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Background

Malaysia-Japan International Institute of Technology (MJIIT), established on 1st August 2010, draws its strength from the long established research university, Universiti Teknologi Malaysia (UTM) along with a consortium of 25 Japanese universities. MJIIT combines the strong points of the Malaysian systematic outcome based education with the research intensive approach of the Japanese education system. The aim is to establish a holistic and a salient work culture by integrating the existing education and research skills at UTM and Japanese universities with the support of Japanese industries to achieve the dynamic global needs.

MJIIT Mission

Leading in cutting edge technology, education and research

MJIIT Vision

Providing Japanese style engineering education blended with Malaysia distinctiveness for sustainable industry and society.

Leading in academic and research excellence in Electronics, Precision, Environmental & Green Engineering and Management of Technology

MJIIT provides a holistic approach in its human development (Ningen-Ryoku) program developing confidence, decisiveness, independence and maturity of the graduate. These characteristics are inculcated through skills in communication, problem solving, good leadership and managerial qualities, responsibility and ethics in the curriculum. There is strong Japanese industrial-linkage, which provides opportunities for students to attain their industrial and research experience.

MJIIT offers both undergraduate and postgraduate programs since September 2011. The undergraduate programs are in the field of Mechanical Precision Electronic Systems and Chemical Progress Engineering. There are a total of 81 students from this first intake who are expected to undergo their industrial training activity in June 2014, to practice their theoretical knowledge in the workplace as part of the fulfilment of the Bachelor Degree Award.

1.0 Introduction

Final Year Project or FYP is compulsory for every MJIIT undergraduate student with respect to their major.

2.0 Definition

The Final Year Project (FYP) is a subject that must be completed by the 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.

3.0 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.

4.0 Objectives

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

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

5.0 Types of FYP

Normally, FYP can be classified into the following categories:

5.1 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.

5.2 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.

5.3 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.

6.0 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 Ikohza system, all FYP undergraduate students will be attached to the respective Ikohza and the activities will be supervised by their supervisors. Through the participation in the Ikohza all FYP students will be exposed to technical/research work culture among the students besides being closed advised by the Sempai (Ikohza Postgraduate Students) and the supervisor. Good Japanese work etiquette, punctuality, team works, and sense of responsibility are among the criteria stressed in the Ikohza system.

7.0 FYP Committee (FYPC)

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

7.1 Executing the FYP policy according to the Faculty requirements
7.2 Delegating and assigning FYP supervision and FYP seminar panel
7.3 Members to all academic staffs
7.4 Monitoring and moderating FYP evaluation and marks
7.5 Suggesting relevant FYP topics to departments

8.0 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:

8.1 To prepare and agree on the title and the FYP objectives
8.2 To set the FYP scope of work
8.3 To supervise the FYP throughout the semester
8.4 To evaluate the outcome of the project findings or results
8.5 To make sure that the students do not deviate from the topic that has originally been agreed upon
8.6 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 the 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.

9.0 Log Book (Log File – progress report in a file) and Rinko (Ikohza)

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:

9.1 project title, objectives, scope and work plan
9.2 project progress
9.3 project preparation, problems and suggested solutions
9.4 relevant references from journals, websites, books etc.
9.5 equipment used including circuit or schematic diagrams
9.6 suggestions, assignment and discussions results from supervisors
9.7 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.

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

10.0 MJIIT standard FYP log book (Log File – progress report in a 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.
- Any progress or 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.
- 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 documents inside the file.

Reminders 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 Project 1 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).

Rinko (Ikohza)

- Systematic research activities in a group
- Students present their works among similar focused research area
- A research environment based on good Japanese working ethics
- Adopt Sempai-Kohai culture or mentor-mentee where the seniors will guide or instruct the juniors to complete a task
- Share knowledge and information among students on how to develop/improve research work, write technical writing or any activities relate to research work
- Punctuality (good time management) and sense of responsibility are among the important culture in Ikohza

11.0 FYP Assessment

11.1 FYP 1

Project Proposal (Progress Evaluation 1)
At this stage, supervisors are expected to guide their students preparing 1 page brief proposal. At the required date, students must submit their Project Proposal which consists of the proposed project title, abstract, problem background, objective, scope for FYP1 and FYP2, methodology, Gantt chart, milestone, literature review, and alternative solutions (design), requirement (equipment, tool, software, data), expected output, conclusion, reference and any other relevant project information. The project proposal must be typed using the given template (FYP-One-page-project-brief – refer log book). Project proposal and Project Proposal Form (FYP1a) must be submitted to the supervisor. All FYP1a forms must be verified by FYP supervisors. Completed FYP1a forms must be submitted to departmental FYP coordinators at the required date. Failure to submit this form will cause the students to be prevented from attending the Project Seminar and consequently will fail the subject.

**To students: Please make sure the FYP1a form has been verified and signed by your supervisors. Students who submit unsigned forms will be excluded from presenting in the end of semester project seminar.*

Ikohza Seminar 1 (Progress Evaluation 2)
All FYP students are required to join Ikohza seminar (Rinko) which is a systematic system to present research work in a small focused group. The main objective of this Ikohza Seminar is to

update their work on proposal stage. Supervisors are expected to guide the students on how they can present the contents of their work in a proper way besides upgrading the contents of their works. The focus should be more on the content and how it can be presented. The improvement in this seminar will be presented again in the Ikohze seminar 2 which may include any updated works.

This Ikohza seminar (Rinko) gives the student an opportunity to give an introduction of their work and present their progress to other staff members and graduate students in a small group. This allows the students to receive initial feedback from the Ikohza members in terms of the appropriateness of their work for the FYP. In this small group Rinko, students can experience the research work culture among the focused group members before presenting their work to a large group of members from different focused research area in the respective engineering department. This will help them to identify problems that they might encounter at a later stage of the project and possible solutions as suggested by the seminar panel members.

