

The Fourth International Conference on
Smart Learning
"THE WAY TO THE BOARDROOMS OF TOMORROW"

(ICSL2022)

26-27 October, 2022
Philadelphia University- Jordan

Organized by:
Philadelphia University, Jordan

In collaboration with:
EMUNi (as a part of MED2IaH),
Arab Union of Arab Universities, Luminus Technical University College,
AlQuds Open University, Arab Network for Open and Distance Learning,
Arab Union for Humanistic Work and Sustainable Development.

Conference Web-Site: <https://www.philadelphia.edu.jo/icsl2022/>

ICSL2022

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Preface

The International Conference on Smart Learning 2022 is organized by Philadelphia University, in collaboration with the Arab Union of Arab Universities, EMUNI, Luminus, AlQuds Open University, Arab Network for Open and Distance Learning, Arab Union for Humanistic Work and Sustainable Development. Forty four papers were submitted by (75) researchers as evident in this Book of Abstracts.

Among the major issues that impinge on effective learning in HEIs, mention can be made of failing to deploy mobile learning that frees modern universities from the limitations of time and space basically binding traditional universities. Another major issue is failing to make the right balance of personalization, automation, and consistent methodology of teaching.

Educationists call for making a proper shift to smart education to replace paradigms prevalent in the twentieth century to innovative technologies and methods. Smart online education is a transformation agent towards fostering interactivity, collaboration, diversity, cooperation, solidarity, and equity in potentials of success. That can be achieved through moving from an industrial age “Learning for Earning” to a knowledge-based economy concept of education; moving from hardware to software, and then to mindware, that is a shift from entrainment and infotainment to edutainment; moving from teacher-centered to student-centered, and then to group-centered social learning called "crowd-sourcing"; and moving from the traditional skills of reading, writing and mathematics to *critical thinking, collaboration, communication, creativity*, as well as information, media, and technology skills.

All universities are eager to implement such paradigm shifts towards smart learning, but feel that they are lagging in the field, and hope to improve their situations soon. That is the rationale for this fourth

version of the international conference on smart learning. We are here today because the world of education is facing a great challenge: a challenge, which is also an extraordinary opportunity. We are here to rethink education and address the crucial issue on how education can open itself to the technological advances in ICT and transform our educational systems. Wish you fruitful connectational intelligence.

*Prof. Isam Najib Al-Fuqaha,
ICSL2022 Executive Chair*

**The Fourth International Conference on Smart Learning
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Program ICSL2022

Philadelphia University, Jordan

Time	Wednesday 26 October 2022	Thursday 27 October 2022
9:30-10:00 am	Registration and Reception	Session 3
10:00-11:00 am	Opening Ceremonies	
11:00-11:15 am	Break	Break
11:15am-12:45pm	Session 1	Session 4
12:45pm-13:00pm	Break	Break
13:00pm-14:30pm	Session 2	Session 5
14:45pm-16:00pm	Social Activity and Lunch	Social Activity and Lunch

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ICSL2022

List of Papers

	Authors	Paper Title	Page
1	Khaldoun Al-Qaisi	E Learning Through Covid-19: The Effectiveness and Engagement	10
2	Ahmed Al Kharusi, Mustafa Al Abri, Amal Al Badi	The effectiveness of blended learning based on electronic games in increasing students' motivation towards learning mathematics	11
3	Ali Hadi Al-Obeidi	The legal aspects of smart learning In light of the distance learning code of conduct In the United Arab Emirates	12
4	Amani Jarrar	Developing Distance Learning in Jordanian Schools: Institutional and Teachers' Responsibilities during COVID-19 Pandemic	13
5	Nadia Ghalia, Sawsan Kara	Teacher Readiness and Learner Competency in Using Modern Technological Learning Spaces	14
6	Hamza AbedAlkarim Hammad	The Use of Virtual Learning Environments in Teaching Islamic Education Curriculum in Jordan: WebQuest as a Model	15
7	Chadia Bekkaye	Literature review on: "the use of machine learning in non-life insurance"	16
8	Kasim M. Al-Aubidy	Employing Interactive Mixed Reality in Remote Laboratories for Applied Disciplines	17
9	S. Ayasrah, M. Alnasraween, A. A. Alshorman, A.	Identifying the Relationship between the Fear of Corona Virus Infection and Academic Self-efficacy	18

	Aljarrah, H. H. Al-Jarrah		
10	Ahmed Al-Hadrami	The degree of academic leaders' practice in Omani universities to remove strategic digital leadership	19
11	Mohammed Alkiyumi	New classification of high order thinking skills (HOT)	20
12	Taha Basheer, Mohamad Salim	The Effect of Technology on Students' Psychological and Educational Performance	21
13	S. M. Arqawi, M. A. Abu Rumman, E. A. Zitawi, A. H. Rabaya, B. S. Abunasser, S. S. Abu-Naser	The Impact of Digital Marketing on Enhancing Organizational Immunity in Local Government Municipalities in the Northern Governorates	22
14	Hussein Ridha, Buthainah Fahran, Sahab Mohammed	Intelligent heart monitoring system with ESP32, and cloud services	24
15	M. Atout, H. R. Agustina, N. Bassah, I. Alrimawi, R. Zayadneah	The effect of simulation-based learning on pediatric nursing education: systematic review and meta-analysis	25
16	Tasneem Elkhateeb	" Leadership and Social Responsibility" Course as a Healing Tool to Help Students Bring wellness into their Society	26
17	Qaysar Mahdy, Ismail Murad, Qusay Ali	Development and Management of Smart Power Grid Efficiency with 5G Generation Technology	27
18	Marwah Q. Al-Obaidi, Nabil Derbel	Design of IoT Based Remote Renewable Energy Laboratory	28
19	Abdul-Wahid A.Saif	Interactive Teaching Styles Used in the Classroom	29
20	Mohamed Deriche	A Framework for Strategic Planning in Academic Departments	30
21	Rim Jallouli Khlif & Nabil Derbel	PSO algorithm based control for a robot hand	31

