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

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LAB REPORT
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ECS 204 BASIC ELECTRICAL ENGINEERING LABORATORY
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EXPERIMENT 0 INTRODUCTION
\<line\>
By
\<line\>
Mr. A   ID. 0000000000
Ms. B   ID. 0000000000
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Group No. 12 Section 3
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Date: 9 January 2012, Time: 9:00 – 12:00
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OBJECTIVES

1. To introduce the course ECS 204 Basic Electrical Engineering Lab.
2. To gain some understanding of basic equipment and components in the laboratory, and to be able to use them correctly in the experiments throughout the course.

\<Remark. Use "**12-point Times New Roman**".   \>
\<A Microsoft Word version of this guideline can be downloaded from the class web site.   \>

PROCEDURE

<In this section, <u>summarize</u> what you need to do for each part of the lab.   >
<(Do not copy the whole procedure part of the manual into this section.)   >
<Include photos of the circuits that you build. A rule of thumb is to have photos that match all the figures   >
<given in the procedure parts of the manual.   >

<Attach all of **original (hand-written) results** that your group recorded during the lab (with **TAs' signatures)**.   >
<This will be the only section of the report that is handwritten.   >

EXPERIMENTAL RESULTS

<In this section, rewrite (actually, retype or replot) the results in the previous part. >
<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

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

Calculations

In Part A.

The calculated values of V_i ($i = 1$ or 2) are obtained using the "voltage divider" formula

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

For example,

- The value V_1 in the second row of Table X is calculated from

$$V_1 = \frac{12 \times 2000}{1000 + 2000} = 8 \text{ V}.$$

- The value V_1 in the second row of Table X is calculated from

$$V_2 = \frac{12 \times 1000}{1000 + 2000} = 4 \text{ V}.$$

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%

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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.   >

ANSWERS TO QUESTIONS

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