Before attending the seminar, students must fill in the appropriate sections in Form FYP1b and bring it along on the day of the seminar to be given to the supervisor. This Ikohza Seminar 1 will be assessed by the supervisor in the respective Ikohza.

Ikohza Seminar 2 (Progress Evaluation 3)
After gaining experience presenting work in the Ikohza seminar 1, students are expected to show saome improvement in the Ikohza Seminar 2. This seminar gives the student an opportunity to expand their work and get different idea and suggestions not only from their own supervisor. Other members (academic staff in the Ikohza will assess their work. This allows the students to receive various feedbacks from other lecturers. This will encourage the sharing knowledge culture among different focused research groups. Other assessors (in the same Ikohza) do not monitored the students' progress closely in comparison to their supervisors. This encourages students to show better performance in terms of presenting their work to someone who are not closely monitor their work. The Form **FYP 1c** will be used for this assessment.

Progress Report (Progress Evaluation 4)
Based on the comments and suggestion during the Ikohza Seminar1 and Ikohza 2, FYP students are expected to improve their work under the guidance of their supervisor. The supervisors are going to evaluate their supervised students and the assess the log book which later on lead to the final Project Report Thesis. The assessment for this Department Seminar will use the Form FYP1d

Project Report (Progress Evaluation 5)
Considering the comments and suggestions from Ikohza Seminar and Deparment seminar, students are expected to have a widen exposure to what that are working on. At the end of semester (normally week 13), students must submit their project report which will contain a project proposal summary / abstract, introduction, methodology, literature review, a report of all the work that they have done for the semester (i.e. data gathering, review, investigation, survey, design, implementation, preliminary testing, test result and analysis), a complete work plan for the second part of the FYP (gantt chart, milestone, detail activity, detail requirement, detail expected output), conclusion and references. At the front page of the report, students must attach FYP1e form for the supervisors to complete.

11.2 FYP 2

Progress Report (Progress Evaluation 1)

This progress report should cover the work in the previous semester FYP 1. A number of outputs or results are expected in this progress report. This may include problem and planned works for the next stage based on the outputs or results.

Ikohza Seminar1 (Progress Evaluation 2), IKohza Seminar 2 (Progress Evaluation 3)

In the seminar, students are required to briefly review their FYP problem statement, objectives, project scope, methodology, and project outcomes to a panel of evaluators. The seminar panel members will test the students on matters related to the project.

In the seminar, students need to give an overall view of the FYP and the findings or results that have been obtained. Among the relevant things to include in the presentation are:

- Problem background, objective and project scope
- Methodology and project plan
- Literature review
- Alternative solutions or design methods used to solve problems.
- Realization of design
- Test method and discussions on results obtained.
- Analysis including: an observation on whether the solutions obtained satisfies the project objectives and an elaborate analysis of the results by comparing with other published results
- Conclusions and further works.

The panel of evaluators has the right to give a ceiling grade to the student if the student did not achieve a certain performance level. After the presentation, the students will be allowed to demonstrate their project outcome or product to the panel of evaluators. Students are required to distribute the Ikohza Seminar 1 Form (FYP2b) to supervisor and Ikohza Seminar 2 or Department Seminar Form (FYP2c) to the panel of evaluators before the beginning of the seminar. Appropriate sections in the form (ex. Name, project title) must be filled in first before handing in the form to the panel members.

The main objective of the Ikohza Seminar 1 is to prepare the student for the Ikohza seminar 2 which is considered as departmental level seminar. Supervisors are expected to guide the students on how they can present the contents of their work in a proper way. This seminar gives the student an opportunity to expand their work and get different idea and suggestions from different groups of focused research groups. This allows the students to receive various feedbacks from other lecturers. This will encourage the sharing knowledge culture among different focused research groups. This department seminar will expose to students how assessors from other different research group but still in the same engineering field see their works. Other research group assessors do not monitored the students' progress closely in comparison to their supervisors which make students have to show better performance in terms of presenting their work to someone who are not closely monitor their work.

Progress Report (Progress Evaluation 4)
Based on the comments and suggestion during the Ikohza Seminar and Department Seminar, FYP students are expected to improve their work under the guidance of their supervisor. The supervisors are going to evaluate their supervised students and the assess the log book which later on lead to the final Project Report Thesis.

Project Report/ Thesis Draft (Progress Evaluation 5)
Considering the comments and suggestions from Ikohza Seminar 1 and Ikohza Seminar 2, students are expected to have a widen exposure. At a required date (end of the semester), students need to submit a draft of the project thesis to their supervisors. The final draft must be loosely bound (ex. using spiral binding). In the first page of the draft, the Thesis Evaluation Form (**FYP 2e**) must be attached.

After the draft has been corrected/marked by the project supervisor, students must take the draft and make all the required amendments before making a hard bound version of the thesis. Depending on the situation, students may be required to show the corrected version of their drafts

to their supervisors, before sending it to be bounded. The FYP thesis must follow all of UTM thesis formatting rules and regulations.

Thesis - A thesis that has been hard bounded, must be verified and signed by the project supervisor at the front page of the thesis and must be submitted to the main office before the deadline. Failure of doing so will cause the student to receive the Incomplete (TS) status for the course.

Students must submit 2 hard bounded theses and 1 soft copy of the thesis in compact disc to the main office.