22	Safa Q. Obaidi & Mithat Uner	The Impact of International Accreditation in Improving Service Quality in the Higher Education Institutions	32
23	علي الشрман، وليد مقابلة	تعليم مبادئ النظريات الموسيقية التطبيقية من خلال الواقع الافتراضي	34
24	هدى الشامسي	التقييم الإلكتروني مع جائحة كورونا	35
25	إبراهيم سعيد حميد الوهبي	التوجهات الموضوعية في دراسات التعليم الإلكتروني بسلطنة عمان خلال الفترة (2020-2022) دراسة منهجية تحليلية للدراسات المنشورة بدار المنظومة	36
26	بدور حسن عبد الله العلو	الهوية المرئية للمعلم عبر منصات التعليم الإلكترونية- مشهد من مملكة البحرين	37
27	فاسم العجمي	العلاقة بين اتجاهات الطالبات نحو التعلم عن بعد والاستفادة المتصورة من وجهة نظر طالبات التربية بتخصص المجال الثاني بجامعة الشرقية	38
28	هدى الحوسني، سليمان بن محمد البلوشي	أنموذج مقترح لاستخدام منحى التلعيب كمقترح لتطوير بعض أدوات التقويم المستمر في سلطنة عمان: تطبيق (دكتور ساينس) أنموذجاً	39
29	حسام أبو ضياء	دور تقنيات الوسائط المتعددة في تعزيز الإدراك البصري والسمعي للمحتوى التعليمي	40

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Abstracts

E Learning Through Covid-19: The Effectiveness and Engagement

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Abstract

The cross-effect of the issues of the project “based-learning as well as flipped learning and even team cohesion” was ultimately investigated through an examination of their respective direct impacts on the effectiveness, engagements, and engagement impacts on the learning effectiveness of student learning. The results from the testing of the hypothesis were attained through the use of a “hierarchical regression analysis” that had an “SPSS-25 statistical packages” that were used for analysis of data. There was an empirical verification of the research model using quantitative data that had been collected from a total of 247 undergraduate and graduate business learners or students basing on their personal own engagements, observations, as well as experiences. This analysis is known to have found out that both the issue of “Project-Based Learning” or PBL as well as team cohesions greatly enhanced aspects of positive and direct impacts in the effectiveness of student learning as well as engagements. It was ascertained that flipped learning greatly increased the positive direct impacts in the effectiveness of student learning and negative impacts on engagement. In addition to that, the engagement itself was known to present a positive and direct impacts or effects on the efficiency of student learnings. This study that was proposed was thus permed with an aim of informing practice in the aspects of not only increasing retention but also in improving issues of teachings along with the qualities of student learnings.

Keywords: Team cohesion, Project based learning, Engagement.

The effectiveness of blended learning based on electronic games in increasing students' motivation towards learning mathematics

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Abstract

The study aimed to reveal the effectiveness of using blended learning based on electronic games in increasing the motivation of fifth grade students towards learning mathematics. The researchers used the quasi-experimental method. The sample of the study was 76 fifth grade students from Imam Al-Hassan bin Saeed Al-Sahtani School for Basic Education for Boys (5-12) in the Sultanate of Oman. An educational program based on electronic games and a scale of students' motivation towards learning mathematics has been prepared. The study found that there were statistically significant differences in favor of the post application of the motivational scale towards learning mathematics, where the mean of the scale in the pre-application was (2.73) and the mean in the post-application was (4.13). There was a difference of (1.4) in favor of the post-application. The researchers made several recommendations, the most important of which is to encourage teachers to use blended education based on electronic games because of its role in improving students' motivation towards learning mathematics, as well as making various and interactive activities for students through electronic educational games, and it is also important to hold training courses and concerns for Mathematics teachers aims to develop their teaching practice.

Keywords: Effectiveness, learning, learning based on electronic games, mathematics

The legal aspects of smart learning In light of the distance learning code of conduct In the United Arab Emirates

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Abstract

Intelligent learning is a type of learning that adopts several modern digital technologies to communicate knowledge to learners, unlike Traditional learning, which uses traditional methods. So Intelligent learning is based on four core elements: students, teachers, curricula, and educational tools, all of which form what is known as the virtual educational environment, the working environment of the academic community with its physical and human elements through live broadcasting through electronic platforms. As intelligent learning is still in its initial stages - especially in third world countries - it faces a range of challenges in the technical field, information security, privacy, etc. The UAE Minister of Education has issued the student code of conduct in Distance Learning in Public Education Institutions No. (262) for 2020. This list focused on the most crucial element of the virtual educational environment, which is (students). This paper is a legal reading of the list's texts to highlight the most important legal aspects of intelligent learning. Among the topics addressed in this paper are the legal classification of students' behavioral violations in distance learning and how the regulations address these violations, the legal sanctions established, the protection of children and people of determination, the duties of guardians, and finally, the most important findings and recommendations.

Keywords: Smart learning, United Arab Emirates, Distance learning, Code of conduct, Legal aspects.

