PROCEEDING OF

INTERNATIONAL CONFERENCE 2024

HYBRID EVENT

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Editorial

We are delighted to extend a warm welcome to all participants attending the International Conference 2024 on 09th - 10th December 2024. This conference provides a vital platform for researchers, students, academicians, and industry professionals from all over the world to share their latest research results and development activities in multidisciplinary fields. It offers delegates an opportunity to exchange new ideas and experiences, establish business or research relationships, and explore global collaborations.

The proceedings for International Conference 2024 contain the most up-to-date, comprehensive, and globally relevant knowledge across various disciplines. All submitted papers underwent rigorous peer-reviewing by 2-4 expert referees, and the papers included in these proceedings were selected for their quality and relevance to the conference. We are confident that these proceedings will not only provide readers with a broad overview of the latest research results but also serve as a valuable summary and reference for further studies.

We are grateful for the support of many universities and research institutes, whose contributions were vital to the success of this conference. We extend our sincerest gratitude and highest respect to the professors who played an important role in the review process, providing valuable feedback and suggestions to authors to improve their work. We also appreciate the efforts of the technical program committee, reviewers, and authors for their dedication.

Since October 2024, the Organizing Committee has received more than 45 manuscript papers, covering various aspects of multidisciplinary research. After review, approximately 25 papers were selected for inclusion in the proceedings of International Conference 2024.

We thank all participants for their significant contribution to the success of the conference. Our gratitude extends to the keynote speakers, individual speakers, technical program committee, reviewers, and the organizing committee for their efforts in making this conference a reality.

Acknowledgement

The International Conference 2024, was successfully held in 09th - 10th December 2024. We extend our heartfelt gratitude to our colleagues, staff, professors, reviewers, and members of the organizing committee for their unwavering support in making this conference a success.

We would also like to thank all the participants who traveled far and wide to attend this conference and those who attended the event virtually, making it a truly global event. This conference provided a platform for students, professionals, researchers, and scientists to share their latest research and developments in various disciplines.

The aim of the conference was to promote research and development activities and to encourage scientific information exchange between researchers, developers, professionals, students, and practitioners from all around the world. Once again, we thank everyone who contributed to making this conference a resounding success.

Dr. JenniIrani Mithra
Director
World Academics (WA)

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The Importance of Social Capital in Economic Growth

Maryam Shad

Universiti Putra Malaysia, Seri Kembangan, Malaysia

Abstract:

This study is to investigate the economic role of social capital by using the newly constructed social capital series. This research evaluates the role of human capital in mediating the effect of social capital on economic growth. In literatures, the relationships are inconclusive which suggest that the impact of social capital on economic growth is perhaps conditional on the effect of other variables. In order to analyze this relationship, this study adopts GMM estimation technique, and use sample of countries 68 developed and developing countries in 1990-2019 period of time. The results show that social capital has no direct effect on output growth. Instead, its impact is conditional on the level of human capital. The analysis showed that the effect of social capital on economic growth is stronger in societies with higher level of human capital.

Navigating Digital Transformation in Indian Primary Schools: Challenges, Opportunities, and the Role of Leadership

Vineela Kolanupaka

Bodhi Patashala

Abstract:

Introduction and Context: The integration of digital technology in primary education is increasingly recognized as essential for developing skills relevant to the 21st century. In India, digital transformation in primary schools faces unique challenges, including infrastructural limitations, economic constraints, and limited digital competencies among educators. Additionally, there is a stark digital divide between urban and rural areas, which further complicates the adoption of digital tools in education (1) (3)

This study aims to analyze the specific barriers to digital education in Indian primary schools and explore the critical role of school leadership in navigating these challenges.

Purpose and Objectives: This research paper seeks to (1) identify the primary obstacles to digital transformation in Indian primary schools, (2) highlight opportunities for implementing technology-enhanced learning, and (3) evaluate the role of school principals in managing this transition. By focusing on the perspective of Indian primary school principals, this study provides insights into effective leadership strategies for adopting educational technology despite various limitations (1)

Methodology: The study employed a mixed-methods approach, combining quantitative and qualitative data gathered through surveys and in-depth interviews with over 100 primary school principals across diverse regions of India. This approach allowed us to capture the complexities of digital transformation across varied socioeconomic and geographical contexts (2) (3)

Key Findings or Insights: The study identified three main challenges hindering digital transformation:

1. **Infrastructure and Access**: Limited internet connectivity, inadequate access to devices, and unreliable power sources, especially in rural areas, were reported as significant barriers (1)
2. **Teacher Training and Digital Literacy**: Many teachers lack training in digital pedagogies, resulting in limited integration of technology into their instructional methods. Principals noted that ongoing training and support are essential for successful implementation (2)
3. **Community and Parental Engagement**: Parental skepticism about digital learning, particularly in rural areas, emerged as an obstacle. Principals emphasized the importance of community engagement to foster acceptance and support for digital initiatives (3)

Conclusion and Implications: The findings highlight the critical role of school leadership in driving digital transformation in primary schools. Principals play a key role in bridging gaps through advocacy, fostering partnerships, and securing resources, making them instrumental in overcoming infrastructural and cultural barriers. The study concludes that for digital transformation to be sustainable, it requires a comprehensive approach involving stakeholders, continuous teacher training, and support from both government and private sectors (1) (2).

