PRACTICAL ASSIGNMENT

MODUL 3

DIGITAL SYSTEM

By:

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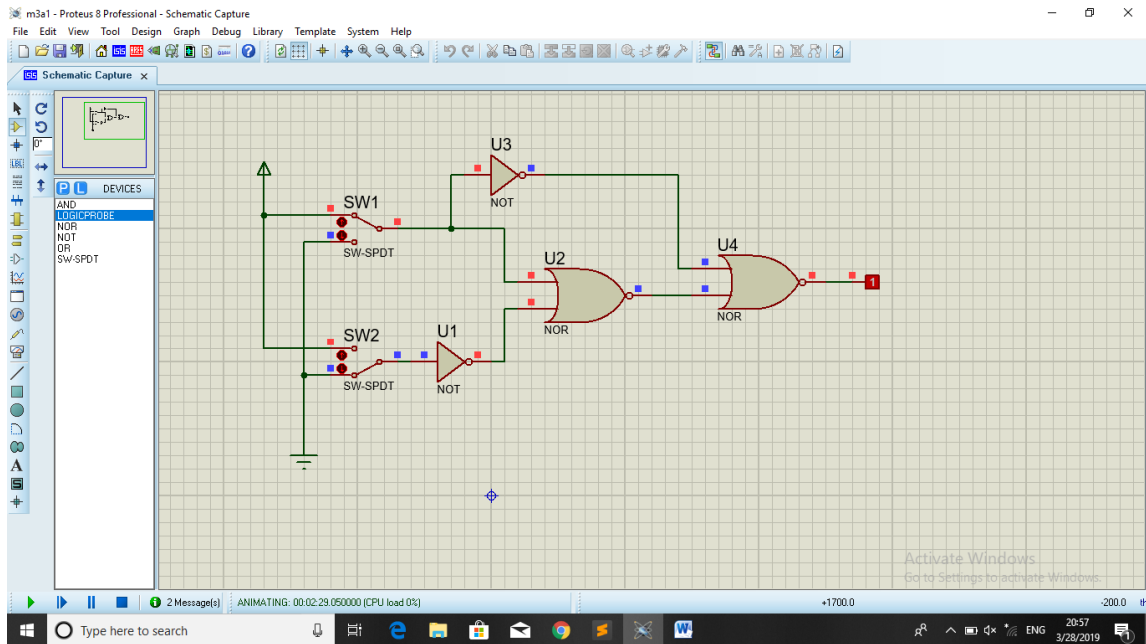
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INFORMATION TECHNOLOGY

COMMUNICATION AND INFORMATICS FACULTY

MUHAMMADIYAH UNIVERSITY OF SURAKARTA
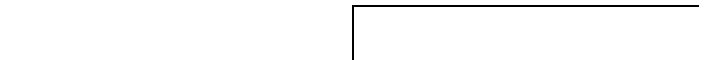
1. **Create a logic gate combination**

a. **Truth table and time diagram**

   i. Truth table

SW1	SW2	F
0	0	0
0	1	0
1	0	1
1	1	1

   ii. Time diagram

F

b. **Boolean function**

$$F = \neg(\neg X + \neg(X+Y)) = X(X+\neg Y)$$

2. **Create a logic gate circuit based on the following Boolean function!**

$$F = \neg((\neg A)B + C) + ((\neg D)E)$$