BOOK OF ABSTRACTS

FACULTY RESEARCH PUBLICATIONS

UNIVERSITY OF SCIENCE AND TECHNOLOGY OF FUJAIRAH

ACADEMIC YEAR
2023-2024

SEPTEMBER 2023

جامعة العلوم والتقنية في الفجيرة
UNIVERSITY OF SCIENCE & TECHNOLOGY OF FUJAIRAH

Book of Abstracts

USTF Faculty Research Publications

Academic Year 2023-2024

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Introduction

University of Science and Technology of Fujairah (USTF) stresses the importance of research and scholarly activities of faculty, teaching assistants, and students. USTF supports faculty publications in international reputable journals of high impact factors. USTF also encourages faculty participation in conferences on national, regional, and international levels and provides.

As a new proactive university, USTF aligns its research efforts with the UAE Vision 2021 in addressing global problems of national impacts. The importance of research to USTF community is well addressed in Goal 2 of USTF Strategic Plan 2024-2029. In fact, research is one of the main criteria for recruitment and promotion of faculty members.

According to USTF Research Strategy, USTF research initiatives comes in line with the UAE Vision 2021 and focuses on sustainability, artificial intelligence, smart cities, automation, COVID-19 pandemic, and distance learning. USTF encourages faculty and students to concentrate on these themes in their research efforts.

The University requires and encourages its faculty members to conduct high-quality research in their areas of specialization and publish their research results in highly reputable international journals. The publication of scientific research is considered as one of the most essential activities of faculty members at USTF. The University supports its faculty in achieving this goal. To stress this fact, USTF has adopted a compensation policy to provide a financial compensation for the publication of quality research in SCOPUS-indexed journals and USTF-A peer-reviewed journals.

Table 1: USTF Faculty Scopus-Indexed Publications and Category-A Arabic Journals during the Last Five Years.

No.	College	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024
1	Engineering and Technology	8	12	9	34	23
2	College of Humanities and Sciences	2	0	2	0	5
3	College of Business Administration	2	3	4	3	8
4	College of Dentistry	7	9	1	2	9
5	Pharmacy and Health Sciences	15	11	16	18	16
6	College of Law	0	0	0	0	0
Total		34	35	**32**	**57**	**61**

College of Engineering and Technology

Improving Data Quality and Management: For Remote Sensing Analysis: Use-Cases and Emerging Research Questions

ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences

M. Breunig, P. Kuper, F. Reitze, S. Landgraf, M. Al-Doori, E. Stefanakis, H. Abdulmuttalib, and Z. Kugler

Abstract. During the last decades satellite remote sensing has become an emerging technology producing big data for various application fields every day. However, data quality checking as well as the long-time management of data and models are still issues to be improved. They are indispensable to guarantee smooth data integration and the reproducibility of data analysis such as carried out by machine learning models. In this paper we clarify the emerging need of improving data quality and the management of data and models in a geospatial database management system before and during data analysis. In different use cases various processes of data preparation and quality checking, integration of data across different scales and references systems, efficient data and model management, and advanced data analysis are presented in detail. Motivated by these use cases we then discuss emerging research questions concerning data preparation and data quality checking, data management, model management and data integration. Finally, conclusions drawn from the paper are presented and an outlook on future research work is given.

'DOI: https://isprs-annals.copernicus.org/articles/X-1-W1-2023/41/2023/isprs-annals-X-1-W1-2023-41-2023.html

Scopus

R3ACW U: A Lightweight, Trustworthy Authentication Scheme for UAV-assisted IoT Applications

IEEE Transactions on Intelligent Transportation Systems

Muhammad Adil; Hussein Abulkasim; Ahmed Farouk; Houbing Song

Abstract: The technology of Unmanned Aerial Vehicles (UAVs) has sparked a revolution in numerous Internet of Things (IoT) applications, such as flood monitoring, wildfire monitoring, coastal area surveillance, intelligent transportation, and classified military operations, etc. This technology offers several advantages when used as a flying base station to enhance the communication metrics of an employed IoT application. However, as an integrated technology (UAV-assisted IoT applications), it suffers from many challenges, and security is one of the foremost concerns. Considering that, in this paper, we proposed a hybrid lightweight key exchange authentication model for UAV-assisted IoT applications to resolve the device-to-device (D2D) authentication and data privacy issues in these networks. The proposed model employs five different security parameters named registration, authentication, authorization, accounting, and cache wash and update (R3ACWU) in coordination with a hash function. The network architecture consists of UAVs, IoT devices, and micro base stations, followed by base stations, authentication servers, and service providers (SP). In this framework, we introduce a concept known as 'dead time', a specific time period after which each device's cache memory is cleared and updated. This practice not only enhances the security of the devices in use but also reduces computational and memory overhead by eliminating the records of devices that haven't participated in the communication process within the specified time frame. Results statistics of our lightweight R3ACWU authentication scheme exhibit notable improvement corresponded to the present authentication schemes in terms of comparative parameters.

'DOI: https://ieeexplore.ieee.org/abstract/document/10413491

Scopus

Reduction of NIFTI Files Storage and Compression to Facilitate Telemedicine Services Based on Quantization Hiding of Down Sampling Approach

IEEE Explore

Elhadad, A., Jamjoom, M., & Abulkasim, H.

Abstract: Magnetic resonance imaging is a medical imaging technique to create comprehensive images of the tissues and organs in the body. This study presents an advanced approach for storing and compressing neuroimaging informatics technology initiative files, a standard format in magnetic resonance imaging. It is designed to enhance telemedicine services by facilitating efficient and high-quality communication between healthcare practitioners and patients. The proposed down sampling approach begins by opening the neuroimaging informatics technology initiative file as volumetric data and then planning it into several slice images. Then, the quantization hiding technique will be applied to each of the two consecutive slice images to generate the stego slice with the same size. This involves the following major steps: normalization, micro block generation, and discrete cosine transformation. Finally, it assembles the resultant stego slice images to produce the final neuroimaging informatics technology initiative file as volumetric data. The up-sampling process, designed to be completely blind, reverses the down sampling steps to reconstruct the subsequent image slice accurately. The efficacy of the proposed method was evaluated using a magnetic resonance imaging dataset, focusing on peak signal-to-noise ratio, signal-to-noise ratio, structural similarity index, and Entropy as key performance metrics. The results demonstrate that the proposed approach not only significantly reduces file sizes but also maintains high image quality.

'DOI: https://www.nature.com/articles/s41598-024-54820-4

Scopus

Robust 3D object watermarking scheme using shape features for copyright protection

PeerJ Computer Science

M Adil, A Farouk, H Song, Abul Kasim, H

Abstract: This article utilizes the discrete wavelet transformation to introduce an advanced 3D object watermarking model depending on the characteristics of the object's vertices. The model entails two different phases: integration and extraction. In the integration phase, a novel technique is proposed, which embeds the secret grayscale image three times using both the encrypted pixels and the vertices' coefficients of the original 3D object. In the extraction phase, the secret image is randomly extracted and recaptured using the inverse phase of the integration technique. Four common 3D objects (Stanford bunny, horse, cat figurine, and angel), with different faces and different vertices, are used in this model as a dataset. The performance of the proposed technique is evaluated using different metrics to show its superiority in terms of execution time and imperceptibility. The results demonstrated that the proposed method achieved high imperceptibility and transparency with low distortion. Moreover, the extracted secret grayscale image perfectly matched the original watermark with a structural similarity index of 1 for all testing models.

'DOI: https://peerj.com/articles/cs-2020/

Scopus

An Improved Congestion-Controlled Routing Protocol for IoT Applications in Extreme Environments

IEEE Internet of Things Journal

M Adil, A Farouk, H Song, Abul Kasim, H

Abstract: The Internet of Things (IoT) has shown its presence in applications that require monitoring extreme environments, such as wildfires, military operations, and coastal areas, among others. In these applications, the IoT nodes are deployed in hazardous terrains where humanistic access is hard or not possible. Hence, to ensure reliable data transmission in these applications, novel routing protocols need to be designed due to the multihop nature of communication possessed by the deployed nodes. Currently, most of the routing protocols utilized by IoT nodes follow traditional approaches, which creates congestion and contention in the network. As a result, the network performance is degraded in terms of various communication metrics. To address this problem and improve the communication statistics in extreme environments, we propose a deep- Q -learning-enable-destination-sequenced distance-vector (DQL-DSDV) framework. DQL-DSDV focuses on selecting the next hop during communication. Initially, the DSDV protocol updates routing information for connected nodes. This information is subsequently utilized by the deep- Q -learning (DQL) algorithm to compute the next hop count. This computation is based on reward functions, known as Q -values, which are conceptualized as the distance between connected nodes by taking into account the traffic flow. These distinguishing operational features of DQL and DSDV ensure that DQL-DSDV minimizes the packet lost ratio, congestion, end-to-end delay, and communication cost with improved Quality of Service (QoS). During simulations, we observed significant improvement in these performance metrics, in the presence of the existing schemes. Despite that, we checked the computation complexity of the proposed approach with existing protocols, which demonstrated noteworthy outcomes just like the other metrics.

'DOI: https://www.preprints.org/manuscript/202305.0674/v1

Scopus

UAV-assisted IoT applications, cybersecurity threats, AI-enabled solutions, open challenges with future research directions

IEEE Transactions on Intelligent Vehicles

M Adil, H Song, S Mastorakis, A Farouk, Z Jin, Abul Kasim, H

Abstract: Unnamed Ariel Vehicle-assisted-Internet of Things (UAV-assisted IoT) applications have emerged as a powerful integrated technology, showcasing remarkable results in many domains with numerous advantages. However, this technology encounters several challenges, and security is one of them. Given that, authentication and verification of legitimate devices with data privacy pose key concerns in a wireless communication environment. Even though, the literature highlights the growing security threats of this technology, where attackers can easily compromise the existing authentication and data preservation schemes. Therefore, it is crucial for all involved stakeholders to address these concerns using Artificial Intelligence (AI), Machine Learning (ML), Deep Learning (DL), and Reinforcement Learning (RL) algorithms, as they offer cost-effective solutions. While some algorithms have been used in the literature to accurately and effectively predict, detect, and prevent vulnerabilities in this technology, they may not adequately handle modern or advanced security threats. Therefore, in this article, we provide a comprehensive survey of the existing literature from 2014 to 2022, specifically focusing on AI, ML, DL, and RL-enabled prototypes. Our goal is to highlight the contributions and limitations of the considered articles. Based on our observations, we will emphasize on the open challenges to set the stage for future research to enhance the security of this emerging technology. Moreover, to bridge this gap of all aspects of this technology, we will discuss layer-wise security threats and countermeasure schemes following the TCP/IP stack. Finally, we will compare our work with existing review articles to demonstrate its novelty, uniqueness, and potential usefulness for the people working in this field.

'DOI: https://ieeexplore.ieee.org/abstract/document/10236463

Scopus

An efficient privacy-preserving control mechanism based on blockchain for E-health applications

Alexandria Engineering Journal

HN Alsuqaih, W Hamdan, H Elmessiry, Abul Kasim, H

Abstract: The development of the Internet of Things (IoT) has opened up new horizons in the field of remote health data analysis to obtain smart healthcare. However, protecting patients' data privacy seems challenging because medical files are so sensitive. There are significant risks to data confidentiality associated with storing patient health information on third-party servers. The covid-19 epidemic also enhanced the need for a temperature sensor-based respiratory monitoring device. Sharing electronic health records can aid with diagnostic accuracy when privacy and security protection are important system challenges. Due to the benefits of immutability, blockchain has been suggested as a possible option to enable personal health data exchange with privacy and security protection. This work suggests a safe and privacy-preserving diagnostic enhancement strategy for e-Health platforms based on blockchain technology, which addresses the inadequacy of previous work in these regards. The proposed work proposes an effective access control system that would let data owners specify their preferred access controls over their privacy-sensitive medical data. Users could utilize their user transactions for key generation to efficiently cancel or add authorized doctors. Experimental data and security analyses demonstrate the proposed Health-chain's suitability for use in smart healthcare systems. The thorough experimental investigation demonstrates the blockchain's effectiveness of computing and time consumption as well as its resistance to numerous security assaults.

'DOI: https://www.sciencedirect.com/science/article/pii/S1110016823003186

Scopus

Forecasting of Solar Power Using GRU–Temporal Fusion Transformer Model and DILATE Loss Function

Energies

Fatma Mazen, Rania Aboulseoud, Yomna Shaker

Abstract: Solar power is a clean and sustainable energy source that does not emit greenhouse gases or other atmospheric pollutants. The inherent variability in solar energy due to random fluctuations introduces novel attributes to the power generation and load dynamics of the grid. Consequently, there has been growing attention to developing an accurate forecast model using various machine and deep learning techniques. Temporal attention mechanisms enable the model to concentrate on the critical components of the input sequence at each time step, thereby enhancing the accuracy of the prediction. The suggested GRU–temporal fusion transformer (GRU-TFT) model was trained and validated employing the "Daily Power Production of Solar Panels" Kaggle dataset. Furthermore, an innovative loss function termed DILATE is introduced to train the proposed model specifically for multistep and nonstationary time series forecasting. The outcomes have been subjected to a comparative analysis with alternative algorithms, such as neural basis expansion analysis for interpretable time series (N-BEATS), neural hierarchical interpolation for time series (N-HiTS), and extreme gradient boosting (XGBoost), using several evaluation metrics, including the absolute percentage error (MAE), mean square error (MSE), and root mean square error (RMSE). The model presented in this study exhibited significant performance improvements compared with traditional statistical and machine learning techniques. This is evident from the achieved values of MAE, MSE, and RMSE, which were 1.19, 2.08, and 1.44, respectively. In contrast, the machine learning approach utilizing the Holt–Winters method for time series forecasting in additive mode yielded MAE, MSE, and RMSE scores of 4.126, 29.105, and 5.3949, respectively.

'DOI: https://doi.org/10.3390/en16248105

Scopus

Design and Implementation of Single Phase GaN Half Bridge Inverter for Photovoltaic System

2023 (ICECCE)

Mohamed Nasef, Matar Khalifa, Mohammed Eyad, Yomna Shaker

Abstract: This paper presents a design and hardware implementation of a gallium nitride (GaN) single-phase inverter to be used in the photovoltaic system instead of a silicom (SI) single-phase inverter. GaN inverters are evaluated in terms of their switching losses, efficiency, and total harmonic distortion. GaN inverters also have a higher switching frequency and faster switching speeds, which can further improve the efficiency of the inverter system. The results show that the GaN inverter has lower switching losses and higher efficiency compared to the Si inverter. The paper concludes that GaN inverters are a promising alternative and have several advantages over silicon (Si) inverters for power conversion.

'DOI: https://ieeexplore.ieee.org/abstract/document/10442373

Scopus

Investigation of Wireless Power Transfer Based on the Photovoltaic System

2023 (ICECCE)

Zain Amed, Hamdan Hamad, Abulaziz khamis Yomna Shaker

Abstract: Electricity generation and distribution are both processes that have become an essential part of human existence, and so, to ensure the continued use of these processes, more sustainable alternatives must be investigated, the use of renewable energy sources such as solar energy, wind energy, and hydropower have mitigated this problem but have not solved it entirely, as they have only addressed the sustainability issue with electricity generation and not transmission, which is what this document addresses with the investigation and use of the alternative method of electricity distribution: wireless power transfer.

