Book of Abstracts

International Sci-Arts Conference ISAC-25 Multan

17-18 Feb 2025

Jointly Organized By

The Women University Multan & Evolution Pakistan

ISAC-25 Multan

BOOK OF ABSTRACTS

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- Political Science, Sociology, Psychology & Mass Communication

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ISAC-25 welcomes colleagues in the Field of Sciences, Technology, Computer Science, Mathematical, Physical, Chemical Sciences, The Humanities and The Arts. The conference aims to foster interactions among leading individuals from diverse disciplines of science and arts, culminating in actionable conclusions on sustainable and secure development for policymakers and stakeholders. Moreover, the conference will provide an excellent platform to gather experts from across the globe to share solutions regarding various problems faced by the scientific and cultural dimensions.

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ISAC-25-01 **Prevalence of social media addiction among university students**
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Social media addiction has become a significant global public health issue that affect individuals worldwide. Although significant amount of research has been conducted on adolescence but less work has been done in young adults with reference to social media addiction. Therefore, this systematic review aims to assess the global prevalence of social media addiction among university students aged 18 to 24, a group particularly affected by this phenomenon due to academic pressures and social engagement. A comprehensive search was conducted across databases including PubMed, Web of Science, Jisc Library Hub Discover, Library of Congress, and Google Scholar, last updated in December 2024. A total of 53 studies, among university students were reviewed. The prevalence of social media addiction among university students were ranges between 3.5 to 22.8. Lowest prevalence observed in Africa and highest prevalence observed in Asia. Further, review indicated that social media addiction was higher in male university student in comparison to female university students. The mental and physical health consequences of social media addiction demand immediate attention to mitigate this growing concern. These findings highlight the urgent need for targeted interventions for constructive use of social media, particularly in vulnerable populations like university students.
Keywords: social media addiction, university students, global prevalence, mental health, gender differences

ISAC-25-02 **Impacts of self-Criticism and self-Compassion on mental wellbeing among students.**
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The purpose of this study was to examine the Impacts of self-criticism and self-compassion on mental well-being among female students. Furthermore, family differences were examined. A cross-sectional survey research design was used to conduct this research. The sample consisted of 150 students (females) with the age range 16-30 years. Sample was drawn through non probability convenient sampling method. The Wariwick-Edinburgh Mental Well-being scale (Tennant et al., 2007), Self-compassion scale (Neff., 2003), Level of self-criticism scale (Thompson & Zuroff., 2004) were administered to the participants to collect data. Pearson product moment correlation and independent sample t-test was used to analyse the data. Results indicated that there is significant relationship between Mental Well-being and Comparative self-criticism, Internal self-criticism and there will be no correlation between Mental well-being and Comparative self-criticism, Internal self-criticism. Furthermore, finding shows that the mental well-being in joint family systems is high as compared to nuclear family systems and the self compassion in joint family systems is high as compared to nuclear family systems. Findings will inform the mental health status of female students and help to identify better solutions for improving mental health.
Keywords: self-criticism, self-compassion and mental well-being.

ISAC-25-03 **Sethe as Iconic Character of Black Feminism in Beloved by Toni Morrison**
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The difficulties faced by Sethe, the protagonist of Toni Morrison's novel Beloved, are the subject of the current study. She goes through a lot of sacrifice and adversity before being released from slavery. That is 124 in her new home, though. The spirits of her deceased daughter and other people from her past haunt her. She does, however, discover some contentment, peace, and comfort in her new house. She still has to undergo all of the trials. It is true that her efforts are not in vain.
Key words: Black feminism, racism, haunted, slavery, traumatic

ISAC-25-04 Sethe as Iconic Character of Black Feminism in Beloved by Toni Morrison

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To comprehend Beloved, one must keep Morrison's perspective in mind. Otherwise, it is difficult, if not impossible, to decipher, comprehend, and make sense of complex themes, various symbolism, haunted imagery, nearly unexplored discussion topics, odd language, and narrative strategies utilized in novels.

According to Margret Atwood, Beloved is written in an antiminimalist style that is simultaneously rich, elegant, quirky, rough, poetic, sinuous, colloquial, and incredibly direct. The reader is drawn in by this work of writing because of all these linguistic features. The novel's beginning is distinct. In the first five phrases, Morrison tosses a lot of balls into the air without letting us know which one to pay attention to, "By 1873," "for years," "thirteen years old," "spiteful," or "venom." This statement is where the reader's guessing begins. Perhaps this is the reader's mental preparation for upcoming unknowns and odd events that last until the very end. Where Beloved disappears, is the end itself unexpected? The necessity of approaching the unimaginably painful history of slavery through indirect, fragmented, and intimate glimpses of the past—which are typically associated with fiction—is described by Sethe as she tells Paul D about her past in the final chapter while spinning around the room. The use of broken phrases and double negation, which are indicative of growing misery and anxiety, indicates that the same traumatic event is likely to occur repeatedly and that there is no simple way out. Ella's words, for instance, "Don't love anything".

ISAC-25-05 Impact of Perceived Stigmatization among Acid Attack Servivors: Role of Resilience and Post Traumatic Growth

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This study aimed to examine the impact of Perceived Stigmatization on Post-Traumatic Growth (PTG) among Acid Attack Survivors in Pakistan. Further, the mediating role of resilience was examined between perceived stigmatization and PTG. Participants were approached at Depilex Smileagain Foundation, Al-Khidmat Foundation, Nishtar Burn Center Multan. The sample size was $N= 133$, recruited using a purposive sampling technique. To measure the desired variables, the Perceived Stigmatization Questionnaire (Lawrence et al., 2006), PTGI-Short form Urdu (Tedeschi & Calhoun, 1996; Aslam & Kamal, 2019), and Connor Davidson Resilience scale Urdu (Gras et al., 2019; Sarwar et al., 2021), was used to assess Perceived Stigmatization, PTG and Resilience respectively. Regression analysis showed that Stigmatization and Resilience both have a significant impact on PTG among acid attack survivors. Overall, 65.61% variance was explained in a dependent variable with significance F $(1,131) =$ 568.08, p<.001. Furthermore, mediating analysis through PROCESS v.4 macro showed that resilience significantly mediated (β=.749) the association between the perception of stigmatization and PTG. The findings of the study can

provide the baseline evidence for the development of targeted social support programs that address the psychological and social challenges faced by acid attack survivors. Understanding the role of resilience can lead to the creation of interventions that strengthen the survivor's coping mechanisms and foster a supportive environment, ultimately enhancing their post-traumatic growth.

Keywords: Perceived Stigmatization, Post-Traumatic Growth, Resilience, Acid Attack Survivors

ISAC-25-06 TasteNet: AI-Driven Mango Flavour Classification

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Mangoes, known as the "King of Fruits," hold a central role in the agricultural and economic landscape, especially in regions like Pakistan, where varieties such as Anwar Ratool, Chaunsa, and Langra are widely cherished. Their diverse taste profiles—ranging from sweet to sour and tangy—are key factors influencing consumer preferences. However, traditional methods of identifying mango varieties and predicting taste rely heavily on subjective human assessment, often leading to inconsistencies, errors, and increased post-harvest losses. In this project, we propose **TasteNet**, a novel deep learning-based solution utilizing Convolutional Neural Networks (**CNN**) for the dual task of mango variety classification and taste prediction through image analysis. The primary goal is to develop a robust and accurate model that aids in improving agricultural practices, minimizing food waste, and helping consumers choose mangoes based on taste preferences. The CNN architecture comprises convolutional layers, pooling layers, optimized using TensorFlow. Data augmentation techniques were applied to enhance model generalization and address challenges like varying image angles and lighting conditions. Evaluation was conducted using confusion matrices and training curves. The CNN architecture was designed with dual output layers to simultaneously predict mango variety and taste. The model achieved impressive accuracy in both tasks during validation, successfully distinguishing between mango types and taste categories in complex real-world scenarios. Future development will explore broader applications, integrating predictions for other fruit types and enabling real-time deployment for commercial and consumer-facing use cases. The research emphasizes the transformative role of artificial intelligence in modernizing agriculture and enhancing food selection processes.

Keywords: Mango Variety Classification, Taste Prediction, Convolutional Neural Networks, Deep Learning, Image Classification, Food Quality Control, Computer Vision

ISAC-25-07 Effects of Internalizing Problems on the Quality of Life Among PhD Scholars and Mediating role of coping strategies

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The objectives of the study were to examine the prevalence of internalizing problems among PhD scholars; to examine the causes of internalizing problems among PhD scholars; to assess the impact of internalizing problems on quality of life among PhD scholars and to examine the impact of coping strategies on internalizing problem. The universe of the research was universities of Southern Punjab including NCBA &E Lahore, Multan Sub Campus; BZU Multan; Women University Multan and The Islamia University Bahawalpur. The study sample consisted 150 participants, comprising 72 males and 78 females (48% male, 52% female). The measures utilized include the DASS-21 (Depression Anxiety Stress Scales - 21 Items), the WHO Quality of Life Scale-Brief (WHOQOL-BREF), and the Brief COPE, all of which have established psychometric validity for this population. The findings reveal a negative correlation between internalizing problems and both quality of life and coping mechanisms among PhD scholars. A strong positive correlation was found between quality of life and coping mechanisms. Notably, female PhD scholars and married participants exhibited significantly higher levels of depression, anxiety, and stress compared to their male and single counterparts. PhD candidates from lower socioeconomic backgrounds and those with medical or mental health issues also indicated higher degrees of internalizing issues. The study also demonstrates that participants who were self-employed, single, male PhD academics, and healthy urban residents had better quality of life and more useful coping mechanisms. The study emphasizes how important it is to provide focused treatments to improve coping strategies and general well-being among PhD students, especially those who identify as female, married, or from underprivileged homes. It is recommended that the PhD scholars should learn coping strategies to cope with the internalizing problems and the universities should be control the procedural delays and supervisors professional training is also needed.

Key Words: *Depression, Anxiety, Stress, Coping Strategies, Quality of life*

ISAC-25-08 AI-Driven Sustainable Healthcare: A Review of Innovations, Challenges, and Future Directions

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The healthcare industry faces significant challenges related to **resource depletion, rising operational costs, and environmental sustainability.** Traditional healthcare models contribute to excessive **energy consumption, medical waste, and inefficient resource allocation**, leading to long-term sustainability concerns. With the advancement of **Artificial Intelligence (AI),** there is growing interest in leveraging AI-driven solutions to improve healthcare efficiency while minimizing environmental impact. AI has the potential to revolutionize healthcare sustainability by optimizing resource use, enhancing operational efficiency, and reducing the sector's overall carbon footprint. This review explores the various applications of AI in **sustainable healthcare**, focusing on key areas such as **predictive analytics for disease prevention, AI-powered telemedicine and remote patient monitoring, smart hospital management, AI-assisted drug discovery, and medical waste reduction.** AI-driven **predictive analytics** enables early diagnosis and personalized treatments, reducing hospital admissions and unnecessary medical interventions. **Telemedicine and remote monitoring,** supported by AI, improve accessibility to healthcare while reducing travel-related carbon emissions. AI is also being increasingly used in **drug discovery and precision medicine,** leading to more efficient pharmaceutical production and reduced medication wastage. Additionally, AI-based **hospital energy management and waste optimization systems** help medical facilities **reduce electricity consumption, streamline medical inventory, and enhance waste disposal mechanisms**, promoting eco-friendly healthcare operations. Despite these advancements, the integration of AI in sustainable healthcare faces several challenges, including **ethical concerns, data privacy risks, regulatory barriers, and the need for robust AI governance**. This review discusses these challenges and explores potential solutions to ensure the responsible and effective implementation of AI-driven sustainable healthcare systems. By analyzing recent advancements, this study highlights the **transformative potential of AI** in promoting a **greener, more efficient, and accessible healthcare ecosystem** while addressing the ethical and regulatory considerations required for widespread adoption.

Keywords: AI in Healthcare, Sustainable Healthcare, Smart Hospitals, Predictive Analytics, Telemedicine, Green AI, Medical Waste Management, AI Ethics.

ISAC-25-09 IOT-Driven Soil Fertility Monitoring and Crop Care System To Enhance Agricultural Productivity

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Soil fertility maintenance at its optimal level is vital because it determines both food production amounts and population food effectiveness across the world. The integrative research develops Soil Fertility Monitor and Crop Care Guide based on Internet of Things (IoT) technology for immediate soil health checks and farming instructions to farmers. The system needs a systematic development pipeline starting with research activities then moving to hardware implementation and project integration until reporting phase and ending with cloud database creation and Android software production. The soil fertility meter implements systematic testing procedures for essential properties by measuring moisture and pH but also includes temperature and nutrient evaluation. The system enables sensor data to be kept temporarily within databases until analysts use them to develop essential assessments. Through current data evaluation the mobile application generates personalized farm care guidelines while presenting users with visual outcome representations. The system achieves absolute accuracy because it links low-cost hardware units to machine learning technologies across its entire composition. Cloud computing systems together with IoT networks enable farmers to evaluate soil remotely and receive urgent directives for appropriate actions. A user-friendly interface in the Android application enables non-agricultural users to obtain complex agricultural insights. The organizational decision method boosts farming output rates and reduces sustainable land operations and fertilizer consumption through enhanced agricultural decision quality. The integration of Soil Fertility Monitor with Crop Care Guide enables traditional farmers to view precise farming methods which unite traditional farming with modern smart farming principles.

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ISAC-25-10 **A Comparative Analysis of Organizational Dynamics in Pakistan and Western Context**
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The current study aimed to conduct a comparative analysis of organizational dynamics in Pakistan and the West, focusing on recruitment, leadership, workplace culture, and management strategies. A qualitative approach was utilized, employing purposive sampling to carry out structured interviews with CEOs from various organizations. This method was chosen to gain a comprehensive understanding of critical organizational aspects until saturation was reached. The study sought to uncover the differences between the two contexts, highlighting Pakistan's emphasis on hierarchical leadership and relational approaches, in contrast to the Western preference for inclusivity and structured systems. The findings indicate that there is alignment between incentive structures, employee evaluation methods, conflict management approaches, and teamwork strategies in both Pakistan and the West. However, notable differences were found in recruitment processes, interview techniques, employee referrals, leadership styles, diversity and inclusion practices, feedback mechanisms, and the dynamics of workplace violence. These variations reflect the influence of cultural and structural factors. The implications of the study suggest a need for culturally adaptive leadership models, the promotion of inclusive workplace policies, and refined HR strategies to enhance organizational effectiveness.

Key Words: Recruitment Process, Leadership Styles, Employee Referrals, Workplace Dynamics

ISAC-25-11 **Image Processing-based Skin Cancer Detection Using Convolutional Neural Network**
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Skin cancer is a prevalent and potentially fatal disease, with early detection significantly improving survival rates to as high as 95%. It is categorized into Basal Cell Carcinoma, Squamous Cell Carcinoma, and Melanoma, the latter being the most critical with low recovery chances. Traditional diagnostic methods, such as visual inspection and biopsy, are time-intensive, invasive, and prone to human error. This study aims to develop a robust and automated diagnostic system for early skin cancer detection using deep learning. The system preprocesses dermoscopic images of ISIC dataset with techniques such as hair removal, noise reduction, sharpening, and resolution enhancement. It leverages CNN-based architectures, including InceptionV3, ResNet, and VGGNet, to classify skin lesions into benign or malignant categories. The CNN architecture is optimized for accuracy and computational efficiency using convolutional, pooling, and fully connected layers. Advanced optimization techniques are employed to reduce training time and mitigate overfitting. Evaluation metrics like accuracy, sensitivity, specificity, and precision validate the model's performance. A user-friendly interface ensures accessibility for healthcare professionals and patients. The presented work highlights the potential of integrating deep learning with medical diagnostics to create cost-effective, non-invasive, and precise tools for early skin cancer detection, ultimately contributing to better patient outcomes and streamlined clinical workflows.

