CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (A)

ECE Department

Value added courses

20ECV01

Course Title: MEMORY TECHNOLOGIES

Instruction	30 L Hours per Week

Random Access Memory Technologies: Static Random-Access Memories (SRAMs), SRAM Cell Structures Bipolar SRAM, Advanced SRAM Architectures, Application Specific SRAMs.

DRAMs, MOS DRAM Cell, Bi-CMOS DRAM, Advanced DRAM Design and Architecture, Application Specific DRAMs, SRAM

Non-Volatile Memories: Masked ROMs, PROMs, Bipolar & CMOS PROM, EEPROMs, Floating Gate EPROM Cell, OTP EPROM, EEPROMs, Non-volatile SRAM, Flash Memories.

Advanced Memory Technologies and High-density Memory Packing Technologies: Ferroelectric Random-Access Memories (FRAMs), Analog Memories, Magneto Resistive Random-Access Memories (MRAMs), Experimental Memory Devices.

Memory Hybrids (2D & 3D), Memory Stacks, Memory Testing and Reliability Issues, Memory Cards, High Density Memory Packaging.

TEXT BOOKS:

1. Ashok K Sharma, “Advanced Semiconductor Memories: Architectures, Designs and Applications”, Wiley Interscience

2. Kiyoo Itoh, “VLSI memory chip design”, Springer International Ed.