



Preliminary Short Program

Details and program modifications will be announced and made available at the conference web site at:

<http://www.ndsu.edu/conted/ICIMADE>

or call 701-231-5376 or 1-800-726-1724 for further details.

ICIMADE will be held on the campus of North Dakota State University, Fargo, North Dakota, USA

Thursday, May 31

5:00 - 7:00 pm (17:00-19:00) Registration
7:00-9:00 pm (19:00-21:00) Social at Radisson

3:45-5:00 pm (15:45-17:00)

Virtual Worlds for Education Research at NDSU

Demonstration by: Brian Slator and the NDSU WWWIC Group,
North Dakota State University

Friday, June 1

7:30-8:30 am (7:30-8:30) Registration
8:30-9:00 am (8:30-9:00) Opening Remarks

9:00-10:00 am (9:00-10:00)

Software Systems for Virtual Academic Society

Keynote Speaker: Timothy K. Shih, Tamkang University, Taiwan

Distance Learning/Virtual University system is one of the most important in the literature of multimedia and distributed computing. The presentation starts from the discussion of current distance learning approaches, with a highlight to some potential research problems.

10:00-10:15 am (10:00-10:15) Break
10:15-11:45 am (10:15-11:45) Concurrent Sessions*
11:45-1:45 pm (11:45-13:45) Lunch

Digital Game-based Learning

Keynote Speaker - Mark Prensky, Corporate Gameware LLC

In his presentation Mr. Prensky will discuss the What, How, and Why of Digital Game-Based Learning and will show and discuss several examples from education, training and the military.

The broad-based "Digital Game-Based Learning" phenomenon includes:

- Pre-schoolers learning the alphabet and reading through computer games
- Elementary students reviewing the K-6 curriculum on Playstations; scores rising 30-40%
- Computer chess becoming a big part of K-12 curriculums
- Typing (aka "keyboarding") games becoming the standard way to teach the skill
- High schools students playing a multiplayer online game to learn electoral politics
- Financial traders using computer games to hone their skills
- Auditors using a computer game to learn about complex financial derivatives
- Policy makers playing a Sim City-style game to understand the health care system
- Business executives playing at running simulated HR departments and oil refineries
- Engineers using a consumer-style videogame to learn new CAD technology
- Military trainees fighting realistic battles in videogame-like simulators.
- Area Commanders-in-Chief playing out multi-force scenarios in a custom-designed video game

1:45-2:00 pm (13:45-14:00) Break
2:00-3:30 pm (14:00-15:30) Concurrent Sessions*
3:30-3:45 pm (15:30-15:45) Break

6:30 pm (18:30)

Banquet at Ramada

Speaker: Martin Davis, University of California - Berkeley

Martin Davis, a distinguished logician, is also the author of *Computability and Unsolvability*, which has been called "one of the few real classics in computer science." A professor emeritus at New York University's Courant Institute of Mathematical Sciences and a frequent lecturer, he is currently a visiting scholar at the University of California in Berkeley, where he now lives.

Saturday, June 2

8:00-8:45 am (8:00-8:30) Registration

8:45-10:00 am (8:45-10:00)

Internet2

Featured Speaker -Ted Hanss, University of Michigan

Internet2 (www.internet2.edu) is a consortium led by over 180 universities working in partnership with industry and government to develop and deploy advanced network applications and technologies, accelerating the creation of tomorrow's internet. Internet2 is recreating the partnership among academia, industry, and government that fostered today's internet in its infancy. The primary goals of Internet2 are to create a leading edge network capability for the national research and education community, enable revolutionary internet applications, and ensure the rapid transfer of new network services and applications to the broader internet community.

This talk will provide examples of the types of applications under development within the Internet2 community in support of research, teaching, and learning. These include streaming video (up to HDTV quality), high energy physics data mining, digital libraries, virtual reality in health care, and much more.

*The concurrent sessions will be from peer reviewed papers in the areas of intelligent multimedia and distance education, contributed by international participants representing more than 20 countries around the world.

10:00-10:15 am	(10:00-10:15)	Break
10:15-11:45 am	(10:15-11:45)	Concurrent Sessions*
11:45-1:45 pm	(11:45-13:45)	Lunch
<i>Leveraging Distributed Expertise in Learning and Teaching with Technologies</i>		
Featured Speaker: Roy Pea, SRI International		

Innovations in component software, richly-interactive multimedia, and community tools promise significant improvements to K-12 learning and teaching environments. To make rapid progress toward fulfilling these promises, we illustrate through two projects the importance of "leveraging distributed expertise"--from teachers, web developers, programmers, curriculum experts, and standards developers. The ESCOT Project focuses on bringing together, for middle school mathematics, diverse developers and teachers in "integration teams" to create new web-based interactive learning activities from powerful interoperable software components. Teachscape provides a comprehensive approach to integrating on-line and on-site use of web-based video case studies and communities for K-12 teacher learning and professional development.

