

Advanced Computer Organization and Architecture

Concepts and Designs

Dr. Ikvinderpal Singh

2
ND
EDITION

Advanced Computer Organization & Architecture

Author : Ikvinderpal Singh

ISBN 13 : 978-93-55387-01-1

ISBN 10 : 93-55387-01-6

E-ISBN 13 : 978-93-55387-01-1

Edition : 2

Pages : 396

Type of book
:
Paperback

Weight (g) : 600.00

Year : 2025

Language : English

Publisher : Khanna Publishing House

Regular
Price : Rs 549.00

Sale Price : Rs 439.20

Categories : [All books, Computer Science](#)
[Engineering, UNIVERSITY](#)
[RECOMMENDED](#)

SKU : Advanced Computer Organization &
Architecture

Condition
Type : New

Country
Origin : India

Product Description

Describes the introduction of advanced computer architecture and parallel processing. Covers the paradigms of computing like synchronous and asynchronous. Detailed explanation of the Flynn's classification, Kung's taxonomy and reduction paradigm. provides a detailed treatment of abstract parallel computational models like combination circuits, sorting network, PRAM models, interconnection RAMs. Covers the parallelism in uniprocessor systems. Provides an extensive treatment of parallel computer structures like pipeline computers, array computers and multiprocessor systems. Covers the concepts of pipeline and classification of pipeline processors. Give description of super scalar, super pipeline design and VLIW processors. Explains the design structures and algorithms for array processors.

Table of Contents

Chapter 1: Introduction To Advanced Computer Architecture And Parallel Processing. **Chapter 2:** Paradigms of Computing: Synchronous. **Chapter 3:** Paradigms of Computing-Asynchronous MIMD. **Chapter 4:** Abstract Parallel Computational Models. **Chapter 5:** Parallelism in Uni-processor Systems. **Chapter 6:** Parallel Computer Structures. **Chapter 7:** Pipe lining. **Chapter 8:** Principles of Designing Pipelines Processors. **Chapter 9:** Super scalar and Super pipeline Design. **Chapter 10:** Design Structures and Algorithms for Array Processors.

Author

Ikvinderpal Singh Ikvinderpal Singh, is Lecturer of P.G. Deptt. Of Computer Science & Applications, Khalsa College, Amritsar which is a premier institute in North India. He obtained his MCA with distinction from Guru Nanak Dev University, Amritsar. He has always been excellence right from his student carrer. He has written five books. He brought name for himself when he topped the college in B.Sc. His other areas of interest include Fuzzy systems, digital electronics and java programming.

