# **ICWL 2008 and Workshop**

## The 7th International Conference on Web-based Learning

## **Final Program**

### Session 1: Adaptation of e-Learning Technologies and Policies

#### On Properly Using Technologies to Make E-Learning Effective

Won Kim, Sungkyunkwan University, South Korea

Ok-Ran Jeong, Sungkyunkwan University, South Korea

#### Richness versus Parsimony Antecedents of Technology Adoption Model for e-Learning Websites

Hsiu-Li Liao, National Taiwan University of Science and Technology, Taiwan

Hsi-Peng Lu, National Taiwan University of Science and Technology, Taiwan

#### **Exploring a Computer-assisted Managing System with Competence Indicators in Taiwan**

Yen-Shou Lai, National Chung Cheng University, Taiwan

Hung-Hsu Tsai, National Formosa University, Taiwan

Yuan-Hou Chang, National Chung Cheng University, Taiwan

Pao-Ta Yu1, National Chung Cheng University, Taiwan

#### e-Learning Issues under an Affective Perspective

Makis Leontidis, University of Athens, Greece

#### **Recommendation in Education Portal by Relation based Importance Ranking**

Xin Wang, Tsinghua University, China

Fang Yuan, Tsinghua University, China

Li Qi, Tsinghua University, China

## **Session 2: Learning Resource Management**

#### **Multiple Standards Compatible Learning Resource Management**

Li Zheng, Tsinghua University, China

Yintao Liu, Tsinghua University, China

Xinyu Zhang, Tsinghua University, China

#### **Research on Learning Resources Organization Model**

Qingtang Liu, Huazhong Normal University, China

Zhimei Sun, Huazhong Normal University, China

#### Web Contents Extracting for Web-Based Learning

Jiangtao Qiu, Sichuan University, China

Changjie Tang, Sichuan University, China

Chuan Li, Sichuan University, China

Qian Luo, Sichuan University, China

Jun Zhu, National Center for Birth Defects Monitoring, China

#### **ERDRM: A Digital Rights Management System Model for Educational Resources**

Shujuan Wang, Huazhong Normal University, China

Qingtang Liu, Huazhong Normal University, China

Course Material Research Based on Perti Net

Kun Xiao, Wuhan University, China Shihong Chen, Wuhan University, China Xi Chen, Wuhan University, China

### **Session 3: e-Learning Experiences**

#### The Practice and Experience Sharing of Three-Year Peer Coaching Program

Ya-Ting C. Yang, National Cheng Kung University, Taiwan

Wu, W.-C., National Cheng Kung University, Taiwan

Chung, P.-Y., National Cheng Kung University, Taiwan

Laih, C.-S., National Cheng Kung University, Taiwan

Wen, J.-R., Shu-Te University, Taiwan

Lin, C.-S., National University of Tainan, Taiwan

#### eKnowledge in Education: UNITE - a European-wide Network of Schools

Andrina Granic, Fraunhofer Institute for Computer Graphics, Germany

Andrina Granić, University of Split, Split, Croatia

Maja Ćukušić, University of Split, Split, Croatia

Kawa Nazemi, Fraunhofer Institute for Computer Graphics, Germany

## The Research on the Case Learning Activity Sustained by a Web-based Case Assisted Study Environment

Xinyu Zhang, Tsinghua University, China

Dongxin Jiang, Tsinghua University, China

Yi Dou, China Agricultural University, China.

