

# Lectures on Computer Architecture

Complete Lecture Notes

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# About This Course

This lecture series provides a comprehensive guide to computer architecture, covering topics from fundamental abstractions to advanced concepts in processor design, memory systems, and multiprocessing. Each lecture includes detailed notes, diagrams, and examples to support your learning journey.

## About the Instructor

Dr. Isuru Nawinne received his B.Sc. degree in Engineering from the University of Peradeniya, Sri Lanka (2011), and his Ph.D. in Computer Science and Engineering from the University of New South Wales, Sydney, Australia (2016). He teaches one of the best computer architecture foundational courses in the world, with materials and delivery methods that consistently produce impressive outcomes. His students often pursue PhD research at world renowned universities, and are regularly recruited by world-leading computer architecture companies including ARM and SiFive.

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# Part I

## Foundations

# Part II

## Programming Concepts

# Part III

## Processor Design

# Part IV

## Memory Systems

# Part V

## Advanced Topics