## 2015 Fifth International Conference on e-Learning (ECONF 2015)

Manama, Bahrain 18 – 20 October 2015



**IEEE Catalog Number: ISBN:** 

CFP15BAH-POD 978-1-4673-9432-1

## Copyright © 2015 by the Institute of Electrical and Electronics Engineers, Inc All Rights Reserved

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

\*\*\*This publication is a representation of what appears in the IEEE Digital Libraries. Some format issues inherent in the e-media version may also appear in this print version.

 IEEE Catalog Number:
 CFP15BAH-POD

 ISBN (Print-On-Demand):
 978-1-4673-9432-1

 ISBN (Online):
 978-1-4673-9431-4

#### **Additional Copies of This Publication Are Available From:**

Curran Associates, Inc 57 Morehouse Lane Red Hook, NY 12571 USA Phone: (845) 758-0400

Fax: (845) 758-2633

E-mail: curran@proceedings.com Web: www.proceedings.com



# **2015 Fifth International Conference on e-Learning**

## **ECONF 2015**

### **Table of Contents**

Message from General Chair	xi
Message from Program Chair  Conference Organization  Program Committee  Acknowledgement	xiv
	xvi
	xvi
	xx
Sponsors	XX
Track 1: Intelligence and Reasoning	
A New Learning Cognitive Architecture Using a Statistical Function and Genetic Algorithms: An Intelligent New e-Learning Model	1
Electronic Brainstorming and the Effect to Development Systematic Thinking  Skills for First Medium Students in Computer	9
Autonomous Learning among ESL Students at Al-Buraimi University College in the Sultanate of Oman: A Case Study	20
Communicating Secret Information without Secret Messages in Wireless  Sensor Networks  Naya Nagy, Marius Nagy, and Selim G. Akl	29
ElectroLab: Electronic Laboratory System	35
Track 2: Simulation and Modeling	
Evaluation of a Numerical Model Using COMSOL Multi-physics Package	42
Interactive Design Modules for Logic Design Course	47

Security Measures in a Keyless Quantum Communication Protocol	53
Using Haptic Technology for Education in Chemistry	58
An Algorithm for Human Modeling in Information Technology Multimedia Using Human Biometrics Found in Golden Ratio, Vitruvian Man and Neufert  Evon Abu-Taieh	65
Track 3: Creating and Designing e-Learning	
Discussing the Online Learning Premises	74
Syllabus Design for Multimedia Art and Engineering Education – Problem  Oriented Approach	78
Joanna Napieralska, Jozef Modelski, and Wladyslaw Skarbek	
An Evaluation of an Integrated e-Portfolio Model: The Case of Bahrain  Teachers' College	86
Programming Unplugged: Bridging CS Unplugged Activities Gap for Learning	
Key Programming Concepts	97
Reem A. Alamer, Wejdan A. Al-Doweesh, Hend S. Al-Khalifa, and Muna S. Al-Razgan	
The Effect of Using a Developed Spoken Social Networking Website	
on Instructional Technology Students Attitudes and Habits in Egypt	104
The Use of E-Learning System in Learning about Architecture: Obstacles and Opportunities	117
Bhzad Sidawi	
The Impact of e-Books on the Printed Books: e-Books Popularity, Growth and Future	125
Zakaria Issa Saleh and Ahmad Shaher Mashhur	
A Multi-criteria Decision Making Model for Software Selection to Build  E-Portfolio	131
Rania Zaini and Ebtehal Quqandi	
The Use of QR Codes and Mobile Technology in the Blended Learning  Approach	135
Belkacem Kouninef. Ghizlene Merad. and Mohamed Dielti	

rack 4: Web 2.0 Distance Learning	
A Web-Based Course and Instructor Online Evaluation System	144
Investigate the Utilisation of Web 2.0 Applications: A Case Study of a Marketing Teacher and His Web-Enhanced Course Building on E-Learning Concepts at One University in KSA	153
Osamah Abdulwahab Dawood Almaghlouth  Twitter Scheduler System as e-Learning Tool	16^
Test of Information Technology (IT) - Self Efficacy and Online Learning Interaction Components on Student Retention: A Study of Synchronous Learning Environment	168
Altitudinal Factors Affecting the Adoption of Internet Banking Services among Small and Medium Enterprises in Yemen	
Track 5: Educational Management: Courses and Str  Education Dynamics: A Systems Thinking Perspective	_
Effect of Security and Trust on Email Usage Case Study at University of Bahrain	195
Effectiveness of M-Learning in Blended Learning-Design of Prototype  Framework for AOU Bahrain  Sarmad Mohammad	20 <sup>2</sup>
The Effectiveness of the Flipped Classroom in Higher Education	207
The Future Educator Skills in the Digitization Era: Effects of Technological  Development on Higher Education	212
Efficient Method for Face Recognition and Its Role in Supporting E-Learning  Systems  Walaa M. Abd-Elhafiez, Mohamed Heshmat, and Seham Elaw	216
Private Open Source Social Networking Media for Education	220