Developing Distance Learning in Jordanian Schools: Institutional and Teachers' Responsibilities during COVID-19 Pandemic

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Abstract

This study aimed at analyzing the institutional and teachers' responsibilities during the COVID-19 pandemic in terms of developing distance learning in Jordanian Schools. For that, the researcher adopted the descriptive-analytical statistical methodology by applying the study tool (questionnaire) to a sample size of (450) teachers from schools in Jordan. Results show that all the study independent variables have a positive impact on the process of developing distance learning from the point of view of teachers in Jordan. And respondents agreed with a high-level rate that the development of the distance learning process requires the integration of the roles between teachers, students, parents, officials, and concerned authorities. Results emphasized that the interaction of teachers with the distance learning process is the main guarantor for the success of this process.

Keywords: Distance Learning, Institutional Responsibilities Teachers Responsibilities, COVID-19 Pandemic

Teacher Readiness and Learner Competency in Using Modern Technological Learning Spaces

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Abstract

The educational space and its many aspects influence the teaching and learning process. Traditionally, educational institutions deal with learning spaces in the light of distance learning and formal education, such as classrooms, laboratories, libraries, and others. This study aimed at defining the readiness degree of teachers for using modern technological learning spaces and its relationship to the enhancement of learners' competency. Its randomly selected sample consisted of 397 school teachers in the Green Line area that has been occupied by Israel since 1948. A questionnaire was used to achieve the study objectives. Statistical Package for Social Sciences (SPSS 25) was used to analyze the data. The findings of the study are: (i) readiness degree of teachers' for modern technological learning spaces and the degree of enhancement of learners' competency were moderate, (ii). There was a statistically significant correlation between the readiness degree of teachers' for modern technological learning spaces and the enhancement of learners' competency, (iii) the importance of using technological learning spaces in the educational field, and (iv) teachers had sufficient knowledge about the important role of technology in raising the outcomes of the teaching and learning process.

Keywords: Green Line area, Learners' Competency, Technological Learning Spaces, Teachers' Readiness.

The Use of Virtual Learning Environments in Teaching Islamic Education Curriculum in Jordan: WebQuest as a Model

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Abstract

This study aims to define the WebQuest supported strategy in terms of its concept, contents, and characteristics and to determine how to harness it in teaching Islamic education curriculum and its relationship with its components. To achieve the objectives of the study, the analytical approach was adopted to answer the following questions: (i) What is the relationship between the WebQuest supported strategy and the Islamic education curriculum? (ii) How can this strategy be deployed in the Islamic Education curriculum?

The results and outputs of the study demonstrated the suitability of the WebQuest supported strategy to the elements of the Islamic education curriculum.

Keywords: WebQuest, Islamic education, learning, Hashemite Kingdom of Jordan.

Literature review on: "the use of machine learning in non-life insurance"

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Abstract

Pricing is a major actuarial concern. This study is based on the description of classical GLM methods as well as statistical learning methods (CART classification and regression trees, random forests, XGBoost and neural networks) and their role in modeling of the pure premium in non-life insurance .

The first part presents an introduction to the principle of GLM and the limits identified during its practice. This has made it possible to develop more efficient Machine Learning methods in order to offer a premium adapted to reality. In the second part, we compare GLMs with statistical learning methods to identify the contributions of these methods to non-life insurance.

Keywords: Generalized linear models, Very classification and regression, RANDOM forest

Employing Interactive Mixed Reality in Remote Laboratories for Applied Disciplines

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Abstract

Although e-learning and blended learning have become an integral part of modern academic and educational systems, applied programs face difficulty in adopting this type of learning due to their needs of real laboratories and training workshops. Advances in computer and communication technologies have contributed to the emergence of remote laboratories that enable students to interact with real laboratory equipment using personal computers or smartphones from anywhere and at any time. This paper deals with the use of mixed reality techniques in the design of experiments for a remote laboratory. The experiments are designed from real and simulated components in an interactive environment that enables the learner to acquire the necessary skills. The paper presents a proposed design for a mechatronics laboratory experiment, in which the speed of a real DC motor is remotely controlled using a virtual PID controller. This lab enables students to access the experiment online, selecting the real components available in the real lab, along with other simulated components required to set up the experiment. The use of mixed reality in the design of remote laboratories will provide an interactive environment that contributes to the acquisition of skills and an increase in the quality of learning. This type of laboratory will open up prospects for cooperation between educational institutions to develop new programs with high quality and an acceptable cost.

Keywords: Remote laboratory, E-learning, Blended learning, Mixed reality, Virtual reality

Identifying the Relationship between the Fear of Corona Virus Infection and Academic Self-efficacy

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Abstract

This paper focuses on identifying the relationship between the fear of Coronavirus infection and academic self-efficacy. The study sample consisted of 247 academically gifted students, with a total of 118 male students and 129 female students, who were selected from the schools of the Northern Mazar- Irbid Directorate using the Purposive sample. The researchers used the Corona Virus Fear Scale and the Academic Self-Efficacy scale. Arithmetic means, standard deviations, and Pearson correlation coefficient was used as well. The results of the study showed that levels of fear of coronavirus infection were high, while the students' academic self-efficacy was moderate. There was also a negative significant correlation between fear of coronavirus infection and academic self-efficacy.

