Contents

Detailed tables of contents for Working Group reports	ix
Working Group Reports	
Developing laboratories for the SIGCSE Computing Laboratory Repository: guidelines, recommendations, and sample labs	1
Report of the ITiCSE'97 Working Group on Designing Laboratory Materials for Computing Courses	
Using the WWW as the delivery mechanism for interactive, visualization-based instructional modules Report of the ITiCSE'97 Working Group on Visualization	13
The Web and distance learning: what is appropriate and what is not Report of the ITiCSE'97 Working Group on the Web and Distance Learning	27
Using information technology to integrate social and ethical issues into the computer science and information systems curriculum Report of the ITiCSE'97 Working Group on Social and Ethical Issues in Computing	38
Curricula Computer-mediated communication in collaborative educational settings Report of the ITiCSE'97 Working Group on CMC in Collaborative Educational Settings	51
Harnessing technology for effective inter- and intra-institutional collaboration Report of the ITiCSE'97 Working Group on Supporting Inter- and Intra-institutional Collaboration	70
Historical perspectives on the computing curriculum Report of the ITiCSE'97 Working Group on Historical Perspectives in Computing Education	94
Supplemental Proceedings	
Keynote presentations	
The emergence of sophisticated distributed teaching and learning environments H. Maurer, Graz University of Technology, Austria	112
The case for integrating ethical and social impact into the computer science curriculum	114
C. Dianne Martin, The George Washington University, USA	
Technology in computing education: yet another bandwagon? Joe Turner, Clemson University, USA	121
Papers and panel	
Programming practical work and problem sessions via the Internet Marian Petre and Blaine Price, The Open University, UK	125

The automatic assessment of Z specifications Eric Foxley, Omar Salman, and Zarina Shukur, The University of Nottingham, UK	129
Evaluation software: improving consistency and reliability of performance rating Jon Anderson Preston, Georgia Institute of Technology, USA	132
Forms of assessment that develop communication skills in Computer Science and Mathematics — a case study Anders Tengstrand and Mathias Hedenborg, Växjö University, Sweden	135
Computer science unit management challenges in the "enwebbed" age Maria Jean Hall and Timo Vuori, Edith Cowan University, Australia	137
Panel report: Using Java in computer science education Nan C. Schaller (Moderator), Rochester Institute of Technology, USA Michael Berman, Rowan University, USA Judith Bishop, University of Pretoria, South Africa Paddy Nixon, Trinity College, Ireland Evelyn Rozanski, Rochester Institute of Technology, USA Peter Welch, University of Kent, UK	140
Posters and demonstrations	
Effective organization and management of computer science curriculum with world wide web — schematic model presentation Dennis Anderson, St. Francis College, USA	144
Using of computing curricula 1991 for transition from "Mathematics" to "Applied Mathematics and Computer Science" baccalaureate programme Iouri A. Bogoiavlenski, Andrew A. Pechnikov, Gennady S. Sigovtsev and Anatoly V. Voronin, * University of Petrozavodsk, Russia, ** GruppvaruExperterna i Sverige AB, Sweden	144
Integrating courseware into collaborative learning environments Safia Barikzai, South Bank University, UK	145
LINK: a software package for discrete mathematics and algorithms Jonathan Berry, Elon College, USA	145
A philosophy of teaching Java Judith M. Bishop, University of Pretoria, South Africa	146
A single-sex programme in computer science and engineering Gerd Brandell, Svante Carlsson, Håkan Ekblom and Ann-Charlotte Nord. Luleå University, Sweden	146
Networked PBL teaching the teacher on flexible learning Rolf Carlsson*, Göran Karlsson**, and Bengt Olsen***, * Datakonsult AB, Sweden, ** The Royal Institute of Technology. Stockholm. Sweden, *** GruppvaruExperterna i Sverige AB, Sweden	147
Using Emil Post's machine for an introduction to formal programming V. Dagdilelis and M. Satratzemi, University of Macedonia, Greece	147

Virtual office hours Douglas D. Dankel II and James Hearn, University of Florida, USA	147
Detecting plagiarism in introductory programming courses Monika Danielsson, Uppsala University, Sweden	148
SEDA, an advanced software tool in its generation: developing a Windows tutor using SEDA versus a classical programming approach P. Domingo*, A. García-Crespo*, V. Martinez-Orga**, M. Lancha*, B. Ruiz**, *University Carlos III de Madrid, Spain, **University Politecnica Superior de Madrid, Spain	148
Teletutor workbench for Internet distance learning environment Tatiana Gavrilova, Tatiana Sankina and S. Udaltsov, State Technical University, St. Petersburg, Russia	149
WebCT, a tool for the creation of sophisticated web-based learning environments Murray W. Goldberg, University of British Columbia, Canada	149
A language independent plagiarism detection system Ricardo Jiménez-Peris and Marta Patiño-Martínez, Universidad Politecnica de Madrid, Spain	149
Visual HIPE: A prototype for the graphical visualization of functional expressions Ricardo Jiménez-Peris*, C. Pareja-Flores**, Marta Patiño-Martínez* and J. A. Velazquez- Iturbide*, * Politecnica de Madrid, Spain, ** Universidad Complutense de Madrid, Spain	149
On mathematical assistant CARANT-REDUCE and its application to computer science education Nikolaj M. Glazunov, Glushkov Institute of Cybernetics NAS and International Solomon Univiversity, Ukraine	150
Demonstration laboratory materials for computation in algebra and informatik (computer science) Nikolaj M. Glazunov, Glushkov Institute of Cybernetics NAS and International Solomon Univiversity, Ukraine	150
The SIGCSE Computing Laboratory Repository Deborah L. Knox, The College of New Jersey, USA	151
Virtual school project for professional IT teachers in Latvia Aija Kukuka, Ivars Opelts and Dzintars Tomsons, Liepaja Pedagogical Higher School, Latvia	151
Computer science as an integrated part of engineering education Patrick Lambrix, Maud Göthe Lundgren, and Mariam Kamkar. Linköping University. Sweden	151
Algorithm demonstrations using Java Pamela B. Lawhead, The University of Mississippi, USA	151
The evaluation of computer science education in Europe Patricia Magee and Micheal O'héigeartaigh, Dublin City University, Ireland	152

Animation of algorithms with Eliot and Jeliot	152
Janne Markkanen*, Erkki Rautama*, Erkki Sutinen*, Jorma Tarhio** and Tommi Teräsvirta*, * University of Helsinki, Finland, ** University of Joensuu, Finland	
Three-level teaching material and its implementation in a teaching situation Jorma Sajaniemi and Marja Kopponen, University of Joensuu, Finland	-153
SHOW: a system for the presentation of three-level teaching material during lectures	153
Jorma Sajaniemi and Marja Kopponen, University of Joensuu, Finland	
Distance education by distance education Harriet G. Taylor, Louisiana State University, USA	153
Author index	154