#### **Teaching Complexity Judgement for Education Resource**

Kun Xiao, Wuhan University, China

Shihong Chen, Wuhan University, China

Jian Xiao, Maoming University, China

#### An Artificial Intelligence Course Used to Investigate Students Learning Style

Elvira Popescu, University of Craiova, Romania

## **Session 4: Assessment and its Supporting Systems**

#### E-portfolios Enhancing Peer-Assessment in Web-based Learning

Youmei Wang, Wenzhou University, China

# Modeling Units of Assessment for Sharing Assessment Process Information: towards an Assessment Process Specification

Yongwu Miao, Open University of The Netherlands, Netherlands

Peter Sloep, Open University of The Netherlands, Netherlands

Rob Koper, Open University of The Netherlands, Netherlands

#### A Method to Find Learner's Key Characteristic in Wed-based Learning

Xiyuan Wu, Xi'an, Jiaotong University, China

Qinghua Zheng, Jiaotong University, China

Haifei Li, Union University, USA

Guangdong Liu, Jiaotong University, China

#### Computer-Aided Generation of Item Banks Based on Ontology and Bloom's Taxonomy

Ming-Hsiung Ying, Chung-Hua University, Tauwan

Heng-Li Yang, National Cheng-Chi University, Taiwan

#### Motivating Students through On-line Competition: an Analysis of Satisfaction and Learning Styles

Luisa Regueras, University of Valladolid, Spain

Elena Verdú, University of Valladolid, Spain

María J. Verdú, University of Valladolid, Spain

María Á. Pérez, University of Valladolid, Spain

Juan P. de Castro, University of Valladolid, Spain

María F. Muñoz, Hospital Clínico Universitario, Spain

### Session 5: Tools and Experiences for Learning C Programming Language

#### Collaborative Learning Tool applying to C Programming Language

Wen-Chih Chang, Chung Hua University, Taiwan

Wai-Tak Wong, Syncsort Company, USA

Kuen-Chi Chen, Chung Hua University, Taiwan

#### Design and Implementation of an Internet-Based Platform for C Language Learning

Jianxin Wang, Central South University, China

Weiwei Zhou, Central South University, China

Ling Chen, Central South University, China

#### Virtual Education System for the C Programming Language

Kwansun Choi, Soonchunhyang University, South Korea

Ilhyun Moon, Soonchunhyang University, South Korea

SeaRon Han, Soonchunhyang University, South Korea

ChangWan Jeon, Soonchunhyang University, South Korea

Dongsik Kim, Soonchunhyang University, South Korea

Sunheum Lee, Soonchunhyang University, South Korea

# Development of Contents Improving the Effectiveness of Self Learning, for the C Program Language

KwanSun Choi, SoonChunHyang University, South Korea

Ilhyun Moon, SoonChunHyang University, South Korea

SaeRon Han, SoonChunHyang University, South Korea

DongSik Kim, SoonChunHyang University, South Korea

WanChang Jeon, SoonChunHyang University, South Korea

HeungGu Jeon, SoonChunHyang University, South Korea

#### Introductory C Programming Language Learning with Game-based Digital Learning

Wen-Chih Chang, Chung Hua University, Taiwan

Wai-Tak Wong, Syncsort Company, USA

Yu-Min Chou, Chung Hua University, Taiwan

### **Session 6: Game-Based Learning**

#### Using Interactive Video Technology for the Development of Game-Based Learning

Han-Bin Chang, Tamkang University, Taiwan

Hui-Huang Hsu, Tamkang University, Taiwan

Louis R. Chao, Tamkang University, Taiwan

## Developing the Historical Culture Course by using the Ubiquitous Game-Based Learning Environment

Chen Jui-Hung, Tamkang University, Taiwan

Te-Hua Wang, Chihlee Institute of Technology, Taiwan

Louis R. Chao, Tamkang University, Taiwan

#### From Story-Telling to Educational Gaming: The Bamiyan Valley Case

Marc Spaniol, Aachen University, Germany

Yiwei Cao, Aachen University, Germany

Ralf Klamma, Aachen University, Germany

Pablo Moreno-Ger, Complutense University of Madrid, Spain

Baltasar Fernández-Manjón, Complutense University of Madrid, Spain

José Luis Sierra, Complutense University of Madrid, Spain

Georgios Toubekis, Aachen University, Germany

#### Three Layered Thinking Model for Designing Web-based Educational Games

Sheng-Chin Yu, Tung-Nan University, Taiwan

Fong-Ling Fu, National Cheng-chi University, Taiwan

#### Learning Kruskal's Algorithm, Prim's Algorithm and Dijkstra's Algorithm by Board Game

Wen-chih Chang, Chung Hua University, Taiwan

Yan-Da Chiu, Chung Hua University, Taiwan

### Session 7: Frameworks and Platforms for e-Learning

#### A Virtual Laboratory Platform Based on Integration of Java and Matlab

Yu Sheng, Central South University, China

Weiping Wang, Central South University, China

#### Multi-agent Framework Support for Adaptive e-Learning

Liang Wanjie, Zhejiang Normal University, China

Zhao Jianmin, Zhejiang Normal University, China

Zhu Xinzhong, Zhejiang Normal University, China

# The Design and Implementation of IT Importing Enterprise Campus System within the Campus-Enterprise Cooperation Framework

