

SESSION 1

THE DATAPATH

OBJETIVES

- To know basic arithmetical and logical operations.
- To know add operation importance.
- To know add acceleration circuits and techniques.
- To apply previous knowledge to solve exercises

PREVIOUS KNOWLEDGE

Digital electronic, an assembly language, representation systems and operand and addressing modes concepts.

BIBLIOGRAPHY

- Fundamentos de los Computadores. P. De Miguel Anasagasti
Ed. Thomson-Paraninfo. 9º Edición. 2004
- ESTRUCTURA Y TECNOLOGÍA DE COMPUTADORES. S. Díaz, M. C. Romero, Alberto J. Molina
Ed McGraw-Hill Computers. 2009
- ARQUITECTURA DE COMPUTADORES. J. A. de Frutos, R. Rico.
Ed. Universidad de Alcalá. 1995

TASK

READINGS

FUNDAMENTOS DE LOS COMPUTADORES. (P. De Miguel Anasagasti. Ed. Thomson-Paraninfo. 2004)

1. Chapter 5. The arithmetic unit
 - a. Shift and logical operations (5.2 pages 172 to 175)
 - b. Add operation (5.3 pages 175 to 184)

ESTRUCTURA Y DISEÑO DE COMPUTADORES. (D. A. Patterson, J. L. Hennessy. Ed Reverte 2011)

1. Chapter 3. Computers arithmetic
 - a. Addition and subtraction (3.2 pages 224 to 230)
2. Appendix C . Classical logic design concepts
 - a. Add acceleration (C.6 pages C-38 to C-48)

EXERCISES

Download http://atc2.aut.uah.es/~aviciente/asignaturas/eoc/pdf/enunciados_t1.pdf some of them will be solved during the classes. Remaining non-solved exercises must be homework considered.