Fundamentals on VLSI Systems
7-8 Thursday, Spring term
Lecture Room G221

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From the syllabus of IP dept.

Purpose

The course will provide the students with an understanding basic knowledge for analysis and design of VLSI systems.
Key topics are fundamentals on logic and sequential circuits, functional and arithmetic units, registers and memories, and etc..
By use of above components, basics of processor architectures are also discussed.

From the syllabus of IP dept.

Contents::

1. Binary numbers and arithmetic operations
2. Logical operations and Boolean algebra
3. Conjunctive and disjunctive forms
4. Simplification of logical functions
5. Latch and flipflop circuits
6. Analysis and design of sequential circuits
7. Functional arithmetic operation units
8. Memory circuits
9. Basic architecture of a microprocessor

Schedules (Tentative)

12 Apr.	1	Sugino
19 Apr.	2	Sugino
26 Apr.	3	Sugino
10 May	4	Sugino
17 May	5	Sugino
24 May	6	Sugino
31 May	7	Sugino
7 June	8	Prof. Maejima
14 June	9	Mid-term Exam.(Sugino)
21 June	10	Prof. Maejima
28 June	11	Prof. Maejima
5 July	12	Prof. Maejima
12 July	13	Prof. Maejima
19 July	14	Prof. Maejima & Prof. Katsura
26 July	15	Prof. Maejima & Prof. Katsura
2 Aug.		Term Exam.