centered. Figures and images should be numbered (see Figure 2 for an example) and figure headers should be placed under the figure or image; as for the tables, they should also be numbered (see Table 2 for an example) and the table header should be placed at the top. References (if any) of the tables, figures and images should be presented right under the tables, figures and images in the form of author surname and publication date.

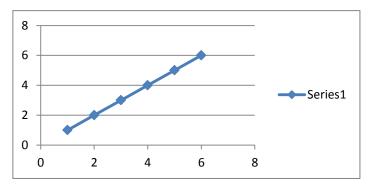


Figure 2. Header

Table 2. Header	
Reference: author surname and publication date	

# **INTRODUCTION**(Times New Roman, 16 font size, bold, all caps)

The introduction section should (1) present the scope and objective of the paper and state the problem, (2) briefly review the pertinent literature, (3) describe the methods, and (4) provide an overview of the main results of the work.

### METHODOLOGY

The methodology must be clearly stated and described in sufficient detail or with sufficient references. The author shall explain the research question, describe the research framework, and the methods applied in detail. It should be furthermore highlighted why the research question is relevant to theory and practice, and why the chosen method(s) are suited for the problem.

### FINDINGS

The arguments and findings are described in detail in this section.

### CONCLUSIONS

Conclusions should include (1) the principles and generalisations inferred from the results, (2) any exceptions, problems or limitations of the work, (3) theoretical and/or practical implications of the work, and (5) conclusions drawn and recommendations.

#### REFERENCES

References should be listed in alphabetical order and presented in a a format according to the Chicago Manual of Style: http://www.chicagomanualofstyle.org/tools\_citationguide.html.

Disclaimer: This template has been adopted from www.ketcon2018.com/Template