

# COL215L: Digital Logic & System Design

## Lecture 2: CMOS Circuits



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# Platforms

- Moodle
  - Useful Links, Quizzes, Tutorials, Slides, Notes
- Teams
  - Live Lectures
- Impartus
  - Recorded Lectures with Slides
- Gradescope (<https://www.gradescope.com/>)
  - Minor and Major Exams
- Piazza ([http://piazza.com/iit\\_delhi/fall2021/col215](http://piazza.com/iit_delhi/fall2021/col215)) Access Code: col215
  - Discussion

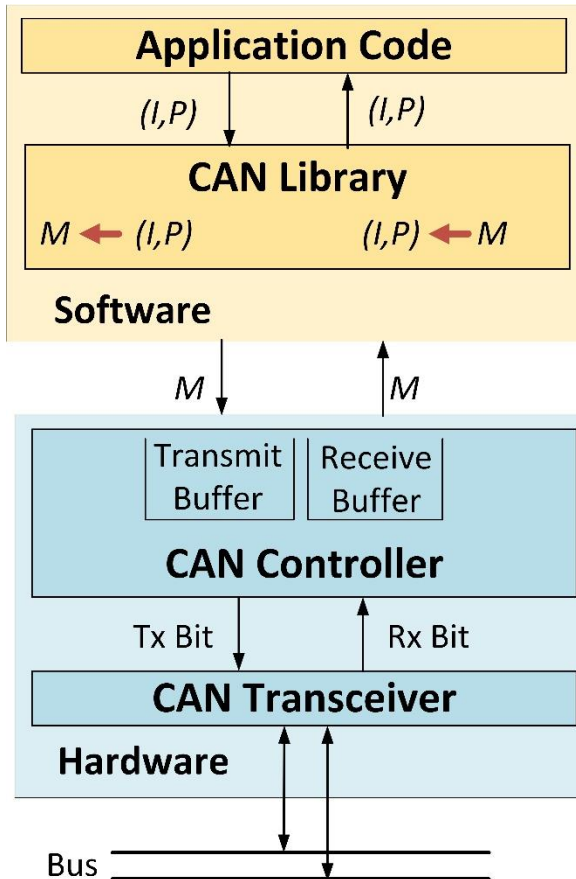
# Books

- Book-1
  - Stephen Brown and Zvonko Vranesic, “Fundamental of Digital Logic with VHDL Design,” 3rd edition, McGraw Hill, 2013.
- Book-2
  - M. Morris Mano, “Digital Logic and Computer Design,” Pearson, 2017.
- Book-3
  - M. Rafiquzzaman “Fundamentals Of Digital Logic And Microcomputer Design,” 5th edition, Wiley, 2005.

