

ICALT 2003



The 3rd IEEE International
Conference on
Advanced
Learning
Technologies

Athens, Greece
9-11 July 2003



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DAIS Cultural and Athletic Center



ADVANCE PROGRAM

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*IEEE Learning Technology
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*Informatics and
Telematics Institute*



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Technology - HELLAS*



ICALT 2003 Conference Schedule

	Wednesday 9 July		Thursday 10 July		Friday 11 July
8:00-18:00	Registration	9:00-16:00	Registration		
9:30-10:30	Welcome Speeches (Auditorium)	9:00-10:00	Keynote Speech (Auditorium) Prof. Elliot Soloway, University of Michigan, USA Prof. Cathleen Norris, University of North Texas, USA	9:00-10:00	Keynote Speech (Auditorium) Carlos Oliveira, European Commission
10:30-11:30	Keynote Speech (Auditorium) Prof. Erik Duval, Katholieke Univ Leuven, Belgium	10:00-11:30	Quality Issues in e-Learning (Auditorium) Chair: Dr Jan Pawlowski, Univ of Duisburg-Essen, Germany	10:00-11:30	Panel on International Standardisation for Collaborative Learning Technologies (Auditorium) Panel Moderator: Prof. Toshio Okamoto, University of Electro-Communications, Japan
			Intelligent Tutoring Systems II (Room A) Chair: Prof Maria Grigoriadou, Univ of Athens, Greece		
			Applications III (Room B) Chair: Prof Rowena Santiago, Cal State U San Bernardino, USA		
11:30-12:00	Refreshment Break	11:30-12:00	Refreshment Break	11:30-12:00	Refreshment Break
12:00-13:45	Web - Based Educational Systems I (Auditorium) Chair: Prof. Kinshuk, Massey Univ, New Zealand	12:00-13:45	Evaluation (Auditorium) Chair: Prof Mike Spector, Syracuse Univ, USA	12:00-13:45	Adaptive Educational Systems (Auditorium) Chairs: Nikos Mylonakis, Colin McCullough, CEDEFOP
	Intelligent Tutoring Systems I (Room A) Chair: Prof Vladan Devedzic, U Belgrade, Serbia and Montenegro		Architectures I (Room A) Session Chair: Prof Luis Anido, University of Vigo, Spain		Cognitive Tools I (Room A) Chair: Dr Maiga Chang, Chung-Yuan Christian U, Taiwan
	Applications I (Room B) Chair: Prof Jin-Tan Yang, National Kaohsiung Univ, Taiwan		Applications IV (Room B) Chair: Dr Charalambos Karagiannidis, ITI-CERTH, Greece		Robotics and Virtual Reality in Education (Room B) Chair: Prof Nikitas Sgouros, Univ Piraeus, Greece
13:45-14:45	Lunch	13:45-14:45	Lunch	13:45-14:45	Lunch
14:45-16:30	Tools and techniques for study and evaluation of computer-supported collaborative learning (Auditorium) Chair: Prof Nikolaos Avouris, Un Patras, Greece	14:45-16:30	Interoperability Challenges in Learning Technologies (Auditorium) Chair: Frans Van Assche, European Schoolnet, Belgium	14:45-16:30	Web-Based Educational Systems IV (Auditorium) Chair: Prof Igor Hawryszkiewicz, U Tech Sydney, Australia
	Learning Objects (Room A) Chair: Prof Erik Duval, Katholieke Univ Leuven, Belgium		Web - Based Educational Systems II (Room A) Chair: Dr Alfred Moye, Hewlett-Packard, USA		Intelligent Tutoring Systems III (Room A) Chair: Prof Maria Virvou, Univ Piraeus, Greece
	Applications II (Room B) Chair: Prof Panagiotis Anastasiades, Univ Crete, Greece		Collaborative Learning (Room B) Chair: Prof Pierre Tchounikine, Le Mans University, France		Applications V (Room B) Chair: Dr Andreas Harrer, Univ of Duisburg-Essen, Germany
16:30-17:00	Refreshment Break	16:30-17:00	Refreshment Break	16:30-17:00	Refreshment Break
17:00-18:45	Poster Session	17:00-18:45	Web - Based Educational Systems III (Auditorium) Chair: Prof Erkki Sutinen, University of Joensuu, Finland	17:00-18:45	Web-Based Educational Systems V (Auditorium) Chair: Prof Symeon Retalis, Univ Piraeus, Greece
			Architectures II (Room A) Chair: Dr Yasuhisa Tamura, Sophia University, Japan		Cognitive Tools II (Room A) Chair: Dr Vassilis Kollias, Univ of Athens, Greece
			Distance Learning (Room B) Chair: Prof Ildar Galeev, Kazan State Tech Univ, Russia		Workshop: Can Constructivist Epistemologies be Successfully Applied in Educational Informatics? (Room B) Organizers: Miguel Baptista Nunes, Prof. Maggie McPherson, Univ of Sheffield, UK and Iraklis Paraskakis, City Liberal Studies College, Greece
		20:00-23:00	Conference Dinner	18:45-19:00	Conference Close (Auditorium)

