PRACTICUM SISDIG

MODUL 2

DIGITAL SYSTEM

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INFORMATION TECHNOLOGY
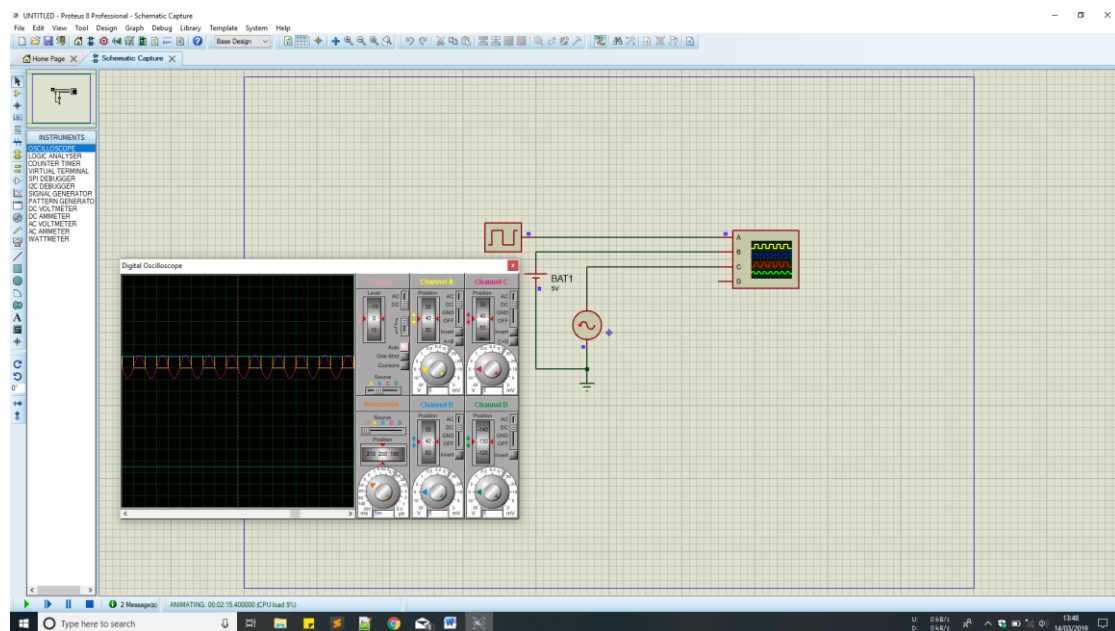
FACULTY OF COMMUNICATION AND INFORMATIC

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Practicum Activities

Exercise 1. Signal Type Exercises

| No	Device	Information
1	Alternator	V= 5 Volt, F = 100Hz
2	Cell	V= 5 Volt
3	Clock	F =100Hz
4	Ground	Pick from the terminal
5	Osiloskop	Pick from instrumen

Explanation:

Channel A and C the trigger is B(auto) and have position 40.

Channel B and C horizontal position 200, channel B = 40 Channel D = 130.

A, B ,C , D have signal DC

No	Device	Information
1	Alternator	V= 10 Volt, F = 50Hz
2	Cell	V= 7 Volt
3	Clock	F =200Hz

Vpp/div = 5mV

Time/div = 5m
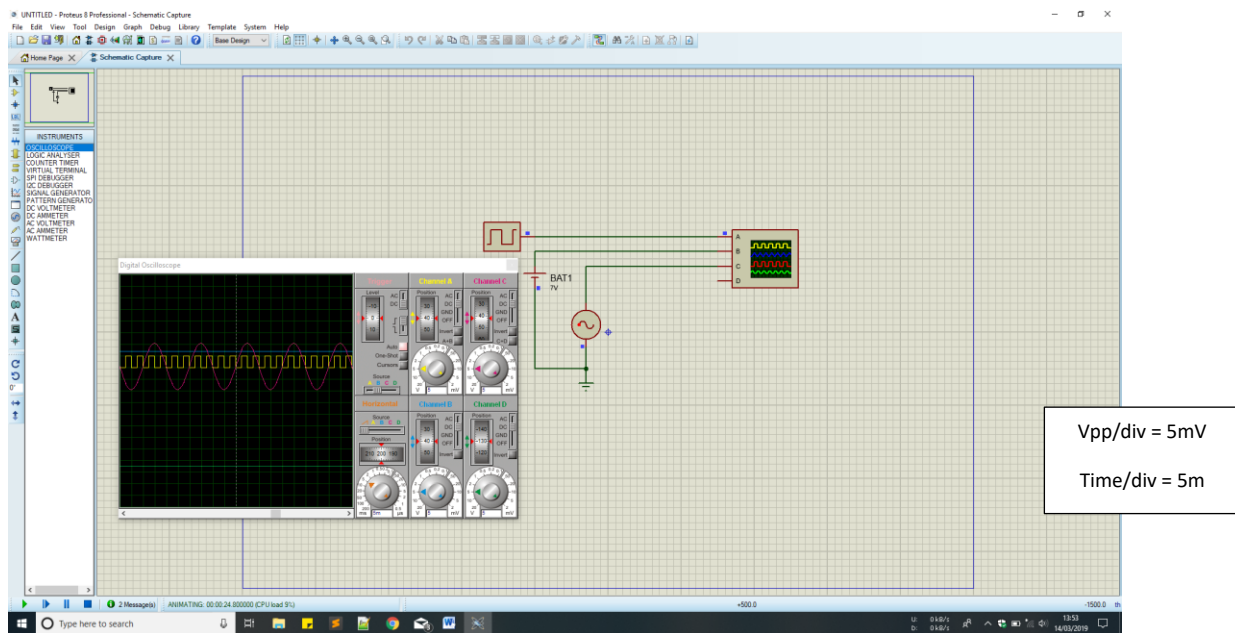
Explanation :