Keywords:

Digital Transformation, Primary Education, Educational Technology, School Leadership, India, Infrastructure Challenges, Teacher Training, Parental Engagement.

Sex Differences in the Response of Ankle Joint Flexibility Following Foam Rolling on the Calf

Shiori Hasegawa

Graduate School of Comprehensive Human Sciences, University of Tsukuba, Tsukuba, Japan

Ryo Osaki

Graduate School of Comprehensive Human Sciences, University of Tsukuba, Tsukuba, Japan

Nene Iwamoto

Graduate School of Comprehensive Human Sciences, University of Tsukuba, Tsukuba, Japan

Hideyuki Takahashi

Institute of Health and Sport Sciences, University of Tsukuba, Tsukuba, Japan

Abstract:

Foam rolling (FR) has gained popularity as a conditioning method for improving flexibility and is widely used in sports settings. Recent meta-analyses have shown that the extent of FR-induced flexibility improvements may differ between males and females, but few studies have directly investigated these differences. This study aimed to investigate sex differences in changes in ankle flexibility following FR applied to the calf. Ten healthy males (23.4 ± 1.1 years) and ten females (23.6 ± 1.6 years) performed three 60-second sets of FR on the calf of their dominant leg. Ankle dorsiflexion range of motion (DF ROM), passive torque, and the stiffness of the gastrocnemius lateralis, gastrocnemius medialis, and soleus muscles were measured before and after FR. No significant sex differences were observed in the change rates of any measurements ($p > 0.05$). A significant positive correlation was found between DF ROM and passive torque only in females ($r = 0.805$, $p < 0.05$). No significant correlations between DF ROM and changes in muscle stiffness were found in either group ($p > 0.05$). These results suggest that there are no sex differences in FR-induced improvements in ankle flexibility, but the mechanisms for DF ROM improvements may differ by sex.

Keywords:

Foam Rolling; Sex Difference; Flexibility; Dorsiflexion range of motion; Passive Torque; Muscle Stiffness.

A Bibliometric Analysis of Omnichannel Customer Experience

Ahmet Tugrul Tuger

Istanbul Bilgi University, Istanbul, Türkiye

Abstract:

In the last decade, omnichannel retailing has conducted essential transformations in conventional online commerce, multi-channel and cross-channel retailing, and consumer decision-making processes. Within the fields of retail marketing and management, interpreting customer behaviors and experiences along the omnichannel customer journey has been recognized as a crucial success aspect for retail companies. Within the omnichannel retailing environment, interpreting customer behaviors and experiences along the omnichannel customer journey has been recognized as a crucial aspect of success for retail companies. Accordingly, the customer experience has been progressively discussed in the omnichannel retailing literature in recent years. It is necessary to specify precisely the omnichannel customer research level with the concepts that have guided the research. This study aims to analyze the conceptual evolution of the omnichannel customer experience area and give a comprehensive and succinct overview of the literature on the subject. The study investigated research trends in omnichannel customer experience using bibliometric methodologies. Using bibliometric tools and techniques, 156 articles are analyzed from journals published between 01/2011 and 10/2024, extracted from Scopus database with the support of VOSviewer. Our findings provided essential themes for omnichannel customer research such as e-commerce, customer satisfaction, customer experience, channel integration, multichannel and omnichannel retailing. This study provides a comprehensive overview of omnichannel customer experience studies. Researchers can advance their studies by examining essential terms in omnichannel customer experience. Furthermore, the study's conclusions clarify the trajectory of sectoral trends and the developments within omnichannel customer journey. It provides managerial implications for firms and to formulate their strategy.

Keywords:

Omnichannel retailing, customer experience, customer journey.

Navigating the Interplay of Cognitive Warfare and Counterintelligence in African Security Strategies: Insights and Case Studies

Dries Putter

School Chair, Security and Africa Studies, Senior Lecturer, Defence Intelligence Studies, Faculty of Military Science, Stellenbosch University, Stellenbosch, South Africa

Abstract:

Cognitive warfare and counterintelligence are pivotal components of security strategies, particularly in Africa, where diverse political, social, and economic landscapes create unique challenges. This chapter examines their interplay within the African context, exploring examples that illustrate their significance. Cognitive warfare encompasses at least propaganda, disinformation campaigns, and social media manipulation, often employed during elections, conflicts and disasters to influence public opinion. Meanwhile, counterintelligence efforts focus on thwarting espionage, detecting foreign influence, securing borders and information. The dynamics between cognitive warfare and counterintelligence are multifaceted and dynamic, shaping perceptions, behaviours, and security outcomes across the continent. Examples from Nigeria, South Africa, the Democratic Republic of Congo, South Sudan, Egypt, Kenya Zimbabwe and Uganda highlight how these concepts intersect in various contexts, impacting governance, conflict resolution, and regional stability. Understanding this interplay is crucial for developing comprehensive strategies to address security threats and safeguard the integrity of African information ecosystems.

