



**UNIVERSITÀ
DEGLI STUDI
DI TRIESTE**



Dipartimento di
**Ingegneria
e Architettura**

Course Presentation

A. Carini – Digital System Architectures

Motivation

Modern computer technology requires professionals of every computing specialty to understand both hardware and software.

Whether your primary interest is hardware or software, computer science or electrical engineering, the central ideas in computer organization and design are the same.

The program

1. Introduction
2. Computer Abstraction and Technology
3. The C Language
4. Instructions Language of the computer
5. Arithmetic in LEGv8
6. The Processor
7. Exploiting Memory Hierarchy

6 CFU Prof. Carini

3 CFU Prof. Trevisan

Books



David A. Patterson and John L. Hennessy,
*Computer organization and design ARM edition: the
hardware software interface,*
Morgan Kaufmann, 2016

Biblioteca scientifica:

Inventario	HOA 21263
Collocazione	22c / 0220

Books



Sarah Harris, David Harris,
Digital Design and Computer Architecture, ARM Edition
Morgan Kaufmann, 2016

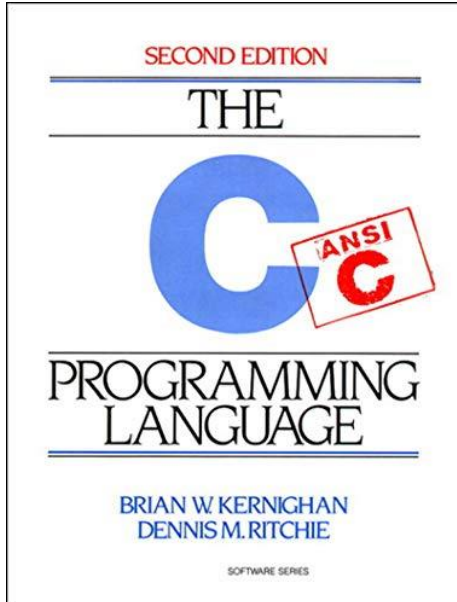
Biblioteca scientifica:

Inventario	HOA 22363
Collocazione	22c / 0221

[eBook: Accesso riservato agli utenti dell'Università di Trieste](#)

Risorse online:
<https://booksite.elsevier.com/9780128000564/>

Books



Kernighan Brian W., Ritchie Dennis
C Programming Language,
Pearson, 1988

Biblioteca scientifica:

Inventario	DJA 3924
Collocazione	22m / 0048 A

Books



Simone Buso

*Introduzione alle applicazioni industriali di
MICROCONTROLLORI E DSP*

Società editrice Esculapio, 2018

Biblioteca scientifica:

Inventario	HOA 20864
Collocazione	21a / 0229

Recommendation:

Subscribe to the Moodle channel of the course:
[141IN - ARCHITETTURE DEI SISTEMI DIGITALI 2024](#)

Course material will be distributed with Moodle.
Moreover, any communication about the lectures will be transmitted using the Announcements of the Moodle channel.