LOG FILE FINAL YEAR PROJECT
MJIIT UTM

NAME :.....

IC NO :.....

MATRIC CARD NO:……...

YEAR :.....

PROGRAMME:……

FINALIZED FYP TITLE:

*to be updated at the end of the semester (FYP1 and FYP2)

…… ……

(Student Signature) (FYP Supervisor Signature and Stamping)

Checklist FYP1 **(Fill in the blank box/ create another boxes for your reminder)**

Documents in Log File.

No	List(s)	
1	updated fyp title (front page), standard MJIIT logfile color and size	Yes/ No
2	weekly progress report (not only journal or paper, but includes critical discussion; draft discussion and reflection from what being discussed with SV/sempai/others; related documents that describe the works being done weekly in Ikohza)	Yes/ No
3	ppt materials (during seminar assessments) and updated ppt materials (reflection from assessments/ comments)	Yes/ No
4	Draft review from SV and non SV (includes reflections)	Yes/ No
5	Important dates (announced by academic office)	

Important Date(s)

Documents to be submitted to SV

No	List(s)	
1.	Moderation guidelines forms	Yes/ No

Documents to be submitted to Academic Office

No	List(s)	
1.	final draft according to UTM writing manual	Yes/ No

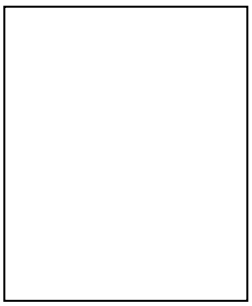
Documents for references (Did you refer to this documents?)

No	List(s)	
1.	UTM Thesis Manual	Yes/ No
2.	EAC Manual (Complex Problem) – Appendix 3	Yes/ No
3.	Course Outlines	Yes/ No

Confirmation with SV/ Appoinment

No	List(s)	
1.	Confirm the SV on the important dates and the submission of assessment forms and related documents.	Yes/ No

1.0 STUDENT INFORMATION



Full Name : _____

IC No. : _____

Matric No. : _____

Year : _____

Department : _____

Telephone : _____

E-mail : _____

Supervisor`s Name : _____

FYP Title : _____

_____

_____

FYP Title (Code) : _____

Keyword(s) : _____

2.0 PREFACE

This document has been prepared mainly for MJIIT students who are undertaking Final Year Project as a partial requirement to be awarded as Bachelor of Mechanical Precision Engineering, or Bachelor of Electronic Systems Engineering, or Bachelor of Chemical Process Engineering Malaysia Japan International Institute of Technology, Universiti Teknologi Malaysia. As part of this program, final year students are required to carry out their individual research project known as the Final Year Project (FYP) throughout one final year (two semesters). This document is designed to guide the students invarious stages especially in exploring the issue, organizing the work, conducting experimental work and field work, thesis writing and finally writing technical paper.

Various criteria such as problem statement, objective, scope, literature review, methodology, analysis and results are addressed in assessing the FYP students for their presentations and reports. Students and supervisors are encouraged to follow one year project calendar in planning and conducting research activities.

Students and supervisors are advised to read and understand this guidelines/manual before conducting any student research project. As part of this project, all FYP students are required to attend Ikohza Seminar (Rinko Seminar) at respective IKohza. It is hoped that students will be exposed to new environment of focused research work or project besides building strong sense of responsibility in performing any given task. Students are strongly advised to show good working etiquette and practice good Japanese working etiquette as a preparation before entering the real working field.

3.0 INTRODUCTION TO FYP LOG BOOK(LOG FILE)

INTRODUCTION

The FYP log book (log file) is

- a combination of general guidelines for the FYP implementation and also a way to document all FYP activities throughout the two semesters.
- an important mechanism for the MJIIT Faculty/Supervisor to evaluate and assess a student's attitude and ability and also to monitor the status of the student's project throughout the semester.

Students are

- required to write clearly and honestly all activities performed and then to summarize their work every week. (printed document is preferable)
- highly encouraged to maintain a separate file/folder to compile all their findings/printouts/datasheets as a complement to this log book.

REMINDER TO STUDENTS

- This log book must be presented to your supervisors to be evaluated and graded **EVERY WEEK.**

- All activities conducted must be recorded at the activities section in the log book. Signatures of relevant persons can also be recorded as proof of your claim at the activities section (optional but highly recommended).

- This log book must be submitted to your supervisors along with your FYP **Report/Thesis Draft** to be graded by your supervisor at the required date (Refer to FYP Action Plan).

- If the thesis draft or the final hardbound thesis is not presented by the student to the Faculty, the student's final examination marks can be **withheld** by the Faculty.

