

# Computer Organization and Architecture



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## Product Description

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The title of our book, computer organization and architecture, is intended to convey that the topics presented in the text are those for which every Computer science major should have exposure, familiarity, or mastery. We do not expect students using our textbook to have complete mastery of all topics presented. It is our firm belief, however, that there are certain topics that must be mastered; there are those topics for which students must have a definite familiarity; and there are certain topics for which a brief introduction and exposure are adequate. We feel our explanations, examples and exercises all combine to provide the student with a total learning experience that exposes the inner workings of a modern digital computer at the appropriate level. Like most books, we have chosen an architectural model, but it is one that we have designed with simplicity in mind.

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**Chapter 1:** Overview of Computer Organization. **Chapter 2:** Digital Logic Basics. **Chapter 3:** Combinational Circuits. **Chapter 4:** Sequential Circuits. **Chapter 5:** Number System and Codes. **Chapter 6:** Register Transfer Language. **Chapter 7:** Computer Organization and design. **Chapter 8:** Assembly Language. **Chapter 9:** Control Unit. **Chapter 10:** Central Processing Unit. **Chapter 11:** Central Processing Unit. **Chapter 12:** Pipeline and Vector Processing. **Chapter 13:** Input-Output Organization. **Chapter 14:** Memory System Design. **Chapter 15:** Introduction to Multiprocessors.

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## Author

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**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 career. 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.

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