



Bit manipulation |
Swap Endianness of
a number

Interrupts

Different Classes of
CPU Registers

Difference between
Asymmetric and
Symmetric
Multiprocessing

Difference between
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Macro Processor

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Difference between
Magnetic Disk and
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Difference between
Impact and Non-
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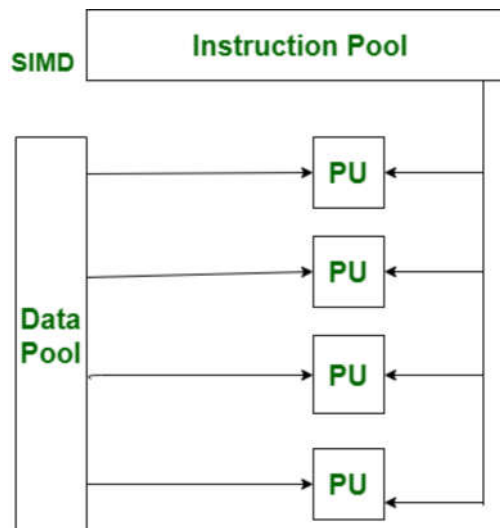


Difference between SIMD and MIMD

Michael Flynn classified the Computer Organization into SIMD and MIMD.

Where, **SIMD** stands for **Single Instruction Multiple Data**. **MIMD** stands for **Multiple Instruction Multiple Data**.

In SIMD design, one instruction is applied to a bunch of information or distinct data at constant time. SIMD is less efficient in terms of performance than MIMD.



On the other hand, MIMD design applies multiple directions over totally different information at the same time. MIMD is more efficient in terms of performance than SIMD.

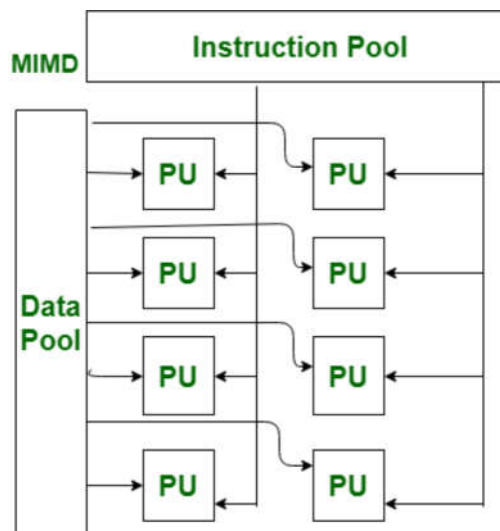


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The main difference between SIMD and MIMD is that, SIMD has single decoder. Whereas MIMD have multiple decoders.



Let's see the difference between SIMD and MIMD:

S.NO	SIMD	MIMD
1.	SIMD stands for Single Instruction Multiple Data.	While MIMD stands for Multiple Instruction Multiple Data.
2.	SIMD requires small or less memory.	While it requires more or large memory.
3.	The cost of SIMD is less than MIMD.	While it is costlier than SIMD.
4.	It has single decoder.	While it have multiple decoders.
5.	It is latent or tacit synchronization.	While it is accurate or explicit synchronization.
6.	SIMD is a synchronous programming.	While MIMD is a asynchronous programming.
7.	SIMD is a simple in terms of complexity than MIMD.	While MIMD is complex in terms of complexity than SIMD.
8.	SIMD is less efficient in terms of performance than MIMD.	While MIMD is more efficient in terms of performance than SIMD.



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