- A student can be given the failure grade by the Faculty if he/she was found not able to achieve the minimum requirement of this subject (subject to approval or suggestion by the supervisor).

4.0 ABOUT FINAL YEAR PROJECT

4.1 DEFINITION

The Final Year Project (FYP) is a subject that must be completed by final year students as a requirement to receive the bachelor of engineering degree (MPE, ESE or CPE). In this subject, the students will be given two semesters to work on a task that is related to their field of interest. Students are expected to do their work independently most of the time, but their progress will be monitored closely by their supervisors. At the end of the project, students will have to document their work in a thesis which must be hard bounded and submitted to the Faculty.

4.2 AIM

The aim of the FYP is to give students opportunity to apply the knowledge that they have gained while studying in MJIIT to solve practical engineering problems. By doing so, it is hoped that the students will gain knowledge and experience in solving problems systematically thus when they graduate, they will be ready to work as reliable and productive engineers.

4.3 OBJECTIVES

Objectives of the Final Year Project (FYP) for students are to :

- To develop the student's basic skill of research.
- To have insight into the organization, approach, analysis and research methodology in any particular topic in areas of students' interest.
- To expose student in finding literature review from research materials such as journals, internet, magazines, etc.
- To train the student to achieve the objective, formulate problem statement, solve engineering problem and defend such statement.
- To act effectively as an individual in carrying out experimental projects and analyze data using the relevant tools in achieving objective of the study within limit scope and time.
- To assist student in analyzing primary and secondary data.
- To produce an acceptable research proposal, final year report and technical paper which can be apply in the specific engineering discipline.
- To build-up student's self-confidence, communication, presentation, writing and time management skills.

4.4 TYPES OF FYP

Normally, FYP can be classified into the following categories:

- **Projects involving hardware, design or fabrication -** This project will focus on the design of a particular hardware that meets particular standard or technical requirements. At the end of the FYP, the students will have to produce the completed hardware or structure that is under study.

- **Projects involving software development** - This project focuses on the design and development of a software/code that solves a particular task. At the end of the project, students will have to demonstrate the completed software code and show how it meets the objectives specified.

- **Projects involving research** - This project focuses on the study of a particular phenomenon or characteristics of an event, process, or structure/hardware. The outcome of this project will be in the form of data, observation and conclusion that can be made on the subject under study.

4.5 FYP CONDUCT

All activities related to the conduct of FYP in the Faculty will be monitored by the FYP Committee (FYPC). The members of this committee are selected by the Deputy Dean of Academic, Malaysia Japan International Institute of Technology, UTM. Taking the advantage of the existence of a systematic focussed research I-Kohza system, all FYP undergraduate students will be attached to the respective I-Kohza and the activities will be supervised by their supervisor. The participation in the I-kohza will expose the technical/research work culture among the students besides being closed advised by the Sempai (I-kohza Postgraduate Students) and the supervisor.

4.6 FYP COMMITTEE (FYPC)

This committee consists of a chairman, and departmental coordinators who are responsible to the implementation of FYP at MJIIT which cover:

- Executing the FYP policy according to the Faculty requirements
- Delegating and assigning FYP supervision and FYP seminar panel
- Members to all academic staffs
- Monitoring and moderating FYP evaluation and marks

4.7 FYP SUPERVISOR

The FYP supervisor will be selected from lecturers with relevant expertise in the MJIIT, UTM who will be assigned by the FYPC to supervise the student.
To summarize, the responsibility of a FYP supervisor include:

- To prepare and agree on the title and the FYP objectives
- To set the FYP scope of work
- To supervise the FYP throughout the semester
- To evaluate the outcome of the project findings or results
- To make sure that the students do not deviate from the topic that has originally been agreed upon
- To be responsible to the FYPC and consequently to the MJIIT.

Supervisor Assignment Procedure – The distribution is based on the agreement between the supervisor and student. It can be either students themselves search for any academic staff to be their supervisor or, for some cases, the FYPC will appoint a supervisor based on a number of suggested names given by the students.

Students will be assigned to one supervisor according to the proposed project area / topic. As soon as the Student-Supervisor' list have been posted on the relevant notice boards/website, students are advised to meet their respective supervisors as soon as possible to discuss on a detail project topic.

Students **are not allowed** to change their supervisors without the approval of the FYPC chairman. Students who change supervisors without the approval of the FYPC chairman will receive the F grade.