Keywords: Fear of Infection, Academic Self-Effectiveness, Academically gifted, Corona Virus (COVID-19)

The degree of academic leaders' practice in Omani universities to remove strategic digital leadership

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Abstract

Educational institutions, especially universities, whether at the regional or global levels, are facing a set of changes and updates that Arab and Western societies have not witnessed towards progress and prosperity, which is based mainly on the principle of information and big data. Modern technologies and global Internet networks have increased at high levels; It affected the progress of the teaching and learning processes in all countries of the world, but forced them to reconsider towards administrative educational policies and the tools and means used in the management of higher education by academic leaders in these universities, which were previously based on some traditional means and tools, provided that they use the latest modern technological means of communication. Which may be used in order to adapt and cope with the new work environment in the modern era, which is based mainly on a set of operations, data and huge information. Hence, the study aimed to identify the degree of practice of academic leaders in Omani universities to remove strategic digital leadership from the academics' point of view. Recognizing the degree of practice of academic leaders in Omani universities to remove strategic digital leadership from the academics' point of view. Recognizing the order of the dimensions of digital leadership practiced by academic leaders according to the study sample. Identifying the statistically significant differences between the study sample members that may be due (gender, qualification, years of experience, institution).

Keywords: Academic leaders, Omani universities, Dimensions of digital leadership, Strategic digital leadership

New classification of high order thinking skills (HOT)

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Abstract

Educational systems are currently paying special attention to developing learners' higher thinking skills to develop the capabilities of human resources to deal with contemporary challenges. Although psychologists disagree about the concept of higher-order thinking skills and the skills they include, there is unlimited effort in designing them and building strategies for their implementation. The most important factors helping to develop these skills are their classification according to specific criteria, and the most important of these classifications is Bloom's classification, which is dominant in most educational systems at all levels. Previous classifications have many limitations, including the comprehensiveness of the skills they contain, the logical structure of their hierarchy, and classification criteria. Therefore, this article puts another step in this area by providing a new classification of higher-order thinking skills that includes five categories: the first response stage, transformative stage, application, reasoning stage, and the production stage with a logical justification for this classification, with some techniques to developing it among learners.

Keywords: Classification, Thinking, Skills

The Effect of Technology on Students' Psychological and Educational Performance

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Abstract

Technology quality, availability, consistency, and accessibility are important factors in learning performance and effectiveness. However, technology itself does not provide anticipated learning outcomes, but the way in which humans interact with technology and the design dimensions of technology impact the student's learning outcomes and their psychological involvement with the learning process. In addition, technology, with its improper usage, is considered an obstacle in the way of learning. In this paper, the effects of technology on the learning process are highlighted and analyzed to figure out when the technology serves or harms learners, and different suggestions that aim to enhance the role of technology in learning are presented.

Keywords: Technology effects, Psychology, Cyber psychology, E-learning

The Impact of Digital Marketing on Enhancing Organizational Immunity in Local Government Municipalities in the Northern Governorates

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Abstract

The study aimed to identify the effect of digital marketing on enhancing organizational immunity among workers in local government municipalities in the northern governorates - Jenin municipality as a model. The questionnaire was applied to a simple random sample consisting of (80) employees who work in the Jenin municipality. The study reached a set of results, the most important of which are: The digital marketing axis came with a total degree of appreciation in all fields (2.19), the order of dimensions was as follows (after attraction with an arithmetic mean (2.50) and a standard deviation (0.70), where it ranked first, followed by communication with an arithmetic mean of 2.30 and a standard deviation (0.64) Where he got the second rank, followed by learning with an arithmetic mean (2.11) and a standard deviation (0.65), followed in the fourth rank after maintaining an arithmetic mean (2.03) and a standard deviation of 0.58), and, following in the fifth and last time after absorption, came with an arithmetic mean (1.99) With a standard deviation of (0.68), the axis of organizational immunity was obtained by an arithmetic score of (2.10) and a standard deviation of (0.60), meaning that the overall degree of appreciation in general was weak. The study came

out with a set of recommendations, the most important of which are: The current study recommends emphasizing the need to direct attention by senior administrative leaders to the various organizations in the municipality using information and communication technology applications and digital tools in the municipality to develop digital marketing in order to provide full service to the citizen in the least possible time, effort and cost. The study also recommends the necessity of paying attention by senior administrative leaders to providing employees with e-training and sufficient knowledge about ICT applications; And work to benefit from the expertise and experience of workers in the municipality, especially those who have long experience, store and protect that information to meet the challenges of digital marketing, and develop their knowledge and skill performance. Directing the attention of municipal administrations to the need to open up to other municipalities inside and outside the country and to emulate them in the behaviors of skillful leadership and mechanisms for building and strengthening organizational immune systems, as well as benefiting from the lessons of experiences experienced by the municipalities previously.

Keywords: Digital marketing, organizational immunity, Jenin municipality, digital marketing and organizational immunity

Intelligent heart monitoring system with ESP32, and cloud services

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Abstract

Technical systems contribute monitoring in timely and efficiently the healthcare services such as building an integrated system in using in the medical field (Hardware & Software) to monitor the state of the heart (ECG, spo2, HBPM), so that the output can be used by the patient to read vital heart indicators and send them directly (ONLINE) to the competent authority to assess in treating the patient's condition and take the necessary action. The aim of this paper is to take advantage of the modern technology of IoT to saving heart patients through reading the results of the preliminary analysis of the system and giving the first aid according to the recommendations. Also, it can take advantage of the system to monitor the heart condition of non-patients, for example (athletes and people whose hearts can be stressed in their workplaces). In this research, a real-time healthcare monitoring system will be built to solve this problem using IoT, and vital signs sensors found in the market, so the system will be cheap and easy to build, but at the same time, it is reliable and less prone to errors or inaccuracy.

