Papers

Interactive multimedia tutoring

Long paper

Interactive hypermedia courseware for the World Wide Web
A.D. Marshall and S. Hurley

Short papers

Three years’ experience with Gateway Labs
Doug Baldwin

A hypermedia lab manual for operating systems: using the network to teach
Stephen J. Hartley

Applying natural language technology to the learning of operating systems functions
B. Lees and J. Cowie

Closed laboratories and practical experiences

Long paper

Critical concepts in the development of courseware for CS closed laboratories
Janet Mei-Chuen Lin, Cheng-Chih Wu and Guey-Fa Chiou

Short papers

Historical perspectives of computing: an introductory lab for browsing on the World Wide Web
Deborah L. Knox

Cooperative learning and closed laboratories in an undergraduate Computer Science curriculum
Jane Chu Prey

Neuralis: an artificial neural network package
Sami Khuri and Jason Williams

Visualization and collaborative learning

Long paper

Scientific visualization - some novel approaches to learning
Ken Brodlie, Jason Wood and Helen Wright

Short papers

An interactive environment for the teaching of computer architecture
P. S. Coe, L. M. Williams and R. N. Ibbett

Graphical visualization of the evaluation of functional programs
Ricardo Jiménez-Peris, Cristóbal Pareja-Flores, Marta Patiño-Martínez and J. Ángel Velázquez-Iturbide

Algorithm animation of neural networks
David Jackson and Ian G. Morton

Foundations of Computer Science

Long paper

Foundations of Computer Science: what are they and how do we teach them?
Viera K. Proulx, Richard Rasala and Harriet Fell

Short papers

A novice programmer’s support environment
Blaise W. Liffick and Robert Aiken
Active learning and its use in Computer Science
Jeffrey J. McConnell

Computer supported peer learning in an introductory Computer Science course
David Finkel and Craig E. Wills

Using GUI, OOP and multimedia in introductory programming classes
Short papers
Teaching introductory programming in the multimedia world
Ursula Wolz, Scott Weisgarber, Daniel Domen and Michael McAuliffe
From software user to software author: an initial pedagogy for introductory object-oriented computing
Mark Woodman and Simon Holland
Using multimedia and GUI programming in CS 1
David Mutchler and Cary Laxer

Visualization and animation
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Algorithm visualization served off the World Wide Web: why and how
Thomas L. Naps
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Integrating animations into courses
Susan H. Rodger
Review of animation systems for algorithm understanding
Judith Wilson, Robert Aiken and Irvin Katz
Tools for creating portable demonstration programs
Eric Roberts

Using the Internet and WWW in courses
Long paper
Appropriate use of the Internet in Computer Science courses
C. J. Pilgrim and Y. K. Leung
Short papers
Managing the development of a Web based project
Pamela B. Lawhead and Kathryn F. Gates
Using CD-ROMS and local webpages to provide course materials for distance-students
V. E. Veraart and S. L. Wright
Extending the conversation: integrating email and Web technology in CS programming classes
David M. Arnow and Dayton Clark

Using the Internet and multimedia to support classes
Long paper
Using Internet technology for course support
José Eduardo Pina Miranda and Jorge Sousa Pinto
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**Integrating World Wide Web technology into undergraduate education**
G. Scott Owen

**Computer assistance for managing educational resources and managing collaborative educational processes**
D. Siviter

**Integrating Internet tools into the soft side of informatics education**
Catherine M. Beise

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**Using multimedia in systems development**

**Long Paper**

*A multimedia approach to providing software project experience for postgraduate students*
Helen Sharp and Pat Hall

**Short papers**

**MuPMoTT - A multimedia based tool supporting the teaching of process modelling within a framework of Structured System Analysis.**
Paul Marsden and Mark O’Connell

**Design, implementation and testing techniques for multimedia industrial experience projects**
Ainslie E. Ellis

**An adventure game approach to multimedia distance education**
Linda Carswell and David Benyon

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**Groupware and CASE tools in informatics education**

**Long Paper**

*Integrating CSCW in a cooperative learning environment to teach information systems*
Nguyen Vi Cao, Atika Laribi, Michel Léonard, Olivier Parchet and Catherine Zellweger