12.0 FYP VS MASTER AND PHD RESEARCH

	FYP	**MASTER BY RESEARCH**	**PHD BY RESEARCH**
Duration	1 Year	2 Years	3 Years
Supervision	Under supervision	Under monitoring	Under advise
Subject	No research field, more a **doing**	Mostly part of a research field or a project	A specific research field
Publication	Optional (1 Proceeding Paper)	Recommended (1 Journal Paper)	Necessary (2 Journal Papers)
Bloom Taxonomy	Knowledge, Comprehensive, Application, Analysis	Knowledge, Comprehensive, Application, Analysis, Synthesis	Knowledge, Comprehensive, Application, Analysis, Synthesis, Evaluation
Work Scope	Develop a part of a system Data Analysis	Develop a complete system System synthesis	Develop a new theory or new method or a new solution System evaluation

13.0 FYP 1 Action Plan

Generally, the conduct of FYP 1 and FYP 2 will follow the sequence in the table below.

No.	**Subject (Marks)**	**Marks (%)**	**Date***	**Notes**
1.	FYP briefing session and student-supervisor distribution.	-	3rd year final semester	All students are **required** to come. Fill in **registration** form at the end of the briefing session. Students are required to look for their supervisors and meet them as soon as possible.
2.	**Progress evaluation 1**	8	Week 5	Students are required to submit their Project Proposal and progress evaluation 1 (form **FYP 1a**) to their supervisors to be graded. Marked forms should be then submitted to the FYP coordinators.

3.	**Progress evaluation 2** (Ikohza Seminar 1)	33.5	Week 8	Students are required to submit their progress evaluation 2 (form **FYP1b**) to the Ikohzaseminar session.
4.	**Progress evaluation 3** (Ikohza Seminar 2)	19.5	Week 11	Students will present their work in a seminar. Students are required to bring **FYP1c** form to the Department seminar session.
5.	**Progress evaluation 4**	9	Week 12	Students are required to submit their progress evaluation 3 (form **FYP1d**) to their supervisors to be graded. Marked forms should be then submitted to the FYP coordinators.
6.	**Progress evaluation 5**	30	Week 13	Students are required to submit their FYP 1 report along with **FYP1e** form to their supervisors.
7.	Project marks	Total (100)	Week 16	Supervisors will submit their students' marks to the corresponding FYP coordinators at their respective departments.

Notes
* Students who fail to submit their progress evaluations will fail the subject.
*Forms can be taken at the academic office
*Subject to planned academic calendar

14.0 FYP 2 Action Plan

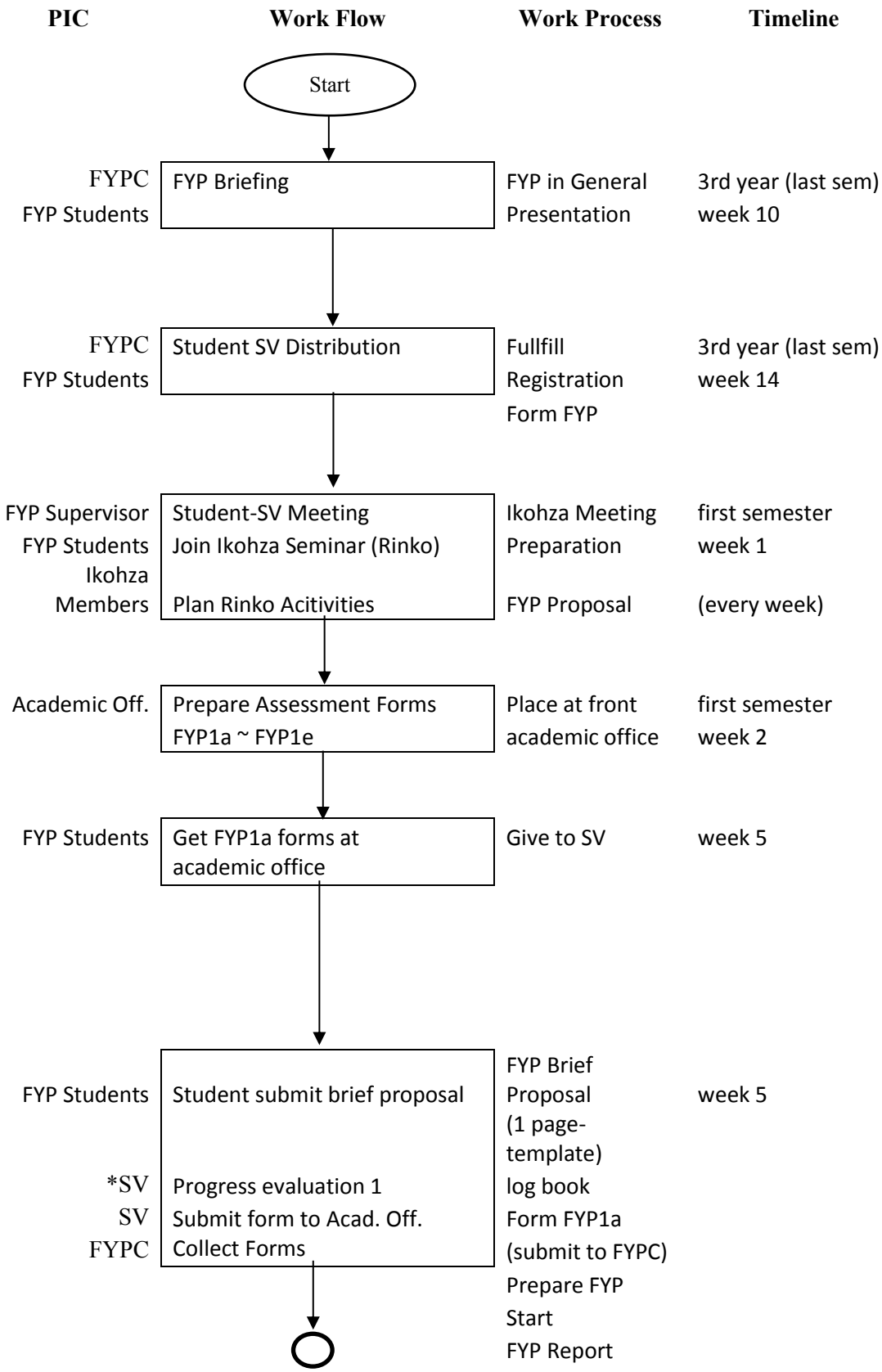
	Subject	**Marks(%)**	**Date***	**Notes**
1.	**Progress evaluation 1**	11	Week 4	Students are required to submit their progress evaluation 1 (form **FYP 2a**) to their supervisors to be graded. Marked forms should be then submitted to the MJIIT FYP coordinators.
2.	**Progress evaluation 2** Ikohza Seminar 1	20	Week 7	Students are required to submit their progress evaluation 2 (form **FYP 2b**) to the Ikohza seminar session.
3.	**Progress evaluation 3** Ikohza Seminar 2	22	Week 12	Students are required to submit their progress evaluation 3 (form **FYP 2c**) to the department seminar session.