Keywords:

Cognitive warfare, weaponizing content, counterintelligence Africa.

Disclosure Statement:

No potential conflict of interest was reported by the author(s).

Survey, Analysis and Challenges of AI Tools

Rami Khasawneh, Ph.D.

Professor and Dean Emeritus, Lewis University, Romeoville, IL 60446

Abstract:

The rapid advancement of artificial intelligence (AI) technologies has led to the development of a diverse array of tools that cater to various sectors, including healthcare, finance, education, and entertainment. This survey provides a comprehensive overview of current AI tools, examining their functionalities, applications, and the underlying algorithms that drive their effectiveness. We categorize these tools into three main groups: machine learning frameworks, natural language processing applications, and computer vision systems. Furthermore, the analysis highlights key challenges associated with the deployment and use of these tools, such as ethical considerations, data privacy concerns, algorithmic bias, and the need for transparency. By identifying these challenges, the survey aims to inform stakeholders about the implications of AI tool implementation and foster discussions on best practices for responsible AI usage. This study serves as a foundational resource for researchers, practitioners, and policymakers seeking to navigate the complexities of AI technology in a rapidly evolving landscape.

Impact of Situational Training Approach on the Technical Performance of Junior Tennis Players in Malaysia

Mohamad Rahizam Abdul Rahim

Universiti Teknologi MARA, Malaysia

Abstract:

This study explores the impact of a Situational Training Program on the technical performance of 30 Malaysian junior tennis players, divided into Experimental and Control groups (15 players each). Performance was assessed through Groundstroke Depth, Groundstroke Accuracy, Volley Depth, Serve, and the ITN total score. The Experimental group underwent situational training, while the Control group engaged in regular match play over eight weeks. The Experimental group showed significant improvements in Groundstroke Depth ($p = 0.001$), Accuracy ($p = 0.001$), Volley Depth ($p = 0.001$), Serve ($p = 0.01$), and ITN total score ($p = 0.001$). In comparison, the Control group did not achieve similar improvements. Between-group analysis confirmed that the Experimental group outperformed the Control group in Groundstroke Depth, Accuracy, Volley Depth, and ITN total score (all $p \leq 0.02$), though Serve performance showed no significant difference. These findings validate that Situational Training is an effective method to enhance technical skills in tennis players and offers a promising approach for future training programs.

Faulty Sensors Detection in Planar Array Antenna Using Pelican Optimization Algorithm

Shafqat Ullah Khan

Department of Electronics, University of Buner, Swari, Pakistan

Ammar Nasir

Department of Electrical Engineering, University of Gujrat, Pakistan

Fazli Wadood

Department of Electronics, University of Buner, Swari, Pakistan

Abstract:

By using planar antennas array (PAA) in radars, Broadcasting, satellite antennas, sonar for detection of target Help provide instant beam pattern control. High flexibility and Adaptability are achieved by multiple beam steering by using planar array and are particularly needed in real life Sanrio's where the need arises for several high-directivity beams. Faulty sensors in planar arrays generates asymmetry, which leads to service degradation, radiation pattern distortion, increased levels of sidelobe. The POA, a nature-inspired optimization algorithm, accurately determines faulty sensors within an array, enhancing the reliability and performance of planar array antennas through extensive simulations and experiments. The analysis was done for different types of faults in 7*7 and 8*8 planar arrays in MATLAB.

Mending Education Finding Hope, Creativity, and Mental Wellness in Times of Trauma

Karen Gross

Instructor of Continuing Education, Rutgers Graduate School of Social Work,

Former College President, and Served as a Senior Policy Advisor, U.S. Department of Education

Edward K.S. Wang

Assistant Professor, Psychology, Harvard Medical School and the Director of Policy and Planning for the Chester M. Pierce MD Division of Global Psychiatry, Massachusetts General Hospital

Abstract:

Discover how the crisis of a global pandemic allowed educators to improve learning across the pre-K–adult pipeline. While acknowledging the scale of loss and difficulty the Pandemic engendered within the field of education, this book focuses on how sudden and forced changes to teaching and learning created “Pandemic Positives,” which can be captured and brought to scale. In particular: Part I addresses how Pandemic Positives came into being, with special attention to the presence of educator hope and creativity. Part II explores the Pandemic Positives that arose in three settings: when schools were closed, when learning turned online, and when schools re-opened. Part III provides strategies for replicating the Pandemic Positives so they become positive educational game changers. This book is grounded on trauma and mental wellness theory and includes the in-thetrenches experiences and voices of educators. The text features art created by the coauthors and shares both their professional and personal experiences, humanizing and enriching the book. Mending Education completes a trilogy composed of Breakaway Learners and Trauma Doesn’t Stop at the School Door by Karen Gross.