'DOI: https://ieeexplore.ieee.org/abstract/document/10442880

Scopus

Attention Based Segnet: Toword Refined Semantic Segmentation of PV modules Defects

IEEE access

Fatma Mazen, Rania Aboulseoud, Yomna Shaker

Abstract: Proper surveillance and maintenance of photovoltaic (PV) systems are crucial to ensure continuous power generation and prevent operational downtimes. However, manual analysis of electroluminescence (EL) images is subjective, time-intensive, and requires significant expertise. To address this issue, a comprehensive deep learning architecture has been developed for the semantic segmentation of 29 different features and defects within EL images of PV panels. The SegNet architecture encoder has been replaced with the VGG16 encoder, which incorporates pre-trained weights to leverage transfer learning during the feature extraction stage. A Convolutional Block Attention Module (CBAM) block has also been introduced to enhance the decoder's ability to generate fine-grained segmentations. Additionally, the suggested architecture has been evaluated through the application of three different loss functions: weighted categorical cross-entropy loss, categorical cross-entropy, and focal loss. The Attention-Based SegNet architecture proposed with a weighted categorical cross-entropy loss exhibits superior performance in terms of accuracy, F1 score, intersection over union (IoU), precision, recall, mean IoU (mIoU), specificity, Jaccard index, and Dice coefficient. It achieves a Dice coefficient of 0.9408 and an mIoU of 0.9101, outperforming the state-of-the-art SEiPV-Net trained on the same dataset by 8.77% and 4.97%, respectively.

'DOI:https://www.researchgate.net/profile/Fatma-Mazen/publication/382409853_Attention-Based_SegNet_Toward_Refined_Semantic_Segmentation_of_PV_modules_Defects/links/66a39d5f5fcd863e5df3532/Attention-Based-SegNet-Toward-Refined-Semantic-Segmentation-of-PV-Modules-Defects.pdf

Scopus

Accuracy of Wind Speed Forecasting Based on Error Estimation and Joint Probability Prediction of the Parameters of Weibull Probability Density Function

Frontiers in Energy Research

Amir J Abdul Majid

Abstract: This work aims to evaluate different error estimations of the shape and scale parameters of the Weibull probability density function of wind speed measured at the Fujairah site over a 1-year period. This study estimates trends in the variation of Weibull parameters using moving averages and Markov series methods. The focus is on the scale and shape factors, which are evaluated by mapping monthly mean wind speeds into a Weibull probability distribution function. Due to the imprecise nature of these factors, multiple data simulations are used to predict Weibull factors based on data measuring interpolations. A procedural algorithm is proposed to select the overall best forecast based on several estimation methods that evaluate raised prediction errors. A probabilistic analysis is followed to predict future wind speed and wind energy based on variations in the scale and shape factors. This study focuses on the scale factor variation as it is found to be more dominant than the Weibull shape factor. The forecasted wind speed is checked with the measured value in future months and found to be within trend values. The results suggest that the proposed algorithm provides an accurate and reliable method for predicting future wind speed and energy output.

'DOI:https://www.frontiersin.org/articles/10.3389/fenrg.2023.1194010/full?&utm_source=Email_to_authors_&utm_medium=Email&utm_content=T1_11.5e1_author&utm_campaign=Email_publication&field=&journalName=Frontiers_in_Energy_Research&id=1194010

Scopus

Parkinson's Disease Detection Using Voice Features and Machine Learning Algorithms

ICM 2023 Conference

Rumana Islam; Esam Abdel-Raheem; Mohammed Tarique

Abstract: This paper investigates the noninvasive screening for early signs of Parkinson's disease from voice signals using machine learning algorithms. It considers 752 audio features extracted from phonation of the sustained vowel '/a/' sound. Two machine learning algorithms, namely k-nearest neighbors (kNNs) and support vector machines (SVMs), are modeled to identify their effectiveness for the classification task. The results showed that cubic SVM and fine kNN algorithms could achieve 100% accuracy. However, the optimized kNN outperformed the optimized Gaussian SVM in terms of accuracy, detection speed, training time, and misclassification cost.

'DOI: https://ieeexplore.ieee.org/abstract/document/10378925

Scopus

Investigating the Performance of Gammatone Filters and Their Applicability to Design Cochlear Implant Processing Systems

Designs

Rumana Islam; Mohammed Tarique

Abstract: Commercially available cochlear implants are designed to aid profoundly deaf people in understanding speech and environmental sounds. A typical cochlear implant uses a bank of bandpass filters to decompose an audio signal into a set of dynamic signals. These filters' critical center frequencies f0f0 imitate the human cochlea's vibration patterns caused by audio signals. Gammatone filters (GTFs), with two unique characteristics: (a) an appropriate "pseudo resonant" frequency transfer function, mimicking the human cochlea, and (b) realizing efficient hardware implementation, could demonstrate them as unique candidates for cochlear implant design. Although GTFs have recently attracted considerable attention from researchers, a comprehensive exposition of GTFs is still absent in the literature. This paper starts by enumerating the impulse response of GTFs. Then, the magnitude spectrum, $|H(f)|$|H(f)|, and bandwidth, more specifically, the equivalent rectangular bandwidth (ERB) of GTFs, are derived. The simulation results suggested that optimally chosen filter parameters, e.g., critical center frequencies, f0f0; temporal decay parameter, bb; and order of the filter, nn, can minimize the interference of the filter bank frequencies and very likely model the filter bandwidth (ERB), independent of $f0bf$0b. Finally, these optimized filters are applied to delineate a filter bank for a cochlear implant design based on the Clarion processor model.

'DOI: https://www.mdpi.com/2411-9660/8/1/16

Scopus

Cochleagram to Recognize Dysphonia: Auditory Perceptual Analysis for Health Informatics

IEEE Access

Rumana Islam, Esam Abdel-Raheem, and Mohammed Tarique,

Abstract: The spectral images provide the dynamic characteristics of the voice signal in the time and frequency domains. However, extracting the predominant spectral features from the voice samples is still challenging. This work generates cochlea gram images to unveil detailed spectral content of the voice samples to recognize dysphonic voice. Both sustained vowel (‘/a/’) and sentence voice samples are considered to include phonation, respiration, and resonance of the vocal tone. Also, gender bias is eliminated by considering male and female voice samples separately, as they have structurally different vocal tracts, pharynx, and oral cavities. The simulation results show that the cochlea gram, coined with a designed pre-trained convolutional neural network (CNN), can achieve 95% accuracy in identifying dysphonic voices with sentence samples. A robust, noninvasive, and automated voice pathology detection system is effectively generated through perceptual analysis of voice signals. The proposed automated pathological voice detection system can objectively correlate the clinical findings and assist in monitoring the treatment progress of dysphonic voice on top of subjective assessment by clinicians.

‘DOI: https://ieeexplore.ieee.org/abstract/document/10506929

Scopus

Artificial Intelligence (AI) and Nuclear Features from the Fine Needle Aspirated (FNA) Tissue Samples to Recognize Breast Cancer

Journal of Imaging (MDPI)

Rumana Islam, Esam Abdel-Raheem, and Mohammed Tarique,

Abstract: Breast cancer is one of the paramount causes of new cancer cases worldwide annually. It is a malignant neoplasm that develops in the breast cells. The early screening of this disease is essential to prevent its metastasis. A mammogram X-ray image is the most common screening tool practiced currently when this disease is suspected; all the breast lesions identified are not malignant. The invasive fine needle aspiration (FNA) of a breast mass sample is the secondary screening tool to clinically examine cancerous lesions. The visual image analysis of the stained aspirated sample imposes a challenge for the cytologist to identify the malignant cells accurately. The formulation of an artificial intelligence-based objective technique on top of the introspective assessment is essential to avoid misdiagnosis. This paper addresses several artificial intelligence (AI)-based techniques to diagnose breast cancer from the nuclear features of FNA samples. The Wisconsin Breast Cancer dataset (WBCD) from the UCI machine learning repository is applied for this investigation. Significant statistical parameters are measured to evaluate the performance of the proposed techniques. The best detection accuracy of 98.10% is achieved with a two-layer feed-forward neural network (FFNN). Finally, the developed algorithm's performance is compared with some state-of-the-art works in the literature.

'DOI: https://www.mdpi.com/2313-433X/10/8/201

Scopus

Novel study of inertial forces on MHD peristaltically driven micropolar fluid through porous-saturated asymmetric channel: Finite Galerkin Approach

AIP Advance

Ahmed, Bilal & Ali, Liaqat & Anwar, Fizza

Abstract: This focused study investigates the peristaltic motion of a micropolar fluid within an uneven channel filled with a porous medium, incorporating an orthogonal magnetic field to the flow. This research diverges from the traditional assumptions of lubrication theory. The governing equations, encompassing the physical characteristics of micropolar fluid peristalsis, are transformed into nonlinear coupled partial differential equations. These equations are solved using the finite element method, considering inertial effects, such as non-zero wave and Reynolds numbers. This study delves into the influence of various crucial parameters on axial velocity, pressure gradient, microrotation, and stream function, presenting graphical representations. Notably, the incremental phase shift causes an intermingling of upper and lower streamlines within both halves of the channel. As the Reynolds number increases, there is an observed reduction in bolus size, particularly at maximum phase shifts, with a tendency to move toward the central region. An increase in Hartmann number leads the bolus formation to vanish in both channels, reduces microrotation, and leads to increased pressure. Vorticity lines intensify and incline toward the peristaltic walls. An increase in the permeability parameter amplifies velocity, microrotation, volume, and bolus formation regardless of phase differences while countering pressure elevation per wavelength. Reduced concavity is observed as vorticity lines disperse across the entire area.

'DOI: https://pubs.aip.org/aip/adv/article/14/2/025345/3266965

Scopus

An In-Depth Examination of Cybersecurity: Unveiling Contemporary Trends and Recent Advancements in the World of Cyber Threats

2024 2nd International Conference on Cyber Resilience (ICCR) published by IEEE Xplore

W. Alhasan, M. Wannous, A. Abualkishik, M. R. Al Nasar, L. Ali and H. Al-Zoubi,

Abstract: The virtual realm now serves as the primary stage for a wide variety of global interactions spanning economic, industrial, cultural, social and governmental exchanges, between people, non-governmental agencies and government institutions. Given our increasing dependence on the electronic age, protecting statistics from cyber threats has become an impressive mission. Cyberattacks often target groups with the goal of causing economic damage and, at times, have military or political motivations. These attacks occur on various documents, including computer viruses, data breaches, and other attack methods. Exclusive companies hire numerous solutions to mitigate the damage caused by cyberattacks, with cybersecurity structures that track cutting-edge IT logs in real time.

'DOI: https://ieeexplore.ieee.org/document/10533062

Unveiling the Landscape of Machine Learning and Deep Learning Methodologies in Network Security: A Comprehensive Literature Review"

2024 2nd International Conference on Cyber Resilience (ICCR) published by IEEE Xplore

N. M. S. E. Saeed, A. Ibrahim, L. Ali, N. A. Al-Dmour, A. S. Mohammed and T. M. Ghazal

Abstract: The dynamic nature of cyber threats offers a continual problem in the field of cybersecurity in the context of the expanding internet environment. This study provides an in-depth assessment of the literature on machine learning (ML) and deep learning (DL) methodologies for network analysis for intrusion detection. This review curates, assesses, and distils method-specific findings while considering temporal or thermal correlations. It provides a recognition of the importance of data in ML and DL approaches, and a comprehensive overview of frequently used network datasets in ML/DL applications, as well as the inherent challenges of adopting ML/DL in the cybersecurity field. The study concludes with well-informed recommendations for future areas of research in this critical domine.

'DOI: https://ieeexplore.ieee.org/document/10533066/authors#authors

Scopus

Proposal Intelligent Hand Gesture Recognition Using CNN

2024 2nd International Conference on Cyber Resilience (ICCR) published by IEEE Xplore

M. Mahfuri, S. Ghwanmeh, L. Ali and H. Q. Al-Zoubi, Ali ,L

Abstract: This paper addresses the crucial goal of improving communication between the deaf and mute community and the broader public. We present the development of a sign language translator that effectively converts hand gestures into text, encompassing alphabets and digits, thereby facilitating comprehension of the conveyed messages. Our approach incorporates an intelligent hand gesture recognition system powered by Convolutional Neural Networks (CNNs) and utilizes a comprehensive dataset comprising 44 distinct gestures, including letters and numbers. The proposed model plays a pivotal role in preprocessing input images by employing a threshold mechanism to eliminate noise and enhance image smoothness. To ensure accuracy and continuity in the regions of interest, we implement a region filling technique. TensorFlow serves as the backend for our CNN-based Keras model, which undergoes rigorous training on the collected dataset. After the training phase, the model is rigorously tested to validate its performance. Upon successful testing, users can express their gestures, and the system displays the corresponding text representation while simultaneously converting it into speech. This groundbreaking work contributes significantly to bridging the communication gap and fostering inclusivity within our society.

'DOI **: https://ieeexplore.ieee.org/document/10533131**

Scopus

IoT Security Frameworks: A Comparative Review with a Focus on Privacy

2024 2nd International Conference on Cyber Resilience (ICCR)

Abduljaleel Al-Hasnawi, Yitong Niu, rd Jamal F. Tawfiq Dr. Manas Ranjan Pradhan, Mohammed Salahat, Taher M. Ghazal

Abstract: The privacy of sensitive data within the Internet of Things (IoT) is at risk due to potential privacy violations. These violations can occur through illegal access by external entities, as well as inadvertent disclosures or intentional attacks by those within the system who exceed their authorized access privileges. Furthermore, there needs to be more control experienced by data owners regarding their sensitive data as it transitions from their domain to other entities within the Internet of Things (IoT) ecosystem. Numerous methods have been presented in the academic literature over the past few years to effectively tackle the privacy concerns associated with the Internet of Things (IoT). This paper aims to classify existing literature by organizing it according to the specific technology or technique employed to safeguard privacy. The classification encompasses four primary areas of privacy solutions, specifically, solutions based on encryption, solutions based on identity management, solutions based on policy enforcement, and solutions focused on self-protection. The paper examines various state-of-the-art solutions within each category. It begins by providing a broad comparison between these solutions and our work. Subsequently, it focuses on a specific comparison of the privacy objectives of the offered PEFM solutions.

'DOI: IoT Security Frameworks: A Comparative Review with a Focus on Privacy | IEEE Conference Publication | IEEE Xplore

Scopus

Human Factors in Security Management: Understanding and Mitigating Insider Threats

2024 2nd International Conference on Cyber Resilience (ICCR)

Afnan Asasfeh, Dr. Reem AbdElkareem Alomoush, Mohammed Salahat,

Abstract: In an epoch characterized by swift technological progress, the intricacy of insider threats presents a daunting challenge to the management of security within organizations. This review of existing literature meticulously examines the internal hazards, human elements, methods of detection, and methods of mitigation, and ever-evolving technological solutions for safeguarding sensitive information. The enumeration of significant challenges encapsulates a summary of the life cycle of insider threats while emphasizing the crucially of employing a purposeful approach to tackle privacy concerns with a forward-looking perspective, this study identifies potential areas of exploration and research, with a specific emphasis on incorporating artificial intelligence, adopting behavioral biometrics, and formulating proactive prevention strategies. The all-encompassing perspectives presented herein aspire to furnish security practitioners, researchers, and policymakers with a thorough comprehension and to encourage the formulation of adaptable security policies capable of effectively countering dynamic insider threats. This overview contributes to the ongoing discussion surrounding cybersecurity and provides valuable guidance to organizations seeking to fortify their defenses against threats arising from a digitally interconnected environment.

'DOI: https://ieeexplore.ieee.org/document/10532956

Scopus

Transforming Cybersecurity in the Digital Era: The Power of AI

2024 2nd International Conference on Cyber Resilience (ICCR)

Mahmoud Mahfuri, Sameh Ghwanmeh, d Rsha Almajed, h Dr. Waseem Alhasan,Mohammed Salahat,h Jin Hie Lee

Abstract: In the midst of the digital revolution of the 21st century, cybersecurity has come to be a primary social situation, requiring revolutionary and Innovative solution. To find the proper answer for this pressing demand, AI (AI) has developed as an innovative catalyst that has fundamentally transformed the cybersecurity landscape. The power of AI is exemplified by its ability to process and interpret large and heterogeneous cybersecurity data sets optimizing critical functions such as threat detection, asset prioritization, and vulnerability management beyond human capabilities swiftly and accurately. This transformation is redefining our cybersecurity approach. This paper presents a full exploration of AI's extreme influence on cybersecurity, delving deep into how AI tools not only enhance but often surpass human-mediated processes. By unraveling the intricacies of integrating AI into the realm of cybersecurity, we vividly illustrate AI's potential to anticipate, detect, and proactively mitigate cyber threats, empowering organizations to bolster their digital security. However, it's vital to recognize the essential difficulties of AI. We underline the critical necessity for non-stop human administration and involvement to confirm that cybersecurity processes are in proportion and powerful. Additionally, we mention the probable ethical concerns and underscore the importance of strong authority structures to accelerate accountable and transparent AI usage in cybersecurity. This paper elucidates how AI is revolutionizing cybersecurity techniques, contributing to a more secure and greater secure digital future. It additionally lays the base for current investigation and discourse on the role of AI in cybersecurity—a conversation of growing importance in our unexpectedly advancing digital age.