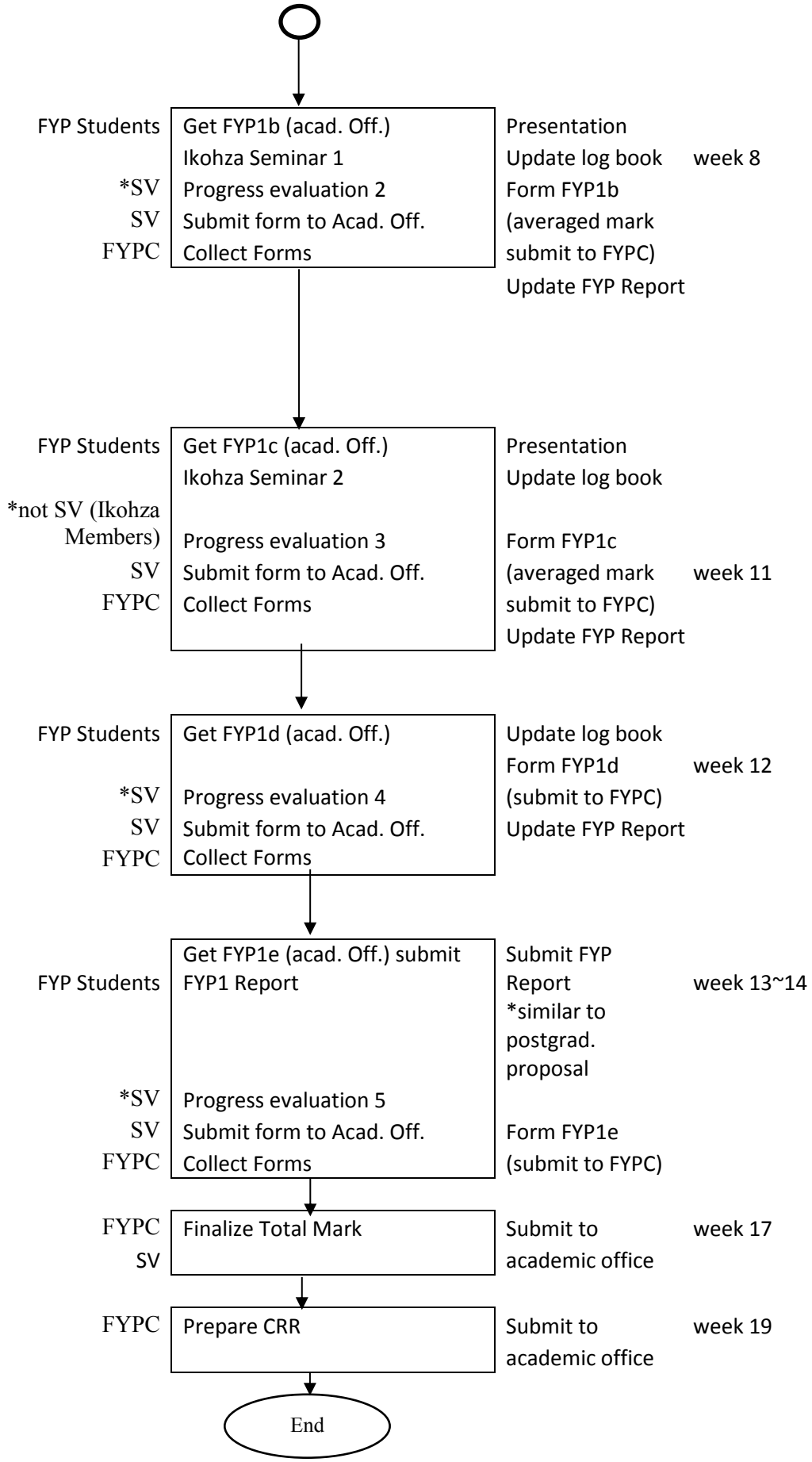
4.	**Progress evaluation 4**	7	Week 13	Students are required to submit their final thesis draft along with form **FYP2e** to their supervisors
5.	**Progress evaluation 5**	40	Week 15	Students are required to submit their final thesis draft along with form **FYP2e** to their supervisors.
6.	Project marks	-	Week 16	Supervisors will submit their students' marks to the MJIIT FYP coordinators
7.	Thesis Submission (hardcover) and CD (softcopy)	-	Week 16	Students need to submit two hard bounded copies of their thesis plus its softcopy (in PDF format) to the MJIIT main office.

