Project Planning

Module 1: Graduation Project Exploration

PREPARED BY

Academic Services

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Module Objectives:

After the completion of this module, the student should be able to:

1. Define a project.
2. List the phases of project planning.
3. Identify the steps of the project exploratin.
4. Submit a litreature review report on the offered projects.

Module Contents:

1.1. What is a project?

A project is a sequence of ***unique***, ***complex***, and ***connected*** activities having ***one goal*** or ***purpose*** and that must be completed by a ***specific time***, within ***budget***, and according to ***specification***.

1.2. Project Planning course objective:

The objective of Project planning is to experience the different phases of planning a technology project. The outcomes of the different activities in Project planning should provide a clear plan to execute and assemble a working prototype in Graduation Project-I and Graduation Project-II in terms 2 and 3 respectively.

1.3. Project Planning phases.

The activities in Project planning support the following five different phases:

1. Project Exploration.
2. Implementation Methodology and Testing.
3. Project planning and Cost Estimation.
4. Project Scheduling by using Gantt Chart.
5. Reporting.

To explain the project phases, a study case will usually be used.

1.4.The Project Exploration Phase:

The exploration phase sets the foundation for the project, In this phase; you should collect information on available or related designs through **literature review**. Resources would include internet, references, magazines, text books, product guide, and field visits to plants and factories.

The material collection stage is very important to prepare your literature review report.

The first question that should arise would be how the project looks like?

For example: if your project is to **design and construct an espresso machine**, the first step should be collecting the information on how the espresso machine looks like? As shown in **Fig.1.1.**

Fig 1.1: An example of an espresso machine.

One also should ask, what are the main parts of a simple espresso machine, and How does it work? The recourses should provide answers for all these questions.

For example: Fig 1.2 shows the main parts of an espresso machine which could be used in your literature review report to present the main parts.

By searching the web, you could find a lot of useful websites to answer the above questions.

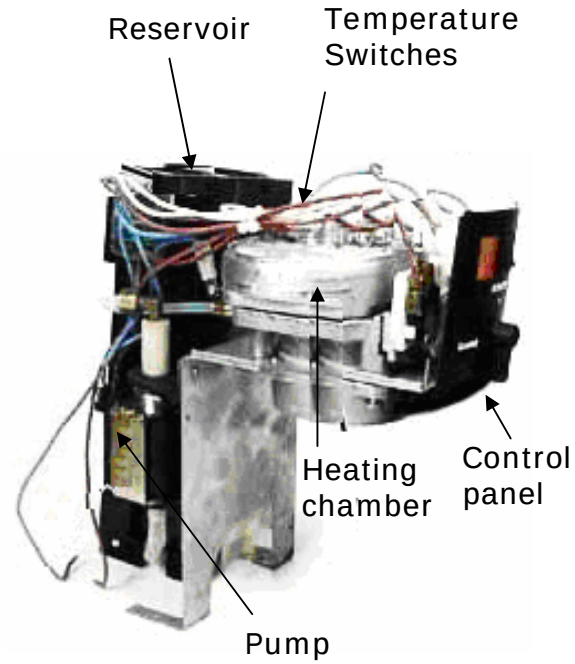

Fig 1.2: The main parts of an espresso machine.

For example:
http://home.howstuffworks.com/espresso-machine1.htm

Activity 1: Searching the web.

Identify three useful websites on each of the projects offered this semester.

Following the web searching, you can visit the library to locate a reference or a magazine related to the project.

For example: the pump is one of the main parts of the espresso machine; a reference book like ***"Centrifugal and Rotary Pumps: Fundamentals with Applications by Lev Nelik"*** could be useful. See **Fig.1.3**

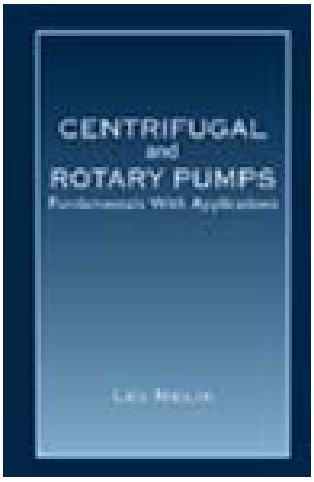

Fig 1.3: shows the reference book cover page

Activity 2: Visiting the library.

List the names of reference books, magazines, text books for each of the projects offered this semester.

After preparing a list of all the recourses, you can start searching for factories or workshops that could be visited to observe how the espresso machine is manufactured and assembled.

For example: a field trip to the Black & Decker – Dewalt factory in Jabal Ali, Dubai would be a good chance to collect information on the manufacturing process of the espresso machine.

Activity 3: Field trip locations.

Write a list of locations inside the UAE that could be visited for a field trip in each of the three offered projects.

Choose one or more locations to perform a field trip, during the field trip you should be prepared to make your own observations and contributions. Notes, diagrams, and field sketches (if appropriate) are made whilst on the field trip will prove invaluable when you get home and have to write up the field trip report.

Activity 4: Project selection.

Students discuss with team members and **select a project** of their choice.

N.B:

1. The number of students per group **should not exceed 4**.
2. Each group is required to fill in a **graduation project form** attached at the end of module 1.
3. Each group should elect a **group leader** who will coordinate the work within the group.
4. Each member should have a **specific role** in each of the performed activities.
5. All activities should be kept in the **graduation project portfolio.**

Activity 5: Literature review report.

Based on the collected materials, and the field trips, each group is required to write a **Literature review report** on the project they have selected. The report should identify the following:-

1. Internet websites.
2. Names of appropriate references that could be utilized.
3. Figures of designs and shapes available for the project.
4. The main common parts for all designs.
5. How does it work?
6. The project main tasks.
7. Knowledge and skills needed to perform the tasks.
8. The project objectives and specifications.
9. The dead line to submit the final project plan for Project planning.

Activity 6: Power point presentation.

Based on the literature review report each group should prepare a **power point presentation** to present, and discuss their findings with the other groups.

GRADUATION PROJECT FORM

Project title: ……

Student Names:

1. ……

2. ……

3. ……

4. ……

IAT Campus: ……

Section: ……

Teacher: ……