ICALT 2003 Conference Program

Wednesday 9 July

8:00-18:00

Registration

9:30-10:30

Welcome Speeches (Auditorium)

10:30-11:30

Keynote Speech (Auditorium)

Prof. Erik Duval,
Katholieke Univ Leuven, Belgium

11:30-12:00

Refreshment Break

12:00-13:45

Parallel Sessions

Web - Based Educational Systems I (Auditorium)

Chair: Prof. Kinshuk, Massey Univ, New Zealand

- (F) Adding value to educational content by applying MRA filtering
Alexei Tretiakov, Hong Hong, Kinshuk, Askot Patel
- (F) Content Management Systems and e-Learning-Systems - A Symbiosis?
Stefan Bergstedt, Stefan Wiegrefe, J. Wittman, D Moller
- (F) Author-defined storage in the next generation learning management systems
Olivier Sessink, Rik Beefink, Johannes Tramper, Rob Hartog
- (S) An Evaluating Strategy for Student's Assessment in E_learning
Qingtang Liu, Zhongkai Yang
- (S) Evaluation on Security and Privacy of Web-Based Learning Systems
Yuen-yan Chan, Chi-hong Leung, Joseph Liu

Intelligent Tutoring Systems I (Room A)

Chair: Prof Vladan Devedzic, U Belgrade, Serbia and Montenegro

- (F) Initializing Student Models in Web-based ITSs: a Generic Approach
Victoria Tziriga, Maria Virvou
- (F) A Computational Cognitive-Based Approach to Represent Knowledge within Intelligent Tutoring Systems
Mehdi Najjar, Andre Mayers
- (S) Curricular Automata and their Applications
Yen-Teh Hsia
- (S) A software companion capable of dialogue
Christelle Laperrousaz, Philippe Teutsch
- (S) A simulated student-player in support of the authoring process in a knowledge-based authoring tool for educational games
Maria Virvou, Konstantinos Manos
- (S) Difficulty Analysis for Learners on Problem Solving Process based on the Knowledge Map
Rita Kuo, Wei-Peng Lien, Maiga Chang, Jia-Sheng Heh

Applications I (Room B)

Chair: Prof Jin-Tan Yang, National Kaohsiung Univ, Taiwan

- (F) Towards supporting the teaching of history using an intelligent information system that relies on the electronic road metaphor
Manolis Wallace, Mary Stefanou, Kostas Karpouzis, Stefanos Kollias
- (F) Physically inspired interactive music machines making contemporary composition accessible?
Richard Polfreman, Martin Loomes, Robert Wright
- (F) Mixing Human and Software Agents: a Case Study
Neil Taurisson, Pieere Tchoumikine
- (S) The Future of the book, the Book of the Future
Panagiotis Anastasiades
- (S) Online Self-Assessment as a Learning Method
Daniel Gayo-Avello, Hortensia Fernandez-Cuervo

13:45-14:45

Lunch

14:45-16:30

Parallel Sessions

Tools and techniques for study and evaluation of computer-supported collaborative learning (Auditorium)

Chair: Prof Nikolaos Avouris, Un Patras, Greece

- (F) Real-Time Collaborative Problem Solving: A Study on Alternative Coordination Mechanisms
Nikolaos Avouris, Meletis Margaritis, Vassilis Komis
- (F) Cohesion and Roles: Network Analysis of CSCL Communities
Reuven Aviv, Zippy Erlich, Gilad Ravid
- (F) Design Considerations for Supporting Collaborative Modeling
Rachel Or-Bach
- (S) On tools for analysis of collaborative problem solving
Nikolaos Avouris, Vassilis Komis, Georgios Fiotakis, Meletis Margaritis
- (S) Collaborative Learning and Technological Environment for Evoking Interactivity – Building of Knowledge
Mizue Kayama, Toshio Okamoto

Learning Objects (Room A)

Chair: Prof Erik Duval, Katholieke Univ Leuven, Belgium

- (F) A Metadata Model for Capturing Presentations
Ralf Einhorn, Stephan Olbrich, Wolfgang Nejd
- (F) Enhancing Educational Metadata Management Systems to support Interoperable Learning Object Repositories
Pythagoras Karampiperis, Demetrios Sampson
- (S) Versioning of Learning Objects
Christopher Brooks, John Cooke, Julita Vassileva
- (S) A Conformance Test Suite of Localized LOM Model
Xin Xiang, Yuanchun Shi, Ling Guo
- (S) Designing Learning Objects with the ELO-Tool
Liliana Patricia Santacruz-Valencia, Ignacio Aedo, Carlos Delgado Kloos

Applications II (Room B)

