




**SCHOOL OF INFORMATION, COMPUTER AND COMMUNICATION TECHNOLOGY
SIRINDHORN INTERNATIONAL INSTITUTE OF TECHNOLOGY
THAMMASAT UNIVERSITY**

<line>  Erase these in the actual report
<line> 
<line> 

LAB REPORT

²¹⁰
ECS 2XX BASIC ELECTRICAL ENGINEERING LABORATORY

EXPERIMENT 0 INTRODUCTION

<line>

By

<line>

Mr. A ID. 0000000000

Ms. B ID. 0000000000

<line>

Group No. 12 Section 1

<line>

Date: 19 November 2009, Time: 13:00 – 16:00

<line>

<line>

<line>

OBJECTIVES

1. To introduce the course ECS ²¹⁰~~204~~ Basic Electrical Engineering Lab.
2. To understand the concept of basic equipment and components in the laboratory and to be able to use them correctly in the subsequent experiments.

Erase the highlighted comments as well in the actual report

Remark. All are typed in font "Times New Roman" with magnitude "12 points"
A MS Word version of this guideline can be downloaded from the class web site.

<Attach all of **original (hand-written) results** that your group recorded during the lab with **TAs' signatures**.>

EXPERIMENTAL RESULTS (PRINTED)

In this page you rewrite the results obtained in the lab. Example is shown below.
No TA signature appears here.

Table 1

	Part A		Part B		Part C		
	R_1	R_2	R_1	R_2	R_1	R_2	R_3
Resistance (Ω)	3333	4444	5555	6666	7777	8888	9999
Voltage (V)	1	2	3	4	5	6	7
Current (A)	0.1	0.2	0.3	0.4	0.5	0.6	0.7

DISCUSSION

1. Summarize related theory and the way to compute the calculated values that are asked in the experiment.
2. Show the percentage error between calculations and measurements of all values.

Calculations

In Part A.

We use the formula below to obtain the calculated value.

$$V_1 = \frac{V_{ps} \times R_1}{R_1 + R_2}.$$

- Calculate the value V_1 , $V_1 = \frac{12 \times 2000}{1000 + 2000} = 8$ volt .
- Calculate the value V_2 , $V_2 = \frac{12 \times 1000}{1000 + 2000} = 4$ volt .

In Part B.

.....

In Part C.

.....

Percentage Error

	Part A		Part B		Part C		
	R ₁	R ₂	R ₁	R ₂	R ₁	R ₂	R ₃
Resistance (Ω)	3%	4%	5%	6%	7%	8%	9%
Voltage (V)	0.1%	0.2%	0.3%	0.4%	0.5%	0.6%	0.7%
Current (A)	0.11%	0.22%	0.33%	0.44%	0.55%	0.66%	0.77%

Example of Percentage error Calculation

Note that the percentage error above is computed from the formula

$$\text{error} = \frac{(\text{measured} - \text{calculated})}{\text{measured}} \times 100 \text{ \%}.$$

CONCLUSION

In the conclusion you must state your understanding according to the objectives of the experiment, as well as the knowledge gained from the experiment. Explain the things about which you are concerned in the lab.

QUESTIONS

Type the answers carefully. Make sure that you provide enough explanation/derivation.