Tools and Techniques for Engineering Courseware Modules

University of Regina

Objectives for Innovation

Multimedia CD-ROM

Intended Audience

Upper year undergraduate engineering students

Results Achieved

Tools and techniques for creating multimedia courseware rapidly

Interactive multimedia course in electronic systems engineering

Information technology experience for students helping to develop the multimedia materials

Partners

ISM, Gem Multimedia, Canadian Council of Engineering Deans

Implementation

January 1998

Additional Benefits

Part of a national program to develop and share modular courseware among engineering programs

This program provides tools and techniques for creating multimedia courseware rapidly, with a focus on more effective use of live video. An interactive multimedia upper year university-credit course in electronic systems engineering is the first course produced using these tools and techniques.

Analog Electronics (ENEL 283) was taught in a televised classroom studio. Videotapes of the lectures and tutorials were converted to digital format. These were combined with animated presentation slides from the course notes to create video files. In the final step, all videos and graphics were integrated into a single movie, and the pace and sequence of the instruction was set. The result is multimedia courseware in modular format. This method of increasing live video content significantly reduced the time required to create courseware.

Although multimedia formats can offer powerful tools for learning, it takes considerable effort to create the materials. This program offers a more efficient and economical approach for creating multimedia courseware.

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