# WSEAS Transactions on Advances in Engineering Education

Contents: 2009 Print ISSN: 1790-1979 E-ISSN: 2224-3410

# Acceptance Rate (for the years 2013 and 2014): 42.62%

Acceptance Rate = C/D where: C = the number of accepted papers, D= the number of submitted papers. Withdrawn Papers are not considered for the numbers C and D.

# **Editorial Board:**

#### **Editor-in-Chief**

Professor Philippe Dondon
ENSEIRB-MATMECA, École Nationale Supérieure d'Électronique
Informatique et Radiocommunications de Bordeaux
1 avenue du Dr Albert Schweitzer, B.P. 99 33402
Talence, Cedex
France

E-mail: Philippe.Dondon@enseirb-matmeca.fr

#### **Associate Editors:**

Prof. Giovanni Fulantelli, National Research Council of Italy, Institute for Educational Technologies Palermo, Italy

Prof. Cathy H. Qi, University of New Mexico, Albuquerque, NM, USA

Prof. Sara De Freitas, Coventry University, UK

Prof. Toshio Okamoto, The University of Electro-Communications, UEC & KCG, Japan

Prof. Xiang Bai, Huazhong University of Science and Technology, China

Prof. Konstantinos G. Arvanitis, Agricultural University of Athens, Athens, Greece

Prof. Cornelia Aida Bulucea, University of Craiova, Craiova, Romania

Prof. Alexander Gegov, University of Portsmouth, UK

Prof. Dimos Triantis, Technological Educational Institute of Athens, Greece

Prof. Imre Rudas, Obuda University, Hungary

# **Topics**

Basic Science in Engineering Education Continuing Education & Its Delivery Engineering Education Reforms International Recognition of Qualifications Studies in Engineering and the needs of the Production and Market New Technologies in Education Industry and Education Collaboration Research and Education Globalisation in engineering education. Challences and problems Management of engineering education. Know-how in engineering education Environment and engineering education Mobility of Scholars European Integration and Engineering Education Computers, Internt, Multimedia in Engineering Education National Technical Chambers and National Societies in Engineering Education International Organizations and Engineering Education New Changes and Challenges in Engineering Education New Changes and Challenges in Teaching in Technical Universities Organization of Laboratories Private Education and State Education Management of Educational Institutes Relations between teachers and students Minorities in Education Foreign Students' problems in Educational Institutes What is the role of retired professors and emeritus professors in Education? Methodologies in examinations and relevant problems Examinations and Tests via Internet Professors' Elections and promotions in the Universities Awards and Education Psycological Aspects Athletics and Social Activities in Higher Education Research and development in Engineering Education Resourses and Funds in Engineering Education Technical design of didactical tools Sustainable development education

# **Articles:**

Educational Software for Teaching the Basics of Computer Science

Authors: Manuela Panoiu, Anca Iordan, Caius Panoiu, Loredana Ghiorghioni

Assessment of Student Participation and Critical Thinking in Engineering Students' Teamwork

Authors: Ma Angeles Andreu-Andres, Miguel Garcia-Casas, Beverly Rising

<u>Outcome Based Education (OBE) Curriculum Assessment for Industrial Training Program: Based on Students' Perception</u>

Authors: Siti Aminah Osman, Mohd Zaidi Omar, Kamaruzaman Mat, Norhisham Tan Kofli, Mohd Nizam Ab. Rahman, Zuhairusse M. Darus

<u>Evaluation of Applications of Personal Digital Assistants in Elementary Education</u>

Authors: Chiung-Hui Chiu, Chun-Ming Hung

A Survey of Engineering Education in Developing Countries - The Lebanese Case

Authors: Nazih Moubayed, Mouafac Bernard, Ahmad Jammal

Effect of Object Outline Color and Width on Visual Preferences of Young Children for PDA-based Learning Applications

Authors: Chien-Yu Lin, Yu-Ming Chang, Yi-Kuan Lee

A Gap Study between Employers' Perception and Expectation of Engineering Graduates in Malaysia

Authors: Azami Zaharim, Mohd. Zaidi Omar, Hassan Basri, Norhamidi Muhamad, Farah Liza Mohd Isa

**Virtual Conversations** 

Authors: Laura Guerra, Francisca Grimon

Effective Foreign Language Portfolios in Engineering Education

Authors: Suzana Carmen Cismas

Combining Product Development Methods with Activity Theory to Trigger New Concept Generation

Authors: Denis A. Coelho

Application for Measuring the Preferred Learning Style

Authors: Robert Pinter, Sanja Maravic Cisar

Linguistic Clues for Developing Research Questionnaires on English e-learning in Engineering

Authors: Suzana Carmen Cismas

Analysis of 1000 Days of Collaborative Activities in Two Multinational Educational Projects

Authors: Mihai Bizoi, Ana-Maria Suduc, Gabriel Gorghiu, Laura-Monica Gorghiu

<u>Considerations Regarding the Advisability of the Training Modules "Virtual Instrumentation in Science Education" Organized in the Frame of the VccSSe European Project</u>

Authors: Gabriel Gorghiu, Mihai Bizoi, Laura Monica Gorghiu, Ana-Maria Suduc

Daylight Availability and Cooling in Commercial Buildings - The Influence of Facade Design