Xinyu Zhang, Tsinghua University, China

Yi Dou, China Agricultural University, China

#### **Construction of Project-based Virtual Learning Community**

Xiaoli Zheng, Wenzhou University, China

Feng Wang, Wenzhou University, China

## Methodology for Supporting Design and Implementation of an e-Learning Platform in Grid Architecture

Tianding Chen, Zhejiang Gongshang University, China

## **Session 8: Multimedia Technologies for Learning**

#### Constructing a Multi-monitor Displays System for Music Learning

Yen-Shou Lai, National Chung Cheng University, Taiwan

Yuan-Hou Chang, National Chung Cheng University, Taiwan

Pao-Ta Yu, National Chung Cheng University, Taiwan

#### Digital Content Development of Folklore Artifacts and Activities for Folklore Education

Yung-Fu Chen, China Medical University, Taiwan

Po-Chou Chan, China Medical University, Taiwan

Hsuan-Hung Lin, China Medical University, Taiwan

Yu-Ting Lin2, China Medical University, Taiwan

Yung-Fu Chen, China Medical University, Taiwan

#### **Automated Chinese Handwriting Error Detection Using Attributed Relational Graph Matching**

Howard Leung, City University of Hong Kong, Hong Kong

Zhihui Hu, City University of Hong Kong, Hong Kong

Yun Xu, City University of Hong Kong, Hong Kong

#### A New Chinese Speech Synthesis Method Apply in Chinese Poetry Learning

Chengsong Zhu, Nankai University, China

Yaoting ZHU, Nankai University, China

### **Session 9: On-line Discussion Forum and Community**

#### Comparing the Impact of Two Different Designs for Online Discussion

Yuankun Yao, University of Central Missouri, USA

#### A Sociogram Analysis on Group Interaction in an Online Discussion Forum

Jianhua Zhao, South China Normal University, China

#### Another Dimension of Web-Based learning: Psychological Bestirring

Zhiwen Wang, Zhejiang Education Institute, China

#### **Construct Teacher Community in E-learning System**

Bin Li, Tsinghua University, China

Lieming Li, Tsinghua University, China

Fei Li, Tsinghua University, China

#### The Research of the Knowledge Building Ecosystem

Xinyu Zhang, Tsinghua University, China

Dongxin Jiang, Tsinghua University, China

Lianghao Dai, Beijing University of Posts and Telecommunications, China

## **Session 10: Collaborative Learning**

#### Impact of Structural Factors on Online Collaborative Learning

Seung-hee Lee, Indiana University, USA

#### An Online Theme-based Collaborative Learning System

Yonggu Wang, Zhejiang University of Technology, China

#### The Design of Collaborative Virtual Learning Community and Learning Process Visualization

Suxian Lin, Zhejiang Normal University, China

WenAn Tan, Zhejiang Normal University, China

Yun Yang, Zhejiang Normal University, China

Xianhua Zhao, Zhejiang Normal University, China

#### Innovation of Cooperative Learning Via Virtual Classroom on Environment Problem

Nattapong Kaewboonma, King Mongkut's Institute of Technology, Thailand

Manat Boonprakob, Srinakharinwirot University, Thailand

Punnee Leekitchwatana, King Mongkut's Institute of Technology, Thailand

# The Design of Web-Based Personal Collaborative Learning System (WBPCLS) for Computer Science Courses

Zhenlong Li, Taizhou University, China

Xiaoming Zhao, Zhejiang Industrial University, China

## **Session 11: Semantics and Ontology**

## An E-learning System Engineering Ontology Model on the Semantic Web for Integration and Communication

Fujun Yang, Zhejiang Normal University, China

WenAn Tan, Zhejiang Normal University, China

Angiong Tang, Zhejiang Normal University, China

Suxian Lin, Zhejiang Normal University, China

Xue Zhang, Zhejiang Normal University, China

#### A Semantic Grid Framework for E-Learning Data Sharing

Wenya Tian, Zhejiang Economic and Trade Polytechnic, China

Huajun Chen, Zhejiang University, China

Yuxin Mao, Zhejiang University, China

#### **Ontology-based Description of Learning Object**

Xiaodan Wang, Capital Normal University, China

Fang Fang, Capital Normal University, China