Trends of the Academic Staff to Use Electronic Attendance in the College	005
of Applied Science, Ibri	225
e-Learning Capital Budgeting Decision Models: A Comparative Analytical	
Study	231
Amr Mohamed and Mohamed Kamal	
Track 6: Web of Things and Big Data	
An Extractive Malayalam Document Summarization Based on Graph Theoretic	
Approach	237
Ajmal E. B and Rosna P. Haroon	
Framework for Data Mining of Big Data Using Probabilistic Grammars	241
Hyperspectral Imaging Classification Using ISODATA Algorithm: Big Data Challenge	247
Sahar A. El Rahman	
IoT Smartphone Controlled Secure Submission of e-Assessments	251
An IoT Smart Queue Management System with Real-Time Queue Tracking	257
Building a Secure Decentralized Energy System with Remote Monitoring Using Mobile Agents	263
H. M. Eldegwi, M. B. Badawy, and Hamdy M. Kelash	
Improve Sustainability of Decentralized Energy Using Product Service System	
Based on ICT	269
Hossam Eldegwi, M. B. Badawy, and Hamdy M. Kelash	
Mining and Exploration of Credit Cards Data in UAE	275
Resilience Mobile Cloud Computing: Features, Applications and Challenges	280
ROBODEM Remote Monitoring System Using Web/Mobile Applications	285
Track 7: e-Delivery in Different Contexts	
The Impact of Game Shows on Students' Academic Performance	290

The Impact of SNS in Higher Education: A Case Study of Using WhatsApp	000
in the University of Bahrain	296
The Integration of Social Media in the Delivery of Unit Materials: A	
Comparative Examination of the Experience of Macquarie University	
and Qatar University	301
Andrew Mazen Dahdal and Nazzal Mansour Ismail Kisswani	
A Flexible Distance Education Delivery Model: Design and Implementation	
at King Faisal University	312
Mosleh Al-Adhaileh and Abdullah Al Fridan	
Experiential Learning Spaces for Enterprise Resource Planning Courses	040
in Business Schools	316
The Challenges and the Opportunities of Teaching the Introductory Computer	
Programming Course: Case Study	324
Mohamed Osman Hegazi and Mohammad Alhawarat	
University Students' Attitudes toward E-Tests	331
Track 8: Special Subjects and Approaches in e-Le	arning
Challanges Facing the Implementation of e-Learning at University of Gezira	
According to View of Staff Members	336
Fadlelmoula Abd Alla Idris and Yasin Babeker Osman	
ITQAN: A Mobile Based Assistant for Mastering Quran Memorization	349
Entesar Almosallam, Monerah M. Alawadh, Rawan S. Alhasani,	
Sarah M. Almansour, Wejdan A. Altamimi, and Yasmeen R. Altujjar	
Virtual Learning Environments for Higher Learning Institutions in Developing  Countries	353
Mmatshuene Anna Segooa and Billy M. Kalema	
E-Textbook: Usage and Perceptions at University of Bahrain, CHS	360
Rabab A. Wahab and Sameera Al-Alaiwat	
The Effectiveness of Using WebQuest on Enhancing EFL Reading	
Comprehension Skills and Cultural Awareness of Experimental Secondary	
School Students	367
Amira Desouky Ali	
An Analytical Study of the Scientific Researchs at the University of Bahrain	378

### **Track 9: Online Assessment**

Architecture for Integrating Real Objects with Virtual Academic Communities	385
A. Zeida Maria Solarte, and Alexander García Dávalos	
Association of Student's Position in a Classroom and Student's Academic	202
Performance Using ANOVA  Amr Mohamed and Mohamed Kamal	392
Overview of Open Book-Open Web Exam over Blackboard under E-Learning  System	396
Khaled Mohanna and Ayyub Patel	
Student's Attitudes towards Online Assignment Submission at College of Health Sciences, University of Bahrain	403
Rabab A. Wahab and Sameera Al-Alaiwat	
Impact of a Formative e-Assessment on Learning Outcomes: A Pilot Study on a Social and Behavioural Sciences Course, College of Health Sciences,	
University of Bahrain	408
Fatema Ali and Achamma George	
Track 10: Regional Paper Track	
A Proposed Model of a Virtual Learning Resources Center for the Visually Impaired Based on International Standards	413
Mohamed Shaltout and Nada Nasser Alhenaki	
A Proposed Model to Assure Quality Control of Designing and Production of Field Researches and Studies in eLearning	424
A Suggestive Vision of an Electronic Training Program for the Development of Teachers' Skills in Activating Their Students' Electronic Volunteerism	
through Food and Nutrition Unit Activities	449
Interactive Simulation in Teaching Science Labs (Reality and Expectations)	458
The Effect of Electronic Educational Infographic Design on the Development	
of Skills in Dealing with the Lighting in Photography by the Postgraduate  Students	465
Mohamed Shaltout and Sara Omar Albarrak	
The Standards of Intelligent Collaborative e-Learning of e-Courses Based	
on Web	486

Adeil Batterjee, Ikhlas Ashria, and Haider Al- Gadi  E-Learning Supporting System (ELS) in Nahda University in Upper Egypt:  Case Study	571
The Impact of Interactive Board to Promote Leader Talented the Case of Batterjee's Scholarship Students	551
The Effectiveness of the Education College Programs at Al-Aqsa University in Develop Efficiencies Students in E-Learning	539
A Proposal to Build and Design an Educational Software Program to Teach the Basic Skills of Arabic Calligraphy	534
The Moodle Application Constraints among Students in Social Work at Sultan  Qaboos University  Emad Farouk Mohamed Saleh	514
From a Dilapidated Blackboard to Creative Flash Videos: The Case of Training  Teachers of Schools in Hebron	507
of Academic Departments at Private Colleges and Universities in Saudi Arabia	494