Keywords: IoT, ECG, HBPM, spo2, healthcare

The effect of simulation-based learning on pediatric nursing education: systematic review and meta-analysis

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Abstract:

The purpose of this systematic review is to assess the effectiveness of simulation-based learning for pediatric nursing education. An electronic literature search were conducted utilizing PubMed, Cochrane Library, Embase, SCOPUS, Web of Science, ProQuest Central, Cumulative Index to Nursing and Allied Health Literature (CINAHL), and Educational Resource Information Center (ERIC). Screening, data extraction and quality appraisal were undertaken systematically by two reviewers. Research studies were synthesized separately using thematic synthesis, then the results of this synthesis were combined using a mixed-method synthesis table. The data obtained from the previous studies were analyzed and synthesized into seven major themes that reflected the effectiveness of simulation-based learning for pediatric nursing education: (1) facilitate the transition from theory to practice, (2) supporting learning environment. (4) Increase students' confidence (5) the high cost (6) access to few clinical scenarios , and (7) virtual versus lab simulation. The findings of this study suggest that a blended educational model (classroom simulation clinical) is instructionally effective for introducing nursing students to a variety of positive learning experiences so that they can better meet the practice expectations for new graduates.

Keyword: Simulation-based learning, Pediatric Nursing, systematic review, meta-analysis.

“Leadership and Social Responsibility” Course as a Healing Tool to Help Students Bring wellness into their Society

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Abstract

Three main purposes guided the current study. The first was to identify the role of “leadership and social responsibility” course as a healing tool to help students bring wellness into their society. The second was to explore if there is a statistically significant relationship between activities of “leadership and social responsibility” course at Jadara University and bringing wellness into the student’s society. The third was to clarify if there are significant differences among students of Jadara University in perceiving social responsibility course activities as a healing tool to help students bring wellness into their society and some demographic variables. Main results of the study indicated that there is significant relationship between students’ perceptions regarding the course of “leadership and social responsibility” and bringing wellness into their lives and societies .in addition there were no significant differences among students’ perceptions regarding “leadership and social responsibility” course role that are attributed to their gender, college or academic year.

Keywords: Citizenship, Social Responsibility, Healing, Wellness, Society

Development and Management of Smart Power Grid Efficiency with 5G Generation Technology

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Abstract

When management and deployment of the 5G technology in the smart power grid is applied, there will be several challenges, which are related to the cost and energy efficiency especially in the areas where the power grid is not available and not reliable and the operators are not capable to apply the same 5G infrastructure. The 5G infrastructure is affected by several factors such as Unmanned Aerial Vehicles (UAV), Large Cells, analyzing the CAPital EXPenditures and OPex EXPenditures of the aforementioned architecture, evaluating different strategies for the reduction of the costs during the design phase, and introducing the energy efficient management of an UAV-based network and wireless connectivity [1]. Results obtained show that 5G off-grid architecture can be implemented with higher efficiency, with a positive impact to the wide range wireless connectivity of the users living in rural and low-income areas instead of wire connectivity also the introduction of renewable energy sources allows also the off-grid operation in emergency situations. By this technology the cost and time of the power grid network distribution will be optimized. While in a traditional network the power requirements are extremely rigid, in the 5G case the network is more flexible and it is, hence, possible to envision a network that can easily and effectively adapt to the highly variable patterns of energy production that are typical of renewable sources.

Keywords: CAPital, Expenditures, Challenges, energy-efficiency, OPex Expenditures, renewable energy

Design of IoT Based Remote Renewable Energy Laboratory

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Abstract

With continuous increase in the number of students enrolled in universities, e-learning has become an urgent necessity in modern education systems. However, applied programs face challenges in adopting this type of learning because of their need for laboratories and training workshops. With the advancement in computers and wireless communications technologies, and advent of Internet of Things technology, it has become possible to design real laboratories that can be accessed remotely. Remote labs are an advanced step that enables students to interact remotely with real laboratory devices using personal computers or smartphones from anywhere and at any time. This paper presents the use of Internet of Things technology in the design of the renewable energy laboratory, where the experiments are designed in a way that allows the student to choose the required experiment remotely, study its components, and measure many variables in order to obtain the necessary skills.

Keywords: E-learning, Blended learning, Remote laboratory, IoT, Renewable energy lab

Interactive Teaching Styles Used in the Classroom

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Abstract

In order to engage their students and get them interested in learning, instructors should always keep an open mind. This includes thinking about experimenting with various interactive teaching methods in the classroom. The foundation of interactive teaching methods is a straightforward idea: without real-world applications, students frequently struggle to grasp the significance of the study content. Additionally, interactive teaching has several advantages for the teacher. In this paper, we will first attempt to define the many forms of instruction, ranging from the classical method to contemporary techniques.

Keywords: Interactive Teaching, Classroom, classical method, contemporary techniques

A Framework for Strategic Planning in Academic Departments

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Abstract

Modern strategic planning foundations were developed in the early 1920s by the Harvard Business School in the United States. The initial model defines "strategy" as a pattern of purposes and policies defining the company and its business. For companies, corporations, and businesses, the plan weaves purposes and policies in a pattern that unites resources, senior management, market information, and social obligations. Later in the 1950s, the US government adopted a similar model to develop its budgeting strategies. It is only in the 1960s that large corporations started to use strategic planning as a fundamental tool for management. The need for strategic planning in education only started to be felt with the pressure put on academic institutions to survive, compete, and grow. Now, strategic planning is seen as the most pervasive concept in the area of organization management regardless of their specific purpose and size. The need to have a well-developed strategic plan in academic institutions is no exception. Strategic planning is one of the key elements of successful management in higher education. Among international initiative in this regard, we mention the Bologna process developed to increase efficiency, effectiveness, and quality of education in Europe. We should note, however, that the turbulent times and fast changes in the higher education sector have made it very challenging to develop plans that can deal with a lot of uncertainties. This paper presents a framework for developing well-founded strategic plans for academic departments. In particular, we discuss how the three most implant pillars of strategic planning in academia, namely: the foundations, the supporting components, and the implementation plan. Under foundations, we will discuss the concepts of vision and mission statements and how these

should reflect the image of the academic departments. Next, we will discuss the main components of the WWOT analysis. This step is followed by the goals, objectives, programs, implementation plans, and timeline for execution. Finally a set of key performance indications is developed to reflect the monitoring aspects of strategic planning. A concrete example from developing a recent plan for a collage of engineering, and an electrical engineering department at a typical university in the region will be discussed in more details.