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College of Dentistry

Standardization of Vertical Root Resection During Socket Shielding Technique in Immediate Implant Placement

Romanian Journal of Stomatology

El-Seasy M, ElHawary H, Tawfik K, Hamed T. El-sohlokamy M

Abstract: The aim of the present study was to standardize an accurate and significant technique of root separation during socket shield technique. Patients and methods. Two phases of the study were conducted. In vitro study was performed on 20 extracted single-rooted anterior teeth. The second phase was clinical application of the new technique on 10 patients seeking to restore their badly decayed anterior teeth in the esthetic area with immediate implant placement utilizing the socket shield technique. Decoronation was done. The root canal was mechanically enlarged by means of manual assorted files. Canals were further enlarged with Gates Glidden drills. Peeso Reamer drills were used till the root was entirely separated into two parts (buccal & palatal). The palatal root was cautiously removed when the labial and palatal root halves were sufficiently separated. In case the root to be removed was endodontically treated, Gutta-percha was mechanically removed using Gates Glidden, & Gutta-percha solvent to remove the coronal and apical parts. Outcomes. Using manual endodontic K-files, Gates Glidden burs, and Peeso Reamer's drills in separating the single-rooted teeth into two halves is a reproducible, and reliable procedure during socket shield technique. Conclusions. This technique prevents possible complications of root sectioning during socket shield technique with immediate implant placement. It preserves surrounding soft tissue structures, and labial shield during shield preparations, maintains the integrity of the labial plate of bone during extraction. Additionally, it offers total root apex removal by entirely separating the palatal portion from the labial shield. Keywords: socket shield technique, single-rooted anterior teeth, vertical root resection, tooth preservation, labial bone plate preservation

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Scopus

Evaluation of Immediate Implant Insertion in The Esthetic Zone Using Socket Shield Technique. A Clinical Comparative Study

Journal of Xi`an Shiyou University

El-Seasy M, ElHawary H, Tawfik K, Hamed T. El-sohlokamy M

Abstract: The objective of the present study was to evaluate the efficacy of the socket shield technique for immediate implantation at the esthetic zone, through comparison to the traditional conventional immediate implant technique. Patients and Methods: The study was conducted on 20 immediate implant placement sites in the anterior maxillary region. In the study group, 10 implants were inserted using socket shield technique, while in the control group, 10 implants were inserted using the conventional immediate placement technique. Immediate postoperative and six months postoperative CBCT were obtained for all the cases, to assess bone density around the inserted implants as well as horizontal and vertical bone loss, Implant stability quotients (ISQs) was measured immediately and six months post-operatively with one and three-month intervals. Results: Implant stability recorded a higher mean value in the study group in comparison to the control group, with a statistically significant difference between both groups (p=0.001). Assessment of bone density around the implants after six months of insertion showed a higher mean value in the study group compared to in the control group with statistically significant difference (p=0.003). Regarding horizontal bone gap, a higher mean value (0.64±0.14 mm) was recorded in the control group in comparison to 0.52±0.18 in the study group, with no statistically significant difference between both groups (p=0.199). Vertical bone loss immediately postoperatively, there was no significant difference between the two groups (P=0.783). At 6 months, a higher mean value (13.54±1.36 mm) was recorded in the study group compared to (13.08±0.54) the control group, with no statistically significant difference between both groups (p=0.424) Conclusion: It has been concluded that the Socket shield technique, eliminates the negative consequences of bone resorption of the buccal plate of bone; leading to maintaining hard and soft tissue contours providing perfect esthetic results and good function.

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Evaluation of Immediate Loading Mini-Implant Versus Traditional Implants (Clinical and Radiographic Study)

Dental Science Updates

Abdallah Mohamed Mokhtar1, Tamer Abdel Bary Hamed, Mohamed Ahmed El-Sholkamy

Abstract: Introduction: Replacing lost teeth by employing dental implants has represented a challenge since ancient times. Using mini implants is more favorable than conventional ones, not only for surgeons but also for patients. Aim: The current study aimed to compare the conventional and mini dental implants regarding primary stability, vertical bone loss after three- and nine-month post-surgery, plaque index, gingival index, and pocket depth in three- and nine-month. Materials and Methods: The current study used two types of dental implants, conventional dental implants (Dentium super line) and mini dental implants (Dentium slim line). Accordingly, two examination groups were defined, Group I and Group II. Each group included eight dental implants in healthy patients aged 31-48. All implants were subjected to clinical and radiographic examinations either before surgery or after surgery. Both conventional and mini-implants were checked based on primary stability, vertical bone loss after three- and nine-months post-surgery, plaque index, gingival index, and pocket depth in three- and nine-months. Results: The results showed no significant differences between the conventional and mini dental implants regarding the primary stability and vertical bone loss in three- and nine months. Also, clinically there is no significant difference in plaque index, gingival index, and pocket depth. Conclusion: The mini-implant can be a promising alternative when the ridge width does not accommodate the conventional type.

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Allergic reaction of poly-ether-ether-ketone versus titanium implants: A posttest-only control group design experimental study using a rabbit model in Clinical Implant

Clinical Implant Dentistry and Related Research

Tamer Hamed Hassan, Nabeel Ayappali Kalluvalappil

Abstract: Purpose: The aim of this study was to determine clinically and genetically the allergic effects of titanium and poly-ether-ether-ketone (PEEK) implants following loading in rabbit tibias. Materials and methods: This study included 18 white New Zealand male rabbits (n = 18) divided evenly into three groups: control, titanium (Ti), and PEEK (P). Clinically, the allergenic effect of titanium and PEEK was investigated by detecting the effect on lymph nodes. Furthermore, RT-PCR and ELISA were used to detect the expression of certain genes IL-6, TNF-α, OPG, RANKL, and RUNX-2 through both types of implants. Results: Our findings demonstrated that titanium implants induced enlarged lymph nodes, which PEEK did not. Overall, RT-PCR and ELISA techniques revealed that Ti implants had higher expression of the inflammatory genes IL-6 and TNF-α. Ti had the highest expression in OPG findings, while PEEK had the lowest. RANKL expression was highest in the control group and lowest in the PEEK group. RUNX-2 is the highest for the control group and the lowest for the titanium group. Conclusion: Although titanium implants elicited greater allergy responses than PEEK implants, titanium has the highest expression of bone formation genes and the lowest expression of bone resorption genes, making it preferable to PEEK.

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Surgical Extraction of Impacted Lower Third Molar, Evaluation Of a New Scale of Difficulty

Dental Science Updates

Aya Aly Mohammed, Tamer Abd Elbari Hamed , Mohammed Hassan Eid

Abstract: Introduction: Assessment of the surgical complexity of lower third molar extracation is a crucial step to formulate an optimal treatment plan, balancing the advantages and disadvantages of the surgical extraction procedure to manage intraoperative complications and postoperative pain. Aim: This study aimed to evaluate the accuracy of a new scale of surgical difficulty for the extraction of the impacted lower third molar. Patients and methods: Fifty-four patients were attended for lower third molar extracation. All patients undergoing the same surgical approach including anesthesia, incision, and elevation of the mucoperiosteal flap, ostectomy, and tooth sectioning, elevation, and avulsion according to the root axis, socket debridement, and suturing. The period of this study extended for 2 years. Results: The mesio angular impaction was the most common type of impaction, followed by horizontal impaction. There was agreement between the preoperative and the postoperative assessment of a simple operation. 26 third molars (48.15%) were considered preoperatively medium difficulty group, and 80.77% was agreement between the preoperative and the postoperative assessments of moderately simple (P,0.0001) Conclusion: Our scale is effective since the mandibular third molars with the highest scores were significantly correlated to longer ostectomy time and total surgical time.

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Awareness And Attitude of Dental Practitioners Towards the Covid-19 Disease. (2023)

Journal of International Dental and Medical Research

Alraeesi D, Alraeesi S, Eldarat, A

Abstract: The COVID-19 pandemic has had a significant impact on dental practices across the globe, and despite the worldwide recognition of the dangers of COVID-19, dental practitioners' awareness and attitudes toward the heightened risk for the disease in dental settings has not been fully addressed. To assess the awareness of dental practitioners regarding the disease symptoms, transmission and incubation, and their attitude towards preventive measure use and patient treatment during the pandemic. 267 online self-administered questionnaires were sent to dental practitioners. Only completed questionnaires were used in the data analysis. The participants were 38.0% males and 62.0% females, and most of the participants were ≥ 30 years old (88.0%). In terms of dental practice experience, 20.7% of participants had between 5-10 years and 77.2% had >10 years. A majority of the participants reported fever as a common symptom (98.9%) and respiratory droplets as the transmission mode of COVID-19 (98.9%). Infection incubation period of 1-14 days was reported by only 52.2% of participants. Female participants used surgical gowns more than male participants ($p < 0.05$). Participants working in private sectors treated elective cases more than governmental workers ($p < 0.01$) Dental participants were found to have inadequate awareness regarding COVID-19, more knowledge and awareness needs to be spread to ensure good preparations for any future global pandemics.

'DOI:https://www.jidmr.com/journal/wp-content/uploads/2023/09/29_D23_2253_Eldarrat_Aziza_UAE.pdf

Radiographic Screening of the Prevalence of Teeth with Intra-radicular Post Restorations

Journal of International Dental and Medical Research (JIDMR)

Alawami S; Eldarat, A

Abstract: The COVID-19 pandemic has had a significant impact on dental practices across the globe, and despite the worldwide recognition of the dangers of COVID-19, dental practitioners' awareness and attitudes toward the heightened risk for the disease in dental settings has not been fully addressed. To assess the awareness of dental practitioners regarding the disease symptoms, transmission and incubation, and their attitude towards preventive measure use and patient treatment during the pandemic. 267 online self-administered questionnaires were sent to dental practitioners. Only completed questionnaires were used in the data analysis. The participants were 38.0% males and 62.0% females, and most of the participants were ≥ 30 years old (88.0%). In terms of dental practice experience, 20.7% of participants had between 5-10 years and 77.2% had >10 years. A majority of the participants reported fever as a common symptom (98.9%) and respiratory droplets as the transmission mode of COVID-19 (98.9%). Infection incubation period of 1-14 days was reported by only 52.2% of participants. Female participants used surgical gowns more than male participants ($p < 0.05$). Participants working in private sectors treated elective cases more than governmental workers ($p < 0.01$) Dental participants were found to have inadequate awareness regarding COVID-19, more knowledge and awareness needs to be spread to ensure good preparations for any future global pandemics.

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Exploring the difficulties of cross-cultural adaptation: an overview of the a-soho-5 study.

Educational Administration: Theory and Practice

Fatema Alhammadi, Basaruddin Bin Ahmad, Sarliza Yasmin Bt Sanusi, Mohd Zulkarnain Bin Sinor, Eldarat, A

Abstract: To describe pilot testing of the Scale of Oral Health Outcomes for 5-year-old children (SOHO-5), including the evaluation of its psychometric properties subsequent to its Cross-Cultural Adaptation (CCA) to the Arabic language. Methodology: A pre-test was conducted among 32 pairs of five-year old children and their parents total of 64 participants. Reliability assessment was through computing Cronbach's alpha coefficient and assessing inter-item correlation, and Item-total score correlation. Construct Validity was assessed using pearson's correlation to examine associations between total score of the draft Arabic-SOHO-5(A-SOHO-5) and the original version of SOHO-5. Face validity was assessed by gathering participant feedback on the relevance and appropriateness of A-SOHO-5 items. Content validity was established through the insights of experts engaged in both the synthesis process and the final expert committee. Results: Both the child self-report and parental proxy report versions of the questionnaire, exhibited satisfactory face validity. Cronbach's alpha scores were 0.93 and 0.72 for the child and parental questionnaires, respectively. The inter-item correlations were positively correlated for both versions of the questionnaire, with the exception of one item in the parent's version. The item-total correlations were positive in both versions and exceeded the arbitrary threshold of 0.20. Parent's A-SOHO-5 scores showed significant associations with the original Scale of English SOHO-5 (E-SOHO-5). Conclusion: This study established the validity and reliability of the A-SOHO-5 as a suitable measure for Oral Health Related Quality of Life (OHRQoL) among Arabic-speaking five-year-old children in the United Arab Emirates (UAE).

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Comparing Human Translation and Google Translate: Enhancing Communication for Oral Health.

Educational Administration: Theory and Practice

Fatema Alhammadi, Basaruddin Bin Ahmad, Sarliza Yasmin Bt Sanusi, Mohd Zulkarnain Bin Sinor, Eldarat, A

Abstract: Computer software-based translation of texts from one language to another is assuming increasing importance in different fields. This study aims to assess the accuracy of Google Translate (GT) in translating English SOHO-5 (E-SOHO-5) into Arabic compared to a Human Translator (HT). We evaluated the quality of translations from GT and a professional HT, by comparing them to a reference translation created by a multidisciplinary expert committee. This assessment was conducted using the BiLingual Evaluation Understudy metric. The translations produced by GT were also assessed and edited by the expert committee. The findings of this study showed that human translation consistently outperformed GT in terms of BLEU scores across unigrams, trigrams, and tetragrams while GT outperformed HT in bigrams. The average BiLingual Evaluation Understudy score for human translation was 0.447, while GT achieved an average score of 0.441. GT exhibited lower accuracy compared to human translation. To achieve linguistic and cultural equivalence in research instruments, machine translation requires post-editing.

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Histological evaluation of pulp response to pulpine NE versus Biodentine as direct pulp capping materials in a dog model

International Arab Journal of Dentistry

Hager A. Bestawy, Maha A. Niazy, Mona H. Farid, Asmaa Y Harhash, Mona R. Abo Wafa, Ashraf M. Abu Sieda

Abstract Introduction: The material used for pulp capping has a significant impact on the outcome of vital pulp therapy. This study compared the pulp tissue response to Pulpine NE versus Biodentine as direct pulp capping materials in a dog model. Methods: Twenty-four teeth in two mongrel dogs (1-2-year-old) were used. In each dog (n=12 teeth), the dental pulps were exposed in 8 teeth (2 experimental groups, 4 teeth each) and left unexposed in 4 teeth (control group, n=4 teeth). A class V cavity was performed on the buccal sur face of the selected teeth in the experimental groups. The exposed pulps were capped either with Pulpine-NE (group I) or Biodentine (group II). Then, the cavities were restored with Riva resin modified glass ionomer filling material. One dog was euthanized at 14 days after pulp capping and the second dog was euthanized after 45 days. Histological analysis of the continuity of dentin bridge, tissue disorganization and inflammatory reaction were statistically analyzed. Results: The results revealed that Biodentine exhibited statistically significant higher dentin bridge formation than Pulpine NE after 14 and 45 days ($P<0.05$). Pulpine NE showed significant higher tissue disorganization than Biodentine after 45 days ($P=0.046$). The number of inflammatory cells was significantly higher in Pulpine NE samples than that of the Biodentine samples after 15 days ($P=0.042$). Conclusions: Pulpine NE was capable of inducing reparative dentin when used as a direct pulp capping material. Nevertheless, Biodentine showed more efficient dentin bridge formation, tissue organization and anti-inflammatory potential than Pulpine NE.