Keywords: Skin Cancer Detection, Skin Cancer Classification, Deep Learning, Convolutional Neural Network, ISIC Dataset

ISAC-25-12 **Detecting Fake review using Machine Learning Models through Feature Selection**
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The widespread use of online reviews has become an essential part of consumer decision-making and business strategies. However, the increasing prevalence of fake reviews, aimed at misleading potential customers or promoting certain products or services, poses a significant challenge to the integrity of online review systems. Detecting such fraudulent reviews is a complex task due to the subtle differences between genuine and deceptive content. This paper explores the application of Machine Learning (ML) models in the detection of fake reviews, with a particular focus on the importance of feature selection for improving the accuracy, efficiency, and

interpretability of the detection process. In this study, a variety of features are extracted from reviews, encompassing textual properties such as word choice, sentence structure, and sentiment, as well as user behavior indicators, review metadata, and patterns of inconsistency. Several feature selection techniques are applied to identify the most discriminative features that best differentiate between genuine and fake reviews. By narrowing down the feature set, the performance of the detection model is enhanced, reducing both computational costs and the risk of overfitting. This research evaluates the effectiveness of several machine learning algorithms, including Decision Trees, Support Vector Machines (SVM), and deep learning approaches, in classifying reviews as fake or authentic. The results indicate that models employing selected features significantly outperform those using a broader, less refined set of attributes. Furthermore, the study demonstrates that feature selection not only improves the classification accuracy but also aids in providing interpretable results, enabling a better understanding of which aspects of the review contribute to its authenticity. This paper highlights the critical role of feature selection in fake review detection, offering a comprehensive framework for building more accurate and efficient models. It also provides insights into the practical challenges of implementing these models in real-world scenarios, where fake reviews can have serious consequences for both consumers and businesses. The findings pave the way for future research in this field, particularly in exploring more advanced techniques, such as ensemble learning and natural language processing (NLP), to further enhance the detection of fraudulent online content.

Keywords: Fake reviews, Machine Learning, Feature Selection, Text Analysis, Sentiment Analysis, User behavior, Meta-data, Classification, Recursive Feature elimination, Decision Trees, Support Vector Machines, Deep Learning, Review authenticity, Data Preprocessing, Model performance, Fraud Detection.

ISAC-25-13 *Examining Rotten Nationalism in Qabbani's "We Are Accused of Terrorism"*

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Nationalism is a huge concept that binds swarms of people belonging to different races, religions and geographical areas. Its true spirit lies in surpassing national interests over other aims, goals and ambitions. Unfortunately, people in some nations do not grasp the essence of common legal system, common economic system, common motivations and mythologies and they get succumbed to their personal lusts and pleasures, Due to their disloyalty, "other" nations occupy their land and then starts a never ending suffering. To explore this theme, Nizar Qabbani's poem "We are Accused of Terrorism"has been selected.And this literary piece has been analyzed by Anthony D. Smith's theory of Nationalism and Francois Lyotard's theory of Meta Narratives .This qualitative research, through Smith's lens has divulged that the elite masters of nations like Palestine and Lebanon, when start to feed personal lucrative then the nation suffers through unimaginable damage(colonization,homelessness,separation,alienation,deaths) which continues to engulf coming generations and it opens the ways for intruding nations like Israel and America who abduct the right to live freely. Furthermore, through Lyotard's ideology,the finding has been drawn that America's soft, unitary and peaceful image is a "grand narrative" which masks its inhuman face.

Keywords: Nationalism, Destruction,Metanarrative,Palestine,Israel,America,Qabbani

ISAC-25-14 **Simba's Journey: Content analysis of coming of age themes in The Lion king(2019) Movie**

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A "coming of age" theme refers to the narrative focus on a young person's transition from childhood to adulthood. This study aims to explore these themes in The lion king through character of Simba,son of Mufasa and heir of his lineage. The Lion King is an animated homage to Hamlet set in the animal kingdom. The story revolves around a lion cub named Simba who flees into the jungle when his evil uncle Scar kills his father Mufasa to usurp his throne as the King of the Pride Lands. When he grows up and receives wisdom from Mufasa from beyond the grave, Simba reluctantly returns to confront Scar and take his place as the rightful king..Findings revealed themes emerged from film narrative and how many times stereotypes being portrayed.This research help reader to develop critical thinking while consuming media.

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ISAC-25-15 Comparative Feminist Analysis of Angelou and Durrani's Autobiographies: A Qualitative Study
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Women of colour have always been regarded as belonging to a homogenous category, who suffer from the same sort of experiences of suppression, oppression, marginalization and torture. Women of colour irrespective of their societies, cultures, social classes, and ethnocentric locations have always been considered suffering from the same experiences of gender discrimination. In this study, the researcher's objective is to probe different sort of experiences of women of colour's oppression(s) in Angelou's *I Know Why the Caged Bird Sings* (1960) and Durrani's *My Feudal Lord* (1995). Another objective is to challenge the grouping of women under the homogenous category of women of colour by keeping in view Angelou's and Durrani's autobiographies. Three extracts from both narratives have been chosen through the purposive sampling technique as research data. The researcher has analyzed the data qualitatively through Beauvoir's (1949/1953), Mohanty's (1984) and Hooks' (1981) constructive notions of womanhood. The study's findings and data analysis prove that the experiences of oppression(s) of women of colour vary concerning their race, culture, societal differences, class and ethnocentric locations.
Keywords: Women of Color, Women Oppression, Homogenous Category, Marginalization, Suppression, Gender Discrimination

ISAC-25-16 Impact of YouTube family vloggers on domestic life of Pakistanis

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This study investigates how Pakistani viewers perceive and engage with family vlogs on YouTube, exploring their influence on family relationships and behavioral shifts, including parenting, child interactions, and privacy concerns. Using a Google Forms survey with convenience sampling, data from 100 participants was analyzed by percentage. Findings indicate that family vlogs shape viewers' understanding of family dynamics, offering both relatable and idealized portrayals. Vlogs provide insight into daily routines, family lifestyles, and relationships, enabling viewers to compare their own experiences with others. However, these portrayals risk commodifying family life and promoting materialistic or idealized standards, potentially affecting mental health and privacy. Ethical guidelines for vlog content could mitigate privacy issues and encourage authenticity. Future research should examine long-term psychological effects, cultural variations, and age-specific impacts, particularly on adolescents. Exploring the relationship between audience expectations, creator practices, and economic factors can deepen understanding of digital media's role in shaping family perceptions.
Keywords: YouTube family vlogs , Perception of family life , Viewer engagement,Dailyroutines, Entertainment content, Family dynamics, Realistic vs. idealized portrayal, Impact on viewers, Lifestyle influence, Family relationships.

ISAC-25-17 The psychological impact of social media addiction among students

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This study aims to understand the psychological impact of social media addiction among students. We researched relevant studies on some major databases like Google Scholar, PubMed and PsyINFO.Social Media Addiction is an emerging public health issue in Pakistan, with prevalence rates ranging from 12% to 35% among students (Ahmed et al., 2021; Siddiqui et al., 2022). Despite rising concerns, neither the International Classification of Diseases (11th Revision; ICD-11) nor the Diagnostic and Statistical Manual of Mental Disorders (5th Edition Text Revision; DSM-5-TR) currently identify "Social Media Addiction" as a disorder. Specific attention and digital well-being educational programs are required to reduce its compulsive use.
Keywords: Social Media Addiction, Psychological Impact, Mental Health, Students, Pakistan

ISAC-25-18 Green Synthesis of Carbon Dots from *Momordica Charantia* for Cadmium (II) Detection in Various Water Samples and Assessment of Their Antibacterial Properties

ISAC-25 Multan

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Carbon dots (CDs) are a new class of fluorescent nanomaterials with particle sizes below 10 nm. These multifunctional nanomaterials have diverse applications, including drug delivery, synthetic chemistry, metal ion detection, disease diagnostics, and biosensing. This study focuses on the synthesis of CDs from *Momordica charantia* fruits, their characterization, and an evaluation of their antibacterial properties. CDs were synthesized using a hydrothermal method, and their presence was confirmed via UV-Visible spectroscopy. Characterization was performed using X-ray Diffraction (XRD), Scanning Electron Microscopy (SEM), and Fourier-Transform Infrared (FTIR) spectroscopy. For Cd(II) detection in water samples, the CDs exhibited a limit of detection (LOD) of 3.08×10^{-5} M and a limit of quantification (LOQ) of 1.22×10^{-3} M. Additionally, they displayed notable antibacterial activity against the gram-negative bacterial strain *Escherichia coli* (E. coli), with inhibition zones of 2.3 mm, 5.6 mm, 10.5 mm, 14.2 mm, 17.0 mm, 21.3 mm, 27.0 mm, and 23.0 mm at a concentration of 500 µL/mL. However, the CDs showed no activity against *Streptococcus mutans*, *Klebsiella pneumoniae*, and *Pseudomonas aeruginosa*. In conclusion, the synthesized CDs have potential applications in Cd(II) detection and antibacterial activity against *Escherichia coli*.

KEYWORDS Carbon dots, Antibacterial activity, XRD, FTIR, SEM

ISAC-25-19 The Association Between Pro-Environmental Behavior, Subjective Well-being, And Happiness

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This research aims to examine the relationships between pro-environmental behavior, subjective well-being, and happiness among undergraduate university students. In total, 170 university students participated in the study, which employed the pro-environmental behavior scale (PEBS), Oxford Happiness Questionnaire 29 items(OHQ), and Psychological well-being scale 18 items (PWS). The research findings indicated that pro-environmental behavior is positively correlated to happiness. Undergraduates who show higher degrees of psychological Well-being would also show high degrees of pro-environmental behavior. In addition, it is concluded that female students are significantly more pro-environmentally motivated than male students. The results of this study indicated that undergraduates who had happiness were found involved in pro-environmental behavior activities.

Keywords: pro-environmental behavior, subjective well-being, happiness

ISAC-25-20 Analyzing the Relationship between Fear of Failure, Self-Criticism and Mental Health in University Students

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In an increasingly competitive environment, university students become particularly suspectible to the devastating effects of self-sabotage, including Fear of Failure and Self-Criticism. This study investigates the relationship between Fear of Failure, Self-Criticism, and Mental Health among university students. To explore this relationship, data were collected from 150 students using convenient sampling technique. The tools for measuring variables included the Self Sabotage Scale, specifically its subscales i.e. B (Fear of Failure), C (Self-Criticism) and Warwick Edinburg Mental Well-being Scale (WEMWBS). The statistical analysis revealed a significant negative correlation between Fear of Failure and Mental Health, indicating that students with higher levels of Fear of Failure and Self-criticism were more prone to poorer mental health conditions. Furthermore, independent sample t-test indicated significant gender differences in self-criticism and fear of failure with females reporting higher levels than males. The findings of this study could guide more strategies aimed for minimizing fear of Failure and self-criticism to help promote healthy coping mechanisms along with the further improvement in mental health and the educational journey of students.

Keywords: fear of failure, self-criticism, mental health

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ISAC-25-21 *Analysis of Conversational Implicature in Pakistani Print Advertisement*
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This study investigates the strategic use of conversational implicatures (Grice, 1975) in Pakistani print advertisements and how advertisers exploit linguistic subtleties to captivate audiences and persuade them to buy. The study focuses on advertisements in magazines published in Pakistan concerning culturally and gender-specific nuances in advertising discourse. Conventionally, advertising is expected to abide by the Cooperative Principle and its maxims; however, advertisers intentionally suspend this principle to induce implicatures that add power to the communication. This study highlights the numerous benefits of such activities; these include improved effectiveness and recall of ads, economic savings in the length of the message, curiosity, and holding of audience attention. Further, implicatures help create persuasive messages while evading them from being directly responsible for the implied utterances.By analyzing the intersection of linguistic strategies and cultural context, researchers generate an understanding of the innovative ways by which Pakistani advertising discourse is unique, engaging, and effective.
Keywords: conversational implicature, advertising, Pakistani discourse, cooperative principle, flouting maxims, linguistic strategies, print media.

ISAC-25-22 **Understanding Spiritual Intelligence: The Role of Religiosity in Older Adults of Multan, Pakistan**
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Religion and spirituality play vital roles in the lives of older adults, affecting their mental health, well-being, and overall life satisfaction. The present study aims to describe the relationship between older adults' religiosity, spirituality, and spiritual intelligence. The target population is older adults residing in Multan, Pakistan, and the purpose is to determine the ties between religiosity and spiritual intelligence while considering demographic differences, specifically gender. This correlational study targets a sample of 150 older individuals, with data being collected using the convenience sampling method. The Religiosity Scale and Spiritual Intelligence Questionnaire were used to measure the concepts of religiosity and spirituality, respectively. To describe the relationships, analyze the data, and reveal the effect of selected variables on each other, such as correlation, regression analysis, and t-tests were used. Results suggest that religiosity has a considerable effect on spiritual intelligence, with older adults demonstrating improved spiritual intelligence having high levels of religiosity. In terms of gender, notable differences were observed both in spiritual intelligence and religiosity, with the former being high in males and the latter being high in females. Thus, the findings suggest that a specific level of religiosity and spiritual engagement contribute to the enhanced well-being of the older population. It also allows the researcher to conclude that it is necessary to establish programs and interventions for older adults to improve their spiritual well-being and better understand their different and gender-specific needs. The results should be generalized across the broader geographical population in future studies.
Keywords: Religiosity, spirituality, spiritual well-being, older adults, Multan, gender differences, psychological health

ISAC-25-23 **Framing of Minority Rights in editorial titles of Daily Dawn : a case study of Asia Bibi**
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This research investigates how Daily Dawn frames minority rights in its editorial titles, with particular attention to the Asia Bibi case—a pivotal legal and societal event in Pakistan. Asia Bibi, a Christian woman accused of blasphemy and later acquitted by the Supreme Court, became the center of heated debates on religious minorities' rights, freedom of speech, and the misuse of blasphemy laws. By analyzing Dawn's editorials, the study explores the newspaper's approach to addressing issues of justice, religious minorities, and social cohesion. The findings highlight recurring themes such as the significance of legal protections, the impact of extremist ideologies, and global reactions to Pakistan's handling of minority rights. Dawn's editorial titles frequently strike a balance between exposing systemic inequities and advocating for constitutional and legal measures to safeguard minority groups. The

study illustrates that the Asia Bibi case was framed by Dawn as a broader representation of the difficulties faced by religious minorities, calling for societal reflection and legislative changes.

KEYWORDS : Minority Rights ,Christain , Asia Bibi Case, Daily Dawn Newspaper.

ISAC-25-24 Attitude towards Honor Killing in Community Sample: The Role of Aggression

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The current study examined the relationship between aggression and attitudes toward honor killing among a community sample in Pakistan. A convenience sample of 600 participants (304 males, 296 females) with age range 18-44 years were selected from different urban and rural areas in Southern Punjab (Pakistan). The participants completed the Urdu version of the Attitude towards Honor Killing Scale (Affirmation of Honor Killing and Deterrents of Honor Killing Subscales), the Urdu version of Aggression Questionnaire (Anger, Hostility, Physical and Verbal Aggression Subscales), along with few Urdu demographic questions. The results indicated a significant positive association between higher affirmation towards honor killing and higher Anger, Hostility, Verbal and Physical Aggression. The results showed that males were higher in affirmation towards honor killing than females. Furthermore, people living in rural areas showed higher affirmation towards honor killing than people living in urban areas. Anger, Hostility, Physical Aggression and Verbal Aggression explained 49%, 16%, 12% and 33% of the variance in affirmation towards honor killing. The study's findings highlighted the importance of raising awareness about honor killing. Further, researchers will get better understanding of attitude towards honor killing in relation to aggression within Pakistan's cultural context.