1:45-2:00 pm	(13:45-14:00)	Break
2:00-3:30 pm	(14:00-15:30)	Concurrent Sessions*
3:30-3:45 pm	(15:30-15:45)	Break
3:45-5:00 pm	(15:45-17:00)	Concurrent Activities
<i>Panel: Issues in Distance Education</i>		
Moderator: Nancy Olson, North Dakota State University		

Issues related to distance education such as assessment, delivery platforms, instructional strategies for particular content, faculty development, course or lesson re-design, or any other topics of interest will be discussed. Discussion will be informal and problem-centered; panelists will attempt to address particular concerns and share possible solutions. Individuals are encouraged to bring specific pedagogical or technical issues/problems they have encountered in delivering mediated instruction.

Demonstration: *HTML-eZ*
Web Course Development for the 21st Century
 Demonstration by: Henry Borysewicz, AeroSpace Network,
 Scientific Computing Center

eZ is a tool that allows instructors to create and maintain graphically rich course web sites on their own, without learning any HTML. Some course web-tools only allow instructors to insert text into a rigidly defined template. Others simply allow document uploads. The HTML-eZ project does much more. eZ enables instructors to create and maintain an actual web site - allowing them to create and modify all aspects of their course web site, including content, layout, design scheme, and site navigation. Working in any standard word processor, instructors create content incorporating graphics, images, tables, etc. They upload their documents to the system through a web interface, where it is converted to HTML. All links, image names and locations, etc. are handled automatically, by the system.

6:30 pm	(18:30)	Entertainment /Dinner
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Sunday, June 3

8:00-8:30 am	(8:00-8:30)	Registration
8:30-10:00 am	(8:30-10:00)	Concurrent Sessions*
10:00-10:15 am	(10:00-10:15)	Break
10:15-11:45 am	(10:15-11:45)	Concurrent Sessions*
11:45-12:45 pm	(11:45-12:45)	Lunch
12-45-1:45 pm	(12:45-13:45)	
<i>Videoconferencing: Fresh Faces in New Places</i>		
Featured Speaker - Bob Dixon, Ohio State University		

Bob Dixon, an internationally known videoconferencing expert, will discuss the current status of videoconferencing: what people from around the world are using it to accomplish, what works and what does not, secrets of making multiple connections, quality of service concerns, and the future of videoconferencing as he sees it.

1:45-2:00 pm	(13:45-14:00)	Break
2:00 pm	(14:00)	Closing Session and Door Prizes

Tentative Tutorials:

Multimedia Streaming: MPEG-4 Approach

Speaker: Wael Badawy
 Saturday, June 2, 2001

10:15-11:45 am (Part 1) and 2:00-4:30 pm (Part 2)

MPEG-4 is a new ISO/IEC standard that targets streaming multimedia. The MPEG (Moving Picture Experts Group) developed MPEG-1 and MPEG-2 that target interactive video on CD-ROM and Digital Television, respectively. This tutorial will introduce the MPEG-4 Version 1 and Version 2 visual coding tools and their functionalities. It will focus on the applications of MPEG-4 for multimedia streaming and how wired and wireless multimedia streaming can benefit from MPEG-4 visual coding tools.

It is Time to Fuzzify Neural Networks

Speaker: Ajith Abraham
 Sunday, June 3, 2001
 8:30-10:00 am (Part 1) and 10:15-12:30pm (Part 2)

Integrating neural networks and fuzzy inference systems have attracted the growing interest of researchers in various applications due to the growing need of adaptive intelligent systems to meet the real world requirements. This tutorial starts with some basic theoretical aspects of neural networks and fuzzy inference systems and their application areas stressing the advantages of each technique. It also discusses the step-by-step modeling of different neuro-fuzzy architectures and the advantages of each model.

Image and Video Compression Techniques & Standards

Speaker: S.R. Subramanya

Sunday, June 3, 2001 (To be finalized)

9:00-10:00 am (Part 1) and 10:15-12:30 pm (Part 2)

or Sunday, June 3, 2001 - 3:00-5:30 pm

The phenomenal increases in the generation, transmission, and use of digital images and video in many applications is placing enormous demands on the storage space and communication bandwidth. Data compression is a viable approach to alleviate the storage and bandwidth demands. This tutorial is intended to give an insight into a few major image and video compression techniques and a brief look at the popular image and video coding standards.

*The concurrent sessions will be from peer reviewed papers in the areas of intelligent multimedia and distance education, contributed by international participants representing more than 20 countries around the world.