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Techniques and Innovations for Wisdom Tooth Extractions

Journal of Population Therapeutics & Clinical Pharmacology

Dr. Noman Ahmed1*, Dr. Ambreen Rehman2 , Mohammad Tayyab Ahmad3 , Dr Muhammad Hassaan4 , Muhammad Razaq5 , Anwarullah

Abstract: Background**:** Wisdom tooth extractions are common surgical procedures associated with post-operative complications. This quantitative analysis aimed to evaluate the efficacy of various surgical techniques and innovations in wisdom tooth extractions. Methods**:** A systematic review was conducted, searching databases for studies published between 2010 and 2024. Inclusion criteria encompassed studies investigating surgical techniques, innovations, and outcomes in wisdom tooth extractions. Data were synthesized, and meta-analyses were performed where applicable. Results**:** Thirty-two studies met the inclusion criteria. Minimally invasive techniques, including piezoelectric surgery and laser-assisted surgery, demonstrated significant reductions in post-operative pain scores compared to conventional techniques (mean difference: -1.5, 95% CI: -2.3 to -0.7, $p < 0.001$). Advanced imaging modalities, such as cone-beam computed tomography (CBCT) and computer-aided design/computer-aided manufacturing (CAD/CAM) technology, were associated with lower complication rates compared to conventional surgery (odds ratio: 0.45, 95% CI: 0.32 to 0.63, $p < 0.001$). Biologic adjuncts, such as platelet-rich plasma (PRP), demonstrated enhanced bone formation and reduced post-operative infection rates compared to controls (mean difference in bone formation: 2.0 mm, 95% CI: 1.5 to 2.5, $p < 0.001$). Conclusion**:** This quantitative analysis highlights the efficacy of minimally invasive techniques, advanced imaging modalities, and biologic adjuncts in improving outcomes of wisdom tooth extractions. Integration of these innovations into clinical practice has the potential to optimize patient care and enhance surgical outcomes.

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Fracture Resistance in Fibre-Reinforced Resin Composite Restorations in Deciduous and Permanent Molars: An Ex Vivo Study

Saudi Dental Journal

Hassan Negm, Dina Elkharadly, Rania Taha; Badawy, S

Abstract : The aim of this study was to compare the fracture resistance levels of restored deciduous teeth and permanent molars restored with different materials, including ultra-polyethylene fibre tape (Ribbond-Ultra), fibre-reinforced resin composite EverX posterior, fibre-reinforced flowable resin composite EverX Flow and bulk-fill flow restorative material (Tetric N-flow) in the posterior region. We tested sixty-four caries-free human mandibular molars (32 deciduous molars and 32 permanent molars). Deep and wide Class I cavities were prepared in each tooth. The teeth were embedded in poly(methyl methacrylate) resin up to the cementoenamel junction, leaving the crown completely exposed. Oral temperature fluctuations were then simulated using two thousand thermocycling cycles, each lasting 30 seconds in the hot phase (approximately 35 °C). The loading rate for our force-fracture tests was set at 0.5 mm/min. Direct restorations were made using a spherical tip and applying the force perpendicular to the sample surface. Visual inspection of the fractured specimens, in combination with adhesive scanning electron microscopy (SEM) and finite element analysis (FEA), provided detailed insights into the failure modes and stress distribution at the restoration–tooth interface. Teeth restored with fibre-reinforced composite (EverX Posterior) had the highest fracture resistance, followed by fibre-reinforced flowable resin composite (EverX Flow). Teeth restored with the ultra- polyethylene fibre tape (Ribbond-Ultra), followed by the flowable bulk-fill composite (Tetric N-flow) had the lowest resistance. Statistical analysis revealed significant differences between the groups, except for EverX Posterior and EverX Flow. A predictive algorithm was also proposed for the likelihood of restoration failure. Modern fibre-reinforced resin composites, such as EverX Posterior, effectively reinforce teeth against fractures, with success in both restored deciduous and permanent molars. Meanwhile, the use of polyethylene fibre tapes is less effective, and they involve a time-consuming application.

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Efficacy Of Various Irrigation Solutions in Root Canal Disinfection

Journal of Population Therapeutics & Clinical Pharmacology

Dr. Javaid Unar, Dr Abdul Aleem, Dr. Saeedullah, Dr. Neha Manzar4, Dr. Nabeel Khan5, Dr. Faisal Ali Baloch6, Murad Khan

Abstract: Root canal disinfection is a critical aspect of endodontic therapy aimed at eliminating microorganisms and organic debris from the root canal system to facilitate healing and prevent reinfection. Irrigation solutions play a pivotal role in this process by aiding in debris removal, dissolving tissues, and eradicating microorganisms. This quantitative analysis research article evaluates the efficacy of various irrigation solutions in root canal disinfection through a systematic review of ten studies. The included studies encompassed randomized controlled trials, prospective cohort studies, retrospective studies, systematic reviews, and meta-analyses, comparing the efficacy of irrigation solutions such as sodium hypochlorite (NaOCl), chlorhexidine (CHX), hydrogen peroxide (H2O2), and ethylene diamine tetraacetic acid (EDTA). The findings reveal NaOCl's superiority in antimicrobial efficacy, tissue dissolution kinetics, and clinical outcomes compared to alternative solutions. Chlorhexidine offers a safer alternative with comparable antimicrobial efficacy and residual effects between appointments. EDTA enhances root canal disinfection by facilitating smear layer removal, optimizing disinfectant penetration into dentinal tubules. While further research is warranted to standardize irrigation protocols, evaluate long-term clinical outcomes, and mitigate potential adverse effects, the findings underscore the pivotal role of irrigation solutions in achieving optimal root canal disinfection and promoting long-term periapical health. Integration of evidence-based irrigation strategies into clinical practice can enhance the success rates of endodontic therapy and improve patient outcomes.

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College of Pharmacy and Health Sciences

The role of the metaverse in transforming healthcare

Research Journal of Pharmacy and Technology

Ramamurthy Srinivasan, Yammahi Al Sarah, Rahim Alya Abdul

Abstract: To diagnose, treat, or perform surgical operations on a patient, conventional physical interactions between a patient and a doctor were necessary. Telehealth services have challenged this, enabling digital connections between patients and healthcare professionals. The metaverse, a virtual environment that permits interaction with digital objects and settings, is fast gaining traction in the healthcare industry. There is a strong likelihood that patient outcomes will be improved by technological advances such as artificial intelligence (AI), augmented reality (AR), the internet of things (IoT), virtual reality (VR), quantum computing, and robotics. Augmented and virtual reality technologies have progressed dramatically in recent years, and they are now routinely used in medical education, training, and surgical procedures to execute complex surgeries with extraordinary precision. However, as the metaverse grows, there are apprehensions about potential ethical and legal implications, such as cybercrime and data vulnerability. The objective of this review article is to examine potential uses of the metaverse in the field of healthcare as well as the issues that need to be resolved.

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Superoxide dismutase and neurological disorder

IBRO Neuroscience Reports

Saravana Babu Chidambaram, Nikhilesh Anand, Sudhir
Rama Varma , Srinivasan Ramamurthy , Chandrasekaran Vichitra , Ambika Sharma , Arehally
M. Mahalakshmi , Musthafa Mohamed Essa

Abstract : Superoxide dismutase (SOD) is a common antioxidant enzyme found majorly in living cells. The main physiological role of SOD is detoxification and maintain the redox balance, acts as a first line of defence against Reactive nitrogen species (RNS), Reactive oxygen species (ROS), and other such potentially hazardous molecules. SOD catalyses the conversion of superoxide anion free radicals ($O_{2}^{-.}$) into molecular oxygen (O_2) and hydrogen peroxide (H_2O_2) in the cells. Superoxide dismutases (SODs) are expressed in neurons and glial cells throughout the CNS both intracellularly and extracellularly. Endogenous oxidative stress (OS) linked with enlarged production of reactive oxygen metabolites (ROMs), inflammation, deregulation of redox balance, mitochondrial dysfunction and bioenergetic crisis are found to be prerequisite for neuronal loss in neurological diseases. Clinical and genetic studies indicate a direct correlation between mutations in SOD gene and neurodegenerative diseases, like Amyotrophic Lateral Sclerosis (ALS), Huntington's disease (HD), Parkinson's Disease (PD) and Alzheimer's Disease (AD). Therefore, inhibitors of OS are considered as an optimistic approach to prevent neuronal loss. SOD mimetics like Metalloporphyrin Mn (II)-cyclic polyamines, Nitroxides and Mn (III)- Salen complexes are designed and used as therapeutic extensively in the treatment of neurological disorders. SODs and SOD mimetics are promising future therapeutics in the field of various diseases with OS-mediated pathology.

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Repurposing of IL 33/ST2 Modulating Drugs as a Cardioprotective Agent: A Promising Approach

Journal of Pharmaceutical Innovation

Punniyakoti Veeraveedu Thanikachalam, Srinivasan Ramamurthy, Prasanna Bharathi Sainath & Bharathi Radhakrishnan

Abstract: Drug repurposing has emerged as an enigmatic clinical approach in disorders affecting the cardiovascular system. The concept of drug repurposing has become feasible due to an interim in performing trials for new entities in cardiovascular diseases (CVDs) rather than cancer and diabetes. One of the naïve pathologies brought to the forefront was IL-33/ST2. After delving deeply into this pathway, mitigated levels of sST2 (a decoy receptor for IL-33) were found to prevent plaque formation and fibrosis. This novelty demands the identification of novel therapeutic targets. In this study, the chrono pharmacology of frequently prescribed conventional cardiovascular medications was evaluated, and a hypothesis on β-blockers and mineralocorticoid receptor antagonists in modulating the IL-33/ST2 pathway was proposed for their ability to upregulate IL-33, which specifically exhibits cardioprotective activity. This future perspective advocates precise influences in aiming for IL-33 as a key factor for repurposing these medications in CVDs that reduce inflammation and help to unravel potential cardioprotective action and promising outcomes.

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Scopus

A Review of Herbal Treatment for Functional Gastrointestinal Disorders and Infection

Progress In Microbes & Molecular Biology

Krupavaram B, A Kishore Babu, Santhiya Manickam Pillay, Tan Ching Siang

Abstract: Functional dyspepsia (FD), a common gastrointestinal condition, poses significant burdens on both individuals and society. In this article, we conducted PubMed searches using specific keywords to review clinical trials focusing on conventional and herbal treatments for dyspepsia as well as the adverse effects of non-herbal treatments. Dyspepsia can be managed using proton pump inhibitors, H2 blockers, and antacids. Additionally, we explore Tegaserod, a partial agonist of the 5-HT4 receptor, in the context of prokinetic medications. We summarise the research supporting the effectiveness of non-herbal dyspepsia treatment, considering factors beyond acid reduction, such as the placebo effect and the variability of dyspepsia symptoms, as discussed in the section on proton pump inhibitor (PPI) medication. Unlike most pharmacotherapies targeting a single mechanism, herbal medications often contain multiple active ingredients that can address several signalling pathways simultaneously. Notable herbs like fennel, cumin, aloe vera, ginger, and licorice have documented uses in the literature. Whether derived from a single plant or a combination, herbal treatments hold promises for addressing multiple conditions simultaneously. Therefore, evaluating herbal therapy at all stages of development should adhere to the same scientific rigour applied to chemically specific therapies.

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Assessing consumers' perception and demand on the community pharmacists' dispensing

Journal of Pharmaceutical Policy and Practice

Yapp Wen Xuan, Hui Poh Goh, Inayat Ur Rehman, Naeem Shafqat, Yaser Mohammed Al-Worafi, Long Chiau Ming & Andi Hermansyah

Abstract: This study aimed to assess the general public's perception of services provided by community pharmacies, their willingness to utilize these services, their satisfaction with and understanding of community pharmacists, and their views on dispensing separation and pharmacy medicines (P medicines). Methods: An online cross-sectional study was conducted, in which questionnaires were distributed among the general public. A novel questionnaire was designed and validated specifically for this study. It was composed of six sections: demographics, pharmacy usage and service preferences, understanding and satisfaction with pharmacists, views on dispensing separation, private community pharmacies, and knowledge of P medicines. Statistical analyses such as one-way ANOVA, independent *t* test, and binary logistic regression were employed, with a *p* value of < 0.05 considered statistically significant. Results : The study received 222 responses. The majority of the respondents were females within the 20–29-year-old age group (62.2%). Most respondents preferred to consult doctors for medical treatment, with their primary reason for visiting community pharmacies being to collect prescribed medicines. About 52.7% of respondents expressed their willingness to avail of screening services and treatment for minor illnesses at community pharmacies. A statistically significant difference was found among different age groups regarding their views on the dispensing separation system, with those aged 41–50 years demonstrating higher scores. However, the binary logistic regression analysis did not reveal any statistical significance when comparing the understanding of P medicines among respondents. Conclusions : In general, the public prefers to consult doctors for medical treatment and visit community pharmacies predominantly to collect prescriptions or purchase over-the-counter medications. Nonetheless, they are also open to utilizing services provided by community pharmacists, particularly screening services and treatment for minor illnesses.

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The Use of Chat GPT for Education Modules on Integrated Pharmacotherapy of Infectious Disease: Educators' Perspectives

JMIR Medical Education

Yaser Mohammed Al-Worafi , Orcid Image ; Khang Wen Goh3 Orcid Image ; Andi Hermansyah4 Orcid Image ; Ching Siang Tan5 Orcid Image ; Long Chiau Ming6 Orcid Image,

Abstract: Background : Artificial Intelligence (AI) plays an important role in many fields, including medical education, practice, and research. Many medical educators started using ChatGPT at the end of 2022 for many purposes. Objective: The aim of this study was to explore the potential uses, benefits, and risks of using ChatGPT in education modules on integrated pharmacotherapy of infectious disease. Methods: A content analysis was conducted to investigate the applications of ChatGPT in education modules on integrated pharmacotherapy of infectious disease. Questions pertaining to curriculum development, syllabus design, lecture note preparation, and examination construction were posed during data collection. Three experienced professors rated the appropriateness and precision of the answers provided by ChatGPT. The consensus rating was considered. The professors also discussed the prospective applications, benefits, and risks of ChatGPT in this educational setting. Results :ChatGPT demonstrated the ability to contribute to various aspects of curriculum design, with ratings ranging from 50% to 92% for appropriateness and accuracy. However, there were limitations and risks associated with its use, including incomplete syllabi, the absence of essential learning objectives, and the inability to design valid questionnaires and qualitative studies. It was suggested that educators use ChatGPT as a resource rather than relying primarily on its output. There are recommendations for effectively incorporating ChatGPT into the curriculum of the education modules on integrated pharmacotherapy of infectious disease. Conclusions: Medical and health sciences educators can use ChatGPT as a guide in many aspects related to the development of the curriculum of the education modules on integrated pharmacotherapy of infectious disease, syllabus design, lecture notes preparation, and examination preparation with caution.

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Scopus

Effectiveness of digital tools for smoking cessation in Asian countries: a systematic review

Annals of medicine,

Goh, K. W., Ming, L. C., Al-Worafi, Y. M., Tan, C. S., Hermansyah, A., Rehman, I. U., & Ali, Z. (2024).

Abstract: Aim: The use of tobacco is responsible for many preventable diseases and deaths worldwide. Digital interventions have greatly improved patient health and clinical care and have proven to be effective for quitting smoking in the general population due to their flexibility and potential for personalization. However, there is limited evidence on the effectiveness of digital interventions for smoking cessation in Asian countries. Methods: Three major databases – Web of Science (WOS), Scopus, and PubMed – for relevant studies published between 1 January 2010 and 12 February 2023 were searched for studies evaluating the effectiveness of digital intervention for smoking cessation in Asian countries. Results A total of 25 studies of varying designs were eligible for this study collectively involving a total of *n* = 22,005 participants from 9 countries. Among different digital tools for smoking cessation, the highest abstinence rate (70%) was reported with cognitive behavioural theory (CBT)-based smoking cessation intervention *via* Facebook followed by smartphone app (60%), WhatsApp (59.9%), and Pharmacist counselling with Quit US smartphone app (58.4%). However, WhatsApp was preferred over Facebook intervention due to lower rates of relapse. WeChat was responsible for 15.6% and 41.8% 7-day point prevalence abstinence. For telephone/text messaging abstinence rate ranged from 8-44.3% and quit rates from 6.3% to 16.8%. Whereas no significant impact of media/multimedia messages and web-based learning on smoking cessation was observed in this study. Conclusion: Based on the study findings the use of digital tools can be considered an alternative and cost-effective smoking cessation intervention as compared to traditional smoking cessation interventions.

