

# CENG3420 Computer Organization & Design

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### **Abstract**

This is a note for **CENG3420 Computer Organization & Design** for self-revision purpose ONLY.  
Some contents are taken from lecture notes and reference book.  
Mistakes might be found. So please feel free to point out any mistakes.  
Contents are adapted from the lecture notes of CENG3420, prepared by **Bei Yu**, as well as some online resources.

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## Chapter 1

# Introduction

## Chapter 2

### ISA intro

## Chapter 3

# Arithmetic

## Chapter 4

# Control

## Chapter 5

### Logic basis



## Chapter 6

# Arithmetic Logic Unit

## Chapter 7

# Datapath

## Chapter 8

# Floating Number

## Chapter 9

# Pipeline

## Chapter 10

# More on Pipeline

## Chapter 11

# Performance

## Chapter 12

# Memory

## Chapter 13

# Cache



## Chapter 14

# Cache Disc

## Chapter 15

# Virtual Machine

## Chapter 16

# Instruction-Level Parallelism