**Short papers**

**Integrating CASE Tools into the CS/CIS curriculum**
Mary J. Granger and Joyce Currie Little

**Software quality lab in the informatics option of Gdañsk TU Electronics Faculty**
Krzysztof Goczyla and Stanislaw Szejko

**Gathering together through groupware in an MA programme**
Margaret M. McManus

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**Distance education**

**Long paper**

*Computing by distance education: problems and solutions*
David Jones

**Short papers**

**Distance education over the Internet**
Pete Thomas, Linda Carswell, Judy Emms, Marian Petre, Barbara Poniatowska and Blaine Price

**Mistakes to avoid in the introduction of compressed video**
James E. Miller
Interactive remote instruction: initial experiences
 Networks, parallel and distributed computing

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Parallel systems development in education: a guided method
Teaching parallel processing: development of curriculum and software tools
Jan Kwiatkowski, Marek Andruszkiewicz, Emilio Luque and Tomas Margalef, Jose Cunha and Joao Lourenco, Henryk Krawczyk and Stanislaw Szejko
Packet tracing: a new paradigm for teaching computer network courses
Willis F. Marti, John A. Hamilton, Jr. and Udo W. Pooch

Panel
Challenges of Using Groupware to Teach Groupware
Margaret M. McManus (Panel Moderator), Cathy Beise (Discussion Leader), John Saunders, John A. Cross and Michael B. Twidale

Working Group Reports
Use of laboratories in Computer Science education: guidelines for good practice
Report of the Working Group on Computing Laboratories

Interactive multimedia pedagogies
Report of the Working Group on Interactive Multimedia Pedagogy

An overview of visualization: its use and design
Report of the Working Group on Visualization

Evaluation: turning technology from toy to tool
Report of the Working Group on Evaluation

Enhancing teaching using the Internet

Posters
Teaching with technology at my fingertips
Elizabeth S. Adams
A built-in educational platform for integrating computer engineering technologies
Joan Battle, Joan Marti and Lluis Pacheco
Proposal for an on-line Computer Science courseware review
Michael Goldweber
Using symbolic computation for teaching Data Structures and Algorithm Analysis
Joan Krone
Interdisciplinary teleteaching based on WWW and Internet
Alexander Schill
Integrating multimedia and telecommunications laboratory experiences into teacher education
Harriet G. Taylor

Desktop teaching: on the students desk
John Motil

How visual software influences learning in college students
Bunny J. Tjaden

DD-Mod: a library for teaching distributed programming
Ricardo Jiménez-Peris, Marta Patiño-Martínez and Jesús M. Milán-Franco

Using Visualization in teaching Data Structures and Algorithms
Myles F. McNally

An inexpensive programming toolset for algorithm development
J. Angel Velazquez-Iturbide, Ana Maria Cosias Rincon and Nuria Llorente Fernandez

Computer-Based High School Algebra I
Kathleen Wohlgehagen and Cathleen Norris

Informatics in an advanced Mathematical High School
Elena Andreeva and Igor Gushchin

Interactive Tutorials on the World Wide Web
John Rosbottom and Adrian Meads

Demonstrations

Interactive learning with Gateway Labs
Mary Johansen, Jason Kapusta and Doug Baldwin

Windows-based applications in Visual Basic using project teams
Sheila E. Castaneda

Visualizing recursion and linked lists
Cheng-Chih Wu, Janet Mei-Chuen Lin and Guey-Fa Chiou

kined/scotty: tools for network documentation, monitoring and troubleshooting
Kenneth H. Jacker

A Modula-2 interpreter/visualizer
Ricardo Jiménez-Peris and Marta Patiño Martínez

RCOS.java: an animated operating system for computer science education
David Jones

Simulation programs for studying computer organization
Najib Nadi

Network management teaching - managing a simulated network
Colin Pattinson

ViLi (Vision LISP): a software environment for teaching Image Processing and Analysis
Javier Sanchez and Jordi Vitria

HIPE: A Turbo-like environment for functional programming
J. Angel Velazquez-Iturbide

DATATUTOR: a package for teaching Data Representation
Douglas Hainline

Simulator for visualizing data link layer protocols
E. W. Grundke and Zhengya Zhu