

ECE/CS 252, Fall 2010 Prof. Mikko Lipasti Department of Electrical and Computer Engineering University of Wisconsin – Madison

































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Summary

MOS transistors used as switches to implement logic functions.

- N-type: connect to GND, turn on (with 1) to pull down to 0
 P-type: connect to +2.9V, turn on (with 0) to pull up to 1

Basic gates: NOT, NOR, NAND

Logic functions are usually expressed with AND, OR, and NOT

Properties of logic gates

• Completeness: can implement any truth table with AND, OR, NOT • DeMorgan's Law: convert AND to OR by inverting inputs and output

Building logic functions from a truth table