Keywords: attitude towards honor killing, aggression, demographic variables, community sample.

ISAC-25-25 Phytochemical analysis and pharmacological potential of *Astragalus tephrosoides* methanol extract

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The aim of the study was to evaluate the phytochemical and pharmacological potential of methanol extract of whole medicinal plant of *Astragalus tephrosoides* (Fabeacea). The phytochemical components were screened qualitatively and by GC-MS method. Qualitative analysis revealed the presence of saponins, terpenoids, steroids, phenols, volatile oil and coumarins. The methanol extract exhibited promising antioxidant activity. The extract was active in antibacterial and antifungal assays against certain species and also exhibited moderate phytotoxic activity. GC-MS analysis offered 17 bioactive compounds namely 3-Methyl-3-butenoic acid (**1**), 2-Cyclopenten-1-one,2-hydroxy- (**2**), 1-Butanol,3-methyl-, formate (**3**), 4H- Pyran-4-one, 2,3-dihydro-3,5-dihydroxy-6-methyl- (**4**), Benzofuran, 2,3-dihydro- (**5**), 2-Methoxy-4-vinylphenol (**6**), Sucrose (**7**), Benzene propanol, 4-hydroxy-α-methyl-, (R)- (**8**), 3-tert-Butyl-4-hydroxyanisole (**9**), 3-O- Methyl-d-glucose (**10**), 4-((1E)-3-Hydroxy-1-propenyl)-2-methoxyphenol (**11**), Hexadecanoic acid, methyl ester (**12**), n- Hexadecanoic acid (**13**), Phytol (**14**), 9,12,15-Octadecatrienoic acid, (Z,Z,Z)- (**15**), Octadecanoic acid (**16**), 5H-Benzo[b]pyran-8-ol, 2,3,5,5,8a-Pentamethyl-6,7,8,8a-tetrahydro- (**17**). These compounds are reported to show antibacterial, antifungal, anti-inflammatory, cancer preventive, hepatoprotective, nematicide, antihistaminic, antiarthritic, antieczemic and anti acne activities. All these compounds are identified and reported for the first time from the methanol extract of *Astragalus tephrosoides.* The study gives a detailed detection and identification of various bioactive phytochemicals and provides a basis for the biochemical characterization of newly detected pharmacologically active components from this plant.

Key words*: Astragalus tephrosoides*, Phytochemical, Antioxidant, Antibacterial, GC-MS.

ISAC-25-26 "Revival of Dying Craft"
(Camel-Hide Handicrafts in Multān)
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ISAC-25 Multan

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Camel skin lamps made in Multān are renowned world-wide for the intricate handwork done on them by skilled artisans. The art of decorating camel's skin is known as Naqqāshi in the local language and is a very valuable skill. Presently, the importance of handicrafts is dying because of the tourism industry downfall. Handicrafts were once a major source of livelihood for millions of people but low prices, lack of proper marketing, insignificant number of exhibition centers, rising costs of raw-materials, labor cost and industrialization were some of the reasons behind the decline The different paintings made on the camel skin that is fixed atop the lamps represent the local culture of Multan city. The pictures, designs, colors, all connect with the local customs in Multan. The art of making camel-skin lamps in different designs came from generations. The making of camel skin lamps is a through process and it is performed by Clayman, Dabgār and Naqqāsh. Steps involved in the preparation of Camel skin lamps are Molding of Clay, Pouring of Plaster, Casting, Layering of Camel skin mince and decorating it with Naqqāshi. The finding of the study lay down the detail procedure for the creation of Camel skin lamps that would be helpful for researchers and artists. The revival of this art is needed to be addressed through extensive support from government art associated bodies.

Keywords: Camel- skin, Camel-Skin lamps, Naqqashi, Craftsmen, Multan, Clayman, Dabgār and Art and Craft.

ISAC-25-27 Working on Reducing the Symptoms of Anxiety through the use of AI-driven Mindfulness and Meditation among College Students.

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The aim of this study is to understand the working on reducing the symptoms of Anxiety through the use of AI-driven Mindfulness and Meditation among college students. We researched relevant studies on some major databases like Google Scholar, PubMed and PsyINFO.Anxiety is a pervasive mental health concern among college students, with approximately 30% experiencing anxiety disorders (Kessler et al., 2005). Mindfulness and meditation have emerged as effective strategies for reducing anxiety symptoms (Hofmann et al., 2010; Goyal et al., 2014). Recent advancements in artificial intelligence (AI) have enabled the development of personalized, AI-driven mindfulness and meditation interventions.

Keywords: AI-driven mindfulness, meditation, anxiety, college students, mental health, technology-enabled interventions.

ISAC-25-28 Risk factor and prevalence of cyber grooming among adolescents

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Cyber grooming represents a critical concern that significantly endangers adolescents by exposing them to the risks of online exploitation and abuse. This research determine the prevalence and associated risk factors of cyber grooming. The study included a sample of 200 adolescents, comprising 100 girls and 100 boys, aged between 13-17 years. The sample was obtained using a convenience sampling procedure. A multidimensional online grooming questionnaire (Gámez-G, 2018), along with an online grooming risk scale (Pasca.P,2022) and a demographic sheet, was administered to the participants for data collection. Various statistical techniques, including descriptive statistics and linear regression, were employed to analyze the data. The results showed that with reference to gender no significant difference were found in prevalence of cyber grooming. The findings of the research indicate that factors such as gender, parental control were significant associated with lower risk of cyber grooming, while using of chatting platform and having online friends were related higher risk factor of cyber grooming. The results of this study can be useful for parents and educators for the development of online safety initiatives. Further this research will also inform about the dangers associated with online relationships and benefits for parental monitoring to mitigate the risks of cyber grooming.

Keywords: cyber grooming, prevalence, risk factor, adolscents

ISAC-25 Multan

ISAC-25-29 **Effects of tiagabine on lithium-pilocarpine-induced status epilepticus in rats: behavioural, electrographic and biochemical alterations in brain**

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Lithium-Pilocarpine model of status epilepticus (SE) is a widely used laboratory tool to evaluate the anticonvulsive potential of drugs. SE is a crucial neurological condition managed by GABA modulators i.e. benzodiazepines and barbiturates. Tiagabine is a GABA-modulating drug that elevates the synaptic GABA levels by inhibiting GABA reuptake through GABA transporter type-1. The current study aimed to evaluate the impact of tiagabine on behavioural and electrographic changes associated with prolonged SE. For the study, the male Sprague-Dawley rats (150-200 g) were stereotaxically implanted with cortical electrodes for electroencephalography (EEG) recordings. After 5-7 days, lithium chloride (127 mg/kg) was intraperitoneally administered followed by pilocarpine (30 mg/kg) administration to induce the status epilepticus. The behavioural seizures were scored using the Racine scale while electrographic changes were monitored simultaneously to evaluate the seizure dynamics and severity. After 30 minutes of continuous SE, the rats were treated with tiagabine (6-14 mg/kg) and outcomes were noted every 30 minutes for 2 hours. After 2 hours of drug administration, rats were decapitated and brains were isolated to examine the effect of tiagabine on SE-induced biochemical changes in the brain. The results demonstrated that rats treated with 6 mg/kg of tiagabine remained unchanged in terms of behavioural and electrographic changes. However, when the dose was increased to 12 and 14 mg/kg, the rats demonstrated a significant improvement in seizure presentation but electrographic alterations remained unaffected as the frequency and amplitude of epileptic spikes remained the same. However, the SE-induced elevation in oxidative stress and lipid peroxidation in the brain were noted to be protected by tiagabine. The study concludes that tiagabine as monotherapy worked effectively in ameliorating the behavioural manifestations of continuous SE but did not protect the rats from SE-associated electrical and biochemical deteriorations.
Keywords: Tiagabine, Status epilepticus, Seizures, Pilocarpine, EEG

ISAC-25-30 **Phytochemical evaluation and anti-inflammatory potential of *Yucca gloriosa***

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Yucca gloriosa commonly known as "Palm Lilly" is a widely distributed ornamental plant belonging to the family "*Asparagaceae*". In the current study, *Yucca gloriosa* was collected fresh from a nursery located in Mailsi, Pakistan and subjected to shade-drying followed by preparation of 70% methanolic extract (Yg.Cr). The extract was phytochemically analyzed for the occurrence of saponins, alkaloids, phenols, coumarins, anthraquinones, terpenes, sterols and flavonoids. Moreover, the Yg.Cr at doses of 200 and 400 mg/kg was tested for anti-inflammatory potential in rat model of carrageenan-induced paw edema by using aspirin as a standard anti-inflammatory drug. The outcomes revealed that the plant was rich in saponins, tannins, glycosides, flavonoids, sterols, terpenes, and anthraquinones while alkaloids and coumarins were absent in Yg.Cr. Further, the *in-vivo* experimentation involving Sprague-Dawley rats revealed that pre-treatment with Yg.Cr showed a dose-dependent anti-inflammatory effect as edema was significantly ($P<0.05$) reduced, in comparison to control rats. The findings of this preliminary study revealed that observed medicinal potential might be attributed to the phytoconstituents owned by *Yucca gloriosa*. However, the mechanism behind this medicinal activity might be investigated in future studies.
Keywords: *Yucca gloriosa*, Carrageenan, Edema, Palm Lilly, In-vivo

ISAC-25-31 **Analyzing the Relationship between Childhood Trauma and Social Media Addiction among University Students**

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Previous researches indicated that childhood trauma and social media addiction is one issue that is becoming more and more problematic with its profound impact on the mental health of young adults. This study investigates the relationship between Childhood Trauma (CT), and Social Media Addiction (SMA) among university students. Furthermore, the present study examined the gender differences between childhood trauma and social media addiction. The convenient sampling technique was employed, and data were collected from 425 university students using Childhood Trauma Questionnaire (Urdu version) and Social Media Addiction Scale (student form, Urdu version). The findings of this study revealed a significant positive correlation between Childhood Trauma, and Social Media Addiction among University students, indicating that a higher level of Childhood Trauma results in higher Social Media Addiction. Furthermore, the t-test showed mixed results, there was a significant difference in childhood trauma, while there was no difference in social media Addiction. The findings of the study can help the healthcare professionals in such programs' development and resources which would increase awareness within families. This will consequently facilitate the establishment and implementation of laws to prohibit all forms of child abuse, enhance the well-being of students and will furthermore help avoidance of social media addiction.
Key Words: Childhood Trauma, Social Media Addiction.

ISAC-25-32 "Navigating Ethical Conflicts and Unveiling Moral Ambiguity in George Eliot's *The Mill on the Floss":*

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This paper examines the intricate moral and ethical dilemmas presented in George Eliot's The Mill on the Floss, focusing on the characters' navigation through ethical conflicts and the resulting moral ambiguity. By employing a combination of ethical theory and narrative analysis, this study delves into the complex interplay between individual conscience and societal expectations. Utilizing Kohlberg's theory of moral development as a framework, the analysis explores the stages of moral reasoning exhibited by key characters, particularly Maggie and Tom Tulliver. Kohlberg's framework, which posits that individuals progress through different levels of moral development, provides a valuable lens for understanding the ethical decisions and conflicts faced by the characters. Methodologically, the paper adopts a qualitative approach, drawing on close reading and textual analysis to uncover the underlying ethical themes within the narrative. Key scenes and dialogues are examined to illustrate how characters grapple with moral dilemmas and the consequences of their choices. The study also incorporates a comparative analysis with other contemporary works to contextualize Eliot's exploration of morality within the broader Victorian literary landscape. Through this analysis, the paper aims to shed light on Eliot's critique of rigid moral codes and her portrayal of the fluidity and complexity of ethical decision-making. The paper concludes that The Mill on the Floss not only challenges the binary notions of right and wrong but also emphasizes the importance of empathy and personal growth in navigating moral landscapes.

Keywords: Moral ambiguity, Ethical theory, Narrative analysis, Individual conscience, Societal expectations, Kohlberg's theory of moral development, Conflicts, Qualitative approach, Comparative analysis, Victorian literary landscape

ISAC-25-33 Prevalence of stigma related to mental illness in Pakistan

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This study aims to understand the nature of mental-health-related stigma among Pakistani people. We researched relevant studies on some major databases including PubMed, PsyINFO, and Google Scholar. The stigma associated with mental illness is highly prevalent in Pakistani society. The role of supernatural, religious, and magical approaches to mental illness is prevailing. Mental health literacy and care in Pakistan do not meet the population's needs, and MHS is cited as the cause. Acknowledging the stigma of mental illness should be the first essential step toward devising an appropriate treatment plan.

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Keywords: Stigma, Mental Illness, Pakistan, Religious, Supernatural

ISAC-25-34 Recruitment and Selection Techniques Used in Organisations: A Comparative Study of Pakistan and Western Organisations

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The current study aimed to explore various organizational aspects, including recruitment and interview processes, selection techniques, and diversity and inclusion in recruitment. The primary objective was to compare the recruitment and selection methods used in organizations in Pakistan with those in western organizations. A qualitative research method and content analysis were employed. In-depth interviews were conducted with the CEOs of various organizations in Multan. The results indicated significant differences and similarities between the two cultural approaches to recruitment. In Pakistan, organizations tend to rely on referral and recommendation-based methods, while Western organizations typically use a more comprehensive selection process when hiring. Both pakistani and western organisations emphasize the importance of job-specific skills, knowledge, candidate's attitudes, dedication to work, and non-verbal cues during the selection process. This study provides valuable insights that can enhance the recruitment and selection systems in Pakistan, ultimately improving the overall efficiency of the country's administration. The research also discusses future directives and implications.
Keywords: Recruitment, Selection, Organization, Candidate.

ISAC-25-35 Exploring The Impact Of Travel Vlogs In Promoting Tourism In Pakistan

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This research aims to pay a specific attention on the impact of travel vlogs in promoting tourism industry in Pakistan and focusing on Pakistani individuals. Through a quantitative research methodology, data was gathered by the help of Google online self-administered survey which included 15 questions and was conducted through email and received 132 completed questionnaires mainly female participants, using Media Dependency Theory and a simple random sampling with replacement. Studies indicate increased use of travel related vlogs to gain information as they fosters cultural awareness and help planning, budgeting for the trip and transportation while pointing to the best times to visit. They also promote the country as friendly, secure, facilitating of domestic tourism and promotion of the country's image.Peculiarly, travel vlogs that can be defined as popular videos featuring vloggers sharing their travel experiences in different countries, can fill the mentioned gap for future research on the impact of international travelers' perceptions of Pakistan. Besides, it could also analyse the shift in impact of travel vlogs on tourism in the long-run.
KEY WORDS: Impact of travel vlogs, Travel vlogs, Tourism in Pakistan, Promoting Tourism.