Chair: Prof Panagiotis Anastasiades, Univ Crete, Greece

- (F) Mobile Learning: A New Paradigm in Electronic Learning
Chi Hong Leung, Yuen Yan Rosanna Chan
- (F) Using Mobile Techniques in Improving Information Awareness to Promote Learning Performance
Chin-Yeh Wang, Baw-jhiung Liu, Kuo-En Chang, Jorng-Tzong Horng, Gwo-Dong Chen
- (S) Towards 'Phenomenaria' for the teaching of Distributed Systems Concepts
Fionnuala O'Donnell, B. Tangney
- (S) LAN-Designer: A software tool for teaching and learning LAN design
Nurul Sarkar, Jason H. Lian
- (S) Applying Computer Multimedia Storytelling Website in Foreign Language Learning
Wenli Tsou, Weichung Wang, Yannjiun Tzeng
- (S) A Multimedia Training System Applied to Telephony
Esma Aimeur, Bahram Salehian
- (S) Multi-step problem generation using interval constraint solver
M. Terk, P. Prakashganes

16:30-17:00

Refreshment Break

17:00-18:45

Poster Session

- The Hypertext Semantic Synopsis as a Tool to Realize the Activities Approach in Learning
Gennady Atanov, Elena Dudyanova
- Developing a Schema for Learning Objects based on Object Oriented Model of Object Inheritance
Ben Daniel, Honggang Wu
- Learner Agents as Student Modeling: Design and Analysis
Teresita Limoanco, Raymond Sison
- Internet Virtual Classroom - An Implementation of the Instructional Model of the PBIALS based on the PBL Theory
Ming-Wei Chen, Rita Kuo, Maiga Chang, Kun-Yuan Yang
- Cognitive Approach of Two Technology Based Learning Environments of Modelisation and Simulation Intend to a Scientific Education
Zacharoula Smyrniou, Annick Weil-Barais

Developing a generic agent-based intelligent tutoring system
M. Hospers, L. Kroezen, Anton Nijholt, R. op den Akker, D. Heylen
 Hyperlearning: Empirical Validation of the ‘Design for Multimedia in Learning’
 Model – Problems Arising and Suggested Solutions
Paul Kawachi
 Information Aptitude Scale for Vocational High School in Taiwan
Jia - Rong Wen, Wen-Ling Shih
 Skills Superstore: On-Line Interactive Learning Skills System
A.E. Mahdi, Cairiona Bermingham
 Design considerations for porting the Physics subject light to the web
Ioannis Konstandakopoulos, Hariton Polatoglou
 Authoring Interactive Software Simulations for e-Learning
Maeve Paris
 Integrating Real Time Communications Applications in a Museum's Web Site
Lawrence Swiader, Greg Jacobson
 The Contribution of Technology facilitated learning in the Development of
 Actuarial Competencies in Tourism Business Management Education: An
 Empirical Investigation
Sanjay Nadkarni
 Student Models In Computer-Based Education
Larissa Zaitseva, Cathrine Boule
 Building e-learning communities: The case of VirRAD
Christos Bouras, El. Giannaka, V. Kapoulas, Maria Nani, Th. Tsiatsos
 An Implementation of SCORM-compliant Learning Content Management
 System--Content Repository Management System
Jin Tan David Yang, Chun-Yen Tsai
 Educational System Evaluation and Critical Analysis of Results
Sarinder Kaur Kashmir Singh, Raja Jamilah Raja Yusof
 A Web-based Virtual Reality Physics Laboratory
YuLung Wu, TeYi Chan, BinShyan Jong, Tsong Wu Lin
 An Efficient Japanese Parsing Algorithm for Computer-assisted Language
 Learning
Chi Hong Leung, Wun Na Yung
 MobiLP: A Mobile Learning Platform for Enhancing Lifewide Learning
Yuen-yan Chan, Chi-hong Leung, Albert K.W. Wu, Suk-ching Chan
 Web-based Two-Tier Test for Internet Literacy
Chien Chou, Chin-Chung Tsai
 Completing LOM - How Additional Axioms Increase the Utility of Learning
 Object Metadata
Mark Painter, Jan Brase, Wolfgang Nejd
 A Multiple Representational Environment for Learning Programming and C
Konstandina Zikouli, Maria Kordaki, Elias Houstis
 Learning Computer Organization and Assembly Language with the EasyCPU
 Visual Environment
Cecile Yehezkel, Matzi Eliahu, Miky Ronen
 Adaptive Exploration of Assessment Results under Uncertainty
Dimitris Lamboudis, Anastasios Economides, Anastasia Papastergiou
 Enhancing On-line Collaboration using Topic Maps to Implicitly and Explicitly
 Categorize Discussion
David C White
 Designing and Developing Multilingual E-learning Materials: TUFS Language
 Education Pronunciation Module -Introduction of a System for Learning Japanese
 Language Pronunciation-
Shin Abe, Shunsuke Nakata, Tsutomu Kigoshi, Hajime Mochizuki
 Generating Adaptive Hypermedia with Golog and Conceptual Graphs
Fabrice Popineau, Yolaine Bourda, Bich-Lien Doan
 An Adaptive Function for Hypermedia-based Advanced Learning Technology
James Ohene-Djan, Matthew Gorle
 cCDN: campus Content Delivery Network learning facility
Carlos E. Palau, Juan C. Guerri, Manuel Esteve, Federico Carvajal, Benjamin Molina
 Authoring Tool Generator for Intelligent Tutoring Systems
Delio Ambrosio, Vanessa Rocha, Lubia-Maria Lopes Rodrigues, Marco Carvalho
 Emotional and Motivational ITS Architecture
Lubia-Maria Lopes Rodrigues, Marco Carvalho
 E-Learning Environment Based on Framework Composition
Sean Wolfgang Matsui Siqueira, Maria Helena L. Baptista Braz, Rubens Nascimento Melo
 VIRGE: Tutoring English over the Web through a Game
Maria Virvou, George Katsionis
 Supporting Collaboration and Adaptation in CSCL Environment
Agoritsa Gogoulou, Evangelia Gouli, Maria Grigoriadou, Maria Samarakou
 Distance Education between Immersive Indoor and Outdoor Environments using
 Multimedia Satellite Network System
Noritaka Osawa, Kimio Kondo, Kikuo Asai, Tadao Mio, Yutaka Noma, Ayako Mio
 WIPE - A model for a web-based database-driven environment for teaching
 programming
Vassilios Efopoulos, Georgios Evangelidis, Vassilios Dagdilelis, Theodore Kaskalis
 Using Database Technologies in Building Learning Community to Improve
 Knowledge Exchange
Liang-Yi Lee, Chen-Chung Liu, Chin-Chi Hsu, Gwo-Dong Chen
 Desmond: A Web-based Service for Study Planning
Anni Ryttonen, Tiina Niklander
 Distributed Information System for Experimental Investigations and Educational
 Process Support
S.E. Gavrilov, S.A. Kiprushkin, Sergey Yu. Kurskov, A.D Khakhaev
 Beliefs of Instructors and Administors Toward Motivation online Teaching in

