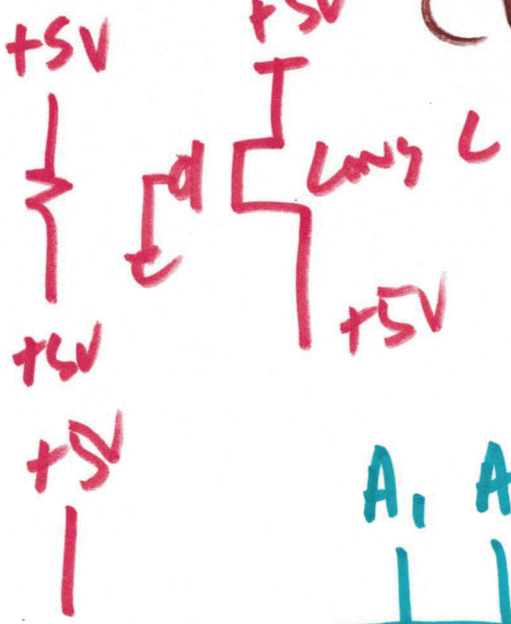
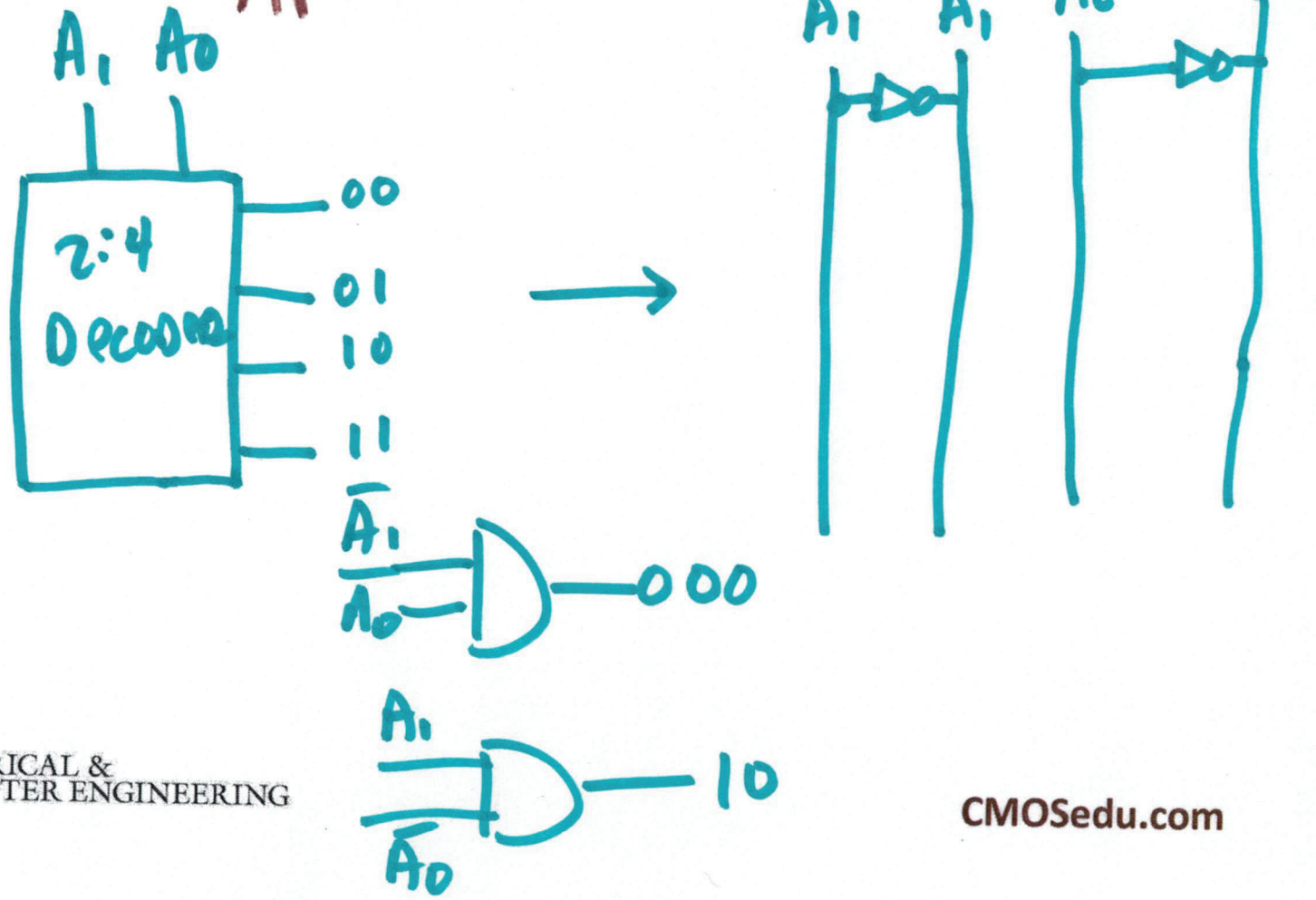