Signal A squared up which is unstable up and down.

Signal B stable and it is above from other signal .

Signal C frequency is wavy and quite bigger than the others.

Signal D stable is below from the other.

Question :

a. What is the difference between analog and digital signals?
- Signal analog is stable
- Signal digital is unstable

b. How the signal character in each component?
- Signal from the alternator (Analog) Because can not be measured on / off can only be the highest and lowest voltage
- Signal from the battery (Analog) Because stable and unstable
- Signal from the clock source (Digital) Because can be seen on / off in and out

Conclusion :

Digital signals can be seen in and out or the power is off and the analog signal is stable and continues to be uninterrupted. And remember all of these are in the same DC not different at all.

Exercise 2. Digital Signal Range Exercise

No	Device	Information
1	Cell	Edit to 10V
2	SW-SPST	
3	POT-HG	
4	Logicprobe	
5	Ground	Pick from the terminals
6	DC Voltmater	Pick from instrument
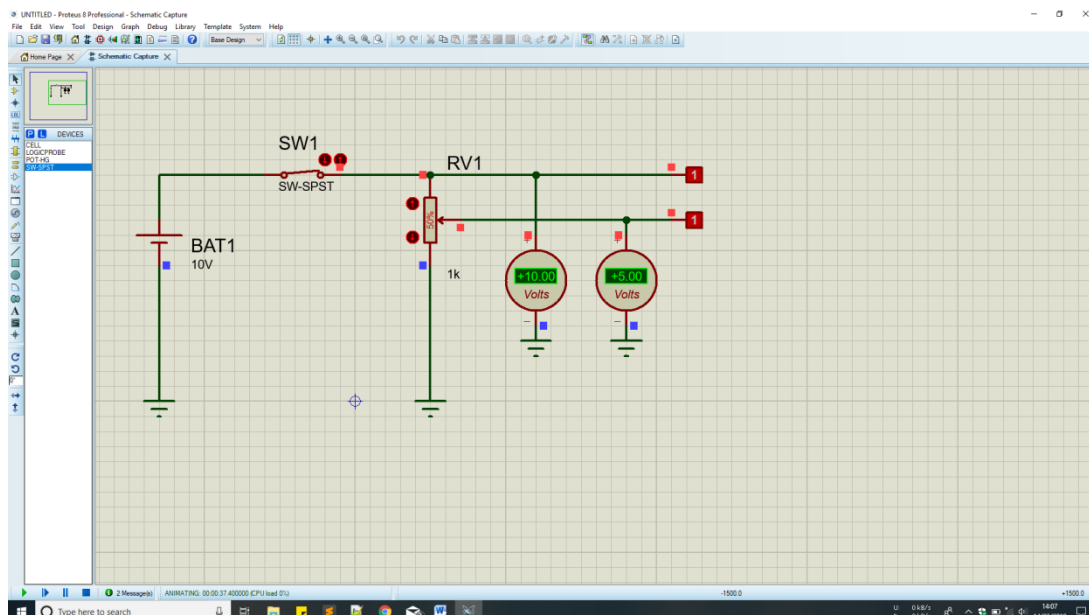
1. SW1
   a. Voltmeter DC 1 : +10.00 Volt
   b. Voltmeter DC 2 : +5.00 Volt
   c. Logicprobe 1 : on
   d. Logicprobe 2 : on
2. Component RV1
   a. High (1)

+5 Volt ➔ +10 Volt
So the maximum voltage from RV1 is +10Volt and the minimum occur is +5 Volt.
b. Low (0)
0Volt
It is Zero Voltage because there is no connection from the SW1.

Conclusion :

When you turn it on the SW1 it will occur to the other, and as seen on the above the logicprobe in High when you turn it on. And when the logicprobe are in low (0) it is zero voltage because the SW1 didn't turn on a.k.a it off.