Keywords: Strategic Planning, WWOT analysis, Organization Management

PSO Algorithm Based Control for a Robot Hand

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Abstract

This study focuses on the use of learning based algorithms, namely the Particle Swarm Optimization (PSO) algorithm, for the tuning of controllers. The user case deals with gripper fingers that serves in academic works as a model of a bench to test different control approaches and different types of controllers. The control approach is based on a fractional PI controller tuned through PSO algorithm. Two results are retained due to their performances and compared for more explorations.

Keywords: Learning algorithms, PSO algorithm, Robot control, Computer control.

The Impact of International Accreditation in Improving Service Quality in the Higher Education Institutions

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Abstract

The increasing competition in the higher education sector has prompted many universities to improve the quality of their academic programs as well as the quality of services to gain customer satisfaction. Providing a high-quality service that meets or exceeds student expectations is a priority for many universities. This paper aims to study the impact of obtaining international accreditations in improving services and overcoming the obstacles that customers expect. A questionnaire was prepared that included a set of questions related to the international accreditation indicator for academic programs. The sample included 358 students from different specializations in Jordanian universities. The results of the questionnaire analysis showed the positive impact of the academic programs that obtained international accreditations in terms of improving the quality of their outputs and developing students' skills, in addition to improving services provided to students and increasing their competitiveness.

Keywords: Service quality, International accreditation, Higher education, HEISQUAL

تعليم مبادئ النظريات الموسيقية التطبيقية من خلال الواقع الافتراضي

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الملخص

بعد ان مر العالم بجائحة كورونا وتبعاتها التي فرضت تغييرا جذريا عالميا، غير اختياري، في مجال التعليم، كان لا بد من الاجتهاد في الابتكار وابداع طرق تعليم جديدة تحقق نفس الاهداف التي كانت تحققها ما قبل الجائحة. وكباقي مجالات التعليم، فقد واجه التعليم الموسيقي، كونه تعليم تطبيقي، الكثير من المشاكل التقنية والتطبيقية وخاصة في ايجاد وسائل تعليمية بديلة، تؤدي الغرض وتحافظ على النتائج، مستخدما الوسائل التكنولوجية الحديثة والبرامج الافتراضية لتحقيق أهداف التعليم الموسيقي.

جاء هذا البحث لإلقاء الضوء على مبادئ النظريات الموسيقية وتطبيقاتها على آلة البيانو، هذه الآلة الموسيقية الأكثر انتشارا في تعليم الموسيقى ونظرياتها. مستخدما تقنية الواقع الافتراضي (VR- Virtual Reality)، والواقع المعزز (AR- Augmented Reality)، عن طريق تعليم المتلقي مبادئ النظريات الموسيقية من أسماء الأسطر الموسيقية والفراغات على المدرج الموسيقي مستخدما مفتاح الصول فقط (Treble Clef)، من ثم ربط هذه الانغام بآلة البيانو بطريقة افتراضية ومعززة ليستطيع الشخص من عزف بعض النغمات الموسيقية، حيث قام الباحثون بتشكيل لوحة مفاتيح افتراضية مبین عليها أسماء النغمات و التي دورها تصدر النغمات المطلوبة في حال النقر الافتراضي، وبالتالي تشكيل سلسلة من النغمات الافتراضية وعزف لحن على آلة البيانو. حيث قام الباحثون بتطبيق هذا المقترح على عينة من طلاب كلية لومينوس الجامعية التقنية وتم استخلاص النتائج والدلالات التي تشير الى قبول الطلبة تعلم مبادئ النظريات الموسيقية ومبادئ العزف على آلة البيانو في البيئة الافتراضية وتحقيق اهداف هذه الدراسة.

الكلمات المفتاحية: الموسيقى، الواقع الافتراضي، الواقع المعزز، Treble Clef، السلم الموسيقي، البيانو، النشيد الوطني

التقييم الإلكتروني مع جائحة كورونا

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كليات التقنية العليا

المخلص

مع جائحة كورونا التي من خلالها تأثر العالم بأكمله وتوقف، ولكن مع وجود التعليم الإلكتروني استمر التعليم وبذلك وجب الوقوف و تقويم الأداء لجميع الأفراد في المشاركين في العملية التعليمية أولهم الطالب الذي يعتبر محور العملية التعليم فيجب أن نقوم أدائنا في التقويم ويساعد البحث للوقوف على أدوات القياس و التقويم الإلكترونية و تقييم العملية التعليمية في التعليم عن بعد و نذكر ضمن ذلك بعض التجارب في ظل أزمة كورونا.

