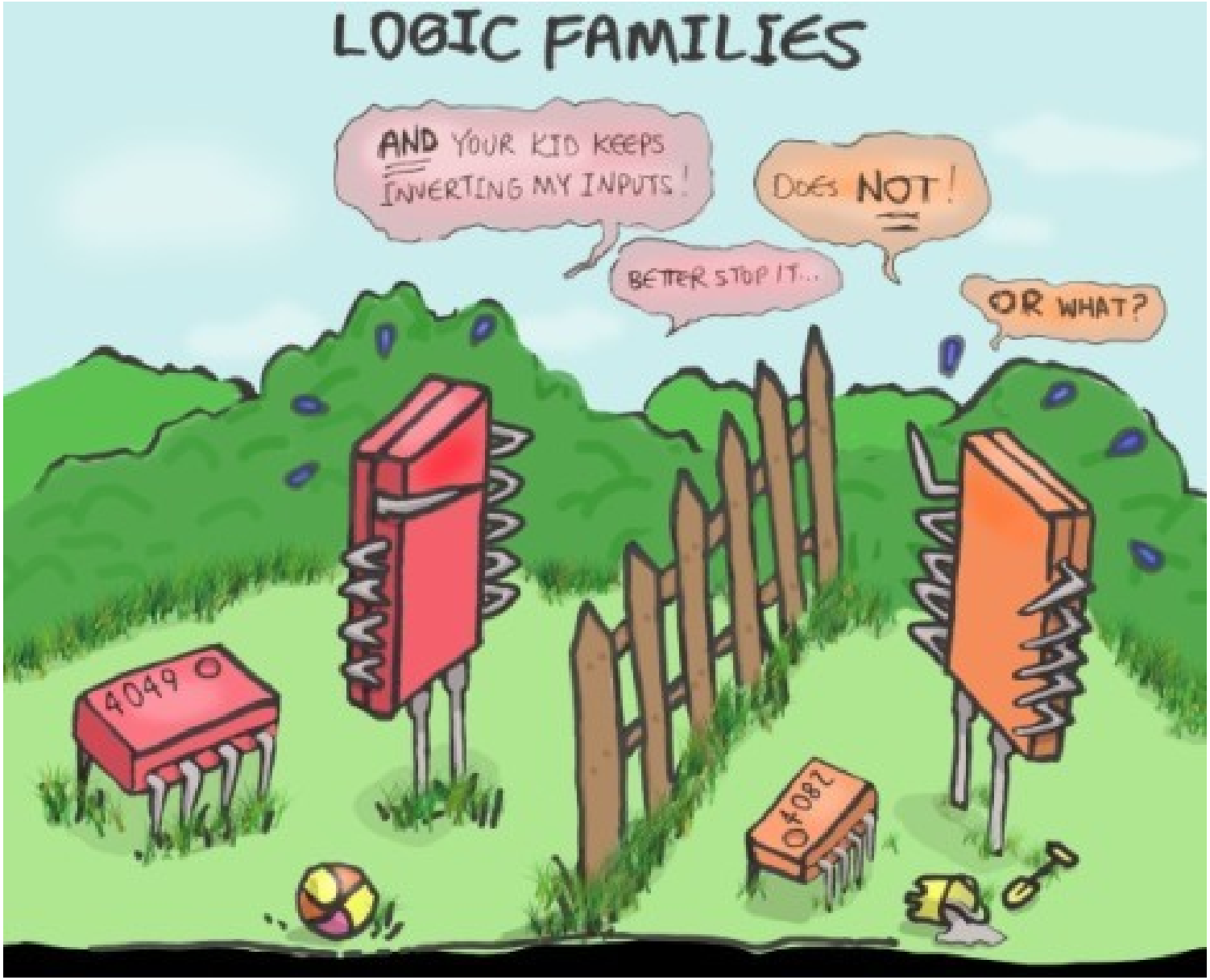
LOGIC FAMILIES
AND YOUR KID KEEPS INVERTING MY INPUTS!
DOES NOT!
BETTER STOP IT...
OR WHAT?
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Lecture 1
Digital Logic - Introduction

Chintan Kr Mandal

Beginning Digital Logic !!!

In this course we are going to be introduced to Digital Logic.
There are lots of reasons to learn digital logic.

- Digital circuits are employed in the design of systems such as digital computers, control systems, data communications and many other applications that require digital hardware.
- Digital logic is the foundation for digital computers. *If we want to understand the innards of computers you need to know digital logic.*
- Digital logic has relations to other kinds of logic including:

Formal logic as taught by many philosophy departments

Fuzzy logic a tool used to design control systems and many other systems.

Boolean logic an extension of logic ....

  - So, in learning digital logic we learn something that helps us elsewhere.

What are we going to go through ??

- The background - the basics of digital logic - things like zeros and ones (0s and 1s) and how we can represent signals as sequences of zeroes and ones.
- We will also come to know about digital circuits - gates, flip-flops and memory elements and others - so that we can eventually design circuits to manipulate digital signals.

Here is a short list of the topics we will discuss

- Logic Signals .. What they look like ....
- Boolean algebra for logic analysis
- Digital Gates that process logic signals
- Design some smaller logic circuits
- Flip-Flops and memory elements that store logic signals

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