ISAC-25-36 Language Beyond Words: The Art and Science of Pragmatics in Solving Crimes in The Mentalist"

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This article examines how The Mentalist intertwines the art of storytelling with the science of pragmatics to depict crime-solving as a linguistic and psychological process. Focusing on Patrick Jane's unique methods, the study analyzes his use of conversational implicature, speech acts, and contextual meaning to uncover hidden truths and manipulate suspects during investigations. By decoding language beyond its literal meaning, Jane demonstrates how subtle cues such as tone, pauses, and word choice reveal deception, motives, and emotional states. The research also explores the interplay of power dynamics in dialogue, where Jane skillfully shifts conversational control to provoke confessions or expose inconsistencies. Highlighting examples from the series, this study showcases the dual role of pragmatics as both a scientific tool in forensic linguistics and an artistic device in narrative construction. Through this lens, the article provides insights into the interdisciplinary potential of pragmatics, bridging language, psychology, and storytelling to create compelling crime-solving narratives.
Keywords: Pragmatics, conversational implicature, speech acts, contextual meaning, forensic linguistics, narrative construction, deception detection, power dynamics, linguistic analysis, The Mentalist.

ISAC-25 Multan

ISAC-25-37 **Endocrine-Disrupting Chemicals and Metabolic Dysregulation:** *Insights from Experimental Studies*

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Endocrine-disrupting chemicals (EDCs) are environmental contaminants that interfere with hormonal homeostasis, contributing to metabolic disorders such as insulin resistance, obesity, and diabetes. Our research explores the biochemical and molecular mechanisms by which EDCs, including bisphenol A (BPA) and nicotine, disrupt metabolic pathways. Utilizing an integrative approach combining in vivo models, in vitro cell-based assays, in silico simulations, and metabolomics analysis, we have demonstrated that chronic EDC exposure impairs glucose metabolism, alters adipokine signaling, and induces oxidative stress. Key metabolic regulators, such as peroxisome proliferator-activated receptors (PPARs), AMP-activated protein kinase (AMPK), and insulin receptor substrates (IRS), exhibit significant dysregulation following EDC exposure. Metabolomic profiling has further revealed alterations in lipid and amino acid metabolism, supporting the role of mitochondrial dysfunction in EDC-induced metabolic imbalances. Computational docking and molecular dynamics simulations provide additional insights into EDC interactions with metabolic enzymes and nuclear receptors. Furthermore, our studies highlight the therapeutic potential of polyphenols and other natural bioactive compounds in mitigating EDC-induced toxicity through antioxidant and anti-inflammatory mechanisms. These findings emphasize the need for stringent regulatory policies and novel therapeutic strategies to counteract EDC-related metabolic disruptions. Our multidisciplinary approach offers a comprehensive understanding of EDC-induced metabolic dysfunction and its broader implications for human health.

Keywords: EDCs, Metabolism, Insulin, Oxidative Stress, Polyphenols

ISAC-25-38 **Impact of Sedentary Behaviour on Mental Health Among Freelancers: Moderating Role of Social Isolation**

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Freelancing provides freedom, but it also comes with distinct obstacles, such as increased sedentary behavior and social isolation, both of which can have a negative influence on mental health. This review looks at the available evidence on the influence of sedentary behavior on mental health among freelancers, with a particular emphasis on the moderating function of social isolation. We include data from research looking into the link between sedentary behavior, social isolation, and mental health outcomes including anxiety, depression, and stress. The review discusses the various processes behind these relationships, which include physiological, psychological, and social aspects. In addition, we examine the significance of these findings on the well-being of freelancers and suggest ideas for treatments to reduce the negative affects of sedentary behavior and social isolation, such as boosting physical exercise, establishing social connections, and providing.

Keywords: Sedentary behavior, social isolation, mental health, freelancers, anxiety, depression, stress, intervention.

ISAC-25-39 **Classification of Brain Tumor MRI through Deep Learning-based Explainable Model**

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Brain tumor classification is a critical task in medical diagnostics, as it aids in early detection and effective treatment planning. Magnetic Resonance Imaging (MRI) serves as a non-invasive imaging modality, offering detailed insights into brain anatomy. Recent advancements in deep learning have revolutionized the medical field, providing robust and automated solutions for brain tumor classification. Convolutional Neural Networks (CNNs) and other deep architectures excel in extracting high-level features from MRI images, surpassing traditional methods reliant on manual feature engineering. This study explores the application of deep learning techniques for classifying brain tumors into categories such as gliomas, meningiomas, and pituitary tumors. A comprehensive Brain Tumor MRI

Dataset from Kaggle is preprocessed to enhance image quality and reduce noise. State-of-the-art deep learning models, including CNNs, ResNet, and EfficientNet, are employed to learn discriminative features from these images. Data augmentation techniques, such as rotation, flipping, and scaling, are applied to improve model generalization. Performance evaluation is conducted using metrics like accuracy, precision, recall, and demonstrating the effectiveness of deep learning in achieving high classification accuracy. The proposed approach addresses challenges such as class imbalance and overfitting through strategies like weighted loss functions and dropout layers. Additionally, the interpretability of the framework was demonstrated using Shapley Additive Explanations (SHAP), providing insights into the decision making process and increasing confidence in real-world diagnosis. The results indicate that deep learning models not only enhance diagnostic accuracy but also reduce the time required for analysis, offering significant potential for real-world clinical applications. This research underscores the transformative role of deep learning in medical imaging, paving the way for more precise and accessible healthcare solutions.

Keywords: Brain Tumor Detection, Brain Tumor Classification, Deep Learning, Brain Tumor MRI Dataset, Interpretable, Shapley Additive Explanations (SHAP)

ISAC-25-40 Impact of leadership styles on organizational performance

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Leadership plays a critical role in shaping the success and effectiveness of an organization. It is the driving force that influences employee behavior, motivation, decision making, and overall workplace culture. This study explores the experiences and perspectives of organizational leadership, focusing on recruitment, performance evaluation, employee motivation, leadership styles, stress management, and conflict resolution. The research is based on an interview with Ms. Sajida, the Principal of FG Public Sawar M. Hussain Shaheed Girls High School, Multan Cantt, and a comparative analysis between Pakistani and Western organizational structures. Findings reveal significant differences in recruitment processes, employee performance evaluation, and leadership development. Western organizations emphasize structured and data-driven approaches, while Pakistani institutions often rely on hierarchical decision-making and resource-constrained methodologies. The study highlights critical challenges, including a lack of standardized training, limited employee motivation programs, and inadequate stress management resources in Pakistani institutions. Leadership styles directly impact organizational performance, employee motivation, and productivity. Qualitative methods and interviews are used in this research. The Independent variable is leadership styles and Dependent variable is organizational performance. Recommendations include adopting technology-driven recruitment, implementing continuous performance feedback mechanisms, and fostering leadership training programs to enhance organizational efficiency. By integrating best practices from both regions, organizations can create balanced and culturally adaptive work environments that promote innovation, inclusivity, and employee well-being.

Key Words: leadership style, organizational performance.

ISAC-25-41 Translation and Adaptation of Attitudes to Ageing Questionnaire (AAQ-24) in Urdu

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The objective of this study was to translate and validate the Attitudes to Ageing Questionnaire (AAQ-24) into Urdu. A cross-sectional survey design was conducted with a sample of 304 older adults aged 60–80 years. The sample was selected through convenience sampling technique (152 from family settings and 152 from old age homes). The study utilized the AAQ-24 and the Urdu version of the World Health Organization Quality of Life (WHOQOL-BREF) questionnaire. The Urdu version of Attitudes to Aging questionnaire demonstrated good internal consistency, with a Cronbach's alpha value of 0.89 for the total scale. Moreover, the reliability for its subscales was also satisfactory: 0.84 for psychosocial loss, 0.74 for psychological growth, and 0.83 for physical change. Convergent validity was established through a strong positive correlation ($r = .76$) between the AAQ-Urdu and WHOQOL-BREF Urdu.

These findings showed that the Urdu version of AAQ-24 is a valid and reliable tool for measuring the attitudes toward ageing among older adults in Pakistan.

Keywords: Attitudes to Ageing Questionnaire, older adults, Urdu translation, psychometric properties, reliability.

ISAC-25-42 Social Capital and Community Resilience in Rural Pakistan: The Mediating Role of Social Trust

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This research investigates the role of social capital in building community resilience in rural Pakistan, with a focus on the mediating role of social trust in addressing socio-economic challenges. The study aims to explore how networks of trust, community norms, and relationships contribute to strengthening the resilience of rural communities, specifically through social trust as a mediator. The study employs a mixed-methods research design, combining quantitative surveys with qualitative interviews. A total of 250 households in rural Punjab were surveyed, examining their social capital (community networks, trust, and engagement) and social trust (the level of trust in fellow community members) in addressing local challenges such as poverty, education, and infrastructure. Data analysis was conducted using SPSS and qualitative coding techniques to evaluate the direct and indirect effects of social capital and social trust on community resilience. The findings reveal that higher levels of social capital, particularly community networks and trust, significantly enhance community resilience. Furthermore, social trust was identified as a key mediating factor, strengthening the relationship between social capital and the capacity of rural communities to overcome socio-economic challenges. The study highlights the importance of fostering social capital and social trust in rural communities to promote sustainable development and resilience. Policy recommendations include supporting community-based initiatives that enhance social networks and trust to improve socio-economic outcomes and build long-term resilience.

Keywords: Social Capital, Community Resilience, Social Trust, Rural Pakistan, Socio-economic Challenges.

ISAC-25-43 Exploring The Impact Of Romantic Fiction Novels On Reader

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The aim of this research paper is to find out the power of love in the documentary novels and on what grounds can the genre impress in the reader's mind the prediction of love, put it into shape in the mind of the emotional artist, and escape from it. The questionnaire asked all 50 people to complete it regarding the theme of romantic fiction by answering a set of questions that considered how the different literary practices, their emotional affiliation with heroes and an obsessive desire for idealized love stories effect their reading experience. This suggests that the experience of romance is largely constructed by this typical feature of romantic fiction–everything related to romance is completely unreal, quite literally, without regard to, for example, gender roles in relationships. Also, reading romantic fiction escapism is also the main reason why people read romantic fiction; it is a good way to get in a good mood and also makes you feel hopeful and happy. The research points out that romantic fiction appears to play a dual role in the reader's life: It enables the reader to understand love on one hand and also serve as psychological tool to console the reader from real life impediments on the other hand. The research did manage categorically to prove that romantic fiction has certainly some negative effects by instilling unrealistic expectations. However, it can also produce emotional well being and human emotions intelligibly.

Keywords :Romantic fiction, Reading habit s,Reader preferences, Psychological impact, Romance genre,Gender and reading , Emotional engagement,

ISAC-25-44 The Effect Of Social Media Influencers In Shaping Opinions On Climate Change, A Survey Analysis

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This research is investigating the effect of social media influencers in molding people's opinions on climate change, applying or employing framing theory to analyze how influencers present climate-related content. A quantitative approach was used, with data collected through a Google survey comprising 16 questions shared via email. The survey gathered 101 responses from both men and women combined. The simple random sampling with

replacement technique was employed to randomly select participants or people that i took survey from. The results indicate that social media influencers play a specific part to shape citizens attitudes toward climate change, with their framing of environmental issues influencing how everyone grabs on or engage with climate-related content. However, the study underlines the requirement to accurately and reliably inform, as the framing of climate change by influencers can either enhance or distort public understanding. Overall, the results talk about the influential responsibility of social media in climate change communication and the responsibility of influencers to present fact-based and trustworthy information to foster informed public opinions.

Keywords : Effects of social media, Social media influencers, SMI shaping opinions, climate change.

ISAC-25-45 The Impact of Family Structure on Adolescent Behavioral Development in Pakistan: The Mediating Role of Parental Involvement

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This research investigates the impact of family structure on adolescent behavioral development in Pakistan, specifically focusing on the mediating role of parental involvement. The study aims to explore how different family structures—nuclear, extended, and single-parent families—affect adolescent behavioral outcomes and to understand the role of parental involvement in bridging these relationships. The study employs a quantitative research design, grounded in the positivist philosophy, with a deductive approach to theory testing. The population for the study comprises 3,000 adolescents aged 12–18 years from Lahore and Rawalpindi. A sample size of 400 adolescents (200 male and 200 female) was selected using stratified random sampling, ensuring a representative and unbiased selection of participants across family structures. Data collection was conducted using structured questionnaires, and data analysis was performed using SPSS and SMART PLS-SEM to evaluate the relationships between variables and test the mediating effects. The findings reveal that adolescents from nuclear families with higher parental involvement exhibit significantly more positive behavioral outcomes compared to those from extended or single-parent families. Furthermore, parental involvement is identified as a key mediating factor, strengthening the impact of family structure on adolescent behavioral development. The study underscores the critical role of parental engagement in fostering positive behavioral outcomes in adolescents and highlights the importance of family-based interventions to improve adolescent development. These insights provide valuable guidance for policymakers, educators, and parents in designing strategies to support adolescent well-being within the socio-cultural context of Pakistan.

Keywords: Family Structure, Parental Involvement, Adolescent Behavioral Development, Positive Outcomes, Pakistan.

ISAC-25-46 Draped clay Art

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Draped clay art is a sculpting technique that mimics the fluidity of fabric by draping soft clay over forms, objects, or armatures to create elegant, flowing textures. This method is commonly used in pottery, mixed-media sculptures, and decorative crafts, allowing artists to achieve a natural, organic look. To create draped clay art, a thin slab of clay is rolled out and, if desired, imprinted with textures such as lace or fabric patterns. The clay is then carefully placed over a mold or shaped freehand, allowing it to fold naturally. Artists refine the edges, adjust the folds, and smooth the surface before allowing the piece to dry. Depending on the type of clay used, it may either be air-dried or kiln-fired. Once dry, the artwork can be painted, glazed, or finished with metallic effects for added depth. This technique is widely applied in decorative sculptures, pottery, jewellery, and themed figurines, offering a unique blend of movement and permanence. To ensure success, it's essential to work with soft yet firm clay, support delicate drapes during drying, and experiment with different textures to enhance the final look. Draped clay art is a captivating way to bring elegance and sophistication to clay creations, making it a favourite among both beginner and experienced artists.

ISAC-25-47 Assessing The Performance Of Machine Learning Models For Breast Cancer Diagnosis

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ISAC-25 Multan

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Breast cancer is a leading motive of most cancer-related deaths internationally, with early analysis being essential for powerful treatment and advanced survival fees. The growing availability of digital memography and histopathology pictures has brought about the improvement of Computer-aided design (CAD) , which depends heavily on machine language (ML) models to research medical images and diagnose breast cancer. It is offers a comprehensive evaluation of the performance of various ML models, consisiting of support vector machine (SVM), random forests (RF), logistic regression and ensemble methods, in diagnosing breast cancer using a massive dataset of mamography and histopathology pictures. A comparitive overall performance evaluation is carried out the usage of a variety of assessment metrics, which include accuracy, precision, F1-score, and location below the receiver operating characteristics (ROC) curve. A feature analysis is like wise conducted to analyze the importance of different functions extracted from the images, revealing that texture and morphological features make contributions drastically to the diagnosis. The study contributes to the improvement of correct and dependable ML-primarily based breast cancer diagnosis sructures, in the long run assisting clinicians in making knowledgeable selections. The finding of this studies have the potential to improve the early detection and diagnosis of breast cancer, leading to higher remedy consequences and progressed patient survival costs.

Key Words: Breast cancer diagnosis, machine learning, performance evaluation, comparitive ananlysis, feature investigation, computer aided design (CAD).