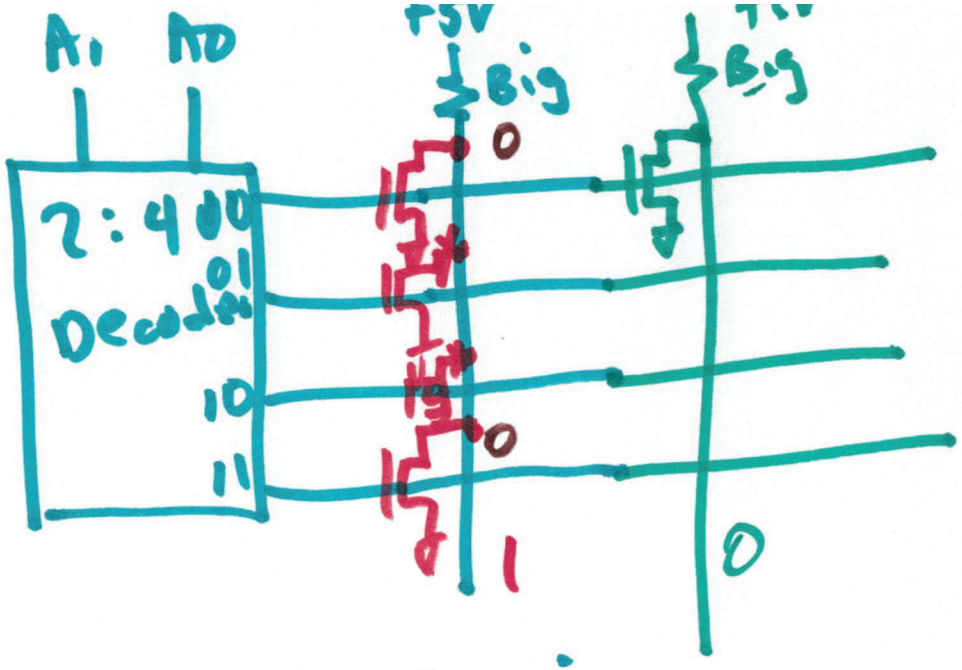
CPE 100 Digital Logic Design

