

# ECE 451-101 – Computer Systems Design

Fall 2016

- Credits :** 3
- Time :** Wednesday 6:00-9:05 PM
- Location :** FMH 308
- Instructor :** Dr. Bipin Rajendran  
Phone: x3516  
Email: bipin@njit.edu
- Office Hours :** Wednesday 4:00-5:00 PM
- Textbook :** Computer Organization and Design, The Hardware/Software Interface  
5th edition  
Patterson and Hennessy  
ISBN-13: 978-0124077263  
ISBN-10: 0124077269
- Syllabus:** Focuses on advanced concepts in computer systems design, and the interaction between hardware and software components at various levels (i.e., hardware/software co-design). Introduces common performance measures used by hardware and software designers to facilitate comparative analysis. Main topics are: advanced pipelining, good instruction sets, CISC and RISC microprocessors, introduction to parallel computing, and a brief historical survey of computer designs.
- Prerequisite:** ECE 353
- Honor Code:** The NJIT Honor Code will be upheld, and any violation will be brought to the immediate attention of the Dean of Students.
- Details:** Lecture slides, HWs and other details will be uploaded in moodle. Please check regularly during the semester.