Lei Fan, Capital Normal University, China

#### A Web-based Tutoring System based on Learning Theory and Artificial Intelligence

Chao-Fu Wei, Southwest University, China

Jia-Ke LV, Southwest University, China

Xuan WANG, Southwest University, China

Xian-Chun Zou, Southwest University, China

#### A Proposal of An Intelligent Learning Environment Applied to Software Engineering

Daniel Abella, University Center of João Pessoa, Brazil

César Rocha Vasconcelos, University Center of João Pessoa, Brazil

## **Session 12: Interfaces for Learning Activity Designs**

#### A Flow-oriented Visual Language for Learning Designs

Iván Martínez-Ortiz, Complutense University of Madrid, Spain

Pablo Moreno-Ger, Complutense University of Madrid, Spain

José Luis Sierra-Rodríguez, Complutense University of Madrid, Spain

Baltasar Fernández-Manjón, Complutense University of Madrid, Spain

#### Studies on Human Computer Interfaces Design for Chinese Mobile Phone Users

Xue-Min Zhang, Beijing Normal University, China

#### A Multimodeling Framework for Complex Learning Activity Designs

Sofiane Aouag, Laboratoire de Recherche sur le Langage, France

#### Question Answering from Lecture Videos Based on Automatic Generated Learning Objects

Stephan Repp, University of Potsdam, Germany

Serge Linckels, University of Potsdam, Germany

Christoph Meinel, University of Potsdam, Germany

## An Examination of the Relationship between Cognitive Style, Structure, and Task Complexity in Virtual Team Effectiveness

Xiaojing Liu, Indiana University, USA

Seung-hee Lee, Indiana University, USA

Rich Magjuka, Indiana University, USA

### **Session 13: Mobile and Network Technologies for Learning**

#### An Overview on Mobile e-Learning Research of Domestic and Foreign

Wenan Tan, Zhejiang Normal University, China

Yun Yang, Zhejiang Normal University, China

Suxian Lin, Zhejiang Normal University, China

Xianhua Zhao, Zhejiang Normal University, China

Fujun Yang, Zhejiang Normal University, China

#### Mobile 2.0 Leads to a Transformation of Mobile Learning

Shudong Wang, Hiroshima Shudo University, Japan

Neil Heffernan, Ehime University, Japan

#### A Semiautomatic Content Adaptation Authoring Tool for Mobile Learning

Hsuan-Pu Chang, Tamkang University, Taiwan

Chun-Chia Wang, Northern Taiwan Institute of Science and Technology, Taiwan

#### **Technical Route for Remote Demonstration Teaching**

ChangQing Ye, East China Normal University, China

Xiao-Li Gu, Augmentum Software Development (Shanghai) Co., China

#### An Optimized Scheme for Mobile Learning on IP-based Network Using SIP

Shao Jing Fan, Ningbo University of Technology, China

Jianbo Fan, Ningbo University of Technology, China

Yongping Zhang, Ningbo University of Technology, China

Zhongkun He, Ningbo University of Technology, China

#### **Poster Session 1**

#### Teaching of English to Hearing Impaired Individuals Whose Mother Language is the Sign Language

Athanasios Drigas, National Centre of Science Research, Greece

Dimitris Kouremenos, National Centre of Science Research, Greece

John Vrettaros, National Centre of Science Research, Greece

#### The design of an Artificial Psychology based WEB learning navigator

Yong-jian Lou, Hangzhou Dianzi University, China

Peng Wang, Hangzhou Dianzi University, China

#### Research on Mobile Learning Based on 3G Technology

Yunzhi Chen, Hangzhou Vocation and technology college, China

Yongmei Gao, Hangzhou Vocation and technology college, China

#### **Research of Ubiquitous Learning Application Environment**

Zong Hu, Ningbo University, China

#### **Affective-Based e-Learning Model Designing**

Cao Taoke, Tianjin Normal University, China

#### Authoring Neuro-Fuzzy Tutoring Systems for M and E-Learning

Ramon Zatarain-Cabada, Instituto Tecnologico de Culiacan, Mexico

M. L. Barrón-Estrada, Instituto Tecnologico de Culiacan, Mexico

L. Zepeda –Sánchez, Instituto Tecnologico de Culiacan, Mexico

Carlos A. Reyes-García, Instituto Nacional de Astrofísica, Óptica y Electrónica, Mexico