Correction of Faulty Sensors in Antenna Array Using Hybrid Heuristic Computation Techniques

Israr Ahmad

Department of Computer Science, University of Buner, Swari, Pakistan

Taj Rehman

Department of Computer Science, Qurtaba University of Science and Technology, Pakistan

Abstract:

In adaptive beamforming sidelobes and nulling pattern plays a vital role. The element failure of antenna arrays damages the nulling pattern and increases the sidelobe power level. In this thesis, the problem of symmetry array element failure is proposed using Genetic Algorithm (GA) and Null Constraints (NC) by adjusting the current excitation along with distance adjustment of the of active elements in the antenna array.GA is used to reduce the Side Lobe Level (SLL) and NC recovered the nulls at their original positions. GA and NC are proposed for the reduction of SLL and steering of nulls at their original position for the failure correction in symmetrical array antenna. The simulation is performed for single and symmetrical array element failure and showed that in the symmetry element failure, more nulls are recovered as compared to single element failure correction. The proposed method provides its capability to suppress the SLL and steer single, double and multiple nulls at their previous positions in presence of array element failure. Furthermore, a technique based on simulated annealing with pattern search (SAPS) for the correction of faulty arrays is proposed. The SAPS is used to achieve the desired pattern after failure of several elements. SAPS are used to steer the interferer at their required directions and reduce sidelobe to the required pattern. Simulated annealing with pattern search using a proper fitness function demanding the required sidelobe reduction and null in the direction of interferer. The simulation results indicate that as the faulty element approaches the central element, the number of nulls decreases by one. However, reducing the side lobe level comes at the expense of a wider main beam. The corrected pattern has a broader beam width compared to the original one. By utilizing the proposed method, we can steer multiple nulls towards known interferers with a reduction in the SLL. This method is extendable to planar arrays. A numerical example is presented to demonstrate the approach's ability to create single, double, and multiple nulls in the required directions.

Effects of Garlic Extract on Selected Fecal Characteristics and Health of Neonatal Saanen Kids

Ahmet Cihad Gok

Bursa Uludag University, Faculty of Veterinary Medicine, Department of Animal Nutrition and Nutritional Diseases, 16059 Görükle, Bursa, Türkiye

Çağdaş Kara

Bursa Uludag University, Faculty of Veterinary Medicine, Department of Animal Nutrition and Nutritional Diseases, 16059 Görükle, Bursa, Türkiye

Abstract:

Antibiotics play an important role in pathogen control. However, antibiotic residues in animal-sourced feeds are a concern. Also, pathogen resistance is being said to be enhanced, and alternative eco-friendly strategies are thought to be needed. Garlic utilizes the treatment of coliform and growth performance in animals, especially kids. Twenty-seven kids were used to investigate the effects of garlic supplementation with distilled water in oral with oral injection after suckling milk on growth performance, fecal score, fecal pH, blood parameters, selected fecal bacterial populations, and health during the preweaning period. Each group consisted of 9 kids. Each kid in experimental groups G1 and G2 was supplemented with 50 mg/kg BW/day 100 mg/kg BW/day of a garlic powder product from 3 to 28 days of age while C was not supplemented with garlic. The body weight at 28 days, average daily gain (ADG), and 75th day of body weight were statistically similar in each group. There were no significant differences in the incidence of diarrhea and treatment days for diarrhea between groups. There were no significant differences in fecal pH at 3 and 21 days of age between the groups while stool pH was lower for G1 compared to C at 7 days of age and C and G1 had lower stool pH than G2 at 28 days of age. Moreover, there were no differences in coliform counts in infected untreated and infected treated neonatal kids with garlic. Also, there are no differences in blood parameters except basophil concentration within each treatment and control group. Based on the stool pH results, garlic product supplementation is reported to have no steady effect on stool pH. Due to both the average reduction in the number of days with diarrhea in G1 and the lower incidence of diarrhea in G1 compared to C, it can be concluded that 50 mg/kg BW/day of garlic product assists in reducing the occurrence of diarrhea in newborn kids.

Keywords:

Saanen Kids, Garlic, Fecal Characteristics, Health.

A Comprehensive Analysis of Web Analytics Tools Based on the Marketing 7C Model

Dr. András Szeberényi

Associate Professor, Institute of Communications and Marketing, Budapest Metropolitan University, Budapest, Hungary

Abstract:

This research examines and compares the Google Analytics platform with the Yandex.Metrica web analytics service using the 7C analysis method. The primary aim of the study is to assess the effectiveness and user-friendliness of the Yandex.Metrica software in comparison with the widely used and trusted Google Analytics platform in Hungary, as well as to provide recommendations for improving both services. In the research, I analyzed the significance, content structure, and key design elements of Google Analytics and Yandex.Metrica websites using the 7C model, which is designed for analyzing engaging websites. Based on the analysis, it was found that Yandex.Metrica provides reports similar to those of Google Analytics and includes additional tools for qualitative measurement methods. Although the service offers advanced customer support, language settings may pose challenges for many Hungarian businesses. Both web analytics platforms are user-friendly and customizable. For Google Analytics, suggestions for improvement include reviewing and restructuring the admin interface, as well as integrating heatmap analysis and other qualitative methods into the system. The study's findings may be beneficial for small and medium-sized enterprises in selecting the web analytics software that best aligns with their business profile. For businesses with a website or online store, incorporating web analytics tools into decision-making processes can help improve business outcomes and reduce costs.