Technological and Vocational Education in Taiwan
Chien-chih Lee, Chunhwa (Deborah) Chang
 RoboBegger: Teaching Attitudes by Robotics
Gaetano La Russa, Niko Myller, Jarkko Suhonen, Erkki Sutinen, Mikko Vesisenaho
 Collecting Data on Field Trips – RAFT Approach
Milos Kravcik, Marcus Specht, Andreas Kaibel, Lucia Terrenghi
 How can the Web Services Paradigm improve E-learning?
Judith Rodriguez, Luis Anido, Manuel J. Fernandez
 On the Use of E-learning Standards in Adaptive Learning Systems
Juan Manuel Santos, Luis Anido, Martin Llamas
 ArgoGraph: Using graph for learning in Physics labwork
Nadège Neau
 Using Adaptability to Create an Automatically Adaptive Course Presentation on
 the Web
Mohammed Abdel Razek, Claude Frasson, Marc Kaltenbach
 Guiding students around personalized information sources: An intermediary
 approach to utilizing existing Web resources
Takahiro Noda, Hitoshi Seshimo, Mina Maruyama, Tokiichiro Takahashi
 Code Tutor
Goran Simic, Vladan Devedzic
 Generating Guided Tours to Facilitate Learning from a set of Indexed Resources
Benjamin Buffereau, Pierre Duchet, Philippe Picouet
 An Intelligent Tutoring System Prototype for Learning to Program Java
Edward R. Sykes
 Problems of building adaptive integrated learning environments
Ildar Galeev, Larissa Tararina, Oleg Kolosov
 Facilitating Informal Cooperation in Web-based Learning Programs
Yongwu Miao, Ludger Becker, Christian Breimann
 Application of a Computer Supported Collaborative Learning Environment
 (CSCL) in Teaching of Electric Circuits
N.G. Mamalougos, Vassilis Kollias, St. Vosniadou
 Towards a multi-modal teaching, learning and assessment strategy at a South
 African University
Izak Broere, Marlena Kruger
 Online Learning Support in Constructivist Environments
Maggie McPherson, Miguel Nunes

Thursday 10 July

9:00-16:00

Registration

9:00-10:00

Keynote Speech (Auditorium)

Prof Elliot Soloway, University of Michigan, USA
 Prof Cathleen Norris, University of North Texas, USA

10:00-11:30

Parallel Sessions

Quality Issues in e-Learning (Auditorium)

Chair: Dr Jan Pawlowski, Univ of Duisburg-Essen, Germany

- (F) The European Quality Observatory (EQO): Structuring Quality Approaches for E-Learning
Jan M. Pawlowski
- (F) Total Quality Management for Electronic Educational Markets
Lampros Stergioulas, Hasan Ahmed, Costas S. Xydeas, Bernd Simon
- (S) Learning objects design: What do educators think about the quality and reusability of learning objects?
Natasha Boskic
- (S) Quality assessment for collections of learning resources
D. Rovinskiy, K. Synytsya, A. Podgornov

Intelligent Tutoring Systems II (Room A)

Chair: Prof Maria Grigoriadou, Univ of Athens, Greece

- (F) A Fuzzy Logic Evaluating System to Support Web-based Collaboration Using Collaborative and Metacognitive Data
S. Hadjileontiadou, G. Nikolaidou, L. Hadjileontiadis, G. Balafoutas
- (F) Learner Modelling in a Multi-Agent System through Web Services'
Katerina Kabassi, Maria Virvou
- (S) Software support for teaching Petri nets: P3
Dragan Gasevic, Vladan Devedzic
- (S) Enhancing Conceptual Change through Cognitive Tools: An Animated Pedagogical Agent Approach
Ting Choo Yee, Yen-Kuan Chong
- (S) Facial Expression Analysis for Estimating Learner's Emotional State in