4.8 Log Book (log file)

Students are required to use this log book throughout the duration of the FYP. This book must be filled in as the project is going on. All relevant findings and activities must be recorded weekly and then showed to their supervisors. Among the relevant information to be recorded include:

- project title, objectives, scope and work plan
- project progress
- project preparation, problems and suggested solutions
- relevant references from journals, websites, books etc.
- equipment used including circuit or schematic diagrams
- suggestions, assignment and discussions results from supervisors
- summary of any relevant work that has been done

The students' logs as recorded in their log book represent the state of the completion of the FYP. Supervisors are required to verify and grade the log entries at every student-supervisor meetings. Since students are required to join iKohza seminar (rinko seminar), students are expected to meet their Supervisor almost every week.

MJIIT FYP log book (log file)

- use a standard white ring file size (the one used by academic staff for course file)
- provided materials should be clearly printed and kept in the log book (file) in a transparent plastic front and back pages or front page (1 paper) and back page (1 paper) in a single transparent plastic. All printed papers should be paged accordingly.
- Any results (experimental results or simulation) can be printed and kept in the same way as an attachment. The page number should be mentioned in the weekly FYP Report.
- The weekly FYP Report should be recorded every week and any attached-printed results can be put after the weekly FYP Report.
- Every single paper in the log book should be paged as reference (ex. 1,2,…)
- The first page of the FYP log book should be **the front cover of the log book** file and the **first page of log book document**s inside the file.

FYP1 Typical Activities

- Problem formulation
- Project planning
- Literature study
- Equipment study
- Software study
- Data gathering
- Project planning optimization
- System setup
- Hardware Design
- Programming
- Preliminary testing
- Analysis
- Seminar
- Thesis 1 writing (Final proposal)

FYP2 Typical Activities

Hardware realization

- Software realization
- Testing

- Analysis
- Optimization
- Seminar
- Demo
- Thesis writing
- Paper writing

FYP WEEKLY PROGRESS REPORT

Reminder

- Students must record the date, time, place and signature (SV or others) when meeting anyone or doing any activitie related to the FYP
- Project activities must be written at the appropriate weekly activities section in this log book. A summary of all the weekly activities must also be written at the appropriate section. These logs will be graded by the FYP supervisors every week.
- The Faculty (with the supervisor's suggestion and approval) can give the student the 'E' grade if the student-supervisor meeting is less than seven (7) times, regardless of the outcome of the seminar.

Example

Week	**Items**	**Task: Literature Review** **(Main Ref: 1.** Author, Improved rotating beam model, Journal X,19xx, pg. xx~xx**)** **(** **Ref: 2.** Author,Advanced Dynamics, text book, 19xx, pg. xx~xx **)** **(** **Ref: 3.** Title, internet link**)** **(** **Ref: 4.** Title, Book Chapter**)**
Preliminary	**Objective**	-To improve analytical rotating beam model by considering the effect of gravitational force
	Problem	-None of the previous analytical model considered the effect of gravitational force -In reality, all system are exposed to gravitational force
	Solution	-attempt to consider gravitational force in the existing analytical model -search good literature review
	Next Week Task	-search good literature review and solution to complete this task. -Develop Matlab Code. It is expected that this task can be completed within 4 weeks -Continue working with Matlab
	Note	-first time using matlab
	Summary of weekly activities, refer to attachment if any (pp.). Figure - Analytical Model using rigid hub and beam (include rotary inertia (Week 1, pp. 1) Explanation - Analytical Model using rigid hub and beam (include rotary inertia (Week 1, pp. 2) -limitation of previous model, scope Matlab Code (in Progress) (Week 1, pp. 4)	

FYP1

Week: ……
(ex: week 1)*use the same format for the next week Progress Report

Attachment(s)

(a)……
(ex. Referred doc)

(b)……
(ex. Simulation result)

(c)……

FYP - 1

Week	Date: / /2014~ / /2014	Task:
	Objective	
	Problem	
	Solution	
	Next Week Task	
	Note ***Any activity** ***Supervisor Comments and Signature**	**Supervisor Signature/Date:……**
	Summary of weekly activities, refer to attachment if any (pp.).	

should be printed for every week report*

should be signed by supervisor for every week*

FYP2

Week: ……
(ex: week 1)*use the same format for the next week Progress Report

Attachment(s)

(a)……
(ex. Referred doc)

(b)……
(ex. Simulation result)

(c)……

FYP - 2

Week	Date: / /2014~ / /2014	Task:
	Objective	
	Problem	
	Solution	
	Next Week Task	
	Note ***Any activity** ***Supervisor Comments and Signature**	**Supervisor Signature/Date:……**
	Summary of weekly activities, refer to attachment if any (pp.).	