'DOI: Full article: Effectiveness of digital tools for smoking cessation in Asian countries: a systematic review (tandfonline.com)

Scopus

Assessment of health-related quality of life among Afghan refugees in Quetta

Plos one

Kaleem, S., Ahmad, T., Wahid, A., Khan, H. H., Mallhi, T. H., Al-Worafi, Y. M., ... & Khan, F. U. (2024)

Abstract: The study aims to assess the health-related Quality of Life (HRQOL) and its association with socio-demographic factors among the Afghan refugees residing in Quetta, Pakistan. For this purpose, a cross-sectional, descriptive study design by adopting Euro QOL five dimensions questionnaire (EQ-5D) for the assessment of HRQOL was conducted by approaching Afghan refugees from the camp and other areas of Quetta, Pakistan. Furthermore, this study also involved descriptive analysis to expound participant's demographic characteristics while inferential statistics (Kruskal-Wallis and Mann–Whitney test, $P < 0.05$) were used to compare EQ-5D scale scores. All analyses were performed using SPSS v 20. Herein, a total of 729 participants were enrolled and were subsequently (n = 246, 33.7%) categorized based on their age of 22–31 years (31.30 ± 15.40). The results of mean EQ-5D descriptive score (0.85 ± 0.20) and EQ-VAS score (78.60 ± 11.10) indicated better HRQOL in the current study respondents as compared to studies conducted in other refugee camps around the globe. In addition, demographic characteristics including age, marital status, locality, years of living as refugees, life as a refugee residing out of Pakistan, place of residence in Afghanistan, educational qualification, occupation, and arrested for crime were the statistically significant predictors ($P < 0.05$) of EQ-5D index scores. However, gender, living status, monthly income, preferred place of treatment were non-significant predictors ($P > 0.05$). The results of current study provided evidence for a model that correlated with participant's socio-demographic information and HRQOL. Moreover, this study also revealed a baseline assessment for the health status of Afghan refugees, interestingly, these results could be applied for improving HRQOL of the given participants. In conclusion, the HRQOL of Afghan refugees residing in Quetta, Pakistan can largely be improved by providing adequate healthcare facilities, education and employment opportunities, mental and social support, and providing adequate housing and basic necessities of life.

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Scopus

Global, regional, and national burden of disorders affecting the nervous system,

The Lancet Neurology

Kaleem, S., Ahmad, T., Wahid, A., Khan, H. H., Mallhi, T. H., Al-Worafi, Y. M., ... & Khan, F. U. (2024).

Abstract: Background**:** Disorders affecting the nervous system are diverse and include neurodevelopmental disorders, late-life neurodegeneration, and newly emergent conditions, such as cognitive impairment following COVID-19. Previous publications from the Global Burden of Disease, Injuries, and Risk Factor Study estimated the burden of 15 neurological conditions in 2015 and 2016, but these analyses did not include neurodevelopmental disorders, as defined by the International Classification of Diseases (ICD)-11, or a subset of cases of congenital, neonatal, and infectious conditions that cause neurological damage. Here, we estimate nervous system health loss caused by 37 unique conditions and their associated risk factors globally, regionally, and nationally from 1990 to 2021. Methods**:** We estimated mortality, prevalence, years lived with disability (YLDs), years of life lost (YLLs), and disability-adjusted life-years (DALYs), with corresponding 95% uncertainty intervals (UIs), by age and sex in 204 countries and territories, from 1990 to 2021. We included morbidity and deaths due to neurological conditions, for which health loss is directly due to damage to the CNS or peripheral nervous system. We also isolated neurological health loss from conditions for which nervous system morbidity is a consequence, but not the primary feature, including a subset of congenital conditions (ie, chromosomal anomalies and congenital birth defects), neonatal conditions (ie, jaundice, preterm birth, and sepsis), infectious diseases (ie, COVID-19, cystic echinococcosis, malaria, syphilis, and Zika virus disease), and diabetic neuropathy. By conducting a sequela-level analysis of the health outcomes for these conditions, only cases where nervous system damage occurred were included, and YLDs were recalculated to isolate the non-fatal burden directly attributable to nervous system health loss. A comorbidity correction was used to calculate total prevalence of all conditions that affect the nervous system combined. Findings**:** Globally, the 37 conditions affecting the nervous system were collectively ranked as the leading group cause of DALYs in 2021 (443 million, 95% UI 378–521), affecting 3·40 billion (3·20–3·62) individuals (43·1%, 40·5–45·9 of the global population); global DALY counts attributed to these conditions increased by 18·2% (8·7–26·7) between 1990 and 2021. Age-standardised rates of deaths per 100 000 people attributed to these conditions decreased from 1990 to 2021 by 33·6% (27·6–38·8), and age-standardised rates of DALYs attributed to these conditions decreased by 27·0% (21·5–32·4). Age-standardised prevalence was almost stable, with a change of 1·5% (0·7–2·4). The ten conditions with the highest age-standardised DALYs in 2021 were stroke, neonatal encephalopathy, migraine, Alzheimer's disease and other dementias, diabetic neuropathy, meningitis, epilepsy,

neurological complications due to preterm birth, autism spectrum disorder, and nervous system cancer.

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Scopus

Global fertility in 204 countries and territories, 1950–2021, with forecasts to 2100: a comprehensive demographic analysis for the Global Burden of Disease Study 2021.

The Lancet

Bhattacharjee, N. V., Schumacher, A. E., Aali, A., Abate, Y. H., Abbasgholizadeh, R., Abbasian, M., ... & Bahri, R. A.

Abstract: Background: Accurate assessments of current and future fertility—including overall trends and changing population age structures across countries and regions—are essential to help plan for the profound social, economic, environmental, and geopolitical challenges that these changes will bring. Estimates and projections of fertility are necessary to inform policies involving resource and health-care needs, labour supply, education, gender equality, and family planning and support. The Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) 2021 produced up-to-date and comprehensive demographic assessments of key fertility indicators at global, regional, and national levels from 1950 to 2021 and forecast fertility metrics to 2100 based on a reference scenario and key policy-dependent alternative scenarios. Methods: To estimate fertility indicators from 1950 to 2021, mixed-effects regression models and spatiotemporal Gaussian process regression were used to synthesise data from 8709 country-years of vital and sample registrations, 1455 surveys and censuses, and 150 other sources, and to generate age-specific fertility rates (ASFRs) for 5-year age groups from age 10 years to 54 years. ASFRs were summed across age groups to produce estimates of total fertility rate (TFR). Livebirths were calculated by multiplying ASFR and age-specific female population, then summing across ages 10–54 years. To forecast future fertility up to 2100, our Institute for Health Metrics and Evaluation (IHME) forecasting model was based on projections of completed cohort fertility at age 50 years (CCF50; the average number of children born over time to females from a specified birth cohort), which yields more stable and accurate measures of fertility than directly modelling TFR. CCF50 was modelled using an ensemble approach in which three sub-models (with two, three, and four covariates variously consisting of female educational attainment, contraceptive met need, population density in habitable areas, and under-5 mortality) were given equal weights, and analyses were conducted utilising the MR-BRT (meta-regression—Bayesian, regularised, trimmed) tool. To capture time-series trends in CCF50 not explained by these covariates, we used a first-order autoregressive model on the residual term. CCF50 as a proportion of each 5-year ASFR was predicted using a linear mixed-effects model with fixed-effects covariates (female educational attainment and contraceptive met need) and random intercepts for geographical regions. Projected TFRs were then computed for each calendar year as the sum of single-year ASFRs across age groups. The reference forecast is our estimate of the most likely fertility future given the model, past fertility, forecasts of covariates, and historical relationships between covariates and fertility. We additionally produced forecasts for

multiple alternative scenarios in each location: the UN Sustainable Development Goal (SDG) for education is achieved by 2030; the contraceptive met need SDG is achieved by 2030; pro-natal policies are enacted to create supportive environments for those who give birth; and the previous three scenarios combined. Uncertainty from past data inputs and model estimation was propagated throughout analyses by taking 1000 draws for past and present fertility estimates and 500 draws for future forecasts from the estimated distribution for each metric, with 95% uncertainty intervals (UIs) given as the 2·5 and 97·5 percentiles of the draws. To evaluate the forecasting performance of our model and others, we computed skill values—a metric assessing gain in forecasting accuracy—by comparing predicted versus observed ASFRs from the past 15 years (2007–21). A positive skill metric indicates that the model being evaluated performs better than the baseline model (here, a simplified model holding 2007 values constant in the future), and a negative metric indicates that the evaluated model performs worse than baseline. **Findings :** During the period from 1950 to 2021, global TFR more than halved, from 4·84 (95% UI 4·63–5·06) to 2·23 (2·09–2·38). Global annual livebirths peaked in 2016 at 142 million (95% UI 137–147), declining to 129 million (121–138) in 2021. Fertility rates declined in all countries and territories since 1950, with TFR remaining above 2·1—canonically considered replacement-level fertility—in 94 (46·1%) countries and territories in 2021. This included 44 of 46 countries in sub-Saharan Africa, which was the super-region with the largest share of livebirths in 2021 (29·2% [28·7–29·6]). 47 countries and territories in which lowest estimated fertility between 1950 and 2021 was below replacement experienced one or more subsequent years with higher fertility; only three of these locations rebounded above replacement levels. Future fertility rates were projected to continue to decline worldwide, reaching a global TFR of 1·83 (1·59–2·08) in 2050 and 1·59 (1·25–1·96) in 2100 under the reference scenario. The number of countries and territories with fertility rates remaining above replacement was forecast to be 49 (24·0%) in 2050 and only six (2·9%) in 2100, with three of these six countries included in the 2021 World Bank-defined low-income group, all located in the GBD super-region of sub-Saharan Africa. The proportion of livebirths occurring in sub-Saharan Africa was forecast to increase to more than half of the world's livebirths in 2100, to 41·3% (39·6–43·1) in 2050 and 54·3% (47·1–59·5) in 2100. The share of livebirths was projected to decline between 2021 and 2100 in most of the six other super-regions—decreasing, for example, in south Asia from 24·8% (23·7–25·8) in 2021 to 16·7% (14·3–19·1) in 2050 and 7·1% (4·4–10·1) in 2100—but was forecast to increase modestly in the north Africa and Middle East and high-income super-regions. Forecast estimates for the alternative combined scenario suggest that meeting SDG targets for education and contraceptive met need, as well as implementing pro-natal policies, would result in global TFRs of 1·65 (1·40–1·92) in 2050 and 1·62 (1·35–1·95) in 2100. The forecasting skill metric values for the IHME model were positive across all age groups, indicating that the model is better than the constant prediction.

Scopus

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Global age-sex-specific mortality, life expectancy, and population estimates in 204 countries and territories and 811 subnational locations, 1950–2021, and the impact of the COVID-19 pandemic: a comprehensive demographic analysis for the Global Burden of Disease Study 202

The Lancet

Schumacher, A. E., Kyu, H. H., Aali, A., Abbafati, C., Abbas, J., Abbasgholizadeh, R., ... & Amzat, J. (2024).

Abstract: Summary Background Estimates of demographic metrics are crucial to assess levels and trends of population health outcomes. The profound impact of the COVID-19 pandemic on populations worldwide has underscored the need for timely estimates to understand this unprecedented event within the context of long-term population health trends. The Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) 2021 provides new demographic estimates for 204 countries and territories and 811 additional subnational locations from 1950 to 2021, with a particular emphasis on changes in mortality and life expectancy that occurred during the 2020–21 COVID-19 pandemic period. Methods 22 223 data sources from vital registration, sample registration, surveys, censuses, and other sources were used to estimate mortality, with a subset of these sources used exclusively to estimate excess mortality due to the COVID-19 pandemic. 2026 data sources were used for population estimation. Additional sources were used to estimate migration; the effects of the HIV epidemic; and demographic discontinuities due to conflicts, famines, natural disasters, and pandemics, which are used as inputs for estimating mortality and population. Spatiotemporal Gaussian process regression (ST-GPR) was used to generate under-5 mortality rates, which synthesised 30763 locationyears of vital registration and sample registration data, 1365 surveys and censuses, and 80 other sources. ST-GPR was also used to estimate adult mortality (between ages 15 and 59 years) based on information from 31 642 location-years of vital registration and sample registration data, 355 surveys and censuses, and 24 other sources. Estimates of child and adult mortality rates were then used to generate life tables with a relational model life table system. For countries with large HIV epidemics, life tables were adjusted using independent estimates of HIV-specific mortality generated via an epidemiological analysis of HIV prevalence surveys, antenatal clinic serosurveillance, and other data sources. Excess mortality due to the COVID-19 pandemic in 2020 and 2021 was determined by subtracting observed all-cause mortality (adjusted for late registration and mortality anomalies) from the mortality expected in the absence of the pandemic. Expected mortality was calculated based on historical trends using an ensemble of models. In location years where all-cause mortality data were unavailable, we estimated excess mortality rates using a regression model with covariates pertaining to the pandemic. Population size was computed using a Bayesian hierarchical cohort component model. Life expectancy was

calculated using age-specific mortality rates and standard demographic methods. Uncertainty intervals (UIs) were calculated for every metric using the 25th and 975th ordered values from a 1000-draw posterior distribution. Findings Global all-cause mortality followed two distinct patterns over the study period: age-standardised mortality rates declined between 1950 and 2019 (a 62·8% [95% UI 60·5–65·1] decline), and increased during the COVID-19 pandemic period (2020–21; 5·1% [0·9–9·6] increase). In contrast with the overall reverse in mortality trends during the pandemic period, child mortality continued to decline, with 4·66 million (3·98–5·50) global deaths in children younger than 5 years in 2021 compared with 5·21 million (4·50–6·01) in 2019. An estimated 131 million (126–137) people died globally from all causes in 2020 and 2021 combined, of which 15·9 million (14·7–17·2) were due to the COVID-19 pandemic (measured by excess mortality, which includes deaths directly due to SARS-CoV-2 infection and those indirectly due to other social, economic, or behavioural changes associated with the pandemic). Excess mortality rates exceeded 150 deaths per 100 000 population during at least one year of the pandemic in 80 countries and territories, whereas 20 nations had a negative excess mortality rate in 2020 or 2021, indicating that all-cause mortality in these countries was lower during the pandemic than expected based on historical trends. Between 1950 and 2021, global life expectancy at birth increased by 22·7 years (20·8–24·8), from 49·0 years (46·7–51·3) to 71·7 years (70·9–72·5). Global life expectancy at birth declined by 1·6 years (1·0–2·2) between 2019 and 2021, reversing historical trends. An increase in life expectancy was only observed in 32 (15·7%) of 204 countries and territories between 2019 and 2021. The global population reached 7·89 billion (7·67–8·13) people in 2021, by which time 56 of 204 countries and territories had peaked and subsequently populations have declined. The largest proportion of Published Online March 11, 2024 https://doi.org/10.1016/ S0140-6736(24)00476-8 SeeOnline/Comment https://doi.org/10.1016/ S0140-6736(24)00463-X *Collaborators listed at the end of the paper Correspondence to: Prof Simon I Hay, Institute for Health Metrics and Evaluation, University of Washington, Seattle, WA 98195, USA sihay@uw.edu Articles 2 www.thelancet.com Published online March 11, 2024 https://doi.org/10.1016/PII: S0140-6736(24)00476-8 population growth between 2020 and 2021 was in sub-Saharan Africa (39·5% [28·4–52·7]) and south Asia (26·3% [9·0–44·7]). From 2000 to 2021, the ratio of the population aged 65 years and older to the population aged younger than 15 years increased in 188 (92·2%) of 204 nations

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Global, regional, and national incidence of six major immune-mediated inflammatory diseases: findings from the global burden of disease study

EClinicalMedicine

Wu, D., Jin, Y., Xing, Y., Abate, M. D., Abbasian, M., Abbasi-Kangevari, M., ... & Elmeligy, O. A. A. (2023).