Intelligent Tutoring Systems

Abdolhossein Sarrafzadeh, Hamid Gholam Hosseini, Chao Fan, Scott P. Overmyer
(S) User-centred design and development of an applied web-based ITS
Manolis Mavrikis, Antony Maciocia, Duncan Abela, John Lee

Applications III (Room B)

Chair: Prof Rowena Santiago, Cal State U San Bernardino, USA

- (S) New Approaches to Media-Supported Project Work at the University Level
Ralf Klamma, Mattheus Jarke, Markus Rohde, Volker Wulf
- (S) A Study on the Use of a Voice Interactive System for Teaching English to Italian Children
Diego Giuliani, Ornella Mich, Marianna Nardon
- (S) Software Tutors for Scaffolding on Planet Oit
Brian M. Slator, Otto Borchert, Lisa Daniels, Guy Hokanson, Bernhardt Saini-Eidukat, Donald P. Schwert, Richard T. Beckwith
- (S) Kana-Input NaVigation System for Kids based on the Cyber Assistant.
Yoshiaki Shindo, Hiroshi Matsuda, Akitoshi Yokoyama
- (S) Sense Differentiation in Print and Electronic Dictionaries: A Survey of Test Instruments
Tan Kim Hua
- (S) An environment for Teaching Object-Oriented Programming: ObjectKarel
Maria Satratzemi, Stelios Xinogalos, Vassilios Dagdilelis

11:30-12:00

Refreshment Break

12:00-13:45

Parallel Sessions

Evaluation (Auditorium)

Chair: Prof Mike Spector, Syracuse Univ, USA

- (F) Evaluating the role of a shared document-based annotation tool in learner-centered collaborative learning
Petri Nokelainen, Jaakko Kurhila, Miikka Miettinen, Patrik Floreen, Henry Tirri
- (F) A PDA-based Interface for a Computer Supported Educational System
Xose A. Vila, A. Riera, E. Sanchez, M. Lama, D.L. Moreno
- (S) Learner Experiences in Online Courses: Towards a Model for Learning to Learn Online
Angela D. Benson
- (S) A Controlled Experiment Investigation on the Impact of an Instructional Tool for Personalized Learning
Athanasios Karoulis, Ioannis Stamelos, Lefteris Angelis, Andreas Pombortsis
- (S) Distance Education: a Web Usage Mining Case Study for the Evaluation of Learning Sites
Leticia Machado, Karin Becker
- (S) Students' Understanding of Computer Networks in an Internationally Distributed Course
Anders Berglund, Arnold Pears

Architectures I (Room A)

Session Chair: Prof Luis Anido, University of Vigo, Spain

- (F) A Distributed Software System Architecture For Wireless Peer-to-peer Collaborative Learning
Indrani Vedula, Richard Han
- (S) The Web as Tool for Collaborative e-Learning: the Case of CoLab
Guillermo de Hoyos-Rivera, Roberta Lima-Gomes, Jean-Pierre Courtiat, Rachid Benabbou
- (S) CUBER: A Personalised Curriculum Builder
Päivi Pöyry, Juha Puustjarvi
- (S) Template Server Architecture
Alexei Tretiakov, Yanmin Shi, Hong Hong, Kinshuk
- (S) A Multiagent Architecture for Distance Education Systems
Fabiano Azevedo Dorça, Carlos R. Lopes, Marcia A. Fernandes
- (S) Learning Resources Brokerage Systems: an Agent-based Virtual Market Model
Nikos Manouselis, Demetrios Sampson

Applications IV (Room B)

Chair: Dr Charalambos Karagiannidis, ITI-CERTH, Greece

- (F) Using Digital Video as an Asynchronous Method of Instruction
Stavros Filippidis, Ioannis Tsoukalas
- (F) Design and Evaluation of a Cache Memory Simulation Program

- (S) Visualization and Teaching Simplex Algorithm
Vasilios Lazaridis, N. Samaras, D. Zissopoulos
- (S) Simulation Software for a Network Modelling Lab
A. Perdos, A. Chatzigeorgiou, G. Stephanides
- (S) Students' Visualization and Conceptual Understanding of Atomic Orbitals Using a Virtual Environment
Jorge Alberto Trindade, Carlos Fiolhais
- (S) Using Student-Computer Interactions to Categorize Educational Software
Janelle Pollard, Roger Duke

13:45-14:45

Lunch

14:45-16:30

Parallel Sessions

Interoperability Challenges in Learning Technologies (Auditorium)

Chair: Frans Van Assche, European Schoolnet, Belgium

- (F) Semantic Interoperability: Use of vocabularies with Learning Object Metadata.
Frans Van Assche, Lorna M. Campbell, Luis Anido Rifón, Marc Willem
- (F) Learning Objects on the Semantic Web
Permanand Mohan, Christopher Brooks
- (S) An Educational Taxonomy for Learning Objects
Giselher H.J. Redeker
- (S) A Process Repository for the Development of E-Learning Applications
Ronald Hartwig, Michael Herczeg
- (S) The Semantic Web for Learning Resources
Yolaine Bourda, Bich-Lien Doan