Keywords:

Online marketing, web analytics, marketing tools, 7C model.

The Technology in Indigenous People's Culture: A Case of Ndebele Culture in South Africa

Prof Mishack T Gumbo

Professor, University of South Africa

Abstract:

Technology Education is mainly taught from a Western approach, missing out on the cultural capital exhibited in an Indigenous context. Framed in Community Cultural Wealth Theory, this qualitative case study explores technological knowledge capital expressed through Ndebele art. Data was generated through participant observation and artefact analysis of the Ndebele art in Mpumalanga, South Africa. The findings revealed a wealth of indigenous technological knowledge, skills, and practices in the Ndebele culture. Integrating Indigenous technological knowledge can diversify the curriculum and benefit both Indigenous and non-Indigenous students, dismantle colonial dominance, and value the contributions of Indigenous knowledge custodians toward the teaching and development of Technology. This will also boost Indigenous students' interest and morale in the subject.

Keywords:

Indigenous, art, technology, curriculum, culture.

The Role of the Military in the State-Building Process in South Sudan

Aromeo James Sworo Sekwat

University of Dar Es Salaam, Tanzania

Abstract:

The military's function in state-constructing tactics is vital to state-building efforts, especially in war-affected areas like South Sudan. This research endeavours to look into and evaluate the impact and engagement of the military inside the state-building method in South Sudan. By delving into the multifaceted dimensions of the military's involvement, this has to look at ambitions to evaluate the military's contributions to fostering country-wide cohesion, upholding constitutional ideas, and using socio-economic improvement in South Sudan. Through a detailed evaluation of the army's position in promoting solidarity, shielding the rule of thumb of regulation, and utilising assets for country-wide improvement, this study sheds light on the complexities and implications of army involvement in South Sudan's State-Building trajectory. Utilising a mixture of qualitative study methods and empirical information, this study intends to provide insights into the intricacies of military engagement in State-Building approaches. The overarching goal is to inform policy makers, enhance governance systems, and foster sustainable improvement in South Sudan. The findings of this research are anticipated to contribute to educational discourse, coverage formula, and sensible interventions aimed toward leveraging the military as a positive agent in South Sudan's State-Building efforts.

Factors of Curriculum Model That Influence Students' Study Motivation in Undergraduate Vocational Universities in Jiangxi Province

Liu Yaoguang
UCSI

Abstract:

Motivation, defined as the desire to act in pursuit of a goal, plays a vital role inlearning. As China shifts towards high-quality development, the government encourages practical undergraduate universities to develop Undergraduate Vocational Education and Training (UVET) programs. The curriculum model, a central component of UVET, has a significant influence on students' motivation to study. However, existing research on how the curriculum model in UVET impacts student motivation remains insufficient. This paper aims to explore the factors withinthecurriculum model that influence students' study motivation in undergraduatevocational universities in Jiangxi Province. A qualitative method was employed, witha sample of 10 undergraduate vocational students and teachers selected throughpurposeful sampling. The analysis revealed that clear educational objectives, engaging teaching content, interactive teaching methods, balanced assessment strategies, and a supportive learning environment can significantly enhance students'motivation to study. This study benefits both students and teachers in UVETbyproviding insights that can help refine the curriculum model to boost student motivation and improve teaching effectiveness.

Keywords:

Study motivation, curriculum model, practical undergraduate universities, UVET

The Attitudes of Households for Disaster Risk Management in Fogera, Estie and Ebenat Woredas

Temesgen Alemu Tilahun *

PhD Candidate, Institute of Disaster Risk Management and Food Security Studies, Bahir Dar University, Bahir Dar, Ethiopia

Abstract:

The underlining disaster risk management practice translates the combination of knowledge, attitude, and action to maximize the effectiveness of responses against disasters. While knowledge and disaster risk management activities move along simultaneously, attitudes are inherent to individuals posing challenges to easily identify issues and then taking extended time to change. Lack of scientific wisdom on the perception of individuals towards disaster management, and the limited understanding of different factors that influence attitudes, complicates the endeavor in response to the increasingly uncertain future. This study assesses the attitudes of households for disaster risk management in the nine kebeles, the lowest administrative unit in Ethiopia, and 32 villages in Fogera, Ebenat and Estie districts (Woredas, the main administrative unit similar to county). Cross-sectional quantitative method was employed, and attitudinal survey was conducted among 412 households selected through probability simple random sampling. Purposive nonprobability sampling technique was used to identify research kebeles based on disaster prevalence, and to collect supplementary attitudinal data from 64 participants representing academia and local stakeholders. Descriptive statistics and parametric test of variance and covariance have been conducted to determine the attitude levels and to assess major factors influencing households' attitude for disaster risk management.