ISAC-25-48 Cellulose Nanocrystals from Hordeum vulgare Husk: A Promising Biomaterial for Drug Delivery Applications

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In recent years, natural polysaccharides have emerged as sustainable and versatile materials for drug delivery systems. This study explores the extraction of cellulose nanocrystals (CNCs) from Hordeum vulgare (barley) husk and their potential application in drug delivery systems. The cellulose nanocrystals were extracted with a yield of 46%, and their physicochemical properties were systematically characterized. The CNCs were found to be insoluble in common solvents, and their morphological analysis via atomic force microscopy revealed spherical particles with an average size of 1 nm. Further characterization of the CNCs included FTIR, XRD, and zeta potential analysis, revealing a crystalline structure with a crystallinity index of 33.9% and a negative zeta potential of -19.9 mV, indicating good dispersion stability. Additionally, the micromeritics evaluation indicated that CNCs exhibited fair flow properties, making them suitable for various pharmaceutical formulations. In a series of formulations, cellulose nanocrystals were incorporated into fast disintegrating tablets (FDTs) of Ezetimibe to enhance the drug's solubility and dissolution profile. The pre- and post-compression analyses demonstrated the suitability of CNCs as a superdisintegrant, significantly reducing the tablet disintegration time and enhancing the dissolution rate of Ezetimibe. The maximum drug release from the FDTs occurred within 3 to 5 minutes, following a Weibull release model, suggesting controlled release behavior. Thermal stability of the formulations was confirmed via thermogravimetric analysis (TGA) and differential scanning calorimetry (DSC). This study highlights the potential of barley husk-derived cellulose nanocrystals as an effective and eco-friendly material for use in pharmaceutical applications. Their ability to improve the solubility and dissolution of poorly water-soluble drugs such as Ezetimibe makes them a promising candidate for the development of advanced drug delivery systems. These findings open new avenues for utilizing agricultural by-products in sustainable pharmaceutical formulation strategies.

Key Words: Nanocrystals, Cellulose, Drug delivery system

ISAC-25 Multan

ISAC-25-49 **Evaluating User Perceptions of Vocabulary Acquisition Features in Digital Language Learning Platforms: A Comparative Study on Effectiveness and Satisfaction**
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This study examines user perceptions of vocabulary acquisition features in two widely used digital language learning applications, Memrise and Rosetta Stone, through the theoretical lenses of Spaced Repetition Theory (SRT) and Cognitive Load Theory (CLT). A qualitative content analysis of 500 user reviews from mobile app stores was conducted to identify key themes related to usability, learning effectiveness, and user satisfaction. The findings reveal that Memrise excels in user engagement through gamified elements and interactive features, promoting consistent practice but occasionally increasing cognitive load due to a lack of structured progression. Conversely, Rosetta Stone provides a more systematic and immersive approach to vocabulary learning, emphasizing contextual understanding and reducing cognitive load, though its minimal gamification may limit sustained user engagement. These findings suggest that combining the strengths of gamification with a structured approach could optimize vocabulary learning outcomes. This study contributes to the field of Mobile-Assisted Language Learning (MALL) by providing actionable insights for educators, developers, and designers of language learning technologies. The study underscores the importance of balancing engagement, structure, and user preferences to create more effective learning tools.
Key Words: Memrise, Rosetta Stone, vocabulary acquisition, Mobile-Assisted Language Learning (MALL), Spaced Repetition Theory, Cognitive Load Theory, user perceptions, content analysis.

ISAC-25-50 **Cultural Bereavement and Post-Migration Stress among Afghan Refugees in Pakistan: Mediating role of Perceived Discrimination**
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Afghan refugees face significant mental health challenges due to the loss of cultural norms and social support systems, which are further exacerbated by experiences of discrimination. This study aimed to examine the relationship between cultural bereavement and post-migration stress, with perceived discrimination as a mediator. The sample consisted of 306 Afghan refugees (male = 184, female = 122), aged 18–40 years (M = 26.95, SD = 5.47), residing in different cities of Pakistan, including Islamabad, Lahore, Karachi, Peshawar, and Quetta. Data were collected using the Cross-Cultural Loss Scale (Wang et al., 2015), the Everyday Discrimination Scale (Williams et al., 1997), and the Refugees Post-Migration Stress Scale-Revised (Oktay et al., 2023), along with a demographic questionnaire through purposive sampling. Mediation analysis was conducted using the *Process Macro* (Hayes, 2013). Results indicated that perceived discrimination significantly mediated the relationship between cultural bereavement and post-migration stress (B = .11, p < .05). It was concluded that Afghan refugees who experience greater cultural loss tend to have higher post-migration stress, and this stress further increases when they face discrimination. These findings highlight the need for culturally sensitive psychosocial interventions, including community-based mental health programs and anti-discrimination policies, to reduce stress and enhance the well-being of Afghan refugees.
Key Words: Afghan refugee, cultural bereavement, perceived discrimination, post migration stress, Pakistan

ISAC-25-51 **Love attitude and emotional reactivity: gender differences among University students**
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In the Asian countries, the rapidly changing nature of romantic relationships having a profound impact on young adults emotional wellbeing and love attitudes, which is focus of latest research. The purpose of this study was to examine the gender differences between love attitude and emotional reactivity among university students. A cross-sectional survey research method was used to conduct this research. The sample consisted of 304 students (152

males, 152 females) with the age range 18-30 years. Sample was drawn through convenient sampling procedure. Love Attitude Scale (Knox. D, 1969) and Perth Emotional Reactivity Scale (Becerra. R & Campitelli. G, 2013) were administered to the participants to collect data. Different Statistical techniques, including correlation and t-tests, revealed a negative correlation between love attitude and emotional reactivity. Females exhibited stronger love attitudes and higher emotional reactivity compared to males. The findings highlight the role of love attitude in shaping emotional outcomes, providing valuable insights for educators and policymakers to create supportive environments that promote student emotional well-being and success.

Keywords: Love attitude, Emotional reactivity, Gender differences

ISAC-25-52 Sectarianism and its impact on National Unity in Pakistan.

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Sectarianism poses a serious threat to Pakistan's security, fostering ferocity, unrest and disorder within society. Over the past three decades, sectarian conflicts have escalated, leading to rise in suicide bombings, bomb blasts, assassinations, targeted killings and terrorist attacks. This sectarian strife has detrimental effects on Pakistan's economy, sociology and politics. The importance of unity within a nation, regardless of religious affiliations. It highlights that if people don't identify themselves by specific sects like Sunni, Shia, Deobandi, Ahl-i-Hadith, Qadiani or Mirzai then no one can harm the nation's unity. Sectarianism has damaged Pakistan's image and threatens national security due to links between sectarian groups and foreign militants. The emergence of sectarianism particularly during General Zia-Ul-Haq's era and the increase in sectarian violence after the 9/11 incidents throughout Pakistan. We need for a comprehensive policy to protect national security by fostering peace, unity and rule of law.

Keywords: Sectarianism, Nation Unity, Religion, National security, sectarian groups, comprehensive policy.

ISAC-25-53 Unveiling Power Dynamics in Mandela's Speech :A Critical Discourse Analysis

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This work examines the linguistic features and rhetorical strategies employed in Nelson Mandela's speeches to address societal issues and shape ideologies. The proposed research aims to analyze two of Mandela's most impactful speeches—his Inaugural Address (**1994**) and Congressional Address (**1994**) to understand how he utilized language as a powerful tool to combat racial discrimination and promote unity. The novelty of this study lies in its application of Fairclough's 3-Dimensional Framework (**2003**) to investigate the linguistic practices, social context, and discursive strategies used by Mandela to fight for the rights of Black individuals and foster reconciliation between Black and White communities. This qualitative research employs a non-probability purposive sampling technique for data analysis. Mandela's speeches reflect language usage deeply aligned with the cultural and social context of the time, emphasizing his vision of equality, justice, and unity. The findings of the research reveal the eloquent use of linguistic devices, such as repetition and metaphor, to underscore Mandela's primary concern: eliminating racial discrimination and fostering reconciliation among diverse communities. Despite the challenges of the historical and political climate, Mandela's tone remains optimistic and inspiring, highlighting his unwavering commitment to social harmony. Overall, this study not only sheds light on the historical significance and rhetorical prowess of Mandela's speeches but also paves the way for future researchers to examine the speeches of other influential leaders.

Keywords: CDA, Inaugural address, Congressional address, historical perspective, racial discrimination.

ISAC-25-54 The Addiction of PUBG among Students; A Survey Analysis

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This study investigates the impact of PUBG addiction on the mental and physical health, social connectedness, and academic performance of college students. Utilizing a quantitative research strategy, data was collected via a

structured Google survey distributed across social media platforms. The findings reveal significant negative effects of PUBG addiction on students' mental and physical health, including sleep disorders, eye strain, and fatigue. Additionally, higher levels of PUBG addiction are associated with lower academic performance. The study also highlights the role of social connectedness, with varying addiction levels influencing students' social interactions. Gender differences were noted, with female students exhibiting higher levels of addiction compared to male students, and the 18-21 age group showing the highest addiction rates. These results emphasize the need for targeted interventions to mitigate the adverse effects of gaming addiction and promote healthier gaming habits among young adults. The research provides valuable insights for developing effective strategies to enhance students' overall well-being and academic success in a digitally dominated world.

Keywords: Student mental health, online gaming habits, Digital addiction among students, mobile gaming effects on youth, PUBG Addiction effects

ISAC-25-55 Enhancing Trust in Personalized Healthcare Recommendations: A Semantically-Aware LSTM Approach with Explainability and Domain-Specific Knowledge Graphs

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Personalized recommendations hold immense potential in healthcare, but user trust is paramount for their effective adoption. This study explores a novel approach to enhance trust in personalized healthcare recommendations by leveraging a semantically-aware Long Short-Term Memory (LSTM) model augmented with explainability features and domain-specific knowledge graphs. Building upon the strong performance of LSTM models in semantic content-based e-learning recommendations, we adapt and extend the LSTMM framework to the healthcare domain. The proposed approach addresses the critical need for trust by incorporating two key enhancements. First, we replace the general-purpose ConceptNet knowledge graph with specialized medical knowledge graphs such as UMLS, SNOMED CT, or DrugBank, significantly enriching the semantic representation of medical concepts and improving the precision of patient-healthcare resource mappings. Second, we integrate an explainability layer using techniques like SHAP values or attention mechanisms within the LSTM architecture. This allows the system to provide clear and understandable justifications for its recommendations, fostering user trust and engagement. We hypothesize that these enhancements will lead to a significant improvement in recommendation accuracy and user trust compared to baseline LSTM models. Specifically, we anticipate an accuracy increase from the baseline of 84.53% (achieved by LSTMM on e-learning data) to approximately 88-92% and a corresponding F1-score improvement from 77.31% to 80-85%. This study contributes to the growing field of personalized healthcare by addressing the crucial challenge of user trust and providing a pathway to more effective and accepted recommendation systems.

Keywords: *Personalized Healthcare Recommendations, User Trust, Explainable AI, Knowledge Graphs, LSTM, Semantic Analysis, Medical Informatics, Recommender Systems, Deep Learning, SHAP Values, Attention Mechanisms, UMLS, SNOMED CT, DrugBank.*

ISAC-25-56 Starch Characteristics and physicochemical assessment of Water chestnuts flour and its use as prebiotic and stabilizer in yogurt

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This study explores the use of water chestnut (Trapa natans) starch as a functional additive in yogurt to improve its quality, nutritional content, and shelf life. Yogurt samples were fortified with different starch concentrations (0–2.5 g/L) and evaluated over a 20-day storage period for their physicochemical, sensory, and probiotic properties. The results showed a significant reduction in syneresis as the starch concentration increased. T5 (2.5 g/L) exhibited the lowest whey separation (18.06 mL) compared to the control (T0, 22.66 mL). The total solids content also increased with starch addition, with T5 showing the highest value (11.86%). Probiotic viability improved considerably in

starch-fortified samples, with T3 (1.5 g/L) achieving the highest probiotic count (9.1×10^8 CFU/mL) and viability (90.1%), while the control exhibited a lower probiotic count (6.5×10^7 CFU/mL). Sensory evaluation demonstrated improved texture, flavor, and overall acceptability in yogurt enriched with starch, with T5 scoring highest for texture (7.53) and overall acceptability (7.13). FTIR analysis indicated the stabilization of functional groups, confirming the positive impact of starch on yogurt's molecular interactions during storage. The findings highlight the potential of water chestnut starch as a sustainable prebiotic and stabilizer, enhancing the functional, sensory, and nutritional properties of yogurt. The optimal results were observed at 1.5–2.5 g/L starch concentrations, contributing to the development of innovative, health-focused dairy products with improved shelf life and consumer appeal.

Keywords: Water Chestnut Starch, Yogurt Fortification, Syneresis Reduction, Probiotic Viability, FTIR Spectroscopy, Sensory Evaluation, Prebiotics, Dairy Product Innovation, Nutritional Enhancement, Shelf-Life Improvement.

ISAC-25-57 A Critical Discourse Analysis of Particular Some Literature's Works in Fairclough's Socio-political Perspective

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The values and impacts of literature on the world are well-defined, but the range of possible impacts is infinite. In this paper, the research showcase how literature influences society through political, social, communal, and personal impacts. This research has showcase these effects by examining literary works, assessing their influence on society, and highlighting their undeniable impact on society. The study support the arguments by referencing the ideas and writings of various literary scholars from diverse literary fields; this includes, King Martin Luther's speech "I Have a Dream", The Three Evils", "Bell Jar (1963) by Sylvia Plath", "The Jungle (1905) by Upton Sinclair" comparatively are undergoing analysis through the use of Critical Discourse Analysis (CDA). Utilizing people from different literary backgrounds in various eras enabled us to show that literature as a whole, not just works in the form of books and poems, has the power to move and change society. This material also includes the analysis of the first part of Dr. Martin Luther King Jr.'s speeches using CDA. Here is a discussion of "I Have a Dream" and "The Three Evils" in a socio-political setting. The research explores the foundation of its application of Fairclough's perspectives. The first section of the text features a variation of CDA. Moreover, it explains the concepts of social, cultural, and political inequalities in a text and structure perspective.

Keywords: CDA, Socio-political Perspective, 3D Model, Racial Discrimination, Hegemony, Dominance, Social, personal identity and communal values. The Jungle (1905) by Upton Sinclair","The Bell Jar (1963).

ISAC-25-58 Features of identity

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Chapter 1   Biography

Hadiqa Kamran is a young, emerging artist currently in her 6th semester of art studies. Passionate about various art forms, including painting, sculpture, and digital art, she blends contemporary techniques with cultural influences. Dedicated to her craft, Hadiqa is focused on exploring personal and universal themes in her work, with a bright future in the art world ahead.

Artist Statement: As a Bachelor of Fine Arts student currently in my 6th semester, I am deeply engaged in the exploration of artistic expression across various styles and mediums. My creative journey is driven by curiosity and a desire to push the boundaries of visual storytelling. From traditional painting and sculpture to digital art and mixed media, I constantly experiment with techniques to develop a unique artistic voice. Art, to me, is a means of communication—an ever-evolving dialogue between emotions, ideas, and form. I draw inspiration from personal experiences, societal narratives, and the world around me, striving to create pieces that evoke thought and emotion. Through my work, I aim to challenge perspectives, celebrate diversity, and capture the complexities of human nature. As I continue my academic and artistic growth, I remain open to new

influences and techniques, eager to refine my skills and deepen my conceptual understanding. Art is not just my field of study but a lifelong passion that I am committed to exploring and mastering.