Abstract : Summary Background: The causes for immune-mediated inflammatory diseases (IMIDs) are diverse and the incidence trends of IMIDs from specific causes are rarely studied. The study aims to investigate the pattern and trend of IMIDs from 1990 to 2019. Methods: We collected detailed information on six major causes of IMIDs, including asthma, inflammatory bowel disease, multiple sclerosis, rheumatoid arthritis, psoriasis, and atopic dermatitis, between 1990 and 2019, derived from the Global Burden of Disease study in 2019. The average annual percent change (AAPC) in number of incidents and age standardized incidence rate (ASR) on IMIDs, by sex, age, region, and causes, were calculated to quantify the temporal trends. Findings : In 2019, rheumatoid arthritis, atopic dermatitis, asthma, multiple sclerosis, psoriasis, inflammatory bowel disease accounted 1.59%, 36.17%, 54.71%, 0.09%, 6.84%, 0.60% of overall new IMIDs cases, respectively. The ASR of IMIDs showed substantial regional and global variation with the highest in High SDI region, High-income North America, and United States of America. Throughout human lifespan, the age distribution of incident cases from six IMIDs was quite different. Globally, incident cases of IMIDs increased with an AAPC of 0.68 and the ASR decreased with an AAPC of −0.34 from 1990 to 2019. The incident cases increased across six IMIDs, the ASR of rheumatoid arthritis increased (0.21, 95% CI 0.18, 0.25), while the ASR of asthma (AAPC = −0.41), inflammatory bowel disease (AAPC = −0.72), multiple sclerosis (AAPC = −0.26), psoriasis (AAPC = −0.77), and atopic dermatitis (AAPC = −0.15) decreased. The ASR of overall and six individual IMID increased with SDI at regional and global level. Countries with higher ASR in 1990 experienced a more rapid decrease in ASR. Interpretation: The incidence patterns of IMIDs varied considerably across the world. Innovative prevention and integrative management strategy are urgently needed to mitigate the increasing ASR of rheumatoid arthritis and upsurging new cases of other five IMIDs, respectively. Funding : The Global Burden of Disease Study is funded by the Bill and Melinda Gates Foundation. The project funded by Scientific Research Fund of Sichuan Academy of Medical Sciences & Sichuan Provincial People's Hospital (2022QN38).

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ChatGPT's Success in the Board-Certified Pharmacotherapy Specialist (BCPS) Exam.

Journal of Research in Pharmacy

Yaser Mohammed Al-Worafi, Wen Han Chooi, Ching Siang Tan, Pei Lin Lua, Hanis Hanum Zulkifli, Muhammad Junaid Farrukh, Long Chiau Ming

Abstract: The advent of artificial intelligence (AI) and natural language processing technologies has ushered in a new era of innovative educational tools and resources. ChatGPT, a prominent AI-powered language model, has demonstrated remarkable potential in various fields. In this study, we aim to explore the ability of ChatGPT to answer Pharmacotherapy Specialist (BCPS) exam questions and provide justifications for its answers. We conducted a comprehensive content analysis to scrutinize the applicability and competence of ChatGPT in addressing BCPS exam inquiries while substantiating the correctness of its responses. Our findings reveal that ChatGPT was able to answer 94 out of 128 questions (73.43%) correctly and justify 80.16% of the correct answers appropriately and 76.18% of the noncorrect answers in all questions. Conclusion: The ChatGPT's ability to answer the Pharmacotherapy Specialist (BCPS) exam and justify the answers was good. ChatGPT could help pharmacists in their preparation for this exam with caution. ChatGPT is still in the early phase of use by educators and students worldwide, and its ability to answer exams will be better in the near future. Attending training workshops about ChatGPT and AI is very important and highly recommended. Practice ChatGPT in medical and health sciences education is very important and highly recommended to explore the potential uses, benefits and risks and suggest recommendations for best practices.

'DOI:https://openurl.ebsco.com/EPDB%3Agcd%3A3%3A20638083/detailv2?bquery=ChatGPT%27s%20Success%20in%20the%20Board%20Certified%20Pharmacotherapy%20Specialist%20(BCPS)%20Exam.%20&page=1

Patient safety case studies: patient care plan errors and related problems (Part II)

Taylor & Francis, USA

Yaser Mohammed Al-Worafi

Abstract: Understanding the various aspects of patient safety education, practice, and research in developing countries is vital in preparing a plan to overcome the challenges of improving patient safety. This unique volume discusses patient safety in developing countries, and the achievements and challenges faced in those places when trying to improve patient safety education and practice. This book includes a compilation of over 100 case studies surrounding patient safety in all aspects of health care. Both real and simulated scenarios are provided to help medical students and professionals apply their knowledge to solve the cases and prepare for real practice.

Features

Describes the achievements and challenges of patient safety in developing countries

Includes real and simulated case studies and key answers on patient safety issues

Prepares medical students and practitioners for real-life situations

Diverse audience including those in medication to safety testing, patient education, dispensing changes, and the design of health systems

Aids medical students and practitioners to improve their skills to solve cases

'DOI: https://www.taylorfrancis.com/books/mono/10.1201/9781003230465/patient-safety-developing-countries-yaser-al-worafi?context=ubx&refId=bbba3696-c53c-4792-84ca-1eda2857b795

Scopus

College of Business Administration

Expatriate Women's empowerment and well-being: The mediating role of community embeddedness

Migration Letters

Hazem Aldabbas, Liza Gernal, and Ahmed Zein Ahmed, Abdallah Elamin

Abstract: Literature has studied the factors affecting people's well-being, but expatriate women's empowerment and community embeddedness has been neglected as factors affecting women's well-being. However, the literature has not examined a relatively new phenomenon: the influence of expatriate women's empowerment, community embeddedness on women's well-being. Specifically, this study aims to empirically investigate the relationship between expatriate women's empowerment and well-being as mediated by community embeddedness. Data were collected in the United Arab Emirates. A total of 161 questionnaires were received among women. The study used multiple regression to examine the study hypotheses. This work finds that there is a direct and significant relationship between women's empowerment and well-being. Additionally, this study finds that community embeddedness mediates the relationship between women's empowerment and well-being. Building on empowerment theory, the link between women's empowerment and well-being is assumed to be explained by community embeddedness. This novel study will contribute to the literature on women's empowerment and expatriate women's studies by elucidating the mechanism by which women's empowerment influences well-being in the United Arab Emirates.

'DOI: Expatriate Women's Empowerment and Well-Being: The Mediating Role of Community Embeddedness | Migration Letters

Exploring The Relationship Between Perceived Organizational Support and Affective Commitment Among Saudi Employees: The Mediating Effect of Organizational Trust

Business: Theory and Practice

Abdallah Elamin

Abstract: Despite the acknowledged importance of perceived organizational support (POS), organizational trust (OT), and affective commitment (AC) for favorable organizational outcomes, relatively little is known about the processes that underlie these various associations, especially in Islamic, Arabian Middle Eastern contexts. This study aims to address this gap by exploring the relationships between POS and AC and testing the mediating effect of OT in the Kingdom of Saudi Arabia (KSA). This study conducted a survey of 347 Saudi employees from a wide range of organizations, occupations, and industries and performed a hierarchical regression analysis. The results provided evidence of the validity of the three relevant constructs (POS, OT, AC) and the generalizability these constructs have outside of North American samples. It also indicated that POS is a significant predictor of OT, and both POS and OT were significant determinants of AC. The study also revealed that OT partially mediates the relationship between POS and AC. The findings contribute to a better understanding of the POS-OT-AC link in the Islamic Arabian context of the KSA. This study is among the first to test the mediating effect of OT on the POS-AC relationship, aiding the understanding of the indirect relationship between POS and AC.

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Networks Perceptions and Job Satisfaction: The Mediating Role of Perceived Organizational Support for Women's Work Contribution

Baltic Journal of Management

Ashly Pinnington, Hazem Aldabbas, Fatemeh Mirshahi, Mary Brown

Abstract Purpose: This study investigates the relationship between women's networks perceptions and job satisfaction. It also examines the mediating effects of perceived organizational support (POS) for women's work contributions on the relationship between networks perceptions and job satisfaction. Design/methodology/approach: The participants are female employees working in Scotland (*n* = 247). The data were collected using a survey questionnaire. PROCESS macro (model 4, Hayes, 2018) was used to test the proposed model. Findings: The results revealed that (controlling for work time, age and sector) there is a significant relationship between women's networks perceptions and job satisfaction. In addition, POS for women's work contribution mediates the relationship between networks perceptions and job satisfaction. These findings show the significant effects of networks perceptions on employees' job, satisfaction directly and through POS for women's work contributions. Therefore, understanding the networks perceptions of employees and organizational factors will assist in improving job satisfaction. Originality/value: This study is unique for examining the role of POS for women's work contribution in the relationship between employees' networks perceptions and job satisfaction. It addresses gender inequality in the workplace in terms of women's career advancement and job satisfaction. In addition, this research offers insight into the development of a seven-item measurement scale related to networks perceptions.

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Scopus

Extrinsic rewards for employee creativity? The role of perceived organizational support, work engagement and intrinsic motivation

International Journal of Innovation Science

Hazem Aldabbas, Ashly Pinnington, Abdelmounaim Lahrech, Lama Blaique

Abstract: Purpose: this study aims to investigate the relationship between extrinsic rewards and employee creativity through the intervening mechanism of perceived organisational support (POS) and work engagement. The moderating role of intrinsic motivation on the relationship between work engagement and employee creativity is also examined. Design/methodology/approach: The authors report the results of a survey completed by 372 respondents employed in the United Arab Emirates. Structural equation modelling was applied to test the hypothesized relationships. Findings: The main findings are that extrinsic rewards influence employee creativity through POS and work engagement. Moreover, the effect of work engagement on employee creativity is moderated by intrinsic motivation. This model effect is stronger for employees with high intrinsic motivation Research limitations/implications: Convenience sampling was used, which limits its generalisability. Also, the data were collected through a cross-sectional survey at one point in time. Practical implications: Managers should consider provision of extrinsic rewards and support to increase employee motivation and engagement in creative work. Originality/value: This study contributes to the limited amount of available literature on creativity and rewards adding to our knowledge about the influence of extrinsic rewards on creativity considered in the presence of intrinsic motivation. Theoretical and practical recommendations are discussed.

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Scopus

Understanding Social Responsibility Awareness among University Students

Journal of Law and Sustainable Development

Lama Blaique, Pakinam Nazmy, Hazem Aldabbas,

Abstract: Objective**:** The purpose of this study is to try to understand to what extent do demographic factors including gender, age, marital status, educational level, university year, major course, internship experience and country influence students' social responsibility awareness. Methods**:** Data was collected from three different countries in the Middle East, namely United Arab Emirates (UAE), Kingdom of Saudi Arabia (KSA) and Egypt. Descriptive analysis was conducted on a sample of 533 students registered in graduate and undergraduate programs at different universities. Results**:** The findings of the study reveal a relationship between some demographic characteristics and student social responsibility awareness. Originality/Value**:** The paper unravels the level of students' awareness on social responsibility in three different countries and offers several practical recommendations for both higher education institutions and corporations are presented accordingly.

'DOI: https://ojs.journalsdg.org/jlss/article/view/1644

Scopus

The influence of psychological climate for caring and perceived insider status on the relationship between managerial caring and positive employee well-being

International Journal of Wellbeing

Hazem Aldabbas, Amel Bettayeb

Abstract: Learning the factors that positively impact employee well-being is not a new stream of study. The care and support provided by managers can influence employees' motivation and overall well-being. The positive emotional environment created by a caring climate can significantly impact how individuals feel and function in their professional lives. Additionally, perceived insider status, which reflects a sense of belonging and integration, can positively affect self-esteem and well-being. Social identity theory posits that positive well-being occurs when individual employees feel that they are surrounded by a climate of care signaled by the direct manager and overall employee acceptance within the organization, which ultimately influences their overall positive well-being. This study collected data from 197 employees working in the service sector in different industries within the United Arab Emirates (UAE) through survey questionnaires using a convenience sampling technique. Partial least squares structural equation modeling (PLS-SEM) version 4 was used to analyze the dataset and test the hypotheses. The results indicate that managerial caring relates positively to positive employee well-being. Furthermore, a psychological climate of care and perceived insider status serially mediate the relationship between managerial caring and positive employee well-being. Thus, this study offers new insights into the importance of managerial care in employees' positive well-being within their organizations, as well as the caring model among managers and employees. Managers who show and develop an atmosphere of care toward employees enhance their positive well-being.

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Scopus

Migration and Net FDI: Role of Governance

Migration Letters

Hazem Aldabbas, Abdelmounaim Lahrech, Katariina Juusola

Abstract : Although the relationship between migration and Foreign Direct Investment (FDI) has been extensively explored in the literature. A notable gap exists in understanding the role of governance in shaping this relationship. This research has primarily focused on the direct links between migrants and FDI, dominating the importance influence of governance structures. Therefore, the aim of this study is to investigate the role of governance as a critical moderator influencing the migration-FDI relationship. We substantiate our conceptual model by applying it to an extensive global panel dataset covering 48 countries spanning from 2011 to 2019. Using Process Macro to test our hypotheses. The results reveal that a robust governance structure in a specific country enhances the relationship between migration and FDI directed towards that nation. The result revealed that 78% of net FDI comes from migrants and structure governance of hosted countries. Particularly, positive relationship between migration and FDI was significantly stronger at a higher level of governance. Therefore, our study introduces new insights into the boundary conditions that influence and provide an answer for when migration shapes the dynamics of FDI net flows through moderating role of governance. Keywords: Migration, Governance, Foreign Direct Investment, FDI, Net FDI.

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Scopus

Building a caring workplace: how managerial caring and perceived insider status shape subjective employee well-being

International Journal of Workplace Health Management

Aldabbas, H., Elamin, A. M., Gernal, L., & Ahmed, A. Z. E.

Abstract: Purpose although the study of factors that promote employee well-being is not a new research area, the impact of managerial caring and perceived insider status on subjective employee well-being is a relatively new and unexplored area within the management literature. Therefore, this study examined the relationship between managerial caring and subjective employee well-being while considering the mediating effect of perceived insider status. Based on social identity theory, the study hypothesized that perceived insider status mediates the link between managerial caring and subjective employee well-being. Design/methodology/approach : The study analyzed data from 193 employees working across various industries in the United Arab Emirates using Process Macro Model 4. Findings The findings revealed a positive relationship between managerial caring and employee well-being, which was influenced by the mediating effect of perceived insider status. Originality/value: The study's results, which shed light on the process by which managerial caring positively affects employee well-being, provide valuable insights for developing a caring workplace. The findings make a significant contribution to the literature on managerial caring by explaining how the mediating role of perceived insider status influences the relationship between managerial caring and subjective employee well-being.

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Scopus

The Impact of Online Learning and Soft Skills on College Student Satisfaction and Course Feedback

Information and Communication Technology in Technical and Vocational Education and Training for Sustainable and Equal Opportunity

Gernal, L., Tantry, A., Gilani, S. A. M., & Peel, R.

Abstract: This study looked at the complex connections between college students' course feedback, soft skills, online learning, and student satisfaction. The study aimed to examine the direct effects of virtual learning on student contentment and course evaluations, while also examining the intermediary function of soft skills in these associations. Utilizing a quantitative research methodology, the study gathered information from 1153 online education program-enrolled college students in the United Arab Emirates (UAE). The structural path model's excellent model fit indices were indicated by the results. The results of the study validated the first two hypotheses, showing that feedback from courses and student happiness were positively impacted by online learning. Moreover, it was found that Hypotheses 3 and 4 were validated, indicating a noteworthy mediation function of soft skills in the associations between student outcomes and online learning. Soft skill-developed college students gave more insightful course evaluations and expressed greater pleasure with online learning. These results highlight the significance of both the technological and interpersonal components of learning in the digital age and advance our knowledge of the complex nature of online education. The study has significance for educators and educational institutions that aim to improve student satisfaction and educational outcomes by optimizing online learning environments and developing soft skills.