#### To Analyze Assessment That Using SPC Table

Wen-Chih Chang, Chung Hua University, Taiwan

Tsung-Pu Lee, Chung Hua University, Taiwan

#### Application of E-Portfolio in the Distance Chinese Language Visualization Teaching Platform

Qiang Lu, Central China Normal University, China

Yi Zhang, Central China Normal University, China

Pinghong Zhou, Central China Normal University, China

Ni Zhang, Central China Normal University, China

Zhiyuan Gu, Central China Normal University, China

#### E-learning System Design Based on Web Semantics and Individuation

Jie Yuan, ZheJiang Normal University, China

Jian-Min ZHAO, ZheJiang Normal University, China

Xin-Zhong ZHU, ZheJiang Normal University, China

#### Modeling and Analysis for the Educational Software Quality Hierarchy Triangle

Haiguang Fang, Capital Normal University, China

Jianfeng Ren, Capital Normal University, China

Mi Chen, Capital Normal University, China

Ailing Qiao, Capital Normal University, China

#### The Research of Mobile Support Synergistic Learning

Yi Jin, Guizhou Normal University, China

Zhu-Ying Lin, Guizhou Normal University, China

#### RAE: A Framework and Modeling Method for Distributed Learning System

Qingchao Ke, South China Normal University, China

#### Web Learning Capability of Web Services Based on Environment Ontology

Yang Xiafen, Zhejiang Normal University, China

#### The e-Learning System Model Based on Affective Computing

Xirong Ma, Tianjin Normal University, China

Rong Wang, Tianjin Normal University, China

#### Using Available Technologies to Assist and Enhance Learning: Experiences and Recommendations

Zuochen Zhang, the University of Windsor, Canada

Zuotang Zhang, Shihezi University, China

#### **Poster Session 2**

#### Construction of Collaborative Learning System Based on Multi-Agent Technology

Zhao Xiaoming, Taizhou University, China

Guo Wenping, Taizhou University, China

Chen Ying, Taizhou University, China

#### **Assessment for Learning in Online Classes**

Yuankun Yao, University of Central Missouri, USA

#### **Design of Children's Online Science Learning Software**

Zhen Liu, Ningbo University, China

#### **E-Learning and Cross Culture**

Seung-hee Lee, Indiana University, USA

#### Research and Development of an Auto-Producing System for Course Website

Weifeng Ma, Zhejiang University of Science and Technology, China

Xiaoyong SUN, Zhejiang University of Science and Technology, China

Yunfa LEI, Zhejiang University of Science and Technology, China

# The Effect of Knowledge Management Processes on Project Management - An Empirical Study on Information Technology Industry in Jordan

Ibrahem Tadros, Al-balga University, Jordan

#### A Quantitative Approach to eMM

Yong Zhou, East China Normal University, China Jiping ZHANG, East China Normal University, China

#### A Genetic Search Strategy Based on Simulated Annealing for Web Mining

Wanneng Shu, South-Central University for Nationalities, China

Ah-Hwwe Yu, NanyangTechnological University, Singapore

# Practice of Web-based Learning in University of Science and Technology via a Non-question-bank Supported Intelligent Online Test System