Title :   **Features of identity**
Size :   **2ft by 2ft**
Medium: **Oil painting , golden foil paper**

Artist statement : A sense of beauty, selfdiscovery, and connection to the peacock's symbolism of confidence, transformation, and grace Abstract body

An abstract painting of a peacock and a self-portrait merges vibrant colors and fluid forms, symbolizing identity and transformation. The peacock's iridescent blues and greens swirl into the fragmented self-portrait, blurring the line between self and nature. Expressive brushstrokes and layered textures create movement, evoking themes of beauty, confidence, and self-reflection.

Keywords:1. Identity2. Transformation3. Peacock4. Self-Reflection5. Abstract Art

Title.   **Qila of multan**
Medium.   **Oil painting**
Size.   **3ft by 4 ft**
Artist statement

The door of Qila Shah Rukn-e-Alam is a gateway to history and spirituality, embodying centuries of faith and craftsmanship. Through my artwork, I capture its intricate carvings, aged textures, and symbolic presence. It stands as a silent witness to devotion, resilience, and the artistic heritage of Multan, inviting viewers to experience the mysticism and legacy it holds.

a historic fortress in Pakistan, showcases rich cultural and architectural heritage. Blending Islamic and Persian styles, it symbolizes f change. Key landmarks, like the shrine of Hazrat Bahauddin Zakariya, add to its significance. This study highlights its history, preservation.

Keywords: Multan Qila, Historic Fortress, Cultural Heritage, Architecture Preservation

Title   **The dolphin Size**   **4 by 2 ft.**
Medium.   **Oil on canvas**

Artist Statement:
This painting symbolizes the deep connection between nature and the universe, depicting a dolphin seamlessly blending into the cosmic expanse. The fluid blues and swirling galaxies represent freedom, wisdom, and the infinite possibilities of existence. Through this piece, I explore the harmony between Earth and the cosmos, inviting viewers to reflect on the mystery and beauty that unites all life.

This artwork depicts a blue dolphin symbolizing freedom and intelligence, contrasted with dead lotus flowers representing impermanence. The vibrant dolphin and fading flowers create a visual dialogue on life, decay, and transformation. Set in a dreamlike space, the painting evokes themes of resilience and the cyclical nature of existence.

Keywords: Blue Dolphin, Dead Lotus Flowers Transformation, Impermanence, Abstract Art

ISAC-25-59 **Stylistic Analysis of the Slogans of Educational Institutions of South Punjab**
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ISAC-25 Multan

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The study aims to analyze the stylistics and linguistic devices that are used in the slogans of educational institutions of South Punjab. The study also aims to highlight their effect on slogans. Halliday's approach to SFL (Systemic functional linguistics) was employed. The results of the data analyzed reveal that the ideational functions of slogans show the notion, theme and objectives of educational institutions. The upshots of interpersonal functions show that the tone of colleges is often encouraging, and educational institutions create their relationship with their targeted individuals with the help of slogans. The results of textual functions reveal that educational institutions mostly use nouns, verbs, prepositions and alliteration to create brief, memorable and eye-catching slogans. The findings of the research show that educational institutions use slogans to shape their unique identity and to convey their vision, mission and values to the people to influence their decisions about academics.
Key Words: Stylistics, Slogans, Colleges, Nouns, Verbs, Values, Vision

ISAC-25-60 Examining the Language of Social Media Platforms on Genocide: A Critical Discourse Analysis of Ghaza War Posts

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The role of social media in shaping narratives about conflicts has grown significantly in recent years. This study critically deconstructs the language being used in social media posts surrounding the Gaza war, focusing on how these posts contribute to framing, normalizing, or contesting narratives of genocide. Employing Critical Discourse Analysis (CDA) as the primary methodological framework, this research examines the linguistic and rhetorical strategies used to represent violence, victimhood, resistance, and power dynamics. The study also explores the use of emotionally charged language, metaphors, and hashtags as tools for mobilization, awareness, and political positioning. The source of data will be comprised of three social media platforms Twitter, Facebook, and Instagram. Meanwhile, a particular sample of 30 posts will be selected as a sample by employing a purposive sampling technique. Hence, the findings of this particular research aim to unveil how digital discourse can reinforce or challenge dominant power structures, influence public perception, and shape global solidarity. This study contributes to the broader discourse on the intersection of language, media, and social justice in the context of armed conflict and humanitarian crises.
Key Words: Social media platforms, language strategies, critical discourse analysis, genocide and qualitative research.

ISAC-25-61 Deconstructing the Damsel: A Post-Structuralist Analysis of Gender and Narrative in Contemporary Hollywood Cinema

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This qualitative research aims to highlight cinematic discourse challenging the stereotypical approaches of narrative through the lens of post-structuralism. The Hollywood movie Damsel from 2024 is analyzed using the post-structuralist framework. The study looks at how the movie challenges conventional assumptions in the drama genre, especially about gender roles and storylines. The study explores the relationship between cinematic discourse and social norms using qualitative approaches, providing insights into how Hollywood functions as a platform for rethinking well-known clichés. The analysis focuses on how Damsel challenges traditional depictions of femininity and heroism, adding to the changing genre and representational environment of modern film. The study aims to qualitatively analyze the narrative and visual strategies used in Damsel through the lens of post-structuralism. It explores the film's critique of gender norms and its contribution to redefining the drama genre. It also examines Hollywood's role in deconstructing and reshaping stereotypes within cinematic discourse.
Keywords: cinematic discourse, poststructuralism, contemporary genre, feminism, femininity,

ISAC-25 Multan

ISAC-25-62 **A Critical Discourse Analysis of Particular Literature's Works in Fairclough's Socio-political Perspective**
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The values and impacts of literature on the world are well-defined, but the range of possible impacts is infinite. In this paper, the research showcases how literature influences society through political, social, communal, and personal impacts. This research has showcased these effects by examining literary works, assessing their influence on society, and highlighting their undeniable impact on society. The study supports the arguments by referencing the ideas and writings of various literary scholars from diverse literary fields; this includes, King Martin Luther's speech "I Have a Dream", The Three Evils", "Bell Jar (1963) by Sylvia Plath", "The Jungle (1905) by Upton Sinclair" comparatively are undergoing analysis through the use of Critical Discourse Analysis (CDA). Utilizing people from different literary backgrounds in various eras enabled us to show that literature as a whole, not just works in the form of books and poems, has the power to move and change society. This material also includes the analysis of the first part of Dr. Martin Luther King Jr.'s speeches using CDA. Here is a discussion of "I Have a Dream" and "The Three Evils" in a socio-political setting. The research explores the foundation of its application of Fairclough's perspectives. The first section of the text features a variation of CDA. Moreover, it explains the concepts of social, cultural, and political inequalities in a text and structure perspective.
Key Words: CDA, Socio-political Perspective, 3D Model, Racial Discrimination, Hegemony, Dominance, Social, personal identity and communal values. The Jungle (1905) by Upton Sinclair", "The Bell Jar (1963).

ISAC-25-63 **Analysing the Multiple Intentionality in Haleema Aslam's TEDtalk "Liberation through Education" in Perspective of Critical Discourse Analysis**
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This paper examines the intentional communicative structures through a comprehensive analysis of the "TED talk 'Education through Liberation' by Haleema Aslam," taken as a sample. The dialogues in the TED talk are transcribed as text. This paper aims to analyse the diverse communicative intentions embedded in the content of the media discourse of the TED talk. This study explores the content type, intentional communicative mechanisms and linguistic means that contribute to the attainment of different goals within a single speech. Intentional communicative structures are introduced as a specific feature of TED talks media discourse. Intentional communicative structures take into account macro intentionality, which includes general aims and intentions of communicative acts and micro intentionality, which includes implied intent in speech utterances. Through descriptive and qualitative methodology, the study challenges intentional communicative structures in TED Talks often engaging with more than one discourse. These discourses are multifaceted, involving language, representation, and ideological struggles. The examination of this media discourse in which female speaker employs linguistic strategies to redefine societal expectations and contest deeply rooted gender conventions, all the while negotiating intricate ideological prospects. Through this lens, researchers can investigate the subtleties of language usage across diverse cultural contexts and its influence on the formation of identities and experiences about gender. This study provides an emphasis on video lectures TED talk platform as a manifestation of heterogeneous intentionality of complex nature. The study examines four leading macro intentions in this TED Talk text such as informing, persuading, inducing, inspiring and entertaining. Each of these is produced through a variety of micro intentions and linguistic means such as implicatures and explicatures. Based on a qualitative analysis of the verbal and non-verbal means used by TED speakers, the discourse of TED Talk is negotiated in the form of diverse intentional communicative structures, with the predominance of the macro intention of informing. Overall, this research highlights the communicative principle of multiple intentional and contested structures of discourse that underlie this TED Talk text. These deliberate communicative frameworks enable speakers to proficiently articulate their concepts to the audience, inspire listeners, and underscore the significance of transformations in both life and educational contexts. Consequently, this research promotes social transformation and enhances personal identities to reconstruct and contest entrenched gender norms.
Keywords: Polyintentionality, Micro Intentionality, Macro Intentionality, Educational Media Discourse.

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ISAC-25-64 **The psychological disorders among humans due to AI and human love relationship: A Psychoanalytic Study of an Indian Movie**

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Artificial intelligence and Robots have been an important part of science fiction films, both as characters and also as themes. As they have become a crucial part of our real lives it has attained their position on cinematic screens as well. Their role in sci-fi films elaborates on the complex relationship that human beings have with technology. This study aims to focus on tracing the psychological disorders that develop in humans as a result of their relationship with AI robots. This study has applied the psychoanalytical theory to a film "Teri baton m aesa uljha jia" featuring Shahid Kapoor and Kriti Sanon by analysing the theme of love this study will trace the psychological disorders that develop in a human. This paper helps to draw the parallels between the human emotional complexities and the Artificial Intelligence (AI). By analyzing the broader narratives, character's dynamics and emotional themes, through Freudian's theory of psychoanalysis, this paper uncovers the emotional conflicts.

Key Words: Sci-Fi films, Artificial Intelligence, Human and AI, Love relationship, Psychoanalysis.

ISAC-25-65 **Mental Models of Race: A Socio-Cognitive Approach to *The Last White Man***

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The present study examines Mohsin Hamid's novel *The Last White Man* through the lens of Teun A. van Dijk's *Socio-Cognitive Approach*. The primary focus of the analysis is on the narrative techniques employed by Hamid to represent mental models of race within the characters, specifically through internal monologue and stream of consciousness. The story revolves around Anders, who works as a fitness coach at a gym. He is the first person in town whose skin colour changes from white to brown overnight. The unnamed city where Anders lives appears to be the hub of racial tension. This subtle portrayal of the setting suggests that the chaos and complexity of racial identity are not limited to a geographical level; rather, they reveal on the broader societal spectrum. The study explores how cognitive processes, particularly their adaptation or negation, bring about significant change in both the self-view and worldview of the characters. The study of cognitive processes is grounded in cognitive science and social psychology. Therefore, Teun A. van Dijk's cognitive framework is an ideal approach for understanding racial fluidity, power dynamics and societal adaptations in the novel. The research focuses on the psychological and emotional implications of racial identity shift and investigates how these transformations influence character's perceptions and contribute to the broader racial transformation. Furthermore, this paper aims to highlight how individual and collective mental models of race are constructed, challenged and recontextualized throughout the narrative.

Keywords: Socio-Cognitive Approach, Racial Fluidity, Racial Identity, Mental Models, The Last White Man

ISAC-25-66 **Things Fall Apart by Chinua Achebe: A Formalist Analysis**

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This paper intends to interpret the text of Things Fall Apart from the perspective of a formalist. The researcher uses the qualitative method under the interpretative paradigm. In this paper, the researcher describes the form, literary devices, and language as well as analyzes the compiled data using formalism theory in the novel Things Fall Apart by Chinua Achebe. The formalists believed that literature should be examined scientifically. Smilies, symbolism, gender roles, Ibo words, rhythmic lines, and clear-cut sentences are all abundant in Chinua Achebe's literature, according to the findings. From the data analysis, the researcher finds that the language of this novel is straightforward.

Keywords: Formalism, Russian formalism, Form, Literary devices, Language, Syntax

ISAC-25-67 **Gender Socialization Through Fairy Tales: A Critical Discourse Analysis**
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Early childhood stories are crucial for cognitive development in children. Fairy tales act as educational tools for children even before they step foot inside a school. Fairytales plant a significant seed in the minds of children and as children grow, these subtle concepts morph into their perspective of reality. The fantastical lives of princes and princesses, witches and ogres, giants and dragons are portrayed in fairy tales. Their magical power captures the imagination of young children. The paper focuses on the topic of gender roles in fairy tales and how the development of children and their understandings are affected by these outdated views about gender. These fairy tales provide children the false narratives of gender structures. It explores the gendered messages enfolded in fairy tales. The objective of this research is to see gender, its construction, representation and the differences in the fairy tales. The data consists of the ten most viewed or read fairy tales. Critical discourse analysis has been used to highlight the contextual and implied meanings of some utterances that eventually reveal the portrayal of male and female characters. The findings show that genders are presented in stereotypical ways; males have authority and violent nature and females are obedient, polite and resisting somehow to save their lives through their intellect and witty tricks. The results are drawn based on this analysis, which shows considerable use of stereotypes and social beliefs about gender in the fairy tales This research implies for the masses to change their traditional and stereotypical perceptions about gender roles and women's emancipation. The current research helps show the biased representation of gender in fairy tales for young impressionable minds. Moreover, it is beneficial for teachers and storywriters.
  Keywords: Gender ideology, gender roles, fairy tales, Critical discourse analysis.

The present research studies the semiotics of the two Western media outlets i.e. *BBC* and *The New York Times* related to Pakistan's recent Smog crisis. These semiotics are studied to decipher their embedded messages/ideologies, along with decoding the semiotic tools that are used to represent these images in a certain manner. Critical Discourse Analysis has been done to evaluate the selected images through the theoretical framework of Multi-Modal Critical Discourse Analysis by Machine (2007). This methodology gives an elaborate toolkit to study the selected images. The findings of the research reveal their ideological messages and the differences in the representational styles of both media outlets. In BBC images, more focus is imparted towards highlighting the general plight of the public and the images have shown generalized groups as well as individuals from poor classes. They want to foreground the misery of poor sections overall. The New York Times presents a grimmer and darker picture of Pakistan's smog crisis. They compare the smog crisis and lockdown measures to that of COVID-19. The semiotics chosen by them portray the same intensity and horrifying scenarios as during COVID-19. The images are highly modulated with dark saturated colors and tones to indicate deeper moods and tones.The dark tones are connotative of depression and hopelessness. Another significant difference is the usage of Children and women images. They are depicted to show more vulnerability and innocence. Their ideology has a more negative portrayal as compared to that of the BBC. The study would widen the scope of arising literature concerning climate change representations in media through the lens of Critical Discourse Analysis.
Keywords: smog crisis, semiotics, code and context, visual representation and persuasive strategies

ISAC-25-68 کاشی گری، ملتان کی میراث
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Embark on a journey to the historic city of Multan, Pakistan, where the ancient craft of Kashigari tilework has been a cornerstone of its cultural heritage for centuries. This documentary delves into the fascinating world of Kashigari, exploring its rich history, intricate techniques, and the skilled artisans who have dedicated their lives to preserving this traditional craft. From the stunning tilework adorning the city's iconic shrines and monuments to the humble workshops where artisans painstakingly craft each tile by hand, this film takes viewers on a captivating tour of Multan's tilework tradition. Through intimate interviews with master artisans, archival research, and breathtaking

footage, 'Kashigari: The Legacy of Multan' reveals the challenges facing this ancient craft in the modern era, and the efforts being made to preserve it for future generations.

