CSE 4205
Digital Logic Design

Introduction

Course Teacher: Md. Hamjajul Ashmafee

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Administration

- **Course Credit:** 3 (Total marks 300)
- **Lectures:** Tuesday [10.30-11.45] and Wednesday [10.30-11.45]
- **Sessional Works:** Monday [10.30-1.00] – Group C/D – Lab 6
  Wednesday [8.00-10.30] – Group A/B – Lab 6
- **Discussion:** Based on prior appointment

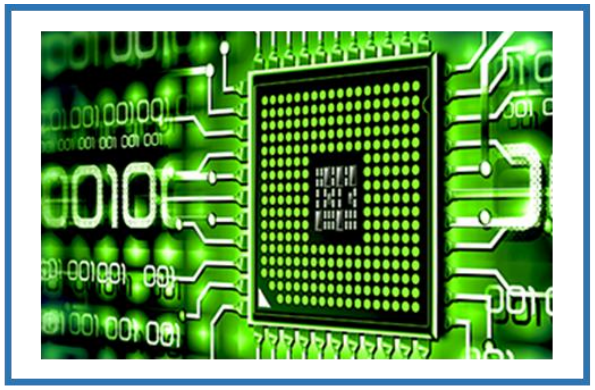
Administration

- **Textbooks:**
  - Digital Logic and Computer Design – M. Morris Mano - 4E
  - Digital Fundamental – Thomas L. Floyd – 8E
- **Grading:**
  - Quiz/Assignment/Class performance: 15%
  - Mid term examination: 25%
  - Final examination: 50%
  - Attendance: 10%

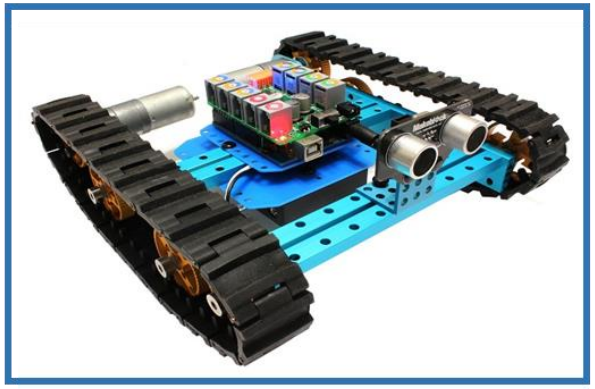
Motivation

- Revolution of Microprocessor and Semiconductor
- **Robert Noyce** (1927-1990)
  - "Mayor of Silicon Valley"
  - Confounder of Semiconductor
  - Confounder of INTEL
  - Co-inventor of IC
- **Gordon Moore**
  - Confounder of INTEL
  - **Moore's Law:** the number of transistors on a computer chip doubles every year (observed in 1965)
  - Since 1975, transistor counts have doubled every two years.

Prospect of this Course



Computer Architecture



Robotics

Industrial Automation

Intelligent Security Control

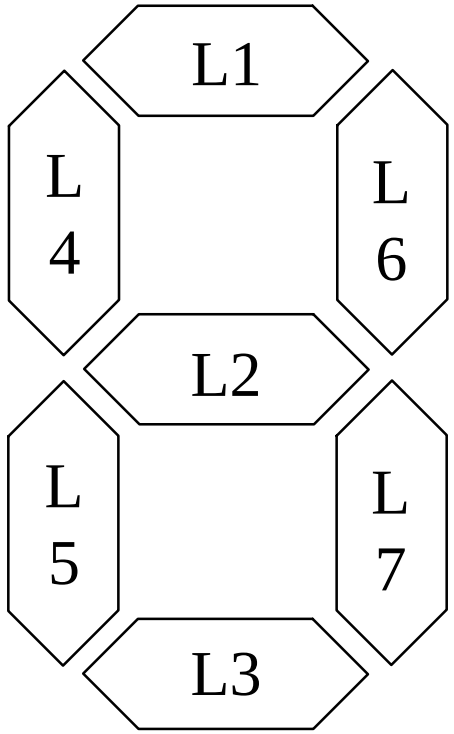
... many more

Prospect of this Course

A good start is needed.

This course is very fundamental for the students who want to continue job/research in Computer design, Robotics etc. Simulation software for designing different logic gates will also be exercised. Students can form study group to solve the problems.

Case Study (cont.)



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0	0	1	1	3	1	1	1	0	0	1	1
0	1	0	0	4	0	1	0	1	0	1	1
0	1	0	1	5	1	1	1	1	0	0	1
0	1	1	0	6	1	1	1	1	1	0	1
0	1	1	1	7	1	0	0	0	0	1	1
1	0	0	0	8	1	1	1	1	1	1	1
1	0	0	1	9	1	1	1	1	0	1	1