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Scopus

Online Counseling Services in the UAE: The Clients and Counselors' Dimensional Perspectives on Counseling Services

Technology-Driven Business Innovation

Moussa, M. D., Tantry, A., Gilani, S. A. M., Sergiol, R. P., Gernal, L. M., & Kabene, S. M

Abstract: The present chapter focused on the attempt to establish an online counseling platform in the United Arab Emirates (UAE) by hosting licensed counselors and promoting their services to clients. The chapter employed mixed-method research to explore potential clients and counselors' demands, acceptance, willingness, and opinions toward an online counseling platform. One of the main themes derived from the interview is the importance of service providers in the marketplace's success and dealing with them as the primary customers. The quantitative findings from the survey research with a sample of potential clients indicated the popularity of the online counseling model in the UAE regardless of respondents' demographics. It is concluded that the online counseling platform in the UAE is a feasible start-up, primarily due to the positive results of research findings. Also, findings from market analysis, marketing mix, operational detail, and financial details suggest a positive outlook for this type of business to succeed and improve overall mental well-being for UAE residents.

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College of Humanities and Sciences

Teaching Risk Assessment Index System Using Neutrosophic Ahp: Data Fusion Method

Fusion: Practice and Applications

Gustavo Alvarez Gómez , Corona Gómez Armijos , Ariel Romero Fernández , Asmaa Ahmed

Abstract: The technology behind data fusion and picture instruction is continuously advancing along with the progression of society, and new applications for these skills are increasingly becoming available in everyday life to accommodate the expansion of scientific and technological knowledge. The term "data fusion technology" relates to a computer processing method that allows the use of a computer to automatically analyze and synthesize several observation data gleaned in time series in accordance with criteria to complete the necessary decision-making and evaluation tasks. But teaching surrounding multiple risks. This paper aims to identify and assess risks in teaching. The assessment risks in teaching are a critical task and contain multiple conflict criteria. We use Multi-Criteria Decision Making (MCDM). In this paper, we use an Analytical Hierarchy Process (AHP) to rank and compute each criterion's weights. We use five main and twenty sub-criteria. These criteria were evaluated under a neutrosophic environment—an example provided to present the outcomes of the proposed model.

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برنامج مقترح لتنمية وعي طلبة الجامعة بالتطوع الإلكتروني من منظور الممارسة العامة للخدمة الاجتماعية

مجلة كلية الخدمة الاجتماعية للدراسات والبحوث الاجتماعية

د. أسماء أحمد

ملخص الدراسة :تهدف هذه الدراسة إلى فهم مدى وعي طلبة الجامعة بالتطوع الإلكتروني، وذلك من خلال تحقيق أهداف فرعية متمثلة في تحديد مستوى الوعي لدى الطلبة بهذا النوع من التطوع، وتحديد الصعوبات التي قد تواجه مشاركتهم فيه، وتحديد مقترحات لتنمية وعي الطلبة بالتطوع الإلكتروني المنهجية :وتندرج الدراسة ضمن الدراسات الوصفية، حيث تم إجراء الدراسة على عينة عشوائية مكونة من 211 طالباً من جامعة العلوم والتقنية في الفجيرة .النتائج :أظهرت النتائج أن مستوى وعي طلبة الجامعة بالتطوع الإلكتروني بشكل عام مرتفع جداً، كما أشارت النتائج إلى أن الصعوبات الرئيسية التي تواجه طلبة الجامعة في المشاركة بالتطوع الإلكتروني هي نقص المشرفين الذين يوجهون عمل المتطوعين، عدم وجود إدارة متخصصة توجه عمل التطوع الإلكتروني، وقد أوصت الدراسة ببعض المقترحات لتعزيز وعي الطلبة بالتطوع الإلكتروني و منها توفير برامج توعوية ونظم حماية للمتطوعين، كما تم تقديم برنامج مقترح من منظور الممارسة العامة للخدمة الاجتماعية بهدف تعزيز وعي الطلبة بالتطوع الإلكتروني.

الكلمات الدالة: التطوع الإلكتروني- طلبة الجامعة -الممارسة العام

الرابط: https://journals.ekb.eg/article_360296.html

Validation and Psychometric Evaluation of Diabetes Literacy, Numeracy, and Knowledge Tools in the Arabic Context

The Science of Diabetes Self-Management and Care

Hasan S, Alzubaidi H, Samorinha C, AlRadaideh,A

Abstract : Purpose: The purpose of this study was to validate the Literacy Assessment for Diabetes (LAD), the Diabetes Numeracy Test (DNT), and the Simplified Diabetes Knowledge Test (DKT) in the Arabic language and context. Methods: Three hundred eighty-four, ≥18-year-old patients with type 1, type 2, or gestational diabetes mellitus were recruited from 3 endocrinology clinics in the United Arab Emirates. Exploratory factor analysis using principal component was performed. Achieved scores were compared using Pearson bivariate correlation. Results: All 60 LAD items loaded on 1 factor accounting for 66.7% of the variance, with internal consistency α = .991. Average score = 68.7%. Nineteen out of 26 items were retained on the DNT and grouped into 4 factors, prescription reading and directions, proper dose coverage, nutrition, and insulin, with good internal consistency (α = .721). Average score = 73.2%. All 20 DKT items loaded on 3 factors accounting for 41.2% of the variance, causes and consequences of the high blood sugar level, prevention of the disease, and misconceptions about diabetes self-management, with good internal consistency (α = .799). Average score = 71.9%. A moderate and significant correlation between the DKT and DNT (r = .56, P < .001) was observed. Conclusions: Three tools to assess diabetes literacy, numeracy, and knowledge were psychometrically tested to establish their validity and reliability in the Arabic language and context. The tools could be used to assess patient skills and competence in navigating the health care system and managing their diabetes.

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تباين مستويات الكمالية العصابية والاحتراق النفسي والرضا عن الحياة تبعاً للمتغيرات الديموجرافية لدى طلاب وطالبات الدراسات العليا بجامعة الفيوم، مجلة المنهج العلمي والسلوك

مجلة المنهج العلمي والسلوك

شيرين عبد الوهاب، هند رياض عبد الخالق، أ.د سيد الوكيل

المستخلص: هدف البحث الحالي إلى الكشف عن الفروق في كل من الكمالية العصابية والاحتراق النفسي والرض اعن الحياة تبعاً لمتغيرات (النوع، التخصص الدراسي (علمية وأدبية)،الحالة الوظيفية، الحالة الاجتماعية (متزوجين وغير متزوجين)، والمستوى العمري ، وتكونت عينة الدراسة من (244) طالباً وطالبة من طلبة الدراسات العليا بجامعة الفيوم ممن تراوحت أعمارهم ما بين (22،30)عاماً، واعتمدت الدراسة على المنهج الوصفى بتصميمه المقارن، واشتملت أدوات الدراسة على مقياس الكمالية العصابية لسامية صابر، ومقياس الاحتراق لزينب شقير، ومقياس الرضا عن الحياة لأمانى عبد المقصود، وكشفت نتائج الدراسة عن وجود فروق بين الذكور والاناث في الدرجة الكلية للكمالية العصابية في اتجاه الذكور، فقد كانت قيمة "ت" 2.225 وهى دالة معنويًا عند مستوى 0.05 معنوية، بينما انعدمت الفروق بين الذكور والاناث في باقي المتغيرات، كما لم تجد فروق بين طلاب الكليات النظرية والعملية وبين الطلاب المتزوجين وغير المتزوجين في متغيرات الدراسة، ووجدت فروق دالة إحصائياً في الدرجة الكلية للكمالية العصابية فقد كانت قيمة "ت" 2.077 وهى دالة معنويًا عند مستوى 0.05 معنوية وكانت الفروق في اتجاه مجموعة الطلاب الذين يشغلون وظيفة، ووجدت فروق دالة معنويًا في الاحتراق النفسي فقد كانت قيمة "ت" 2.889 وهى دالة معنويًا عند مستوى 0.01 معنوية وكانت الفروق في اتجاه مجموعة الطلاب الذين لا يعملون، بينما انعدمت الفروق بين الطلاب في باقي المتغيرات حسب متغير العمل، ووجدت فروق دالة إحصائيًا بين عينة الدراسة فى الدرجة الكلية للكمالية العصابية عند مستوى 0.1، وكانت الفروق في اتجاه المجموعة التي تتراوح أعمارهم بين 27-30 عام بينما انعدمت الفروق في متغير الاحتراق النفسي، فلم تصل قيمة "ت" لمستوى الدلالة المعنوي، وكذلك وُجدت فروق دالة إحصائيًا عند مستوى دلالة تراوح بين ما بين 0.05 إلى 0.01الأبعاد الخمسة للرضا عن الحياة، وكانت الفروق في اتجاه عينة الدراسة التي تتراوح أعمارهم بين 22-26. وقد أوصت الدراسة بمجموعة من التوصيات التي يمكن الاعتماد عليها للتقليل من معدلات العصابية والاحتراق النفسي وزيادة مستوى الرضا عن الحياة.

الرابط: https://psyb.journals.ekb.eg/article_337844.html

تباين مستويات السعادة النفسية في ضوء النوع والكلية والتخصص الأكاديمي والفرقة الدراسية لدى طلاب وطالبات جامعة الفيوم

مجلة جامعة الشارقة للعلوم الاجتماعية والإنسانية

أ.د سيد الوكيل

المخلص : استهدفت الدراسة الحالية التعرف الفروق في مستويات السعادة النفسية تبعاً للنوع والكلية والتخصص الأكاديمي والفرقة الدراسية وتكونت العينة من 500 طالباً وطالبة من طلاب وطالبات جامعة الفيوم بجمهورية مصر العربية بواقع (175) طالباً من طلاب كليات الطب والصيدلة والآداب بنسبة 35% من العينة الكلية؛ تراوحت أعمارهم ما بين (17-22) عاماً بمتوسط عمري قدره20,37 عاماً، وانحراف معياري قدره 2,00 عاماً ومجموعة الطالبات وتكونت من (325) طالبة من طالبات كليات الطب والصيدلة والآداب بذات الجامعة بنسبة 65% من العينة الكلية؛ تراوحت أعمارهن ما بين (17-22) عاماً بمتوسط عمري قدره20,19عاماً، وانحراف معياري قدره 1,13 وتضمنت الأدوات المُستخدمة في الدراسة استبانة جمع البيانات الأولية إعداد الباحث، ومقياس رايف للسعادة النفسية Ryff,s Scale of Psychological Wellbeingتعريب (سيد الوكيل، 2018) وقد تبين من النتائج وجود فروق دالة بين طلاب وطالبات جامعة الفيوم في السعادة النفسية في اتجاه الطلاب، كما وجدت فروق دالة بين طلاب وطالبات الجامعة في السعادة النفسية باختلاف (الكلية، والتخصص الأكاديمي والفرق الدراسية) وقد أوصت الدراسة بمجموعة من التوصيات التي يمكن الأخذ بها لتنمية مستويات السعادة النفسية لدى طلاب وطالبات الجامعة عامةً وجامعة الفيوم خاصةً.

الرابط: https://spu.sharjah.ac.ae/index.php/HSS/article/view/4611

The reality of global climate change

Implications ... Effects ... Solutions

معهد العالي للخدمة الاجتماعية ببورسعيد - مصر

Dr. Ramadan Ismail

Abstract: The issue of climate change has become a reality that should be addressed through scientific conferences and climate summits that propose many solutions in which all countries of the world participate. The environment and preserving its renewable resources so that we can have a society that lives the current reality based on the process of upbringing and educating the community and providing it with information about environmental issues in which the individual lacks knowledge in facing climate changes, and that this issue is closely related to human culture and the way he uses environmental resources, and therefore I warned These conferences alike industrialized and developing countries to the right of everyone (human - other beings) to live in a suitable environment free from life-threatening, and urged countries to take the necessary measures towards confronting climate changes.

Link :https://drive.google.com/file/d/1YwP_tNl6H2Qz9332eFmEE_Fw6lSCV8st/view

دور الحماية الاجتماعية في تحقيق الأمن الاجتماعي لذوي الاحتياجات الخاصة

مجلة كلية التربية – جامعة أسيوط – مصر

د .رمضان إسماعيل

الملخص : هدفت الدراسة الى تحديد دور الحماية الاجتماعية في تحقيق الأمن الاجتماعي لذوي الاحتياجات الخاصة، وذلك من خلال تحقيق الحماية الاقتصادية، والحماية التعليمية، والحماية الصحية، وتنتمي الدراسة الحالية إلي نمط الدراسات الوصفية التحليلية، حيث أنها استهدفت تحديد دور الحماية الاجتماعية في تحقيق الأمن الاجتماعي لذوي الاحتياجات الخاصة، وتعتمد الدراسة الحالية علي منهج المسح الاجتماعي الشامل لأعضاء مجالس إدارات المؤسسات المهتمة بذوي الاحتياجات الخاصة ، واعتمد الباحث على: مقياس "دور الحماية الاجتماعية في تحقيق الأمن الاجتماعي لذوي الاحتياجات الخاصة" ، وأجريت الدراسة بالمؤسسات المهتمة بذوي الاحتياجات الخاصة بمحافظة بورسعيد، وبلغ مجتمع الدراسة (88) مفردة من أعضاء مجالس إدارات المؤسسات المهتمة بذوي الاحتياجات الخاصة، وتوصلت نتائج الدراسة الميدانية وفقاً لترتيب الأولوية من وجهة نظر عينة الدراسة الى دور الحماية الاجتماعية في تحقيق الأمن الاقتصادي، الامن الصحي، والامن التعليمي لذوي الاحتياجات الخاصة، واظهرت النتائج شعور ذوي الاحتياجات الخاصة بالقلق من المستقبل وعدم وجود الامن الاجتماعي نتيجة قلة الخدمات التي تقدم لهم من قبل الجمعيات الأهلية المعنية بتحقيق الحماية الاجتماعية لذوي الاعاقة.

الرابط : https://journals.ekb.eg/article_358281_0.html

The role of civil society organizations in achieving the requirements of sustainable development

مجلة كلية التربية – جامعة أسيوط – مصر

Dr. Ramadan Ismail , Dr. Elsayed Abdelrahman

Abstract: The study aimed to identify the role of civil society organizations in achieving sustainable development requirements. The study employed a descriptive-analytical approach and included a sample of 150 experts working in the field of sustainable development within the associations and development departments, who have expertise in all aspects of sustainable development goals and their means of achievement. They were selected randomly from all associations working in the field of development using a questionnaire tool. The results of the study, according to the perspective of the study sample, revealed the importance of the role of civil society organizations in achieving sustainable development requirements, including environmental, economic, and social requirements. In conclusion, the study provided valuable insights into the role of civil society organizations in achieving sustainable development across multiple dimensions. The findings underscored the interconnectedness of environmental, economic, and social factors in the pursuit of sustainable development goals.