Results indicated that most of the households (53%) have a fairly positive attitude. Households with negative (27%) and extremely negative (20%) perception are concentrated in rural kebeles that are highly affected by recurrent disasters. Therefore, households in disaster affected areas have negative and unconstructive perception for disaster risk management. This is mainly associated with lack of active community participation and ineffective risk management activities. Households' attitude is also significantly affected by age ($p = 0.0001$), and within different age groups ($p = 0.001$), location by kebeles ($p = 0.0237$), education levels ($p = 0.0016$), education status ($p = 0.004$) and experience in indigenous risk management practices ($p=0.00001$). In addition, this study revealed a linear relationship within all the identified factors and households' attitude levels. Considering the situation in Ethiopia where individual perceptions are deeply rooted, coupled with the results of this study that revealed highly negative attitude among disaster affected households, it is recommended to consolidate efforts and influence attitude through maximizing community participation and enhancing the effectiveness of disaster management.

Keywords:

Disaster Risk Management, Disaster Attitude, Disaster Preparedness, Disaster Mitigation and Response.

The Interconnection Between Oral Health and Renal Function: Exploring the Impact of Dental Pathologies on Chronic Kidney Disease Through Interdisciplinary Collaboration

Dr. Farzad Mohammadi

Ahvaz Social Security Organization

Abstract:

The interrelation between oral health and systemic health has garnered significant attention in recent medical research. This study explores the potential link between dental conditions, such as gum disease, periodontal disease, and tooth decay, and kidney function, particularly focusing on chronic kidney diseases. Collaborating with a urologist, we conducted a comprehensive review of existing literature and clinical studies to examine the impact of oral inflammation on renal health. Our findings indicate a direct correlation between oral inflammation and various kidney conditions, suggesting that poor oral health may contribute to the development and progression of chronic kidney diseases. This paper highlights the importance of interdisciplinary approaches in healthcare, emphasizing the need for dental professionals to consider the broader implications of oral health on overall well-being. Through this research, we aim to foster greater awareness and collaboration between dental and medical fields to improve patient outcomes.

Keywords:

Oral Health, Systemic Health, Gum Disease, Periodontal Disease, Tooth Decay, Kidney Function, Chronic Kidney Disease, Oral Inflammation, Renal Health, Interdisciplinary Healthcare, Dental - Medical Collaboration, Patient Outcomes.

Abortion Before the Inter - American Human Rights System: Perspectives, Mobilization, and Litigation

Ana Luiza Gregorio Vidotti

PhD Candidate, International and Comparative Law at the Law School, University of São Paulo, Brazil

Abstract:

This research analyzes the issue of abortion as a gender right within the Inter-American Human Rights System (IAHRS). It explores abortion from an international human rights law perspective, emphasizing its significance as a gender and reproductive right. The study focuses on understanding the perspectives, mobilization, and litigation concerning abortion within the IAHRS, employing both bibliographic review and qualitative and quantitative analysis of multiple cases. It examines decisions from the Inter-American Commission and Court of Human Rights, seeking to clarify whether abortion is recognized as a gender right within the system and how this recognition might influence national legislation toward voluntary pregnancy termination.

Key research questions include whether the IAHRS recognizes abortion as a gender right and, if so, to what extent. By analyzing case law, thematic reports, and press releases, the research aims to reveal the system's stance and possible strategic litigation approaches that advocate for abortion rights. This work is particularly relevant in light of political backlash against reproductive rights across the Americas, as restrictive national laws continue to challenge the access to safe and legal abortion. This research aims to offer guidance for future policies and legislation, emphasizing the role of international human rights law in protecting gender rights, especially during periods of legal regression.

"B3 Lesions – Diagnostics, Management, Outcome"

Lucia Bach

Technische Universität München, Germany

PD Dr. med. Susanne Grandl

Technische Universität München, Germany

Prof. Dr. med. Marcus R. Makowski

Technische Universität München, Germany

Abstract:

Background: The clinical management of breast lesions of uncertain malignant potential (B3 lesions) remains challenging.

Methods: Between 2015 and 2019, 370 cases of B3 lesions were diagnosed by minimally invasive biopsy followed by open surgery: ADH 22,2% (n = 82), FEA 3,2% (n=12), lobular neoplasia 2,4% (n= 9), papilloma 61,4% (n = 227), phyllodes tumour 1,9% (n = 7), radial scar 8,9% (n = 33). This retrospective single-centre study examines the malignancy rate of the most common B3 subtypes, as well as the factors that may have predictive value for finding carcinoma in order to provide a sound basis for diagnostic and therapeutic decisions.

Results: Overall malignancy rate was 10,8% (n= 40) with the highest upgrade rate for ADH (24,4%) followed by LN (22,2%). Factors that were significantly more represented in the "upgraded" group than in the "not upgraded" group were: older age, postmenopausal status, previous breast cancer diagnosis in the patient's history, larger lesion size, microcalcifications.

Conclusion: The malignancy rate of each lesion combined with the predictive factors have to be considered in order to develop lesion tailored management strategies.