Join us on this journey into the heart of Multan's tilework tradition, and discover the beauty, craftsmanship, and resilience of Kashigari.

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ISAC-25-69 اتجاهات النقد الأدبي في العالم العربي: بين الأصالة والمعاصرة

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Trends in Arabic Literary Criticism: Between Authenticity and Modernity

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يُعد النقد الأدبي في العالم العربي مرآةً تعكس تطور الفكر والثقافة، حيث شهد تحولات جوهرية بين الأصالة القائمة على التراث العربي القديم والمعاصرة المتأثرة بالنظريات الغربية الحديثة. وقد بدأ النقد العربي منذ العصر الجاهلي بأسلوب انطباعي ارتكز على الذوق الشخصي، ثم تطور في العصر العباسي ليصبح أكثر تنظيماً، معتمدًا على معايير بلاغية ولغوية كما نجد في كتابات الجرجاني والقرطاجني.

مع دخول العصر الحديث، تأثر النقد العربي بالمناهج الغربية، حيث بدأت مدارس نقدية جديدة مثل النقد الواقعي والبنيوي والتفكيكي تهيمن على المشهد ومع ذلك، لم يكن هذا التحول سلسًا، إذ واجه مقاومة من النقاد المحافظين الذين رأوا في هذه الاتجاهات ابتعادًا عن الهوية العربية.

اليوم، يتبنى النقاد العرب مزيجًا من الأصالة والمعاصرة، حيث يحاولون التوفيق بين المناهج الحديثة والموروث النقدي العربي. فنجد بعضهم يوظف المنهج البنيوي في دراسة النصوص القديمة، بينما يستخدم آخرون المناهج التفكيكية لفهم النصوص المعاصرة.

رغم هذا التطور، يواجه النقد العربي تحديات، منها ضعف الاهتمام بالجانب التنظيري، وغياب الدراسات التطبيقية الجادة التي تربط بين الأدب العربي والمناهج النقدية الحديثة لذلك، تبقى الحاجة ملحة إلى تطوير خطاب نقدي قادر على تحقيق التوازن بين التراث والتجديد، بما يعزز من دور النقد في تشكيل هوية أدبية عربية حديثة تتفاعل مع التطورات العالمية دون أن تفقد جذورها الأصيلة.

إضافةً إلى التحديات التي يواجهها النقد العربي، هناك إشكالية أخرى تتمثل في التلقي الجماهيري، حيث يعاني النقد الأدبي من قلة التفاعل بين النقاد والجمهور العام، مما يجعله محصورًا في الأوساط الأكاديمية. كما أن وسائل الإعلام الحديثة لم تمنح النقد الأدبي المساحة الكافية، إذ طغت عليها التغطية السطحية للأعمال الأدبية دون تحليل معمّق، مما أدى إلى تراجع دوره في تشكيل الذائقة الأدبية.

من جهة أخرى، لعبت الترجمة دورًا مهمًا في انفتاح النقد العربي على المناهج الحديثة، حيث ساهمت ترجمة أعمال نقاد مثل رولان بارت، ميخائيل باختين، وجاك دريدا في إثراء الساحة النقدية العربية ومع ذلك، لا تزال هناك فجوة بين التنظير والتطبيق، إذ يواجه بعض النقاد العرب صعوبة في تكييف هذه النظريات مع النصوص العربية التقليدية.

ومن الملاحظ أيضًا أن بعض النقاد المعاصرين يحاولون إعادة قراءة التراث النقدي العربي برؤية جديدة، حيث يعملون على تحليل نصوص الجرجاني وابن رشد وابن طباطبا وفق مقاربات حديثة، مما يساعد في إيجاد جسور تربط بين الأصالة والمعاصرة.

إن مستقبل النقد الأدبي في العالم العربي مرهون بقدرته على التطور والتكيف مع المتغيرات الثقافية والفكرية. فإذا استطاع النقاد العرب تطوير أدوات تحليلية تجمع بين المناهج الحديثة وروح التراث، فسيكون بإمكانهم تقديم قراءات نقدية أكثر عمقًا وتأثيرًا. كما أن دعم المؤسسات الثقافية والأكاديمية للأبحاث النقدية، وإتاحة منصات للنقاش الأدبي المفتوح، يمكن أن يسهم في تعزيز دور النقد في المشهد الأدبي العربي.

في النهاية، يظل النقد الأدبي أداةً أساسية في تشكيل وعي القارئ وتوجيه الحركة الأدبية، ومن الضروري أن يستمر في التحديث والتجديد مع الحفاظ على هويته العربية، ليظل جسرًا بين الماضي والحاضر والمستقبل.

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ISAC-25-70 Impact of Rewards on Employee Motivation: A Study of Intrinsic and Extrinsic Factors in Pakistan's Academic Sector

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This study examines the relationship between rewards and employee motivation in Pakistan's academic sector, focusing on the impact of extrinsic and intrinsic rewards. Specifically, it investigates which type of reward most significantly influences the motivation of university teachers in Pakistan. To analyze this, diversified frequency tables and graphs present demographic data, while inferential statistics determine the strength of the relationships between dependent and independent variables. A total of 200 questionnaires were distributed to teachers in public and private universities and colleges across South Punjab, with 160 completed responses. The findings reveal a statistically significant and strong positive association between extrinsic rewards and teacher motivation. The study identifies key factors influencing extrinsic and intrinsic rewards and highlights their role in enhancing employee motivation, ultimately driving organizational success. Establishing a workplace culture where employees feel secure, confident, and motivated by the reward system is essential. Unlike previous research that broadly examines HR practices in Pakistan's academic sector, this study provides a focused analysis of how reward systems impact academicians' motivation.
Keywords: Organizational Productivity, Motivation, Retention, Intrinsic, Extrinsic,

ISAC-25-71 Pakistan to Prioritize Sustainable Development by Balancing Economic Growth, Environmental Protection, Clean Energy Adoption, and Responsible FDI Amid Population Growth Challenges.

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A safe and healthy environment is a fundamental right of all living beings. However, in the modern era, pollution has reached alarming levels. This study employs a bounds test-based cointegration technique using annual time-series data to explore the key determinants of environmental degradation in Pakistan. The analysis considers four major factors: energy consumption, gross domestic product (GDP), foreign direct investment (FDI), and population growth. The findings reveal a significant relationship between energy consumption, GDP, population growth, and environmental degradation in both the short and long run. Additionally, FDI exhibits a positive and significant association with environmental degradation across both time horizons. The econometric results suggest that reducing energy consumption is crucial for ensuring a safe and healthy environment. To achieve sustainable development, Pakistan should prioritize alternative energy sources, such as solar energy and green technologies. Moreover, FDI should be directed toward environmentally friendly projects and pollution-free technologies to foster a cleaner Pakistan. The Government of Pakistan should strengthen green policies and enhance public awareness to mitigate the environmental impact of population growth. This study makes a valuable contribution to the growing body of empirical research on environmental awareness in Pakistan by utilizing the bounds test-based cointegration technique.
Keywords: ARDL, Corbin Dioxide, Bounds Test, Energy Consumptions, ECM, Environmental Degradation.

ISAC-25-72 Impact of Loneliness and Fear of Missing Out on Phubbing Behavior among University Students

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The purpose of this study is to examine the relationships between Loneliness, Fear of Missing Out and Phubbing Behavior among university students. Through Convenient Sampling *(N=150)* university students were selected, their age was from 18 to 25 years. Cross-sectional research design was utilized and data was collected through survey method via google forms. Three questionnaires were used to measure study variables, FOMO scale (Przybylski, A. K., et al., 2013), UCLA loneliness scale (Russell, 1996) and phubbing behavior scale (Chóliz, M., 2012). Results revealed that there is significant positive correlation between Loneliness*(p=.231**),* Fear of Missing Out*(p=.348**)* and Phubbing Behavior*(p=.313**)* among university students. Results further revealed that there is significantly higher FOMO behavior in males(M=24.3) as compared to females(M=23.7). Additionally, loneliness*(p=.005*)* has significantly positive impact on phubbing behavior among university students. This study

highlighted the need for educators and policymakers to address the issues of loneliness, FOMO, and phubbing behavior among students, and to develop interventions aimed at reducing these negative outcomes among students.

Keywords: Loneliness, Fear of missing out (FOMO), Phubbing behavior

ISAC-25-73 The Role of Social Inequality in Shaping Health Outcomes in Pakistan: The Mediating Role of Access to Healthcare Services

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This research investigates the role of social inequality in shaping health outcomes in Pakistan, focusing on how access to healthcare services mediates this relationship. The study explores how disparities in income, social class, and gender contribute to health inequalities and how improving access to healthcare services can mitigate these disparities. A quantitative research design was employed, utilizing a survey to gather data from 500 respondents from both urban and rural areas of Lahore and Multan. The study examines social inequality (measured by income inequality, social class, and gender disparities), health outcomes (including chronic illnesses, mental health issues, and overall well-being), and access to healthcare services (availability, affordability, and utilization). Data were collected using structured questionnaires and analyzed using SPSS to evaluate the relationships between variables. The findings indicate that social inequality significantly affects health outcomes, but access to healthcare services was found to be a crucial mediator. Individuals with better access to healthcare services exhibited better health outcomes, even in the presence of social inequality. The study underscores the importance of improving healthcare access to reduce the negative impact of social inequality on health outcomes in Pakistan. Policy recommendations include investing in healthcare infrastructure, particularly in underserved rural areas, to address health disparities and improve overall well-being.

Keywords: Social Inequality, Health Outcomes, Access to Healthcare, Pakistan, Health Disparities.

ISAC-25-74 Association of Religious Orientation, Hope and Death Anxiety among University Students

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The purpose of this study was to explore the religious orientation, hope, and death anxiety among university students. The convenient sampling with correlational research design was utilized to collect data (N = 150) university students, ages between 18 to 25 years, participated. Urdu translation of Religious Orientation Scale (khan at el., 2016), Death Anxiety scale (Ghayas, 2016) and Adult hope scale (Siddique & Hanif, 2021) were used gauge the association among variables. The correlation analysis showed that, intrinsic religious orientation significantly negatively correlated with death anxiety (r = -.24*), but showed no significant association with hope (r = -.06), while extrinsic religiosity is positively associated with hope (r =.21**) and death anxiety (r =.61*) among university students. The research contributes to a deeper understanding of how religious orientation and hope can shape the experiences of university students facing the challenges of death anxiety. These findings can help in promoting mental health and well-being by fostering positive religious orientation and hope.

Keywords: Religious orientation, death anxiety, hope, university students

ISAC-25-75 A Qualitative Exploration of Challenges Faced by Female in Higher Education in South Punjab

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Women in South Punjab still have a difficult time getting into and finishing higher education today. The purpose of this systematic review is to compile the body of research on the obstacles South Punjabi female students experience when pursuing higher education. It focuses on the institutional, sociocultural, and financial obstacles that impede their overall educational attainment and academic growth. This review emphasizes the main barriers to female education, which include financial limitations, social standards, and early marriages, lack of family support, mobility limitations, gender-based discrimination, and poor educational infrastructure. Higher education is a frightening road for many women because of the influence of patriarchal customs, safety concerns, and limited employment options.

To find qualitative research examining the lived experiences of female students who face barriers to pursuing higher education, a thorough search across several databases was carried out. In addition to offering helpful insights into the various obstacles that women experience in their pursuit of an education, this evaluation makes recommendations for possible initiatives that could advance gender parity and increase women's access to higher education in South Punjab.

ISAC-25-76 The National Politics of Meat and Carno-Phallogocentrism in Sara Suleri's *Meatless Days*

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The invisibility of women in national discourses and the absence of animals as living breathing referents have repeatedly been highlighted by feminists in recent times (Adams & Donovan 2007, Nilsson & Tetreault 2000). In this context, this study focuses on Suleri's "Meatless Days" (1989) as an allegory of the national politics of meat in Pakistan and probes the role of women and animals in national discourses/narratives as absent referents rather than as subjects. For this purpose, this study probes the inter-connectedness between the ontological absence of women and animals in patriarchal and national discourses and, using Derrida's notion of "carno-phallogocentrism" (1995) along with Adams' seminal work "The Sexual Politics of Meat" (1990), it aims to decipher the fragmentation and consumption of meat/animals (literally) and of women (symbolically) to comprehend how the national discourses are structured around this symbolic devouring that renders women either invisible or irrelevant to these epistemologies. This study throws light on the gendered phallogocentric manifestations of nationalism in Suleri's memoir and emphasizes that, through the metaphor of meat-less days, Suleri equates the fragmentation and consumption of animals as meat to the fragmentation and symbolic consumption that women have to go through in national narratives and spaces.
Key words: Nationalism, Phallogocentrism, Absent Referent, Subjectivity, Politics of Meat

ISAC-25-77 Combating Environmental Pollution: The Impact of Plant Distribution on a Cleaner, Greener Pakistan

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Environmental pollution represents an undesirable alteration in the biological, chemical, and physical characteristics of any component of the environment, potentially harmful to all living organisms. It is a pressing global issue today, contributing significantly to climate change. This phenomenon, driven by pollution, poses an extensive and escalating threat to the environment, leading to habitat and life loss. A clean and green environment provides the optimal conditions for the survival and growth of all creatures, directly or indirectly affected by various pollution types. The primary factors contributing to environmental pollution include the exponential increase in human population, rapid urbanization, industrialization, and transportation. Given the heightened awareness of the necessity for a clean and green environment for the optimal growth and health of organisms, it is our foremost responsibility to maintain our country's environment. This is particularly important as it aligns with our religious values. Recent developments underscore the urgent need to establish clean and green areas in and around polluted regions to ensure healthy environmental conditions. Certain plant species, known for their pollution sink properties, act as natural lungs of the environment. The study concludes that without recognizing the crucial role of trees on our planet and continuing the rapid population growth and industrial expansion, we may face significant alarming changes in the coming years.
Keywords: Environmental Pollution, Climate Change, Clean and Green, Habitat Loss, Population Explosion, Pollution Sink Plants

ISAC-25-78 Needs of Modern Trends in education

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The main research purpose is that "How to adjust the modern trends in both private and public field". The field of education has seen a vast change in the past two decades. The changing scenario of world economy and advancement in information and communication technology has resulted in the beginning of many new trends in education. Modern day education is all about innovation, accessibility, and suitability.The study was descriptive (survey type) in nature. It was conducted on a sample of 60 secondary schools head teachers, 240 secondary school teachers working in the government secondary schools of Muzaffargarh, Lodhran, Bahawalpur, districts of southern. The findings of the study discovered that the majority of the public head teachers of selected schools cultivated a Promotion of school conducive learning environment. They empowered others to produce enrich learning environment, involved different stakeholders in the process of decision making, developed and maintained good relationships among different personnel of school community ensuring the effective learning environment. They emphasized the professional development of teachers as well as themselves, and involved parents and community in the process of producing conducive learning environment.The findings of this dissertation may be useful for other countries of almost similar socio-economic status, to improve quality of conducive learning environment at secondary school's level.The dissertation describes that policy makers, administrators, leaders, managers and head teachers at secondary school level may enhance institute performance by adopting successful strategies for school development.

