

DEVELOPMENT OF A COMPUTER-BASED INSTRUCTION IN COMPUTER NETWORKS

Nizar Al-Holou, Ph.D. Imad Sharaa

University of Detroit Mercy

Electrical Engineering Dep.

University of Detroit Mercy

4001 W. McNichols Rd.

Detroit, MI 48219-0900

(313) 993-3384

alholoun@udmercy.edu

Abstract:

With the fast development of computer technologies including faster CPUs, less expensive RAM, CD-ROM delivery, international standards for moving pictures compressions (JPEG and MPEG) and full-motion digital video, educators investigate different ways to attract and educate students, particularly non-traditional students. One alternative approach, known as Computer-based Instruction (CBI), is being considered at different schools across the country. CBI is a logical, changeable presentation flow of information based on sound instructional theory (computer-managed instruction, or CMI) as well as the tracking of the student progress through the instructional program, and recording of test results. This may replace some aspects of traditional classroom learning.

Computer networks is not an easy subject for engineering students to understand. Computer-based instruction will be used to make it more interesting, easy to understand, and intuitive. Authorware 3.5 will be used to develop computer-based instruction. Authorware is an object-oriented authoring tool that supports the incorporation of text, graphics, animation, audio, and video. Computer networks will be developed in a single package divided into five modules: Each module will be divided into different topics. Animation will be used in every topic to illustrate the concepts as well as motivate students. We will demonstrate the developed Multimedia modules in the conference.