

## EEE 563 Analogue and Digital Computer

Analogue computation, electrical analogue of mechanical, electromechanical system and servomechanism. Analogue computer element: potentiometers, operational amplifiers function generators, simulation of system transfer functions. Digital computer structure and elements, CPU , storage , peripheral Arithmetic processes, Hybrid computer systems. Hardware design of digital computers. Arithmetic and logic unit, adder, multipliers, dividers, logic and sifting operations. Floating point arithmetic. Memory organization, design of a basic computer. Instruction set, structure. Fetch-execute micro-operations, hardwired control unit, microprogrammed control unit. Index registered addressing, interrupt operation, direct memory access. Organization of commercially available computers.