CERTIFICATE IN

Microelectronics Technology and Design

The rapid development of microelectronics technology has tremendously expanded the knowledge requirements of electronics engineers and provided industry with more highly sophisticated CAD tools and device models.

To remain competitive, electronic engineers need continuing education that reflects these technological changes, yet still provides the fundamental concepts needed to develop future generations of technology. This four-course program is designed to meet this need and provides specific emphasis on semiconductor devices, physics, and design.

ADMISSION REQUIREMENTS

- Bachelor of Science degree in electrical engineering or a related field from an accredited undergraduate institution
- Undergraduate GPA of 3.0 or higher
- A working knowledge of semiconductor electronic devices, device physics, circuit analysis, and analog electronics
- Prerequisite requirements for all certificate courses
- Completed application form
- TOEFL required for all international students
- Official transcripts from bachelor's degree or highest degree earned

CREDENTIALS EARNED

- 12 Rensselaer graduate credits
- Certificate in Microelectronics Technology and Design

CERTIFICATE COMPLETION REQUIREMENTS

- Status as a matriculated or non-matriculated Rensselaer student
- Completion of all four courses with a grade of "B" or better

PLAN OF STUDY

1. ECSE-6230 Semiconductor Devices and Models I
2. ECSE-6290 Semiconductor Devices and Models II
3. ECSE-6260 Semiconductor Power Devices
4. ECSE-6270 Optoelectronics

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