وتكمن أهمية البحث في الوقوف على تعريف التقويم واستخدام أدوات القياس والتقويم الإلكترونية وكذلك ذكر أبرز تطبيقات التقويم الإلكتروني في التعليم عن بعد وأدوات القياس والتقويم الإلكترونية وأيضا تطبيقات التقويم الإلكترونية. وبذلك توجد عدد من التجارب في التعليم الرقمي مع ظل أزمة كورونا. وتساعد توصيات البحث لكل الباحثين والمهتمين في مجال التعليم والمدرسين ورؤساء اللجان الخاصة بالتعليم الإلكتروني.

الكلمات المفتاحية: التعليم الإلكتروني، التقييم، أدوات القياس، التقويم في التعليم الإلكتروني

التوجهات الموضوعية في دراسات التعليم الإلكتروني بسلطنة عمان خلال الفترة (2020-2022) دراسة منهجية تحليلية للدراسات المنشورة بدار المنظومة

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المخلص:

هدفت هذه الدراسة إلى مراجعة علمية للتوجهات المنهجية لدراسات التعليم الإلكتروني بسلطنة عمان خلال الفترة (2020 – 2022) والمنشورة بقاعدة بيانات دار المنظومة، وتكونت عينة الدراسة من (52) دراسة، وأوضحت النتائج أن المتغيرات التي بحثتها هذه الدراسات تركزت حول تقويم تجربة التعلم عن بعد / التعليم الإلكتروني ومنصاته واستراتيجياته ومزاياه وتحدياته، وبنسبة بلغت (79 %)، كما أن معدل نشر الأكاديميين من كل جامعة عمانية لدراسة في مجال التعليم الإلكتروني بلغ (3.13) دراسة فقط، وأن حوالي ثلاثة أرباع العينة استخدمت المنهج الوصفي، والاستبانة كأداة لجمع البيانات، كما أن المعلمين والطلبة هم أكثر الفئات استخداما كعينة في هذه الدراسات، كما قامت هذه الدراسة بتحليل نتائج دراسات التعليم الإلكتروني بسلطنة عمان خلال الفترة (2020 – 2022) والمنشورة بقاعدة بيانات دار المنظومة، وتوصلت النتائج إلى أن تجربة التعليم الإلكتروني بسلطنة عمان كانت مرتفعة، ووجود تحديات كبيرة لتطبيق التعليم الإلكتروني، كما أن مختلف فئات المجتمع العماني لديه اتجاهات ورضا بدرجة متوسطة لاستخدام التعليم الإلكتروني، ومن أهم التوصيات التي أوصت بها الدراسة: وضع استراتيجية وطنية لتطوير التعليم الإلكتروني في مختلف المراحل التعليمية، واستمرارية تطبيق التعليم الإلكتروني خاصة بمؤسسات التعليم العالي.

الكلمات المفتاحية: التعليم الإلكتروني، مراجعة منهجية، التوجهات الموضوعية

الهوية المرئية للمعلم عبر منصات التعليم الإلكترونية- مشهد من مملكة البحرين

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الملخص

يعيش العالم منذ قرابة الثلاثة أعوام أزمة تفشي وباء كورونا (Covid-19)، والذي أودى بحياة الكثيرين، وشلّ حركة العالم من جميع الجوانب: الاقتصادية، الصحية، الاجتماعية، والتعليمية. ولأن مملكة البحرين جزء لا يتجزأ من هذا العالم، فقد شهدت هي الأخرى تأثيرات على جميع الأصعدة ومن أهمها المتعلق بالتعليم، حيث فرضت ظروف الوباء التعليم عن بعد على كافة المراحل الدراسية: الابتدائية، الإعدادية، الثانوية، والجامعية. تسلط دراستنا الضوء على أهم دعائم الصف وهو وجود المعلم مرئياً في الصفوف الافتراضية المنعقدة عبر شاشات منصات التعليم الإلكترونية. وتندرج أهمية هذه الدراسة في: التركيز على أهمية ظهور الصورة المرئية الحية للمعلم أو ما يعرف بالهوية المرئية للمعلم أثناء شرح الدروس في الصفوف الافتراضية للطلاب بمختلف المراحل الدراسية. ويرجع سبب اختيار هذا الموضوع: لما للظهور المرئي للمعلم من تأثير إيجابي على طريقة طرح المعلومات خلال الشرح من خلال الصفوف الافتراضية ومدى جودة المخرجات مع التطورات في مجال التعليم والتي تقتضي عدم التراجع واحتكار التعليم على الطريقة المباشرة فقط. وتهدف هذه الدراسة إلى: الاستفادة من آراء الطلاب بمختلف المراحل الدراسية بعد تحليلها عن أهمية الهوية المرئية للمعلم، وذلك لما لوجود المعلم من قيمة جوهرية في الصف وخلال العملية التعليمية. وما يضيف على هذه الدراسة طابعها الأصيل تركيزها على اتخاذ خطوة إيجابية تجاه التعليم عن بعد والذي فرضته تداعيات الوباء، وذلك من خلال محاولة تحسين مدخلاته لتجويد مخرجاته، فيما تطرقت الدراسات الأخرى لاستعراض الوضع الصحي والاقتصادي للبلاد. وبهدف الإجابة على الإشكالية المطروحة، انتهجنا منهج المسح الاجتماعي من خلال دراسة وتحليل آراء الطلاب بمختلف المراحل الدراسية في مملكة البحرين، والتي تم جمعها من خلال استبانة وزعت عبر شبكات التواصل الاجتماعية. وفي هذا الإطار طرحنا الفرضية التالية: مشاركة المعلم لطلاب هويته المرئية خلال الشرح في الصفوف الافتراضية مطلب غالبية الطلاب بمختلف المراحل الدراسية في مملكة البحرين، لما لها من تأثير إيجابي على نفسية الطلاب. وترتبط حدود الدراسة على أهمية ظهور المعلم خلال شرح الدروس في الصفوف الافتراضية على مستوى مملكة البحرين دون التطرق للدعائم الأخرى التي تدعم التعليم عن بعد. وقد خلصت الدراسة إلى نتيجة جوهرية وهي: تأكيد الفرضية المطروحة، حيث أشار أغلبية الطلاب على أهمية فتح المعلم لكاميرته ومشاركتهم هويته المرئية أثناء شرح الدروس في الصفوف الافتراضية، وذلك لعدة أسباب منها أسباب نفسية تتعلق بالطلاب.

