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## Undergraduate Curriculum Development for Digital Integrated Circuit Design

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### ABSTRACT

This article describes the development of a Digital Integrated Circuit Design curriculum, which includes how to select the design level and how to implement the design. The curriculum is for the undergraduates in grade four, whose major is microelectronics. The development is in the background of very large scale integrated circuits. Since the popular design flow is a hierarchy of abstraction levels, the goal of the curriculum is to develop the students' ability to design an actual circuit from scratch. Comparison is provided from two aspects. The first aspect is the contents of various published textbooks. The second aspect is the contents of similar courses in famous universities.

### KEYWORDS

Digital Integrated Circuit; Design Abstraction Level; Transistor Level; Gate Level; Hardware Description Language

### Cite this paper

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