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Suggerimenti | Autenticato tramite Shibboleth - IDP: Studenti



Politecnico di Torino

Academic Year 2010/11 (first time established in A.Y.2007/08)

01JEZJA, 01JEZCH

Operating systems

1st degree and Bachelor-level of the Bologna process in Electronic And Computer Engineering - Vercelli (III FACOLTA' DI INGEGNERIA)

Master of science-level of the Bologna process in Electronic Engineering - Vercelli (III FACOLTA' DI INGEGNERIA)

Teacher	Status	SSD	Les	Ex	Lab	Years Stability
Serra Angelo	PO	ING-INF/05	4	0	1	1

SSD	CFU	Activities	Area context
ING-INF/05	5	B - Caratterizzanti	Ingegneria informatica

Esclusioni:
Electronic measurements II (01MBP)

Objectives of the course

The module introduces the concurrent programming techniques and the architecture of operating systems, with particular emphasis on system resources and system programming. The Linux operating system will be used as a case study for theoretical analysis and class projects.

Expected skills

The goal of the course is to enable students to efficiently manage hardware and software resources by means of system programming.

Prerequisites

Computer programming and Computer architectures.

Syllabus

Classification of operating systems: Batch, Interactive, Real time, Virtual Machines
 Architecture of operating systems
 Different forms of kernels
 Sequential and concurrent processes
 Process status, domain and context-switching
 UNIX system call for process handling
 Process synchronization
 Event flags, signals, semaphores, IPC
 System management: commands and shell scripts ' filters

Laboratories and/or exercises

Laboratory exercises will be focused on lesson topics.

Bibliography

-A. Silberschatz: 'Operating System Concepts', G. WILEY, Last Edition
 -Additional material on the web site: <http://didattica.polito.it>

Revisions / Exam

The examination is a written test organized as a set of exercises and open answer questions. Moreover, an oral examination can be done.
 Identity document and a valid certificate are necessary to attend the exam. A C manual is the only support material allowed.

Programma definitivo per l'A.A.2010/11



