



# Introduction of Integrated Circuit Design

## 2022 Final Exam

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- **Scope of the Exam**

- Lec. 3 (Partition)
  - Kernighan-Lin (KL) Algorithm
  - Fiduccia-Mattheyses (FM) Algorithm
- Lec. 4 (Floorplan)
  - Polish Expression / Normalized Polish Expression
  - Sequence Pair
- Lec. 5 (Routing)
  - Maze Routing
  - Channel Routing

- Speech Content (M31, NTU, TSMC)

- IR Drop
- high-frequency high-speed circuit
- dummy metal
- electromigration, ESD, latch-up
- STA, FTA, SSTA, false path, setup time, hold time
- 3DIC, CoWoS, InFO, TSV
- PVT
- Euler Path in standard cells
- AI-driven EDA
- RC extraction, RCLK

- **Notice**

- Some relevant problems will be selected from the speech content, including providing explanations, descriptions of their nature, and comparisons.