Portfolio Selection Based on Time-Frequency Connectedness: Evidence from GCC Sectoral Stock Markets and the Oil Market

Néjib Hachicha

Faculty of Economics and Management, University of Sfax, Sfax, Tunisia

Sherif Hammadi Salem Naili

Faculty of Economics and Management, University of Sfax, Sfax, Tunisia

Abstract:

We conduct a portfolio analysis using three strategies: (i) minimum-variance, (ii) minimumconnectedness, and (iii) minimum-frequency-connectedness, aiming to offer practical diversification recommendations for investors in GCC countries. Utilizing daily data spanning from 2006 to 2022, we present several stylized facts regarding the integration or segmentation of crude oil and GCC sectoral stock markets. Our findings reveal that Saudi sector stock markets exhibit the largest spillovers from the oil market, with heightened global connectedness observed during global financial crises. However, we find no evidence of significant connectedness during the ongoing Russian-Ukrainian conflict. The dynamic frequency decomposition of connectedness highlights the financial and industrial sectors in Qatar, Saudi Arabia, and Oman as the main net transmitters of spillovers in the short-term frequency band, while finance, consumer discretionary, and real estate sectors in Saudi Arabia, Dubai, and Qatar dominate in medium and long frequency bands. Notably, oil acts as a net receiver of volatility at high frequencies but becomes a net transmitter at medium and low frequencies. Portfolio analysis demonstrates a trade-off between systemic risk and financial performance in GCC countries. Particularly intriguing is the minimum-frequency portfolio method, which underscores the impact of investment horizon on portfolio performance, with substantial variations observed across different frequency bands.

Keywords:

GCC counties, sectoral stock market, crude oil, time-frequency, portfolio analysis.

Investıgatıon of the Effect of Celastrol on Trıple Negatıve Breast Cancer Cells

Ayse Doga Karipcin *

University of Erciyes, Gevher Nesibe Genome and Stem Cell Institute, Molecular Biology and Genetic, Kayseri, Türkiye

Venhar Cinar

University of Erciyes, Faculty of Medicine, Medical Biology, Kayseri, Türkiye

Ahsen Guler

University of Erciyes, Faculty of Medicine, Medical Biology, Kayseri, Türkiye

Seda Nur Celik

University of Erciyes, Gevher Nesibe Genome and Stem Cell Institute, Molecular Biology and Genetic, Kayseri, Türkiye

Zuhal Hamurcu

University of Erciyes, Faculty of Medicine, Medical Biology, Kayseri, Türkiye

Bulent Ozpolat

Houston Methodist Research Institute-Neal Cancer Center, Texas, USA

Abstract:

Breast cancer is a malignant tumor, starts in the breast cells and metastases to other organs. It has the highest mortality rate in women. Since receptors, estrogen receptors, progesterone receptors, and human epidermal growth factor receptor 2, are not found in triple-negative breast cancer (TNBC), it represents the most aggressive type of breast cancer with high drug resistance, poor prognosis. It cannot be targeted therapeutically. Therefore, identifying novel molecular targets and developing alternative therapeutic strategies are urgently needed. FOXM1 is a protooncogenic transcription factor, plays a crucial role in promoting cancer cell proliferation, and tumorigenesis of TNBC. We previously demonstrated that in vivo targeting of FOXM1 suppresses TNBC tumor growth in mice. To identify potential inhibitors, utilizing *in silico* docking and molecular dynamics studies we screened the FDA-approved compounds and found that Celastrol interacts with FOXM1. In the study, MDA-MB-231, BT-549, and BT-20 cell lines were used. MTS analysis was performed to investigate the effect of Celastrol molecule on cell viability, clonogenic analysis was performed to investigate its effect on clone formation. Since cell death was observed, Annexin-V analysis to investigate the type of cell death, and western blot analysis were performed to investigate the effect on the expression of FOXM1 and its down targets. As a result of the experiments, it was determined that Celastrol reduces cell viability and colony formation, induced apoptosis. Expression of FOXM1 was inhibited in TNBC. Our results shows celastrol may important inhibitor for the suppression of the expression of FOXM1.

Keywords:

Breast cancer, Triple-negative breast cancer, Celastrol, FOXM1.

Strengthening Ties: The Resilient Economic Partnership Between Israel and the USA

Tamta Todadze

Ivane Javakhishvili Tbilisi State University, Tbilisi, Georgia

Abstract:

The economic partnership between Israel and the United States has evolved into a robust and dynamic relationship that continues to strengthen over time. This article explores the key factors driving this collaboration, including shared technological innovations, defense cooperation, and mutual trade agreements. It delves into how both nations benefit from this alliance, with Israel emerging as a global leader in technology and innovation, while the U.S. gains strategic and economic advantages. The article also examines the challenges and opportunities that lie ahead, emphasizing the importance of this enduring partnership in a rapidly changing global economy. The article also examines the challenges and opportunities that lie ahead, emphasizing the importance of this enduring partnership in a rapidly changing global economy.This article examines the factors that have contributed to the strength of this economic friendship, exploring the role of trade, investment, technology, and defense cooperation in shaping a relationship that benefits both nations. By understanding the dynamics of this partnership, we can gain insights into the broader implications of such alliances in the global economy. Conclusions and recommendations are given based on the analysis of the results obtained within the research framework.

Keywords:

Israel-US Economic Relations, Bilateral Trade, Bilateral Agreements, Technology and Innovation, Defense Cooperation, Strategic Partnerships, Economic Alliances, Global Trade, Economic Diplomacy.