Web - Based Educational Systems II (Room A)

Chair: Dr Alfred Moye, Hewlett-Packard, USA

- (F) InfoLab: A Web Learning Pedagogical Based Content Repurposing approach
Franca Rokou, Y. Rokos, E. Rokou
- (F) Web Based Learning Environment as a Passive Web Document
Andreja Andric, Vladan Devedzic, Marco Andrejic
- (F) Searching SCORM Metadata in a RDF-based E-Learning P2P Network Using XQuery and Query by Example
Changtao Qu, Wolfgang Nejd
- (S) On-line Knowledge Management Search Engines
Lei Zhang, Bhavani Sridharan, Kinshuk
- (S) The content-graph as a basic data structure to manage authoring- and learning processes
Jochen Witmann, D. Moller

Collaborative Learning (Room B)

Chair: Prof Pierre Tchounikine, Le Mans University, France

- (F) OSCAR: a framework for structuring mediated communication by speech acts
C. Delium
- (F) Making Virtual Work Teams Successful: Measuring the 'Interactive Demand' of Tasks and Fitting It to the Demands of Technology, People and Structure
Stephen Dundis, Suzanne G. Benson
- (S) Exploratory + Collaborative Learning in Programming: A Framework for the Design of Learning Activities
Agoritsa Gogoulou, Evangelia Gouli, Maria Grigoriadou, Maria Samarakou
- (S) Supporting Social Awareness: Requirements for Educational CVE
Ekaterina Prasolova-Forland, Monica Divitini
- (S) Structuring Collective Activities with Tasks and Plans
Maria-Laure Betbeder, Pierre Tchounikine

16:30-17:00

Refreshment Break

17:00-18:45

Parallel Sessions

Web - Based Educational Systems III (Auditorium)

Chair: Prof Erkki Sutinen, University of Joensuu, Finland

- (F) Web-based Peer Assessment in Learning Computer Programming

- Jirarat Sitthiworachart, Mike Joy*
- (F) Reusable Active Learning System for Improving the Knowledge Retention and Better Knowledge Management
Bhavani Sridharan, Kinshuk
- (F) Enriching traditional classroom scenarios by seamless integration of interactive media
Andreas Lingnau, Andreas Harrer, Martin Fendrich, Markus Kuhn, Dirk Hofmann, H. Ulrich Hoppe
- (S) Semi-Continuous Monitoring of Student Feedback in Interactive Synchronous E-Learning Environments
Peter Soreanu, Emil Saucan
- (S) An Evaluation Technique for Content Interaction in Web-based Teaching and Learning Environments
Xu Lei, Claus Pahl, Dave Donnellan

Architectures II (Room A)

Chair: Dr Yasuhisa Tamura, Sophia University, Japan

- (F) An E-learning Service Management Architecture
Theodore K. Apostolopoulos, Anna Kefala
- (S) The Virtual Learning Machine: Integrating Web and Non-Web Technologies
Russell Johnson, Elizabeth Kemp, Ray Kemp, Peter Blakey
- (S) Supporting Interoperability in an Existing e-Learning Platform Using SCORM
Polyxeni Arapi, Nektarios Moutoutzis, Stavros Christodoulakis
- (S) A Framework for Adapting Instruction to Cognitive Learning Styles
Christophe Piombo, Hadj Batatia, Alain Ayache
- (S) Re-Adapting an Adaptive Assessment. Is this possible?
Panos Siozos, George Palaigeorgiou, Theophanis Despotakis
- (S) Developing E-Training Systems in a Customized Manufacturing Context
Weidong Zhang

Distance Learning (Room B)

Chair: Prof Ildar Galeev, Kazan State Tech Univ, Russia

- (F) An Approach to Distance Learning Curriculum Appropriation
Dorothee Rasseneur, Pierre Jacoboni, Pierre Tchounikine
- (S) Management Issues of Flexible, Multi-Level Distance Learning-based Teacher Training
Noa Ragonis, Bruria Haberman
- (S) Planning Online Degree Programs: The Stakeholders' Perspectives
Angela D. Benson
- (S) From Socrates to PIAGET: Patterns for Distance Learning
Ismar Frango Silveira, Maria Alice G.V.Ferreira, Carlos Fernando Araujo
- (S) The Positive Model for Offshore Team Teaching
Penney McFarlane, Anne Fuller, Kimberly Lam
- (S) A Teaching Method & Tool for Web Engineering
M.A.Lockyer, G. Griffiths, Barry Hebborn, B.J. Oates

20:00-23:00

Conference Dinner

Friday 11 July

9:00-10:00

Keynote Speech (Auditorium)
Carlos Oliveira, European Commission

10:00-11:30

Panel on International Standardisation for Collaborative Learning Technologies (Auditorium)

Panel Moderator: Prof. Toshio Okamoto, University of Electro-Communications, Japan

Social Computing and Collaborative Learning Environments

Dale Musser, John Wedman, James Laffey

Metadata for Collaborative Learning: What to Reuse?

