



IEEE Student Branch

In addition to course related activities, the student branch of IEEE (THE professional organization for electrical engineers) has ongoing design activities. For example, students recently build a track for racing radio control miniature cars. This organization is a great way for students to apply what they learn just for the purpose of basic fun!

Hands-on Engineering Activities at the University of Vermont (UVM)

Electrical and Computer Engineering (ECE)

Throughout the electrical and computer engineering curriculum at UVM, hands-on laboratory exercises are incorporated. Here are a few examples.

First Year

In conjunction with the mechanical engineering students, ECE first-year students participate in a semester long design project. In addition to learning and practicing fundamental engineering skills, students work in teams to design, develop and implement a system of their own choosing. Course themes incorporate aspects of both electrical and mechanical engineering. This year's theme is *Wireless Sensor Networks*; a field named by MIT's Technology Review as one of the top-10 emerging technologies that will change the world.

Sophomore and Junior Years

Over a course of four semesters, students will reinforce material learned in lectures through laboratory experimentation. Students also development experiments of their own design which enable them to pursue interests not necessarily covered in courses. Each semester's course typically involves ten experiments in which not only give real world experience with electrical devices but also develop proficiency in using laboratory test equipment.

Senior Year

Your senior year is when it all comes together! UVM students take a two semester senior project course where they work in teams to develop a complete system. Students must not only choose, build and design their application (e.g., a robot which implements computer vision) but also deal with real world issues such a planning, teamwork and technical communications. In addition, students will also perform projects in various senior-level courses including:

- Computer Vision
- Wireless Communications
- Digital Signal Processing



"Education is not preparation for life. Education is life itself.

— John Dewey, educator, philosopher, UVM Class of 1879

About UVM

In 1791, UVM was founded as New England's fifth university. During the War of 1812, the U.S. military camped out here. In 1877, we became the first university to welcome an African-American into Phi Beta Kappa. And in 1972, we graduated future Nobel Peace laureate Jody Williams. After two centuries of existence, we have interesting stories to tell.

About Burlington

So what is it that draws visitors to Burlington, Vermont? Not only is it beautiful, with lake and mountain views, but it has a lively arts and music scene, great restaurants and clubs, and a waterfront park full of cyclists, picnickers, boaters, and skateboarders. Here, you can kayak all summer, ski all winter — and dance to live music every night

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