## TIE2140 Engineering Economy Tutorial 3 (Lab 1) Using Excel Financial Functions for Project Evaluation

## Objectives

- In this lab, you will learn how to use the various Excel financial functions to solve problems and project proposals involving cash flows and the time value of money.
- The following functions will be covered:
  - PV, PMT, FV, RATE, NPER
  - NPV
  - IRR
  - MIRR

## **Computer Exercises**

- 1. (a) Solve Tutorial 1 Question 5 using Excel's
  - *i*. Goal Seek
  - *ii.* RATE function
  - (b) In Tutorial 1 Question 5, if the account pays interests at 2% per month, use Excel's NPER function to determine how long it would take to achieve the same final amount if the initial amount and monthly contributions remain the same.
- 2. Solve Tutorial 2, Question 1 using Excel's
  - *i.* PV function only
  - *ii.* NPV function
- **3.** Solve Tutorial 2, Question 2 using Excel's FW function. Also, find the IRR using RATE function.
- 4. Solve Tutorial 2, Question 3 using Excel's PMT function.
- **5.** Solve Tutorial 2, Question 5 using Excel's financial functions. Find the IRR and MIRR using IRR function and MIRR function respectively.