Lecture 25

April 28, 2021





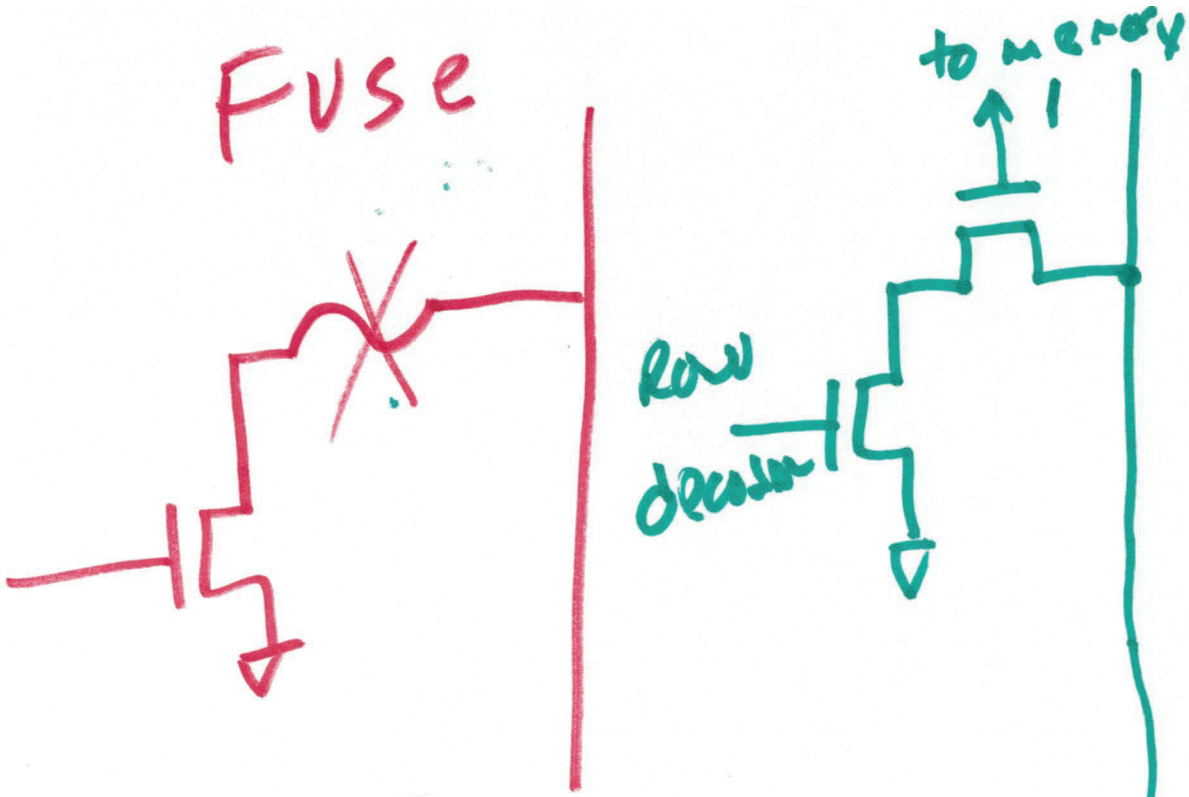


XOR logic

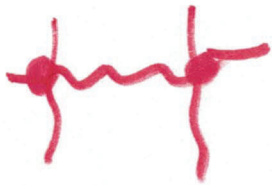
A_1	A_0	XOR
0	0	0
0	1	1
1	0	1
1	1	0

OR gate

A_1	A_0	OR
0	0	0
0	1	1
1	0	1
1	1	1



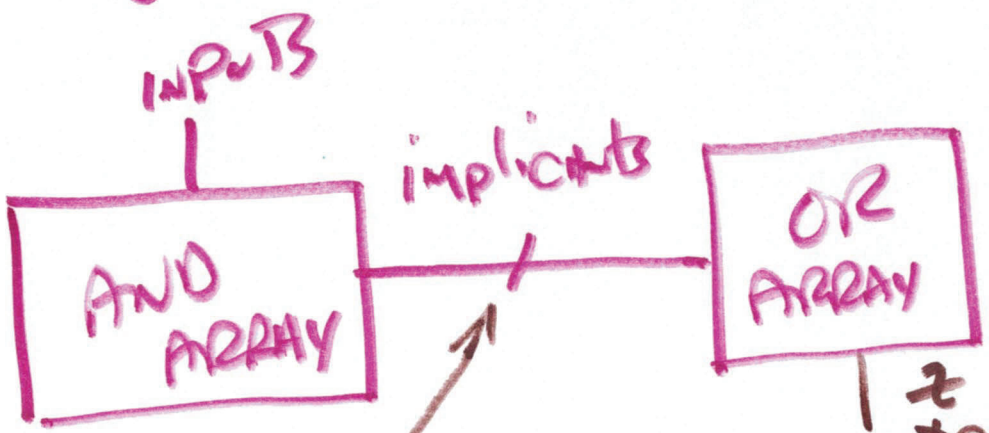
Anti fuse



$$A\bar{B} = \bar{Y}$$

$$y = \bar{A} + B$$

Programmable Logic ARRAY (PLA)



Sum of products

$X = \bar{A}\bar{B}\bar{C} + A\bar{B}\bar{C}$

$A\bar{B}C\bar{D}$, $A\bar{C}$, $\bar{A}D$ — implicants

$Z = A\bar{B}C\bar{D} + A\bar{C} + \bar{A}D$