Jie Liu, Wuhan University of Science and Engineering, China

Wenbo Fang, Wuhan University of Science and Engineering, China

#### E-Learning System for Providing Online Course Management for Educational Institution

Nafees Mansoor, Independent University, Bangladesh

#### **About e-Learning Application in Communication Teaching**

Lina Chen, Zhejiang Normal University, China

Chunyu Miao, Zhejiang Normal University, China

#### **Document Similarity Arithmetic Based on Web Structure Semantics**

Jian-cai Huang, North China Electric Power University, China

#### **Learning Styles Indicators in e-learning Materials**

Javier Rojas, INT, France

#### **Mechanism of Pricing Dynamically for Web Services**

Jianbin Wu, Zhejiang Normal University, China

#### A Metadata-based Integration Scheme of Distributed Systems

Xinyu Zhang, Tsinghua University, China

Yu Zhang, Tsinghua University, China

Lianghao Dai, Beijing University of Posts and Telecommunications, China

## **Workshop on Blended Learning 2008**

## **Final Program**

### W-Session 1: e-Learning Platforms and Tools

#### **Advanced Methods of Web Learning**

Athanasios Drigas, Leyteris Koukianakis, Yannis Papagerasimou, NCSR Demokritos, Greece

#### An Online Special Terminology Interpreting System for Bilingual Instruction

Xinchun Cui, Qufu Normal University, China

## Design and Implementation of Principles of Computer Organization Virtual Lab Based on Component

Jianxin Wang, Liyuan Zhang, Yu Sheng, Central South University, China

## Design of a Real-time On-line Web-based Collaborative Learning Environment for Embedded Applications

Jagadeesh Chandra A.P, and R.D Sudhaker Samuel, S.J College of Engineering, Mysore, India

#### A Novel Pen-based Flowchart Recognition System for Programming Teaching

Zhenming Yua, Hong Pan, Liang Zhang, Hangzhou Normal University, China

### W-Session 2: Design, Model and Framework of E-learning Systems

#### The Case of Interactive Web-based Course Development

Du Jing, Li Fei, Li Bin, Tsinghua University, China

#### The Conceptual Model of Microworlds Supporting Scientific Discovery Learning

Gang Chen, Jinyang Shi, Yi Li, Nanjing Normal University and Yangzhou University, China

## Designing an Intelligent Coach for a Collaborative Concept-Mapping Learning Environment

Fang Fang Chua, Multimedia University, Malaysia

# A Theoretical Framework of Knowledge Spiral-based Ecosystem of Learner Development for Designing a Practical Ubiquitous Learning Environment

Hai Zhang, Takanori Maesako, Northeast Normal University and Osaka University, Japan

#### **Computer Assisted Learning with Card Game in System Design Concept**

Wen-Chih Chang and Yi-Lung Chen, Chung Hua University, Taiwan

## W-Session 3: Practice and Experience Sharing

#### A Study on the Online-Adaptive Testing Systems for e-Learning

Dong-Yong Yang, Seon-Kwan Han, Gyeong-in National University of Education, Korea

#### Summarization on the Data Mining Application Research in Chinese Education

Ling Jiang, Zongkai Yang, Qingtang Liu, Haimei Wei, Huangzhong Normal University and Huanggang Normal College, China

#### **Medical Imagistic Database Query for Educational Purpose**

Liana Stanescu, University of Craiova, Romania

Integrating IRT to estimate learning ability with S-P Chart in web based learning environment

Wen-Chih Chang, Hsuan-Che Yang, Timothy K. Shih, Chung Hua University and Tamkang University, Taiwan

## A New Approach for Education Information System's Compliance Test with the CELTS Standard Based upon XML Processing

Yi Dou, Xinyu Zhang, China Agricultural University and Tsinghua University, China

## W-Session 4: Pedagogical Issues

#### An Ajax-Based Terminology System for E-Learning 2.0

Haiqing Wang, Xinchun Cui, Zaihui Cao, Qufu Normal University, China

#### Multimedia instructional design corresponded to cognitive psychology

Hong-Juan Zhang, Yun-Xia Wang, Bao-Hua Zhao, Gui-Jie Li, Yong-Jian Lou, Hangzhou Dianzi University, China

### Learning in an Online Distance Education Course: Experiences of Three International Students

Zuochen Zhang, University of Windsor, Canada

#### **Using Online Discussions to Maximize Student Learning**

Yuankun Yao, University of Central Missouri, USA

#### A MSE Model with Learning Mechanism and Merging Module based on FCA

Qinhua Dong, Yajun Du, Fugui Wang, Xihua University, China