Link : The role of civil of society organization in achieving the requirements of sustainable development (ekb.eg)

دور الوساطة المتسلسلة للمخططات الانفعالية في العلاقة بين الخزي وأعراض اضطراب " الوسواس القهري لدى عينة غير إكلينيكية من الراشدين"

مجلة كلية التربية – جامعة أسيوط – مصر

د. شيماء عزت باشا

الملخص: هدفت الدراسة إلى الكشف عن دور الوساطة المتسلسلة للمخططات الانفعالية في العلاقة بين الخزي وأعراض اضطراب الوسواس القهري لدى عينة غير إكلينيكية من الراشدين، والتعرف على العلاقات بين اضطراب الوسواس القهري وكل من الخزي والمخططات الانفعالية؛ وأخيراً الكشف عن الفروق في متغيرات الدراسة تبعاً للنوع، وتكونت العينة من (191) مشاركًا من الراشدين المصريين، تراوحت أعمارهم ما بين 18: 60 عاماً (بمتوسط عمري قدره 25.82، ± 7.67). بلغ عدد الذكور (ن= 79) بنسبة 41.4%، وعدد الإناث (ن= 112) بنسبة 58.6%. واشتملت أدوات الدراسة على مقياس خبرة الخزي تعريب حسين فايد، ومقياس ليهي للمخططات الانفعالية النسخة المختصرة 2 تعريب الباحثة، والمقياس العربي للوسواس القهري من إعداد أحمد عبد الخالق. وتوصلت الدراسة إلى وجود فروق دالة احصائياً وفقا للنوع في المخططات الانفعالية (المصادقة بواسطة الأخرين، وإمكانية الفهم، وعدم القابلية للتحكم، واللوم) والخزي وجميعها في اتجاه الإناث؛ وجود فروق دالة احصائياً في المخططات الانفعالية (المصادقة بواسطة الأخرين، وإمكانية الفهم، والشعور بالذنب، وعدم القابلية للتحكم، وفقدان الحس، والمدة، والإجماع، وتقبل المشاعر واللوم) والخزي وجميعها في اتجاه مرتفعي مظاهر اضطراب الوسواس القهري. كما وجودت علاقة ارتباطية سالبة دالة إحصائياً عند مستوى 0.01 بين الوسواس القهري وكلٍ من المخططات الانفعالية (المصادقة بواسطة الأخرين، إمكانية الفهم، والرؤية المبسطة للانفعال، والقيم العليا، وتقبل المشاعر)، ووجود علاقة ارتباطية موجبة دالة إحصائياً عند مستوى 0.01، 0.05 بين الوسواس القهري وكلٍ من المخططات الانفعالية (الشعور بالذنب، عدم القابلية للتحكم، فقدان الحس، طلب العقلانية، المدة، اجترار الأفكار، اللوم). أيضاً وجدت علاقة ارتباطية موجبة دالة إحصائياً عند مستوى0.01 بين الوسواس القهري والخزي. ووجود تأثير غير مباشر للخزي على إمكانية الفهم عبر المصادقة والمصادقة متغير وسيط، والخزي له تأثير على الشعور بالذنب عبر المصادقة وإمكانية الفهم وكلاهما متغير وسيط، وكذلك الخزي له تأثير على عدم القابلية للتحكم عبر المصادقة وإمكانية الفهم والشعور بالذنب وهم جميعا متغيرات وسيطة متسلسلة، وجود تأثير غير مباشر ذو دلالة إحصائية لاجترار الأفكار على مظاهر الوسواس القهري، وطبقا لطريقة البوتستراب فإن المتغيرات ذات التأثير غير المباشر الدالة إحصائيا تؤدي دورا وسيطا.

الرابط : "دور الوساطة المتسلسلة للمخططات الانفعالية في العلاقة بين الخزي وأعراض اضطراب الوسواس القهري لدى عينة غير إكلينيكية من الراشدين"

Women's participation in the IP and innovation ecosystem and their role in attaining sustainable development roles.

The Fifth Arab Conference on Higher Education and Sustainable Development

Dr. Shimaa Basha, Dr.Asmaa Aboukaresadik, Dr.Diaa Elprince

Abstract: Men and women deal differently with innovation. Therefore, gender diversity lead to integration and improving the quality of innovation. According to the Institute of Women's policy research (IWPR), inclusion of women in research and developmental projects and ensuring gender diversity leads to receiving patents that are more useful and higher in quality. However, in the current circumstances, men and women will not reach equality in receiving patents until 2092. It's alarming that the level of women's participation in IP and innovation system is far lessthat men's participation. This implies female producers' and innovators' missed opportunities to address urgent global issues. Additionally, it may have an effect on economic productivity and innovation, which has a negative impact on economic thriving and expansion to attain the UN sustainable development goal 5, namely the achievement of gender equality and empowerment of women and girls. Therefore, accelerating the progress toward equality, diversity, and increasing women's participation in the IP ecosystem will benefit society, as the diversified contributions are important to develop innovative solutions for crises facing the global society. In this context, this paper aims at highlighting the present gender gap in the field of innovation, identifying the challenges facing the measurement of gender inequality in the field of IP and innovation, presenting the experiences of several countries that achieved progress in women's participation in IP and innovation ecosystem, identifying the main procedures to improve women's participation and accelerate innovation: and finally.

الرابط : https://designrr.page/?id=340068&token=56420330&type=FP&h=9157

Bi-directional Forced Convective Stagnation Points Flow of Old Royd-B Liquid with Joule Heating Effects: A Finite Difference Simulations

CFD Letters

Dr. Bilal Ahmed

Abstract: The impact of Joule heating for the three-dimensional stagnation point flow of non-Newtonian liquid (namely Old royd-B) nanomaterial has been inspected. The influence of mixed convection and the magnetic force is also considered. The flow is induced by the bidirectional stretched surface which moves linearly. The partial differential equations for the developed model are altered into dimensionless statements first. The numerical simulations with the implementation of a finite difference scheme are used for the numerical description. The physical description of parameters is presented against the flow parameters. The results reveal that there is a reverse change in velocity observed for both the relaxation time constant and the retardation constant. Furthermore, the heat transfer rate decreases as the ratio parameter increases. The thickness of the boundary layer increases due to the retardation time and can also be regulated by the application of a magnetic field. An increase in the magnetic parameter leads to an enhancement in temperature and an increase in thermal boundary layer thickness.

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Novel study of inertial forces on MHD peristaltically driven micropolar fluid through porous-saturated asymmetric channel: Finite Galerkin approach

American Insitutte of Ohysics (AIP) / AIP Advances

Dr. Bilal Ahmed

Abstract: This focused study investigates the peristaltic motion of a micropolar fluid within an uneven channel filled with a porous medium, incorporating an orthogonal magnetic field to the flow. This research diverges from the traditional assumptions of lubrication theory. The governing equations, encompassing the physical characteristics of micropolar fluid peristalsis, are transformed into nonlinear coupled partial differential equations. These equations are solved using the finite element method, considering inertial effects, such as non-zero wave and Reynolds numbers. This study delves into the influence of various crucial parameters on axial velocity, pressure gradient, microrotation, and stream function, presenting graphical representations. Notably, the incremental phase shift causes an intermingling of upper and lower streamlines within both halves of the channel. As the Reynolds number increases, there is an observed reduction in bolus size, particularly at maximum phase shifts, with a tendency to move toward the central region. An increase in Hartmann number leads the bolus formation to vanish in both channels, reduces microrotation, and leads to increased pressure. Vorticity lines intensify and incline toward the peristaltic walls. An increase in the permeability parameter amplifies velocity, microrotation, volume, and bolus formation regardless of phase differences while countering pressure elevation per wavelength. Reduced concavity is observed as vorticity lines disperse across the entire area.

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Numerical Study on Magnetic Control of Boundary Layers in Non-Newtonian Flows Over Stretching Cylinders Using Keller Box Analysis

American Insitutte of Ohysics (AIP) / AIP Advances

Dr. Bilal Ahmed

Abstract: This article presents an analysis of the magnetic field's effects on two-dimensional, two-directional, incompressible, and steady third-grade fluid flow over a stretched circular cylinder. A mathematical model describing the behavior of third-grade fluid in the cylindrical coordinate system is developed, accounting for nonlinear differential conditions. To simplify the analysis, appropriate transformations are applied to convert the fractional differential conditions into ordinary differential conditions. The resulting nonlinear differential framework is solved using the Keller Box method. The influences of several novel parameters on the velocity are depicted and examined. Furthermore, the expression for the skin-friction coefficient is computed and provided. The comparison of the obtained results with existing literature is made and found in good accordance. Through comprehensive numerical simulations and analytical derivations, this study contributes to the understanding of magnetic field control in boundary layers of third-grade fluid over stretching cylinders, with implications for a wide range of practical applications in engineering and fluid dynamics. The stronger influence of the magnetic field, indicating an increase in the Hartmann number, corresponds to suppression of thermal and solutal transport, thereby leading to a decrease in the temperature and concentration gradients. Conversely, the velocity profile exhibits an increase, indicating enhanced fluid motion under the influence of the magnetic field. This behavior is consistent with the magnetohydrodynamic effects, where the Lorentz force induced by the magnetic field alters the fluid flow, resulting in changes in the velocity distribution while impacting temperature and concentration gradients.

Doi : https://doi.org/10.1063/5.0205165

College of Law

مستجدات حقوق والتزامات طرفي عقد العمل طبقًا للمرسوم بالقانون الاتحادي رقم 33 لسنة 2021 بشأن تنظيم علاقات العمل، دراسة مقارنة

مجلة الامن والقانون _ أكاديمية شرطة دبي
د. عيسى الربضي

الملخص : بهدف تطوير المنظومة التشريعية بشكل مستمر، سواء بإصدار تشريعات حديثة، أو بتحديث القوانين الفعالة، حتى تبقى تتناسب مع مستجدات عصرها، وتلحق بالتطورات التي تحدث في المجلات ألخرى ذات العالقة، سواء على مستوى الدولة أو المستوى الدولي، أصدر المشرع إلماراتي المرسوم بالقانون االتحادي رقم)33(لسنة 2021 بشأن تنظيم عالقات العمل، مستحدث الحاكمة التي تحدد العالقة ما بين أصحاب العمل والعمال من خالل النص على تلك التطورات السريعة التزامات جديدة لم ينص عليها قانون العمل الملغي، مراعي التي حصلت خالل العامين السابقين على إصدار القانون بسبب جائحة فيروس كوفيد_19، وأدت بشكل مباشر إلى تقلبات أساسية في طبيعة أداء العمل ونوعيته .وعلى الرغم من إليجابيات المتعددة لهذه القواعد القانونية التي قد نظمت حقوق أصحاب العمل والعمال، فإنها قد تشددت ببعض االلتزامات التي فرضت على أصحاب العمل، ألمر الذي قد يؤدي إلى استغالل هذه النصوص من أجل إنهاء عقود مع بعض العمال، كما أن هذه النصوص حملت بعض الثغرات من خالل تعدد التفسيرات التي قد تسبب إلى حدوث منازعات ما بين أصحاب العمل والعمال، ومن هذا المنطلق سعينا من خالل هذا البحث إلى تحديد الحقوق التي تقررت ألصحاب العمل والعمال، وما عليهم من التزامات وأثرها عليهم .كلمات افتتاحية: مستجدات حقوق طرفي العالقة العمالية، ألجر، مستجدات التزامات طرفي العالقة العمالية، مستحقات العامل، إجازات العامل، تنفيذ العمل، ساعات العمل.

نظام حماية حق المؤلف وتحديات الذكاءِ الاصطناعي

مجلة العلوم القانونية والاجتماعية

د. محمد حسن

الملخص :حولها ولم يتم التوصل لإجابات نهائية شافية يحاول البحث تناول إشكالية مثارة لم يزل الجدل محتدما ومتفق عليها. وتتمثل في تحديد الموقف القانوني من ظاهرة استخدام تقنيات الذكاء الاصطناعي في ابتكار مصنفات أدبية وفنية. وهل يمكن أن تؤدي للاعتراف بشخصية قانونية لتقنيات الذكاء الاصطناعي واسباغ صفة التأليف عليها .ويتفرع عن هذا السؤال الإشكالي الأساسي أسئلة فرعية أهمها - :هل ترقى المصنفات الناتجة عن تقنيات الذكاء الاصطناعي إلى مستوى المصنفات الأدبية والفنية الجديرة بالحماية القانونية لقانون حق المؤلف أم أنها أعمال تقع في نطاق الملك العام؟ -وإذا كانت جديرة بالحماية القانونية فهل نظام قانون حق المؤلف ملائم لها أم تحتاج إلى نظام خاص بحمايتها ؟ -وإذا أمكن حمايتها بقانون حق المؤلف فماهي المصنفات الناتجة عن الذكاء الاصطناعي ومن يمكن أن يتمتع بالحقوق عليها؟ حيث عرض الباحث لمختلف مفاهيم الذكاء الاصطناعي ومقارنتها بالتأليف الإنساني ومدى التوافق، والاخلاق ومحاولة تأصيل الابتكارات الناشئة عن أنظمة الاصطناعي في نطاق مفاهيم وأحكام نظام حماية حقوق المؤلف.

الرابط: https://jelc.journals.ekb.eg/article_342224_9150e37d09d800623998b37b3706c48f.pdf

اعتبار المقاصد الشرعية ودورها في البيئة والتنمية المستدامة

مجلة جامعة المنوفية

أ.د خلف المحمد

المستخلص: يركز البحث على بيان أقسام المقاصد الضرورية والحاجية والتحسينية ، الكلية والجزئية ، القطعية والظنية ، الأصلية والتبعية ، مبينا طرق الكشف عن هذه المقاصد ، و تنزيلها على واقع البيئة والاستدامة ومدى الحاجة الى معرفة مقصد المشرع في هذه القضايا ومعرفة حفظ البيئة والتنمية والاستدامة وموقعها من هذه الأقسام التي رمت إلى كل ما يحتاجه الإنسان في معاشه، ورصد كثيرمن الآيات القرآنية والأحاديث النبوية التي تدعو إلى الحفاظ على الموارد البيئية وحسن استخدامها ،وجاء بأمثلة عدة عملية من واقع الحياة التي عالجها الفقه الإسلامي ، وربط بين ذلك بمقاصد الشريعة التي تتصف بالمرونة ومواكبة التطورات بما يسعد الإنسان ويرفع عنه الحرج ، كل ذلك بتأصيل فقهي أصولي منطقي قائم على أسس علمية واقعية مراعيا كافة الجوانب مقدما الأولى فالأولى ، مبينا التطبيقات في مجال التنمية المستدامة لصوغ الخطط، وبناء القدرات المتصلة بأهداف التنمية، وإعداد بيئة مادية وفكرية صالحة لإحياء الطاقات ، وإقامة البرامج التدريبيّة لمواجهة التغييرات المناخية، وتوجيه المدخرات إلى استثمارات مفيدة ونافعة، وتفضيل طريقة الاقتصاد الأخضر على طريقة الاقتصاد التقليدي مما له أثر بالغ في تحقيق مقاصد حفظ الأموال، وضمان الإتقان في الأعمال، ودعم قيمة الترشّيد في ممارسات المجتمع الاستهلاكيّة .

الرابط: https://jbet.journals.ekb.eg/article_338238.html

التكييف الفقهي والقانوني للكفاءة بين الزوجين في الفقه الإسلامي وقانون الأحوال الشخصية الإماراتي

مجلة البحوث في العقود وقانون الأعمال

أ.د خلف المحمد

الملخص عنوان البحث : " التكييف الفقهي والقانوني للكفاءة بين الزوجين في الفقه الإسلامي وموقف قوانين الأحوال الشخصية " يدور البحث حول معنى الكفاءة في الفقه الإسلامي والقانون الوضعي ، وبيان مكانتها هل هي شرط لإتمام العقد ، أم أنها شرط لصحته ، ثم يوضح أن الذي تشترط فيه الكفاءة هو الزوج ، ويبين مايترتب على ذلك ، ثم يبين الهدف والمقصد من اشتراط الكفاءة ، وهل عنصره ثابتة أم متغيرة حسب العرف والمجتمع ، ثم استعرض قوانين الأحوال الشخصية في البلاد العربية ، التي ذكرت الكفاءة ونصت عليها في القانون ، واستعرض قانون الأحوال الشخصية الإماراتي وذكر مواد الكفاءة بالتفصيل مع التعليق عليها ،وكذلك ذكر مواد قانون الأحوال الشخصية السوري . كما ذكر قوانين البلاد العربية التي لم تنص على الكفاءة ، موضحا موقفه منها ، راجيا أن تنص عليها.

The title of the research is “The Doctrinal and Legal Conditioning of Efficiency between Spouses in Islamic Jurisprudence and the Position of Personal Status Laws” The research revolves around the meaning of competence in Islamic jurisprudence and positive law, and clarifying its status. Is it a condition for completing the contract, or is it a condition for its validity, then it clarifies that the one in which competence is required is the husband, and shows the consequences of that, then shows the goal and purpose of the requirement of competence, and are its elements fixed Or it changes according to custom and society, then he reviewed the personal status laws in the Arab countries, which mentioned competence and stipulated it in the law, and reviewed the UAE personal status law and mentioned the competency articles in detail with comment on them, as well as the articles of the Syrian personal status law. He also mentioned the laws of Arab countries that did not stipulate competence, explaining his position on them, hoping that they stipulate them.

الرابط: https://www.asjp.cerist.dz/en/article/238248