Dabska Tumour in Colonic Mesentery, Gallbladder and Liver

Abdus Salam Raju

University of Western Sydney, Penrith, Australia

Abstract:

Introduction: Papillary intralymphatic angioendothelioma (PILA), also known as Dąbska Tumour, is a rare lymphovascular neoplasm of intermediate malignancy. First described by Maria Dąbska in 1969 as a malignant tumour in children, PILA has since been reclassified due to its borderline behaviour and lymphatic features. While typically found in the skin and soft tissues, PILA has been reported in deeper sites such as the spleen, tongue, testis, and bone, posing diagnostic challenges due to its varied presentation.

Case Presentation: We report a rare case of PILA in the colonic mesentery of a 38-year-old male, the first such case in the English literature. The patient initially underwent laparoscopic splenectomy for symptomatic splenic haemangiomas. Two years later, imaging detected a recurrent mass in the omentum, prompting an urgent laparotomy. Laparotomy revealed grape-like growths in the colon, gallbladder fossa, and stomach, necessitating an extended right hemicolectomy, segmental hepatectomy, and partial omentectomy. Histopathology confirmed PILA with hobnail cells and papillary projections, distinct from the earlier haemangioma. Immunohistochemistry showed positivity for ERG, CD31, and focal CD34 in endothelial cells, while D2-40 stained flat cells. The Ki67 proliferation index was low at 1%.

Discussion: This case highlights the diagnostic challenges of PILA in uncommon locations. Immunohistochemistry and recognising its unique histological features are crucial for differentiation. Given its potential for local recurrence, wide surgical excision is the primary treatment. This rare case emphasises the need for standardized protocols for diagnosis, treatment, and follow-up to improve outcomes.

Reimagining Public Service Principles in the Digital Age: Innovations for Governance and Citizen Engagement

Prof. Asoc. Dr. Gentiana Kraja

University Aleksandër Moisiu Durrës, Durrës, Albania

Dr. Mentor Beqa

University Aleksandër Moisiu Durrës, Durrës, Albania

Dr. Morena Boja

University Aleksandër Moisiu Durrës, Durrës, Albania

Abstract:

The public services delivering policies is one of the core functions of public administration and is guided by a set of principles that ensure their quality, equity and universal access, transparency, accountability, and efficiency. These principles serve as guidelines for governments and public institutions in creating and implementing policies to meet citizens' needs.

The digital age is transforming the foundational principles of public service delivery, creating opportunities for innovative governance and enhanced citizen engagement. Digitalization has fundamentally reshaped public administration across the globe, and Albania is no exception. This paper examines how traditional public service principles are being reshaped by digital innovations, focusing on governance improvements and enhanced citizen engagement. The rapid integration of digital technologies, including e-Government platforms, digital identification systems, and online service delivery, has significantly altered the way public services are provided and accessed. These innovations promise to make services more efficient, accessible, and transparent, aligning with key principles such as equity, accountability, and responsiveness.

Finally, the paper provides recommendations for Albania's further digital transformation, stressing the need for stronger investments in digital infrastructure, enhanced digital literacy programs, and robust data protection policies. Only through addressing these challenges can Albania ensure that its digital initiatives truly benefit all citizens and reinforce democratic governance. Through these efforts, Albania has the potential to create a more inclusive, efficient, and transparent public service system that aligns with the core principles of governance in the digital age.

Keywords:

Digital Governance, e-Government, Citizen Engagement, Digital Inclusion.

Presenting a Model to Evaluate the Performance of Process Industry Firefighters Based on Individual Variables

Mohammad Babamiria

Social Determinants of Health Research Center, Department of Ergonomics, School of public Health, Hamadan University of Medical Sciences, Hamadan, Iran

Omid Kalatpourb

Department of Occupational Health and Safety Engineering, Occupational Health and Safety Research Center, School of Public Health, Hamadan University of Medical Sciences, Hamadan, Iran

Leili Tapakc

Department of Biostatistics, School of Public Health, Modeling of Noncommunicable Diseases Research Center, Hamadan University of Medical Science, Hamadan, Iran

Payam Heydarid *

Assistant Professor, Department of Industrial Engineering, Qazvin Branch, Islamic Azad University, Qazvin, Iran

Abstract:

To provide an effective response, the firefighting team needs a high level of performance. The performance of firefighters depends on the individual variables of the members of these teams. Therefore, the present study aims to provide a model to evaluate the performance of process industry firefighters based on individual variables. The present study is an analytical-cross-sectional study conducted among 141 industrial firefighters in the south of Iran. A systematic review method extracted a list of factors shaping people's performance. Weighing and prioritizing the factors shaping the performance of firefighters was done. Then the factors with high weight were evaluated. Firefighter performance was assessed based on the three components of skill, knowledge and ability. Finally, modelling was done with the help of AMOS software. Cognitive, physical and psychological variables predict 95, 50 and 38% of human performance. Most of the fit indices for measuring the fit of all models show good fit, compatibility and agreement of all models with the experimental data. The presented model had a suitable fit and validity for evaluating and ranking the performance of firefighters and determining their weak points.

Keywords:

Emergency, Evaluation, Firefighters, Performance, Response.