Notes
* Students who fail to submit their progress evaluations will fail the subject.
*Forms can be taken at the academic office
*Subject to planned academic calendar

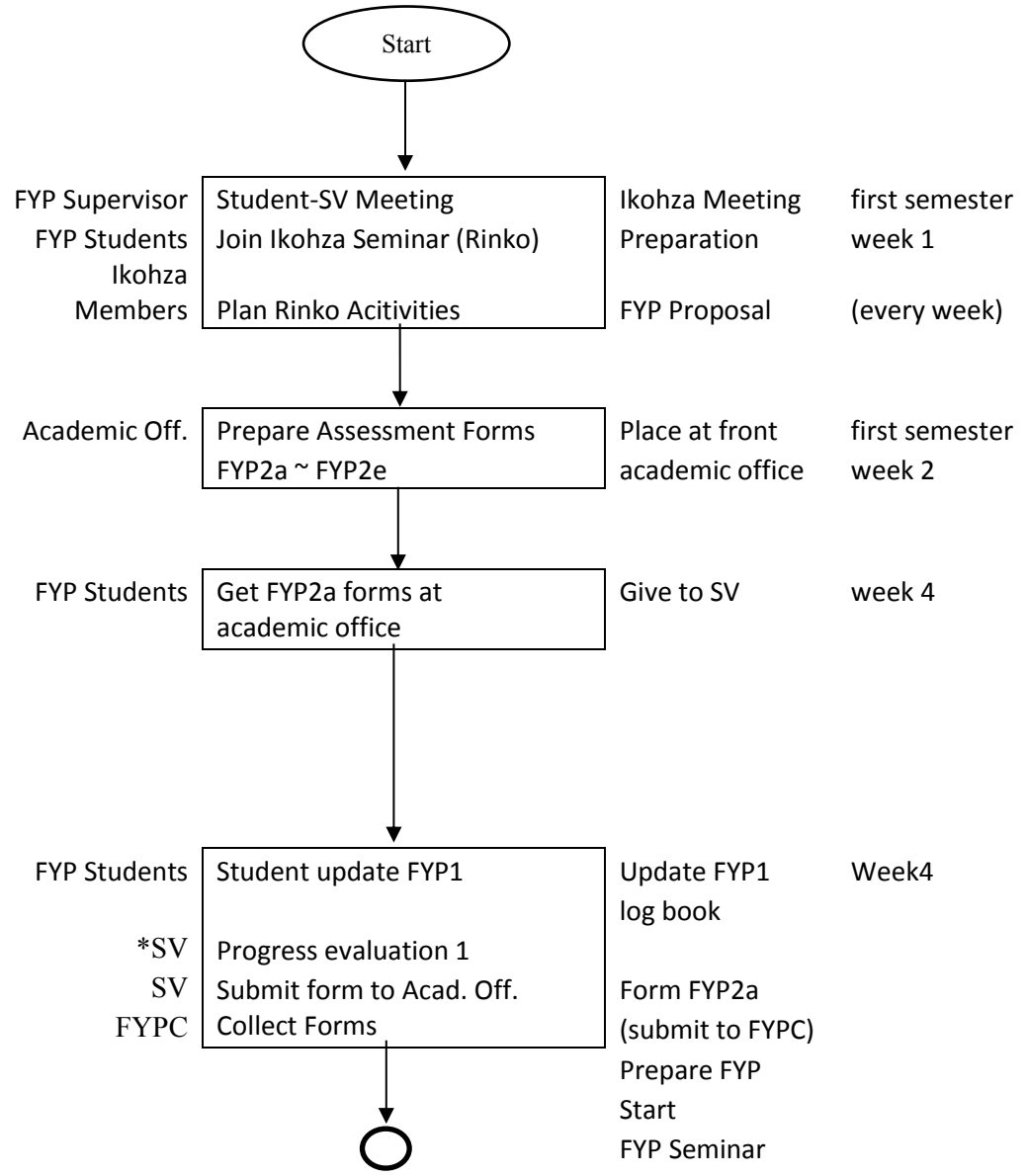
15.0 Work Flow

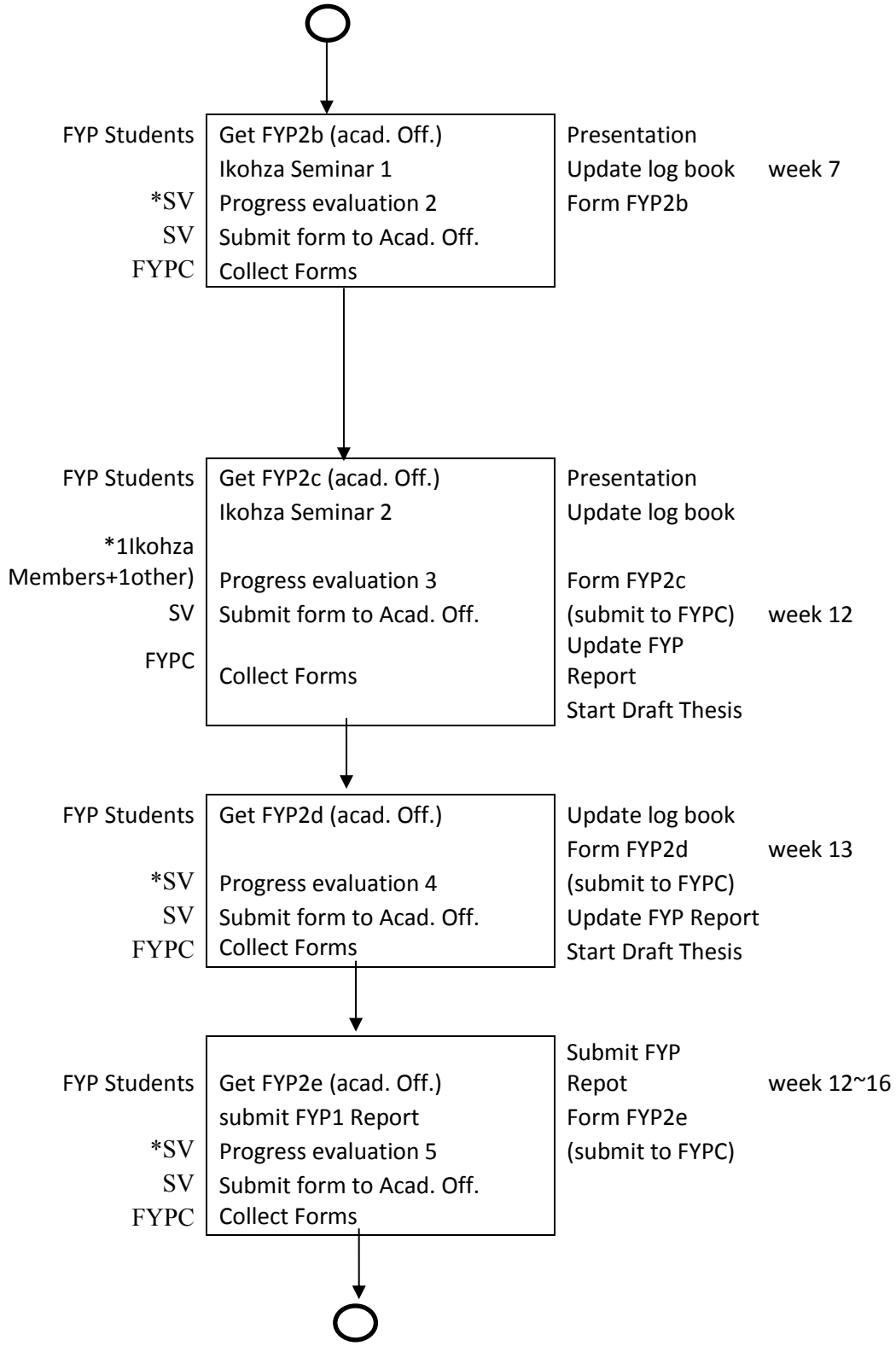
Final Year Project 1 (*assessor)

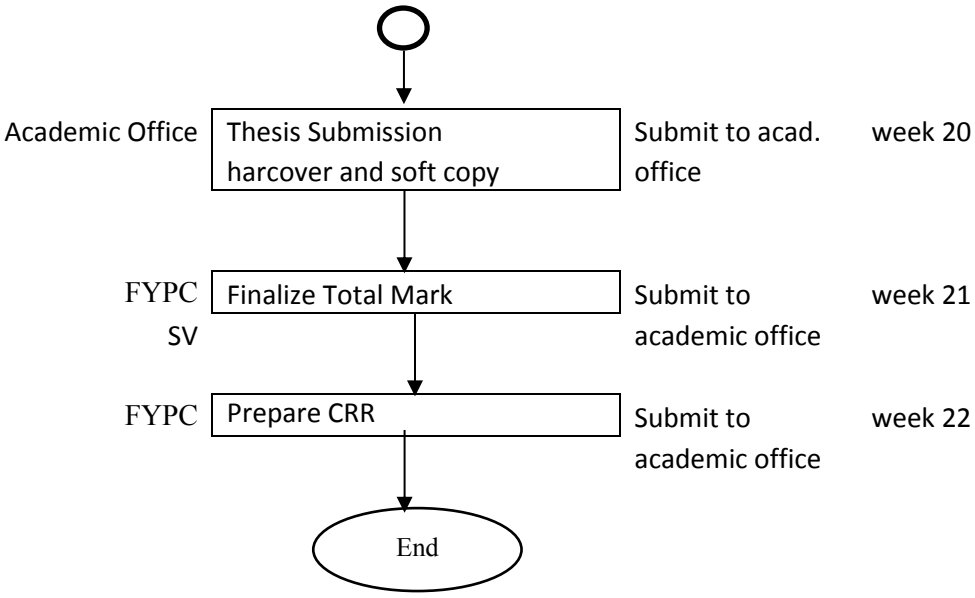



FYP Students
Get FYP1b (acad. Off.)
Ikohza Seminar 1
*SV
Progress evaluation 2
SV
Submit form to Acad. Off.
FYPC
Collect Forms
Presentation
Update log book
week 8
Form FYP1b
(averaged mark
submit to FYPC)
Update FYP Report
FYP Students
Get FYP1c (acad. Off.)
Ikohza Seminar 2
*not SV (Ikohza Members)
Progress evaluation 3
SV
Submit form to Acad. Off.
FYPC
Collect Forms
Presentation
Update log book
Form FYP1c
(averaged mark
submit to FYPC)
Update FYP Report
week 11
FYP Students
Get FYP1d (acad. Off.)
*SV
Progress evaluation 4
SV
Submit form to Acad. Off.
FYPC
Collect Forms
Update log book
Form FYP1d
(submit to FYPC)
Update FYP Report
week 12
FYP Students
Get FYP1e (acad. Off.) submit FYP1 Report
*SV
Progress evaluation 5
SV
Submit form to Acad. Off.
FYPC
Collect Forms
Submit FYP Report
*similar to postgrad. proposal
Form FYP1e
(submit to FYPC)
week 13~14
FYPC
SV
Finalize Total Mark
Submit to academic office
week 17
FYPC
Prepare CRR
Submit to academic office
week 19
End

