



PAMANTASAN NG LUNGSOD NG MAYNILA
(University of the City of Manila)
Intramuros, Manila

MICROPROCESSOR (LECTURE)

Activity No. 1
Review of Terminologies



Score

Submitted by:
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Submitted to:
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Instruction:

- A. Define and discuss the following terminologies related to microprocessor systems:
 - 1. MPU
 - 2. MCU
 - 3. Features of microprocessor and microcontroller
 - 4. Applications of microprocessor and microcontroller
- B. Cite your References below.

A.

1. MPU

- MPU stands for Microprocessor Unit, during which is a fundamental component of a microprocessor system. Within a microprocessor-based system, an MPU controls the flow of data, executes instructions, and performs arithmetic and logical operations.
- The exact application and specifications of the microprocessor system in which it is employed can have a major impact on its design and capabilities.

2. MCU

- MCU or also called Microcontroller Unit, consists of a CPU core and necessary peripherals including input/output ports, timers, memory, and frequently analog interfaces on a tiny integrated circuit (IC).
- It is designed for embedded systems and is commonly used in applications where precise control and real-time processing are required.

3. Features of microprocessor and microcontroller

Microprocessor	Microcontroller
created for all-purpose computer applications	specifically created for embedded system applications
CPU with few on-board peripherals, I/O connections, and memories	Single-chip computer system featuring on-board I/O interfaces, memory, and peripherals
Less Integrated	Highly Integrated
CPU + support chips	Single-Chip System
Greater power	Reduced Power
More adaptable	Set of Fixed Instructions
a faster frequency, usually larger than 1 GHz	lower clock frequency, usually under 100 MHz

4. Applications of microprocessor and microcontroller

Microprocessor	Microcontroller
Smartphones	Industrial Automation
Personal Computers	IoT Devices
Gaming Consoles	Smart Cards
Engineering Applications	Security Alarms
Defense Systems	Electronics

B. Reference

[theswissbay.ch/pdf/Books/Computer science/Computer Organization and Design- The HW_SW Inteface 5th edition - David A. Patterson %26 John L. Hennessy.pdf](https://theswissbay.ch/pdf/Books/Computer%20science/Computer%20Organization%20and%20Design-5th%20edition-David%20A.%20Patterson%20and%20John%20L.%20Hennessy.pdf)

[\(PDF\) MC 8051 Mazidi - DOKUMEN.TIPS](#)

[What's difference between Microcontroller \(μC\) and Microprocessor \(μP\)? - GeeksforGeeks](#)

[Difference between Microprocessor and Microcontroller \(guru99.com\)](#)