Yasuhisa Tamura

E-Collaborative Learning Technologies and e-Pedagogy

Okamoto Toshio

Tools to Support On-Line Communities for Learning

Jaakko Kurhila

11:30-12:00

Refreshment Break

12:00-13:45

Parallel Sessions

Adaptive Educational Systems (Auditorium)

Chairs: Nikos Mylonakis, Colin McCullough, CEDEFOP

- (F) An Instructional Framework Supporting Personalized Learning on the Web
Kyparisia Papanikolaou, Maria Grigoriadou
- (S) Courses Personalization in an E-Learning Environment
Vincenza Carchiolo, Alessandro Longheu, Michele Malgeri, Giuseppe Mangioni,
- (S) Knowledge Testing and Evaluation in the Integrated Web-Based Authoring and Learning Environment
Leonid Pesin
- (S) Agent Support for Personalized Learning Services
Igor Hawryszkiewicz
- (S) Towards Personalised and Collaborative Learning Management Systems
Siew Siew Ong, Igor Hawryszkiewicz
- (S) An Approach to Modeling Adaptive Hypermedia for Children with Disabilities
Jasminka Mezak, Natasa Hoic-Bozic
- (S) Adaptive Hypermedia based on Metaphors as an Instructional Strategy
Cécile Meyer, Rene Chalon, Bertrand David

Cognitive Tools I (Room A)

Chair: Dr Maiga Chang, Chung-Yuan Christian U, Taiwan

- (F) Designing Multimedia Support for Situated Learning
Alexei Tretiakov, Kinshuk, Takato Tretiakov
- (S) Visualization of the Learning Process using Concept Mapping
Jussi Nuutinen, Erkki Sutinen
- (S) Gradual learning of science in a CSCL environment and the quest of epistemologically sophisticated learners
Athanassios Mol, Christina Stathopoulou, Vassilis Kollias, Stella Vosniadou
- (S) Developing a Framework for Conceptual Change within Scientific Inquiry
Astrid Wichmann, Joshua Gottdenker, David Jonassen, Marcelo Milrad
- (S) Gaining Computational Literacy by Creating Hybrid Aesthetic Learning Spaces
Daniela Reimann, Michael Herczeg, Thomas Winkler, Ingrid Hopel
- (S) Conceptual Learning Assessment and Content Management in E-Learning Platform by Means of Conceptual Maps.
Carlo Giovannella, P.E. Selva, L. Serafini, A. Bruni

Robotics and Virtual Reality in Education (Room B)

Chair: Prof Nikitas Sgouros, Univ Piraeus, Greece

- (F) Using VR Technology to Support the Formation of Cooperative Learning Groups
BinShyan Jong, Tsong Wu Lin, TeYi Chan, YuLung Wu
- (F) Educational Robotics in a Systems Design Masters Program
Uwe Gerecke, Patrick Hohmann, Bernardo Wagner
- (S) Using Robotic Technology as a Constructionist Mindtool in Knowledge Construction
Timothy Savage, Inmaculada Arnedillo Sanchez, Fionnuala O'Donnell, Brendan Tangney
- (S) Development of Cyber Theater and Cyber Theater Scenario Language
Hiroshi Matsuda, Tomomi Morita, Yoshiaki Shindo
- (S) Using Virtual Worlds for Corporate Training
Charles Nebolsky, Nicholas K. Yee, Valery A. Petrushin, Anatole V. Gershman

13:45-14:45

Lunch

14:45-16:30

Parallel Sessions

Web-Based Educational Systems IV (Auditorium)

Chair: Prof Igor Hawryszkiewicz, U Tech Sydney, Australia

- (F) InLinX for Document Classification, Sharing and Recommendation
Clara Bighini, Antonella Carbonaro, Giorgio Casadei
- (S) FlexNetDiscuss: a Generalized Contextual Group Communications System to Support Learning Inside and Outside the Classroom
Ng S. T. Chong
- (S) VIANET – A New Web Framework for Distance Learning

- Joao Vasco de Oliveira Redol, D. Simoes, A. Carvalho, H. Pascoa, J. Coelho, P. Grave, R. Luis, N. Horta
- (S) A Data Model for Structuring On-Line Learning Material
Nicoletta Dessi, Barbara Pes
- (S) Scaffold Learners; Qualitative Browsing of Major Topics in Learning Forum
Chih-Kai Chang
- (S) Ubiquitous E-Learning: Are We There Yet?
Werner Beuschel
- (S) Approaches to Using Video Cases in Teacher Professional Development
David Crismond

Intelligent Tutoring Systems III (Room A)
Chair: Prof Maria Virvou, Univ Piraeus, Greece

- (F) A Reified Interface for a Tutor on Program Debugging
Amruth N Kumar
- (F) A Multilingual Concept Mapping Tool for a Diverse World
M. Larranaga, U. Rueda, J.A. Elorriaga, Ana Arruarte
- (F) Pedagogical Agents in the Multimedia Natural Sciences for Children
Mikhail N. Morozov, A. Tanakov, D. Bystrov
- (S) Preliminary Results from a Machine Learning Based Approach to the Assessment of Student Learning
Salvatore Valenti, A. Euccmiarelli
- (S) Agent-assisted Collaborative Concept Map
Chuen-Lee Kuan, Chien-Sing Lee, Chin - Kuan Ho