Final Year Project 2




FYP Students
Get FYP2b (acad. Off.)
Ikohza Seminar 1
*SV
Progress evaluation 2
SV
Submit form to Acad. Off.
FYPC
Collect Forms
Presentation
Update log book
week 7
Form FYP2b
FYP Students
Get FYP2c (acad. Off.)
Ikohza Seminar 2
*1Ikohza Members+1other)
Progress evaluation 3
SV
Submit form to Acad. Off.
FYPC
Collect Forms
Presentation
Update log book
Form FYP2c
(submit to FYPC)
week 12
Update FYP Report
Start Draft Thesis
FYP Students
Get FYP2d (acad. Off.)
*SV
Progress evaluation 4
SV
Submit form to Acad. Off.
FYPC
Collect Forms
Update log book
Form FYP2d
(submit to FYPC)
week 13
Update FYP Report
Start Draft Thesis
FYP Students
Get FYP2e (acad. Off.)
submit FYP1 Report
*SV
Progress evaluation 5
SV
Submit form to Acad. Off.
FYPC
Collect Forms
Submit FYP Repot
Form FYP2e
(submit to FYPC)
week 12~16


Academic Office
Thesis Submission
harcover and soft copy
Submit to acad. office
week 20
FYPC
SV
Finalize Total Mark
Submit to academic office
week 21
FYPC
Prepare CRR
Submit to academic office
week 22
End

16.0 FINAL YEAR PROJECT 1 COURSE OUTLINE

Coordinator : Coordinator MPE,ESE,CPE

Room No. :

Telephone No. :

E-mail :

Synopsis : This course is a first stage of the Final Year Project by research at I-Kohza which involves in preliminary studies and planning on how to carry out the studies that are given to the students. The aim of this system is to inculcate good Japanese ethical values to identify problem and propose appropriate solutions. It is designed to expose the students in writing a research proposal. It will emphasize on the research philosophy and research methodology. At the end of the course, students should be able to write a research proposal in a professional manner. The students should also be able to manage and plan their research according to the period given.

LEARNING OUTCOMES

By the end of the course, students should be able to:

No.	Course Learning Outcome	Programme Outcome	Bloom Taxonomies (Soft Skills)	Assessment Methods
CO1.	**Formulate** the research title, objective and scopes.	PO2	C5	L, R
CO2.	**Survey** the literature related to the project.	PO2,PO11	C4(LL1)	L,R,Pr
CO3.	**Design** the research methodology	PO3	C5	L, R
CO4	**Adopt** Japanese working ethics.	PO8,PO10	A3(ET3)	R
C05.	**Defend** written and oral presentation of research proposal.	PO9	P3(CS1)	L, R,PR,Pr

(R- Rinko* ; PR – Project Report ; Pr – Presentation; L – Logbook)

* Defined as a periodic (weekly) seminar, presentation and discussion.

STUDENT LEARNING TIME (SLT)

Teaching and Learning Activities	Student Learning Time (hours)
1. Face-to-Face Learning	
a. Lecturer-Student Weekly Meeting	30 Hours
2. Self-Directed Learning	
a. Non-face-to-face learning or student-centered learning (SCL) such as searching & reading journal/books/others, learn software, etc.	50 Hours
b. Literature review	20 Hours
c. Assessment Preparations (Progress evaluation 1+2+3 (logbook), Seminar slide, Project report)	18 Hours
3. Formal Assessment	
a. Seminar	2 Hours
Total (SLT)	120 Hours

TEACHING METHODOLOGY
Rinko, Independent Reading & Study; Journals/Books/Others reading material.

FYP-1 ACTION PLAN

No.	Subject (Marks)	Marks (%)	Date*	Notes
8.	FYP briefing session and student-supervisor distribution.	-	3rd year final semester	All students are **required** to come. Fill in **registration** form at the end of the briefing session. Students are required to look for their supervisors and meet them as soon as possible.
9.	**Progress evaluation 1**	8	Week 5	Students are required to submit their Project Proposal and progress evaluation 1 (form **FYP 1a**) to their supervisors to be graded. Marked forms should be then submitted to the FYP coordinators.

10.	**Progress evaluation 2** (Ikohza Seminar 1)	33.5	Week 8	Students are required to submit their progress evaluation 2 (form **FYP1b**) to the Ikohzaseminar session.
11.	**Progress evaluation 3** (Ikohza Seminar 2)	19.5	Week 11	Students will present their work in a seminar. Students are required to bring **FYP1c** form to the Department seminar session.
12.	**Progress evaluation 4**	9	Week 12	Students are required to submit their progress evaluation 3 (form **FYP1d**) to their supervisors to be graded. Marked forms should be then submitted to the FYP coordinators.
13.	**Progress evaluation 5**	30	Week 13	Students are required to submit their FYP 1 report along with **FYP1e** form to their supervisors.
14.	Project marks	Total (100)	Week 16	Supervisors will submit their students' marks to the corresponding FYP coordinators at their respective departments.

*Subject to planned academic calendar

GRADING:

Rinko :22 %

Log Book/ Log File :13 %

Presentation :35 %

Report :30 %

17.0 FINAL YEAR PROJECT 2 COURSE OUTLINE

Coordinator :

Room No. :

Telephone No. :

E-mail :

Synopsis : This course is a second stage of the Final Year Project by research which involve in performing analytical/experimental/simulation works /studies at respective iKohza lab. The results of the project will be discussed with their respective supervisors, iKohza members as well as members of the departments. At the end of the course, students should be able to work independently and to produce a thesis and able to present their findings. The students should also be able to manage and plan their research according to the period given.

LEARNING OUTCOMES

By the end of the course, students should be able to:

No.	Course Learning Outcome	Programme Outcome	Bloom Taxonomies (Soft Skills)	Assessment Methods
CO1	**Complete** analytical/ experimental/ simulation works/ studies and thesis writing of the final year project	PO1,PO5	C4, P4	L,R
CO2	**Demonstrate** the ability to develop the final year project independently	PO7	A3	Pr,L,T
CO3	**Practice** the experience gained from the activities in the iKohza	PO4	P3(CTPS5)	T,R
CO4	**Explain** the findings in an organized manner	PO6,PO12	A4	Pr,T

(R- Rinko* ; T – Thesis ; Pr – Presentation; L – Logbook)

* Defined as a periodic (weekly) seminar, presentation and discussion at the respective iKohza.