should be printed for every week report*

should be signed by supervisor for every week*

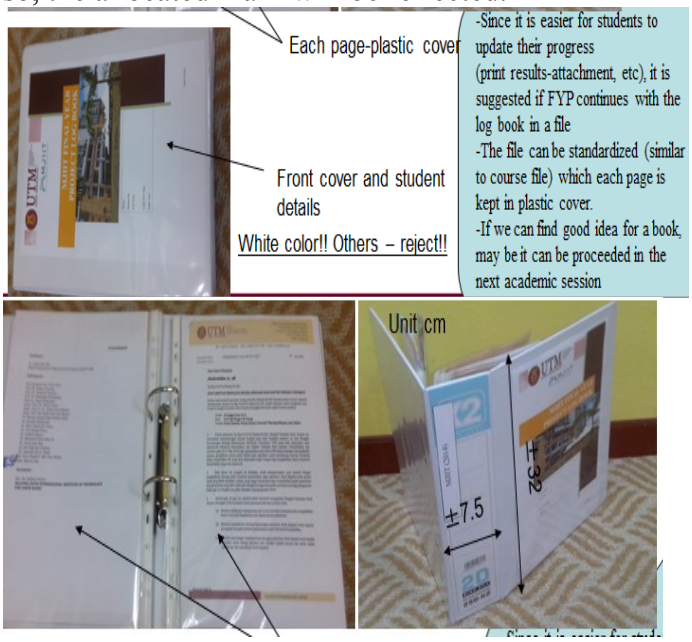
APPENDIX 1

Note:

-FYP Weekly Progress Report should be kept in a single transparent plastic cover for each week. Any attachment should be paged accordingly. 1 Week, 1 transparent Plastic Cover. However, it depends on the students creativity to manage their documents

-The previous contents before the FYP Weekly Progress can be kept in a single transparent plastic cover if possible.

-FYP1 and FYP2 will use the same log file. The file and the contents of the files should be in a good condition from the first week of FYP1 until the final submission to the SV. Fail to do so, the allocated mark will be reflected.



APPENDIX 2

The general guideline for report/ thesis writing is as follows:

i. Do not cut and paste information from original sources. Instead students must use their own words in restating statements from books or general/public information.

ii. Write in a concise and clear manner that is easily understood. Refrain from long running sentences.

iii. Use words and sentences that convey exact meanings; and refrain from ambiguous statements.

iv. Every abbreviation must be written in its complete form in the abbreviation list. In the text, the first usage of the group of words to be abbreviated must be written clearly and in full, followed by the abbreviation in brackets as shown in example below. The Unified Modeling Method (UML) is used…

On subsequent usage, the abbreviation may be used on its own.
v. Sections and sub-sections should be written in a logical sequence.

vi. Ensure continuity of sentences, paragraphs, sections and the overall report.

vii. Figures and tables are numbered in sequence following the chapters, not sections. As an example, for Chapter 3, figures should be numbered starting with Figure 3.1, followed by Figure 3.2, Figure 3.3 and so on. Tables for Chapter 3 will follow the same sequence, Table 3.1, Table 3.2, Table 3.3 and so on.

viii. Main information and analysis are put in the body of the report, while supportive information and analysis are added as appendix.

ix. The maximum number of pages for the report, excluding appendix, is 50 for PSM 1 and 100 for PSM2. Permission must be granted by the departmental PSM committee if this maximum is exceeded.

To construct the title of a project:
i. Must mirror the content

ii. Must reflect problem solution

iii. Usage of technology name in title only needed if technology is novel

Tips

i. Before starting to write the report, always plan its structure by creating a contents outline and get the supervisor to review the outline.

ii. It is a good practice to consult with the supervisor every now and then as to get their feedback. This will aid in producing a good and relevant report.

iii. It is not the task of the supervisor to be the editor or proof-reader and therefore do not anticipate that the supervisor will fully examine everything and comment in detail on the drafts.

iv. Do not start writing on the last minute as it will only result with poor quality report for most of the time.

