# Advanced Lecture of Intelligent Information Processing

2 units (selection)

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**Target**⟩ Understand the importance of utilizing the methodology of system LSI design to make function design, synthesis, timing design and layout design. Be able to make use of CAD tools for system LSI design

**Outline**⟩ The methodology of system LSI design will be discussed together with some practical exercises concerning the function design, synthesis, timing design and layout design with CAD tools.

**Style**⟩ Lecture and excercise

**Keyword**⟩ *system LSI, VLSI synthesis design, VLSI timing design, VLSI layout design*

**Fundamental Lecture**⟩ "**Computer Algorithm and Data Structure**"(1.0)

**Relational Lecture**⟩ "**Advanced Theory of Electronic Circuits**"(0.5)

**Goal**⟩ To understand the basic problems and methodology of system LSI design. Can make use of CAD tools for system LSI design.

**Schedule**⟩
  1. Introduction of the system LSI
  2. The design flow of system LSI
  3. Main issues of system LSI design
  4. Function design (3 weeks)
  5. Synthesis design (3 weeks)
  6. Timing design (3 weeks)
  7. Layout design (3 weeks)
  8. Examination

**Evaluation Criteria**⟩ Unit evaluation contains examination 70% and exercise 30%.

**Textbook**⟩
  ◇ STARC SoC design training courses text
  ◇ Exercises are introduced in the class

**Contents**⟩ http://cms.db.tokushima-u.ac.jp/cgi-bin/toURL?EID=216765

**Student**⟩ Able to be taken by only specified class(es)

**Contact**⟩
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