

## SESSION 13

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### THE INPUT-OUTPUT SYSTEM

#### OBJETIVES

- To know buses concepts.
- To know how to improve buses performance.
- To know external memories concepts.
- To know how hard disks are implemented
- To know how CD-ROM and DVD are implemented
- To know how magnetic tapes are implemented

#### PREVIOUS KNOWLEDGE

Deep knowledge of digital electronic. Basic knowledge about I/O devices.

#### BIBLIOGRAPHY

- Fundamentos de los Computadores. Pedro de Miguel Anasagasti. Thomson-Paraninfo, 9º ed. 2004.
- Estructura y Diseño de Computadores. David. A. Patterson and John L. Hennessy Ed. Reverte 2000.
- Organización y Arquitectura de Computadores. William Stallings. Pearson-Prentice Hall, 2006

#### TASKS

##### READINGS

FUNDAMENTOS DE LOS COMPUTADORES (Pedro de Miguel Anasagasti. Thomson-Paraninfo. 2004)

1. Chapter 3. Memories
  - a. Magnetic disks (3.5.2)
  - b. Optical memories (3.5.3)

ESTRUCTURA Y DISEÑO DE COMPUTADORES (D. A. Patterson and J. L. Hennessy.Ed. Reverte 2000)

1. Chapter 8. Processors and devices interface
  - a. Types of I/O devices and their characteristics (8.3)

ORGANIZACIÓN Y ARQUITECTURA DE COMPUTADORES. (W. Stallings. Pearson-Prentice Hall, 2006) a. Chapter 6. External memory

##### EXERCISES

Download [http://atc2.aut.uah.es/~avicente/asignaturas/eoc/pdf/enunciados\\_t5.pdf](http://atc2.aut.uah.es/~avicente/asignaturas/eoc/pdf/enunciados_t5.pdf) some of them will be solved during the classes.