Format
Refer to UTM Thesis Manual 2007

APPENDIX 3

MJIIT Programme Outcomes POs

PO1	**Engineering Knowledge** Ability to apply knowledge of mathematics, science, engineering and humanities fundamentals and system engineering* to the solution of complex engineering problems.
PO2	**Problem Analysis** Ability to identify, formulate, analyse and research literature on complex engineering problems to reach substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.
PO3	**Design/Development** Ability to design and develop system engineering* solution to complex engineering problems that meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.
PO4	**Investigation** Ability to conduct investigation into complex problems on engineering* systems using research based knowledge and research methods learned in iKohza and synthesis of information to provide valid conclusions.
PO5	**Modern Tool Usage** Ability to apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling to complex engineering activities with an understanding of the limitations.
PO6	**The Engineer and Society** Ability to apply contextual knowledge to assess societal, health, safety, legal and cultural issues and his/her responsibilities relevant to professional engineering practice
PO7	**Environment and Sustainability** Ability to explain, compare and summarize the impact of professional engineering solutions in societal and environmental contexts and demonstrate knowledge of and need for sustainable development.
PO8	**Ethics** Ability to apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice, in multicultural society based on Islamic, Asean and Japanese cultures
PO9	**Communication** Ability to communicate effectively on complex engineering activities with the engineering community and with society at large, sometimes in Japanese
PO10	**Individual and Team work** Ability to function effectively as an individual, and as a member or leader in diverse teams and in multi-disciplinary settings
PO11	**Life-Long Learning** Ability to recognise the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of

	technological change.
PO12	**Engineering Project Management and Finance** Ability to demonstrate knowledge and understanding of engineering and management principles and apply these to one's own work.

EAC Manual 2012
Definition of Complex Problem Solving (CP)

0 Preamble
Engineering problems which cannot be resolved without in-depth engineering knowledge, much of which is at, or informed by, the forefront of the professional discipline, and have some or all of the following characteristics listed below:

CP1 Range of conflicting requirements
Involve wide-ranging or conflicting technical, engineering and other issues.

CP2 Depth of analysis required
Have no obvious solution and require abstract thinking, originality in analysis to formulate suitable models.

CP3 Depth of knowledge required
Requires research-based knowledge much of which is at, or informed by, the forefront of the professional discipline and which allows a fundamentals-based, first principles analytical approach.

CP4 Familiarity of issues
Involve infrequently encountered issues

CP5 Extent of applicable codes
Are outside problems encompassed by standards and codes of practice for professional engineering.

CP6 Extent of stakeholder involvement and level of conflicting requirements
Involve diverse groups of stakeholders with widely varying needs.

CP7 Consequences
Have significant consequences in a range of contexts.

CP8 Interdependence
Are high level problems including many component parts or sub-problems

EAC Manual 2012
Definition of Complex Engineering Activities (CA)

0 Preamble
Complex activities means (engineering) activities or projects that have some or all of the following characteristics listed below:

CA1 Range of resources
Involve the use of diverse resources (and for this purpose, resources include people, money, equipment, materials, information and technologies).

CA2 Level of interaction
Require resolution of significant problems arising from interactions between wide ranging or conflicting technical, engineering or other issues.

CA3 Innovation
Involve creative use of engineering principles and research-based knowledge in novel ways.

CA4 Consequences to society and the environment
Have significant consequences in a range of contexts, characterised by difficulty of prediction and mitigation.

CA5 Familiarity
Can extend beyond previous experiences by applying principles-based approaches.

EAC Manual 2012
Definition of Knowledge Profile (KP)

KP1
A systematic, theory-based understanding of the natural sciences applicable to the discipline (e.g. calculus-based physics)

KP2
Conceptually-based mathematics, numerical analysis, statistics and formal aspects of computer and information science to support analysis and modelling applicable to the discipline

KP3
A systematic, theory-based formulation of engineering fundamentals required in the engineering discipline

KP4
Engineering specialist knowledge that provides theoretical frameworks and bodies of knowledge for the accepted practice areas in the engineering discipline; much is at the forefront of the discipline

KP5
Knowledge that supports engineering design in a practice area

KP6
Knowledge of engineering practice (technology) in the practice areas in the engineering discipline

KP7
Comprehension of the role of engineering in society and identified issues in engineering practice in the discipline: ethics and the professional responsibility of an engineer to public safety; the impacts of engineering activity: economic, social, cultural, environmental and sustainability

KP8
Engagement with selected knowledge in the research literature of the discipline

Presentation (to be fulfilled by students during seminar/presentation)
***If there are 2 assessors, print out 2 copies of this form**

Student's Name :……

Title :……..

Assessor :……..

No.	Comment(s) -assessor	Remarks – student

Student's Signature / Date ……..		Reviewer's Signature / Stamping/ Date ……..

Draft Report Review for Supervisor

Student's Name :……

Title :……..

First Reviewer (SV) :……..

No.	Comment(s) –reviewer	Remarks – student

Student's Signature / Date ……..		Reviewer's Signature / Stamping/ Date ……..

Draft Report Review for Supervisor

Student's Name :……

Title :……..

Second Reviewer (not-SV) :……

No.	Comment(s) –reviewer	Remarks – student

Student's Signature / Date ……..		Reviewer's Signature / Stamping/ Date ……..

*Any changes or amendment decided by the faculty will be informed from time to time