الكلمات المفتاحية: الهوية المرئية، المعلم، أزمة كورونا، التعليم عن بعد، الصفوف الافتراضية

العلاقة بين اتجاهات الطالبات نحو التعلم عن بعد والاستفادة المتصورة من وجهة نظر طالبات التربية بتخصص المجال الثاني بجامعة الشرقية

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المخلص

هدفت الدراسة لقياس العلاقة بين اتجاهات طالبات المجال الثاني بجامعة الشرقية نحو التعلم عن بعد والاستفادة المتصورة من وجهة نظرهن، تم اختيار عينة الدراسة بالطريقة العشوائية وبلغ عددهن 208 طالبة، حيث استخدام الباحثون المنهج الوصفي الارتباطي لتحقيق أهداف الدراسة، اعتمدت الدراسة الحالية على المقياس المشتق من "نظرية السلوك المخطط (Theory of Planned Behavior)، والمتكون من محورين رئيسيين وهما: محور الاتجاهات المتصورة اثناء مرحلة التعليم عن بعد، ومحور الفائدة المتصورة اثناء فترة التعليم عن بعد، حيث أظهرت نتائج الدراسة أن طالبات المجال الثاني لديهن اتجاهات متصورة إيجابية نحو تجربة التعليم عن بعد بدرجة (جيدة جدا)، وباستفادة متصورة إيجابية نحو تجربة التعليم عن بعد بدرجة (جيد جدا). كما أن نتائج الدراسة أظهرت وجود علاقة ارتباطية طردية بين الاتجاهات المتصورة للطالبات نحو تجربة التعليم عن بعد والاستفادة المتصورة من التجربة، وفي ضوء نتائج الدراسة يوصي الباحثون بضرورة تعزيز الاتجاهات الإيجابية لدى الطلاب حول التعليم عن بعد لزيادة الاستفادة المتصورة وتقليل الفاقد التعليمي مع أهمية تأهيل الكادر البشري الإداري والتدريسي باليات وإستراتيجيات تطبيق تقنيات التعليم والتعلم وذلك من خلال التخلص من تعزيز الاتجاهات الإيجابية للطلاب بطرق مختلفة لتحقيق الاستفادة القصوى من التعليم عن بعد.

الكلمات المفتاحية: الاتجاهات المتصورة، الاستفادة المتصورة، التعليم عن بعد

أ نموذج مقترح لاستخدام منحى التلعيب كمقترح لتطوير بعض أدوات التقويم المستمر في
سلطنة عمان: تطبيق (دكتور ساينس) أنموذجا

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المخلص

سعت الدراسة الحالية لتقديم انموذج مقترح لاستخدام التلعيب كأداة لتطوير بعض أدوات التقويم الواردة في وثيقة التقويم للصفوف (5-9) في سلطنة عمان، واستخدمت الدراسة مدخل النماذج النظرية كما استخدمت الدراسة تطبيق (دكتور علوم) كتطبيق هاتفي تم بناءه وفق نموذج مطور من اعداد الباحثين. وخرجت الدراسة بمجموعة من التوصيات من أهمها استبدال او تطوير الواجبات المنزلية التقليدية، بالواجبات التي تقوم على منحى التلعيب مما يوفر على المعلم الجهد والوقت في المتابعة والتصحيح، واستبدال أو تطوير الأنشطة العملية والمشاريع العملية التقليدية في أدوات التقويم بالأنشطة العملية والمشاريع المرتبطة بالتلعيب، بحيث يعمل الطلبة كفريق، وينجز المهام المطلوبة منه.

الكلمات المفتاحية: التلعيب، أنموذج، الأنموذج النظري، تطبيق هاتفي.

دور تقنيات الوسائط المتعددة في تعزيز الإدراك البصري والسمعي للمحتوى التعليمي

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جامعة النجاح الوطنية

المخلص

تنثري تقنيات الوسائط المتعددة عملية التعلم، وتجعل التعلم أكثر فعالية، وتشرك معظم المكونات الحسية للطالب في عملية إدراك المعلومات التعليمية. تعد تقنيات الوسائط المتعددة واحدة من المجالات الواعدة لإضفاء الطابع المعلوماتي على العملية التعليمية. إن تحسين البرامج والدعم المنهجي، والقاعدة التقنية، وكذلك التدريب المتقدم الإلزامي لأعضاء هيئة التدريس في مجال توظيف الوسائط المتعددة في العملية التعليمية يعتبر شرطاً أساسياً لنجاح استخدام تقنيات المعلومات الحديثة في التعليم. تحلل الدراسة أساليب استخدام المدرس للوسائط المتعددة في العملية التعليمية. أساليب استخدام التقنيات الحديثة في تعزيز الإدراك البصري والسمعي للمحتوى التعليمي. تستند الدراسة إلى تحليل المؤلفات العلمية الخاصة، بالإضافة إلى الخبرة العملية العلمية.

الكلمات المفتاحية: Multimedia، educational process، visual and auditory perception