# DIGITAL SYSTEM LABORATORY WORK ASSIGMENT 1



### **By**:

### NADHIFAH CHAIRUNNISA

NIM: L200184137

# INFORMATION TECHNOLOGY FACULTY OF COMUNICATION AND INFORMATIC MUHAMMADIYAH UNIVERSITY OF SURAKARTA

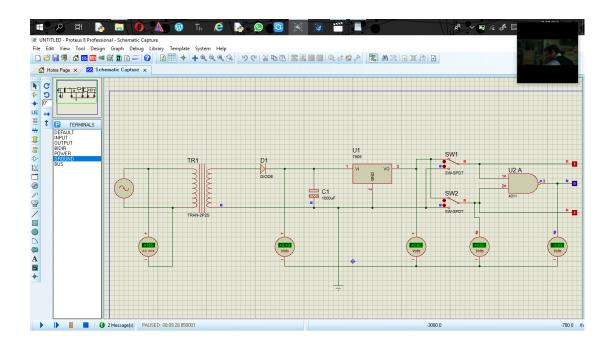
NIM : L200184137

NAME : NADHIFAH CHAIRUNNISA

CLASS : X

ASSISTANT : SALSA SASMITA MUKTI

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a. Voltmeter AC: +155 Volt

b. Voltmeter DC 1:+2.10 Volt

c. Voltmeter DC 2: +0.92 Volt

d. Voltmeter DC 3: +0.92 Volt

e. Voltmeter DC 4: -3.93 Volt

#### Answer the Question Below!

### what is the difference between AC and DC voltage?

• AC : alternating current

DC: direct current

- AC voltage is easier to produce than DC voltage.
- AC voltage can be easily changed and transmitted, but DC voltage is difficult to change; Therefore they are difficult to send.
- Active components such as inducers, capacitors, transistors, and ammeters respond to AC voltage in a different way from DC voltage.
- A capacitor will forward the AC voltage, but it will block the DC signal while the induser will do the opposite.
- Clean area under voltage the time curve of an AC signal is zero while not zero for a DC signal.

## • What is the Character of the Voltage on Each Voltmeter?

- voltage in an AC voltmeter: (AC / <del>DC</del>) and has a character: <u>positive</u>
   stable
- voltage in an DC 1 voltmeter: (AC / DC) and has a character: <u>positive</u> unstable
- voltage in an DC 2 voltmeter: (AC / DC) and has a character: <u>positive</u> <u>unstable</u>

- voltage in an DC 3 voltmeter: (AC / DC) and has a character: <u>positive</u> <u>unstable</u>
- voltage in an DC 4 voltmeter: (AC / DC) and has a character: negative unstable