

ECE186, SPRING 2002

LECTURE TOPICS, KEY WORDS & OUTLINE FOR MARCH 13, MARCH 18, AND MARCH 20, 2002.

ADDITIONAL READINGS( FOR ROM & RAM TECHNOLOGIES):

- LECTURE NOTES: PAGES 72-77

MAIN TOPICS FOR THE NEXT THREE CLASSES:

- PARALLEL INPUT PORT DESIGN
- PARALLEL OUTPUT PORT DESIGN
- HAND-SHAKING FOR INPUT-OUTPUT TRANSFERS.
- SOFTWARE FOR INPUT-OUTPUT PORT CONTROL
- POLLING ROUTINE
- VERY BRIEF INTRO TO INTERRUPTS
- DEVICE DRIVER SOFTWARE ROUTINES
- DESIGN EXAMPLES:
  - 8-BIT INPUT PORT WITH DIP SWITCH
  - 8-BIT OUTPUT PORT WITH LEDS
  - CENTRONICS PARALLEL PRINTER INTERFACE

KEY WORDS:

PORT, ADDRESS DECODER, DEVICE SELECT PULSE( DSP), TRI-STATING, LATCH, HAND-SHAKING, BUSY/READY\*, STROBE, ACKNOWLEDGE, POLLING( PROGRAMMED I/O) , INTERRUPT-DRIVEN I/O, VECTORED INTERRUPT, PRIORITY, INTERRUPT SUBROUTINE, DAISY CHAINING, DIRECT MEMORY ACCESS ( DMA ).

READINGS ON INPUT-OUTPUT PORTS:

- LECTURE NOTES : PAGES 61-71