Applications V (Room B)
Chair: Dr Andreas Harrer, Univ of Duisburg-Essen, Germany

- (F) Towards an Assistive Tool for Greek Sign Language Communication
Vassilia Pashaloudi, Konstantinos Margaritis
- (F) Speech-Adaptive Time-Scale Modification for Computer Assisted Language-Learning
Olivia Donnellan, Elmar Jung, Eugene Coyle
- (F) Using gestures to learn about graphs: the contribution of multimodal technology
Stamatina Anastopoulou, M. Sharples, C. Baber
- (F) Speech Enabled E-Learning for Literacy Tutoring
Paul Walsh, Jason Meade
- (S) On Modeling Collaborative Talk During Computer – Mediated Music Composition: A Case Study in Primary School Peers
G. Nikolaidou

16:30-17:00

Refreshment Break

17:00-18:45

Parallel Sessions

Web-Based Educational Systems V (Auditorium)
Chair: Prof Symeon Retalis, Univ Piraeus, Greece

- (F) A Tool-mediated Cognitive Apprenticeship Approach for a Computer Engineering Course
Sarah Murray, James Ryan, Claus Pahl

- (F) Enriching Document Collections through the Writing of 'Stories'
Eva Heinrich, Frederic Andres
- (S) A Topology and Framework to Aid the Design of Automated Assessment
William Fone
- (S) Theoretical Analysis of Mission-Based Learning Model
Yueh-Chun Shih, Nian-Shing Chen
- (S) Combining Synchronous and Asynchronous Distance Learning for Adult Education: The Greek Army Case
Ilias Maglogiannis, Constantinos Bourletidis, Kostas Karpouzis
- (S) Online Learning for On - Board Training Officers
Reima Helminen, Markku Karkama

Cognitive Tools II (Room A)
Chair: Dr Vassilis Kollias, Univ of Athens, Greece

- (S) Intelligent DirEctors for Argumentative Learning (IDEAL): Supporting Collaborative Learning through Argumentations
Ben Daniel, Tiffany Tang, Pinata, Winoto, Golha Sharifi, Xiaolin Niu
- (S) On the Role of Brain Imaging Technologies in the Calibration of Mental Categories
Lars Hall, Petter Johansson
- (S) Dialogue-Based Historical Text Comprehension
Grammatiki Tsaganou, Maria Grigoriadou, Theodora Cavoura
- (S) Bridging the cognitive divide in ICT-mediated learning
Chris Chinien, France Boutin
- (S) Reading For Understanding: A Framework for Advanced Reading Support
Khalid Rouane, Claude Frasson, Marc Kaltenbach
- (S) Psychological and Pedagogical Foundations for a Computer-Based Learning Environment with a Language-Deficient Domain
Ah Lian Kor

Workshop: Can Constructivist Epistemologies be Successfully Applied in Educational Informatics? (Room B)
Organizers: Miguel Baptista Nunes, Prof Maggie McPherson, Univ of Sheffield, UK and Iraklis Paraskakis, City Liberal Studies College, Greece

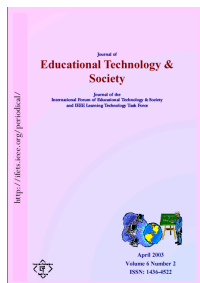
Constructivism vs. Objectivism: where is difference for designers of e-learning Environments?
Miguel Baptista Nunes, Maggie McPherson

Constructivist vs behaviourist learners: the weight of previous leaning culture in the assimilation of constructivist learning materials.
Mariano Rico

Rethinking the teaching of differential equations through the constructivism paradigm
Iraklis Paraskakis

18:45-19:00

Conference Close (Auditorium)



Selected papers will be invited for submission to published in the Special Issue on **Technology – Enhanced Learning** of the IEEE Learning Technology Task Force *Journal of Educational Technology & Society*.

Guest Editors:

- Prof Demetrios G Sampson, ITI-CERTH and University of Piraeus, Greece
Prof Mike Spector, Syracuse University, United States
Prof Vladan Devedzic, University of Belgrade, Serbia and Montenegro
Prof Kinshuk, Massey University, New Zealand

Conference Fees

Affiliation	Early Bird Registration (on or before 31 May 2003)	Late Registration (on or before 20 June 2003)	On-Site Registration
Members of IEEE Computer Society	300,00 Euro	360,00 Euro	600,00 Euro
Non-members	400,00 Euro	480,00 Euro	800,00 Euro
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The registration form is available through the ICALT Website at: http://lttf.ieee.org/icalt2003/registration_form_ICALT.rtf

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Venue

The ICALT will be hosted at the Cultural and Athletic Center Dais. It is located about 20 km from the 'Eleftherios Venizelos' International Airport of Athens and within a short distance from the Athens' OAKA "Spiros Louis" Stadium.

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