STUDENT LEARNING TIME (SLT)

Teaching and Learning Activities	Student Learning Time (hours)
4. Face-to-Face Learning	
a. Lecturer-Student Weekly Meeting	30 Hours
5. Self-Directed Learning	
d. Non-face-to-face learning or student-centered learning (SCL) such as searching & reading journal/books/others, learn software, etc.	50 Hours
e. Literature review	20 Hours
f. Assessment Preparations (Progress evaluation 1+2+3 (logbook), Seminar slide, Project report)	18 Hours
6. Formal Assessment	
a. Seminar	2 Hours
Total (SLT)	120 Hours

TEACHING METHODOLOGY
Lecturer-Student Discussion, Independent Reading & Study; Journals/Books/Others reading material, Project execution

FYP-2 ACTION PLAN

	Subject	Marks(%)	Date*	Notes
1.	**Progress evaluation 1**	11	Week 4	Students are required to submit their progress evaluation 1 (form **FYP 2a**) to their supervisors to be graded. Marked forms should be then submitted to the MJIIT FYP coordinators.
2.	**Progress evaluation 2** Ikohza Seminar 1	20	Week 7	Students are required to submit their progress evaluation 2 (form **FYP 2b**) to the Ikohza seminar session.
3.	**Progress evaluation 3**	22	Week 12	Students are required to submit their progress evaluation 3 (form **FYP 2c**) to the

	Ikohza Seminar 2			department seminar session.
4.	**Progress evaluation 4**	7	Week 13	Students are required to submit their final thesis draft along with form **FYP2e** to their supervisors
5.	**Progress evaluation 5**	40	Week 15	Students are required to submit their final thesis draft along with form **FYP2e** to their supervisors.
6.	Project marks	-	Week 16	Supervisors will submit their students' marks to the MJIIT FYP coordinators
7.	Thesis Submission (hardcover) and CD (softcopy)	-	Week 16	Students need to submit two hard bounded copies of their thesis plus its softcopy (in PDF format) to the MJIIT main office.

*Subject to planned academic calendar

GRADING:

Rinko :13 %

Log Book/ Log File :10 %

Presentation :37 %

Thesis :40 %

18.0 FINAL YEAR PROJECT MAPPING

(CO/PO/ Bloom Taxonomies/Soft Skills)

FYP 1 Assessment

ASSESSMENT METHOD		CO	TAXONOMIES AND SOFT-SKILLS	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
COMPONENTS	GRADING			Engineering Knowledge	Problem Analysis	Design and Development	Investigation	Modern Tool Usage	The Engineer and Society	Environment and Sustability	Ethics	Communication	Individual and teamwork	Lifelong Learning	Engineering Project Management
Rinko		CO1	C5		2										
LogBook					2										
Rinko		CO2	C4		2										
LogBook					2										
Presentation														18	
			LL1											2	
Rinko		CO3	C5			9									
LogBook						9									
Rinko		CO4	A3								3				
			ET3										2		
Rinko		CO5	C6									4			
Presentation			C6									13			
Report			C6									30			
Presentation			CS1									2			

Rinko	22
LogBook	13
Presentation	35
Report	30
Total	100

FYP 2 Assessment

ASSESSMENT METHOD		CO	TAXONOMIES AND SOFT-SKILLS	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
COMPONENTS	GRADING			Engineering Knowledge	Problem Analysis	Design and Development	Investigation	Modern Tool Usage	The Engineer and Society	Environment and Sustability	Ethics	Communication	Individual and teamwork	Lifelong Learning	Engineering Project Management
Rinko		CO1	A4					6							
LogBook				5											
Presentation		CO2	C3							15					
LogBook										5					
Thesis										10					
Rinko		CO3	CTPS7				7								
Thesis			A2				10								
Presentation		CO4	CS3						22						
Thesis			C6						10						10

Rinko	13
LogBook	10
Presentation	37
Thesis	40
Total	100

Programme Learning Outcome

PO1	Ability to apply knowledge of mathematics, science, engineering and humanities fundamentals and System engineering* to the solution of complex engineering problems.
PO2	Ability to identify, formulate, analyse and research literature on complex engineering problems to each substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.
PO3	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	Ability to conduct investigation into complex problems on engineering* systems using research based knowledge and research methods learned Undergraduate Academic Guidelines 2013 - 2014 in iKohza and synthesis of information to provide valid conclusions.
PO5	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	Ability to apply contextual knowledge to assess societal, health, safety, legal and cultural issues and his/her responsibilities relevant to professional engineering practice
PO7	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	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	Ability to communicate effectively on complex engineering activities with the engineering community and with society at large, sometimes in Japanese
PO10	Ability to function effectively as an individual, and as a member or leader in diverse teams and in multi - disciplinary settings
PO11	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	Ability to demonstrate knowledge and understanding of engineering and management principles and apply these to one's own work.

Soft Skills

Communication Skills (CS)

CS3	Ability to make clear and confident presentation appropriate to audience

Critical Thinking and Problem Solving (CTPS)

CTPS7	Ability to comprehend and adapt to the culture of a new community and work environment

Lifelong Learning (LL)

LL1	Able to search and manage relevant information from a variety of sources

Ethics and integrity (ET)

ET3	Ability to understand the economic, environmental and socio-cultural impacts of professional practice.



MJIIT Final Year Project Manual

MALAYSIA JAPAN INTERNATIONAL INSTITUTE OF TECHNOLOGY