Authors: Hendrik Voll, Teet-Andrus Koiv

Employers Perception towards Engineering Employability Skills In Asia

Authors: Azami Zaharim, Yuzainee Md Yusoff, Mohd. Zaidi Omar, Azah Mohamed, Norhamidi

Muhamad, Ramli Mustapha

Perceptions and Expectation Toward Engineering Graduates by Employers: A Malaysian Study Case

Authors: Azami Zaharim, Yuzainee Md Yusoff, Mohd. Zaidi Omar, Azah Mohamed, Norhamidi Muhamad, Ramli Mustapha

One Solution of Web Based Modular System for Distance Learning and Testing

Authors: Zlatko Covic, Biljana Radulovic, Vanja Voskresenski, Kosta Voskresenski

A New Approach Applied to a Thermal Power Plant Controller Using Fuzzy Logic

Authors: Hamid Bentarzi, Rabah Amr Chentir, Nadir Belaidi, Samah Dif, Nikos E.Mastorakis

# Virtualization as a Teaching Tool for IT-based Courses

Authors: Jiri Vojtesek, Michal Bliznak, Radek Matusu, Tomas Dulik

Multi-Board (Multimedia-Blackboard) Approach for Engineering Education

Authors: Hilmi Coskun

Developing a System View Approach for the Multimedia Communication Systems Course

Authors: Rodica Stoian, Lucian Andrei Perisoara, Radu Florian Pavel, Adrian Victor Raileanu

The Challenge of Implementing a Student-Centred Learning Approach in Large Engineering Classes

Authors: Cristina C. Danko, Antonio A. L. S. Duarte

The Perspectives of the Amateur University Networks – AMUNETs (Part 3)

Authors: Miroslav Skoric

Optimization of Traffic Signal Coordination System on Congestion: A Case Study

Authors: Mahmood Mahmoodi Nesheli, Othman Che Puan, Arash Moradkhani Roshandeh

<u>Earthquake Engineering Education through Distance Learning using Advanced Synchronous and Asynchronous Technologies</u>

Authors: Amadeo Benavent-Climent

Dynamic Characterization of the Power MOSFETs

Authors: Elena Niculescu, Dorina-Mioara Purcaru, Marian Maria, Marius-Cristian Niculescu

Secure Processes in Applications Workflow Facilitating Systems for On-line Exams

Authors: Sharil Tumin, Sylvia Encheva

Language Portal Solutions from User's Perspective

Authors: Miloslava Cerna, Petra Poulova

Universal Access and Universal Design – State of the Art and as Seen by Future Design and

Construction Professionals in Greece

Authors: Konstantina Theresia Vozikis, Ioanna Kontzinou

Key Factors Affecting Efficiency of Virtual Mobility – Case Study

Authors: Petra Poulova, Miloslava Cerna, Libuse Svobodova

Bending Stress Measurement System and Procedure for Experimental Training of Undergraduates on Electronics and Measurement Techniques

Authors: Dorina Purcaru, Cornelia Gordan, Ion Purcaru, Marius Niculescu, Victor Proca, Adrian Vintila

R: A Valuable Tool for Linking High Education and Research

Authors: Gabriel Ibarra-Berastegi, Unai Ganzedo, Jon Saenz, Agustin Ezcurra, Inigo Errasti, Ana Elias, Astrid Barona, Leyre Insausti

# **Problem Identification Based on Fuzzy Functions**

Authors: Sylvia Encheva, Sharil Tumin

# <u>Time Evolution of Degradations in Bituminous Pavements</u>

Authors: Liliana Stelea, Ion Costescu

A Didactical Electronic Project for Graduated Students: Initiation to GPS Localisation and Navigation using a Small-Scale Model Electric Car

Authors: Ph. Dondon, T. Tsing, F. Sandoval

# Improvement of Delivery Methods in Teaching Materials Technology

Authors: R. Hamid, K. M. Yusof, S. A. Osman, R. A. O. K. Rahmat

# Educational Managerial Capital and the Logic of Decentralization: A Statistically - Based Analysis

Authors: Ioan Neacsu, Mihaela Suditu, Catalin Popescu

#### Advancing Laboratory Education in Control Engineering with Practical Implementation Approaches

Authors: Zhengmao Ye, Habib Mohamadian, Hang Yin, Guoping Zhang, Su-Seng Pang

# <u>Conception, Elaboration and Characterization of Silica-Zirconia based Nanostructured Optical Fibres</u> Obtained by the Sol-Gel Process

Authors: Brasse Gurvan, Restoin Christine, Auguste Jean-Louis, Roy Philippe, Leparmentier Stephanie, Blondy Jean-Marc

#### A Study of Virtual Learning Environments

Authors: Diana Bri, Miguel Garcia, Hugo Coll, Jaime Lloret

# <u>Using Multimedia Activities for Homework and in-Class Exercises to Improve the Results of University</u> Students

Authors: Jaime Lloret, Miguel Garcia, Diana Bri, Hugo Coll

# Enhancing Motivation and Satisfaction of Students: Analysis of Quantitative Data in Three Subjects of Industrial Engineering

Authors: Juan A. Marin-Garcia, Monica Martinez Gomez, Jaime Lloret

#### Virtual Laboratory for Study of Synchronous Machine Parameters

Authors: Gabriela Petropol Serb, Ion Petropol Serb, Aurel Campeanu, Anca Petrisor, Sonia Degeratu