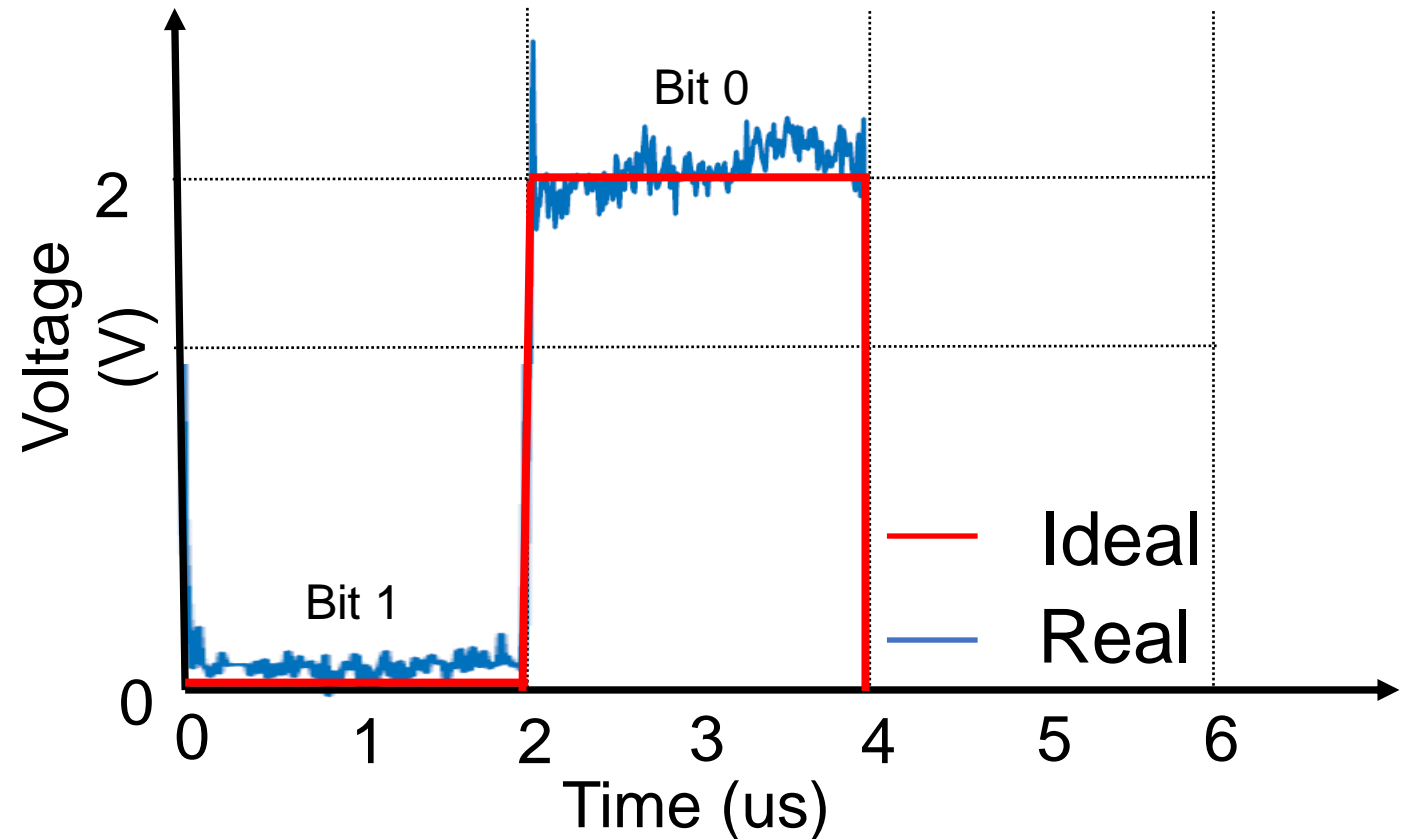
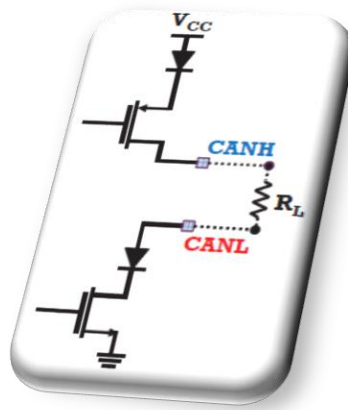
# Agenda

- Transistors NMOS
  - Chapter 3, Book-1 [Brown & Vranesic, 2013]

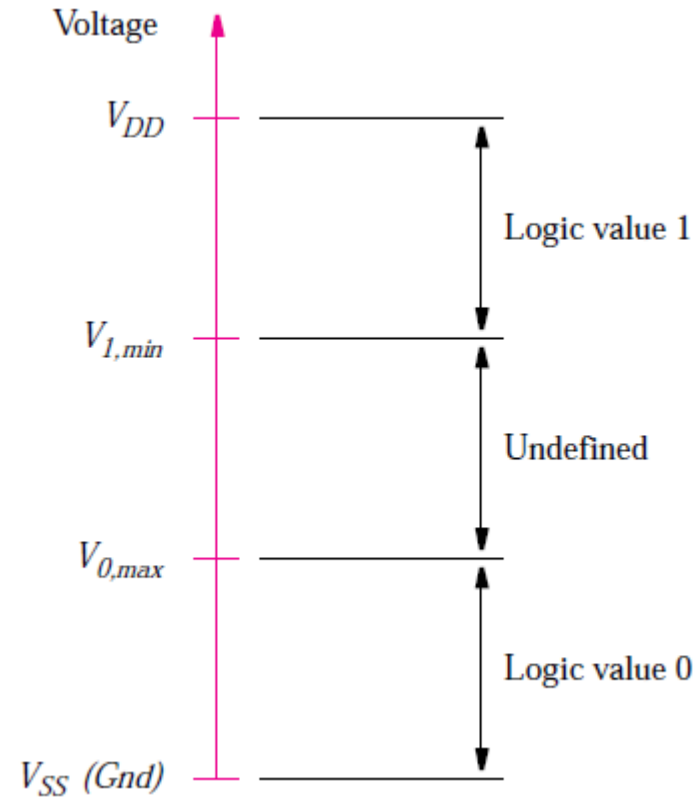
# Automotive Controller Area Network (CAN)



$I$  – Message Identifier  
 $P$  – Message Payload  
 $M$  – CAN Message



# Digital Logic and Voltage Values



Mapping of digital logic and voltage values [Brown & Vranesic, 2013].