Keywords: Leadership, practices, teachers, public & private Sectors, education

ISAC-25-79 Public Perception Regarding the Impact of Twitter Trends on Political Polarization : A Survey Analysis

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The current study was conducted to examine the public perception regarding the impact of twitter trends on political polarization. Political polarization means that political parties, groups, or individuals are becoming more divided in their beliefs and opinions. Twitter users can easily judge the way political leaders direct their audience. So this study focuses on level of political polarization among university students and dominant political ideologies expressed by twitter trends. In this study the researcher was use the simple random sample without the replacement techniques through surveys. So the survey question will be comprised of 20 questions on online survey forms. The researchers select the sample size of this research which consist 50 students of Women University Multan from the following departments such as Political Science and IR 26 students, 12 students of Mass Communication and 12 students of History. Findings of the study suggest that twitter trends has a greater level of political polarization on followers as compare to non- followers. While on the other side researchers also explore that users of twitter trends have different negative political ideologies as compare to non- users. Meanwhile, twitter has helped the respondents to get involved in political activities and know about the political ideologies.

Key Words: Political Polarization, Twitter, Political Parties, Ideologies , Political Perceptions, Youth Decision

ISAC-25-80 Grace in Stillness: A Sculptural Ode to the Deer

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This sculpture, created through the additive method, embodies the essence of the deer—an animal that represents grace, sensitivity, and an intrinsic bond with nature. My aim is to capture the quiet elegance and the subtle equilibrium between gentleness and strength that defines the deer's existence in the wild. The fleeting yet profound presence of the deer symbolizes intuition, renewal, and the fragile harmony of life. With fluid lines, organic textures, and natural hues, the sculpture reflects the ethereal beauty of the deer and its silent, intimate dialogue with the surrounding landscape. The work is an invitation to pause and contemplate stillness, awareness, and the quiet power inherent in the most delicate creatures of nature.The sculpture is crafted from clay and plaster, utilizing the molding and casting technique to bring the form to life.The process began with the creation of a clay slab upon which the deer was shaped. A plaster mold was then poured over the clay, and once set, it was carefully removed. Fresh plaster was poured into the mold, reinforced with a piece of jute for added strength. After drying, the mold was removed,

revealing the cast slab. Tools and sandpaper were employed to refine the surface, smooth the form, and add detail. The final piece was enhanced with a tea wash, emphasizing its natural tones and textures.

ISAC-25-81 **Executive Functioning, Psychological Resilience, and Behavior Problems among Preschool Children: Exploring the Mediating Role of Emotional Awareness**
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This study examines the relationships between executive functioning, psychological resilience, and behaviour problems among preschool children, emphasizing the mediating role of emotional awareness. Executive functioning, which includes skills such as working memory, inhibitory control, and cognitive flexibility, is crucial in regulating emotions and behaviours. Psychological resilience, the ability to recover from adversity, plays a significant role in the socio-emotional development of preschool children. A cross-sectional design was utilized, involving a sample of 300 preschool children (ages 3-5) from childcare centres. Executive functioning was assessed through the Behaviour Rating Inventory of Executive Function-Preschool Version (BRIEF-P), psychological resilience was measured using the Preschool Children's Resilience Scale (PCRS), and behaviour problems were evaluated with the Child Behaviour Checklist (CBCL). Emotional awareness was assessed using the Emotion Recognition Task (ERT). Multiple statistical tests were applied to examine the data. Descriptive statistics indicated an overall correlation between executive functioning, resilience, and behaviour problems. A multiple regression analysis showed that both executive functioning and psychological resilience predicted behaviour problems in preschool children. Furthermore, path analysis revealed that emotional awareness played a significant mediating role in these relationships. It was found that preschool children with stronger executive functioning and higher psychological resilience demonstrated better emotional awareness, which in turn led to fewer behaviour problems. Additionally, factor analysis confirmed that emotional awareness and executive functioning were distinct yet interconnected constructs, while resilience emerged as a significant predictor of emotional regulation. Structural Equation Modelling (SEM) further revealed that the model explained a substantial amount of variance in behaviour problems, specifically showing how emotional awareness influences the connection between executive functioning, resilience, and behavior problems. In conclusion, the study underscores the vital role of emotional awareness in supporting healthy socio-emotional development in preschool children. The findings suggest that interventions focused on improving executive functioning, psychological resilience, and emotional awareness may be effective in reducing behaviour problems in this age group.
Keywords: executive functioning, psychological resilience, behaviour problems, emotional awareness, preschool children, socio-emotional development, multiple regression, path analysis, factor analysis, structural equation modelling.

ISAC-25-82 **A Systematic Literature Review on the Adjustment journey of Persons with disabilities in South Punjab: Challenges, Opportunities and Coping Mechanisms**
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People with disabilities (PWD) in South Punjab face significant challenges in integrating into society due to barriers related to education, employment, and social inclusion. This systematic literature review analyzes and summarizes various research studies to highlight the multidimensional obstacles encountered by PWD, as well as the factors that can promote their empowerment. The review follows the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines and focuses on literature regarding disability inclusion, accessibility, and coping mechanisms. The findings indicate that a lack of inclusive infrastructure, persistent social stigma, and gaps in

policy prevent many individuals from fully participating in academic and professional environments. However, there are opportunities for improvement, such as government programs, assistive technology, and family support, which can enhance the resilience of PWD in overcoming these challenges. The review emphasizes the need for a stronger commitment to the meaningful implementation of policies and community-based solutions, as well as improvements in accessibility. This study contributes to the ongoing discussion about disability rights and inclusion by shedding light on the lived experiences of PWD in South Punjab and offers recommendations for further research and policy reform.

Key Words: Person with disabilities, adjustment challenges, inclusive education, employment barriers, coping mechanisms, South Punjab

ISAC-25-83 Nanocarriers for Topical Drug Delivery: Advancements, Mechanisms and Challenges.

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Topical drug delivery systems are an area of extensive research especially in the treatment of skin and mucosal diseases due to their ability to provide a targeted treatment approach and avoidance of systemic side effects. Nanocarriers including polymeric, lipidic and metallic nanoparticles have been investigated as promising candidates to improve topical drug delivery. This enhancement in drug delivery is attributed to improved solubility and encapsulation of poorly soluble drugs, sustained release of loaded cargoes as well as targeted drug delivery to various skin strata. Owing to the specific properties of such nanocarriers including smaller size and possibility of encapsulating both hydrophilic and hydrophobic drugs, these nanoparticles have been successfully used to deliver the drugs to deeper skin layers that is otherwise difficult to achieve with conventional formulations. The surface modification of these nanocarriers can further improve the targeting potential and can lead to improved drug absorption and retention in various skin layers. This review will present various types of nanocarriers that have been utilized to enhance the topical drug delivery, their mechanism of action and recent advancements in the field. It will also address the challenges and hurdles that are being faced for industrial scaleup and market entry for these nanocarriers.

ISAC-25-84 The Hashtags conflict War: The role of Twitter to support Palestinians on Palestine and Israeli issue

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The Palestine and Israel conflict is considered to one of the most significant and complex issue these days. In this politics both methods formal like elections and informal like protest and online discussions through social media apps are used. In the 21st century, social media became more important than newspaper and television in portraying conflicts. Now a days, social media platform and internet are the main communication tools and plays a significant role and ways for people to express their views opinions and raised awareness according to commentators and influences to argue on any topic to spread what's going on and shares the true face and reality. Twitter made its debut in 2006 and by 2012; it had around 140 million active users worldwide. That's why the researcher choses Twitter to analyze the content regarding this issue of Palestine and Israel conflict. The main objective is to analyze the extent of support & public engagement for Palestinians regarding Palestine and Israel conflict war on Twitter. The study investigates social media data with 14 trending hashtags (#) on Twitter and 1 Top journalist of Palestine his 3 tweets of last 3 Months & 3 Different Journalists of Israel their 3 Tweets of last months. The Tweets of Pro-Palestinian and Pro Israelian to analyze the content regarding this issue. The technique used in this research study is purposive Sampling. This is a qualitative research study to check the engagement of public regarding this issue on Pro-Palestinians and Pro- Israelian Tweets e.g. (Likes, Reach, Retweets, Comments) to analyze that between both countries whom people are supporting the most all over the world through their engagement and reach on tweets. And the results shown that Twitter trends & Hashtags uses to engage public all over the world through tweets in support of Palestinians regarding Palestine and Israel conflict. It shows that people support the most is to Palestine we got to know by analyzing the top journalists tweets of last 3 Months of both countries their reach on tweets likes, retweets & comments are more than the Israeli journalists and they also have more followers than the Israeli activist and reporters.

Key Words: Palestine and Israel conflict, Twitter, social media, Hashtags, Public Engagement.

ISAC-25 Multan

ISAC-25-85 **Exploring the Prevalence and Demographic Patterns of Internet Gaming Disorder among Adolescents**

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In recent years, video games have become a popular pastime worldwide particularly among teenagers raising growing concern about internet gaming addiction (IGA). It is well known that problematic and excessive gaming has been recognized as one of the mental health issues that the adolescents face today which includes Internet Gaming Disorder (IGD). The violent content of video games is a potential risk factor for the development of IGD especially among adolescents. This study investigated Internet Gaming Disorder (IGD) in adolescents with respect to its prevalence and demographic characteristics. Participants of the study were adolescents of age range 13-19 years both male and female. Quantitative research design was used to collect the data from adolescents studying in educational institutions of Multan. Descriptive statistics, independent sample t-test and chi square test were used to analyze obtained data. The results reveal that 65% of adolescents have internet gaming disorder which is very high prevalence rate. IGD levels are more among female participants, urban population and students of private institutes. The findings highlight the urgency of collaboration between educators, parents and mental health professionals. Policy measures and interventions that focus on minimizing risk associated with addictive gaming are necessary to adopt. These might include awareness campaigns at educational institutions, parental guidance and provision of mental health services. Further alternative activities like sports and social activities be promoted to balance screen time.

Keywords: Internet Gaming Disorder, Video gaming, Adolescent, Mental health,

ISAC-25-86 **Analyzing The Multiple Intentionality In Haleema Aslam's Tedtalk "Liberation Through Education" In Perspective Of Critical Discourse Analysis**

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This paper examines the intentional communicative structures through comprehensive analysis of "TED talk 'Education through Liberation' by Haleema Aslam," taken as sample. The dialogues in the TED talk are transcribed as text. This paper aims to analyse the diverse communicative intentions embedded in the content of media discourse of TED talk. This study explores the content type, intentional communicative mechanisms and linguistic means that contribute to the attainment of different goals within a single speech. Intentional communicative structures are introduced as a specific feature of TED talks media discourse. Intentional communicative structures take into account as macro intentionality, which includes general aims and intentions of communicative acts and micro intentionality, which includes implied intent in speech utterances. Through descriptive and qualitative methodology, the study challenges intentional communicative structures in TED Talks often engage with more than one discourses. These discourses are multifaceted, involving language, representation, and ideological struggles. The examination of this media discourse in which female speaker employs linguistic strategies to redefine societal expectations and contests deeply rooted gender conventions, all the while negotiating intricate ideological prospect. Through this lens, researchers can investigate the subtleties of language usage across diverse cultural contexts and its influence on the formation of identities and experiences pertaining to gender. This study provides an emphasis on video lecture TED talk platform as manifestation of heterogeneous intentionality of complex nature. The study examines four leading macro intentions in this TED Talk texts such as informing, persuading, inducing, inspiring and entertaining. Each of these are produced through a variety of micro intentions and linguistic means such as implicatures and explicatures. Based on a qualitative analysis of the verbal and non-verbal means used by TED speaker, that the discourse of TED Talk is negotiated in form of diverse intentional communicative structures, with the predominance of the macro intention of informing. Overall, this research highlights the communicative principle of multiple intentional and contested structures of discourse that underlie in this TED Talk text. These deliberate communicative frameworks enable speakers to proficiently articulate their concepts to the audience, inspire listeners, and underscore the significance of transformations in both life and educational contexts. Consequently, this research promotes social transformation and enhances personal identities to reconstruct and contest entrenched gender norms.

ISAC-25 Multan

ISAC-25-87 Ornamentation of Sachal Sarmast Tomb

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Artist statement : Sachal Sarmast shrine is located at Khairpur Sindh. Its shrines depict the beautiful decorative artworks. On exterior the shrine is decorated with glazed tiles and fresco paintings with a blend to stucco art technique as well. Glazed tile known as Kashikari is one of them. It is the oldest decoration techniques from Multan. Alexander Cunningham conducted an excavation of Qillah Kohna Qasim Bagh in the year 1853 where he discovered glazed tiles used in a mosque built by Muhammad Bin Qasim when he arrived in Multan . Various geometrical motives were used to create a well knitted foreground of the shrine. Mostly the motifs were of fruits, flowers, trees, plants, birds, crockery, dishes, and extremely complicated geometrical patterns The motives included octagonal tiles, Pentagonal Tiles, five and ten pointed stars highlighted with the floral patterns. The Islamic start "Rub el Hizb", eight-pointed star is used in the niches of two sides of the main doorways. Floral and vegetal patterns were used against motifs to set a contrasting background. The elevation is filled with geometric and vegetal designs by fitting numerous polygonal shapes together like the art of puzzles leaving no space in between known as tessellation. Other than geometric and floral motifs the façade shows the collection of elaborated art of plants influenced by the work of European artists who landed in Indian subcontinent 17th Century and arabesque patterns which can be traced back to early Islamic period. Plants appear in many different forms ranging from single motif to elaborated patterns of flower petals and vines in stylized form. Other than that the overflowing pots Kalasha which are the symbol of over flowing blessings and abundance in the Hindu art iconography is used as a golden flower highlight the pishtaq of the tomb represents the lotus flower. The use of White, Blue, Yellow and Gold has been observed in tomb. The unique deep blue colour is a result of combining cobalt oxide with copper oxide. White and green said to be the most favourite colours of the Prophet (PBUH). White colour is commonly associated with good, cleanliness and purity

Keywords: decoration, Tomb, Sachal Sarmat, , Kashikari, motifs

ISAC-25-88 Representation of Pakistan's Smog Crisis in British Media: A semiotic analysis

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The present research intends to investigate the visual images adopted by the western media in order to represent the ongoing smog crisis of Pakistan. In today's age of media there is a heavy reliance on images or semiotics in order to spread any information, to propagate ideologies or to evoke any kind of emotion for perception shaping among masses. The data for the present research has been selected from the BBC official website and The New York Times from the month of November, when smog is at its peak. The study of these images would primarily be performed in order to analyze what semiotic choices have been employed by the selected media house to portray the crisis in hand, and through these choices what important ideologies or messages are arising regarding our country's critical climatic situation. To address these objectives Critical Discourse Analysis has been done to evaluate the selected images through the theoretical frame work of Multi Modal Discourse Analysis by Machin (2007).This methodology gives an elaborate toolkit to study the selected images. The findings of the research reveals their ideological messages and the differences in the representational styles of both media outlets. In BBC images, more focus has been imparted towards highlighting the general plight of the public and the images have shown generalized groups as well individuals from poor classes. They want to foreground the misery of poor sections overall. The New York Times has presented a grimmer and darker picture of Pakistan's smog crisis. They compare the smog crisis and lockdown measures to that of COVID-19. The semiotics chosen by them portrayed the same intensity and horrifying scenarios as during Covid-19. The images are highly modulated with dark saturated colors and tones to indicate deeper moods and tones .The dark tones are connotative of depression and hopelessness. Another significant difference is the usage of Children and women images. They are depicted to show more vulnerability and innocence. Their ideology has more negative portrayal as compared to that of BBC. The study would widen the scope of arising literature with respect to climate change representations in media through the lens of Critical Discourse Analysis.
Key words: smog crisis, semiotics, code and context, visual representation and persuasive strategies

ISAC-25-89 Antibacterial activity of plant mediated silver nanoparticles against *Staphylococcus aureus*

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Staphylococcus aureus cause variety of infections, which are common in both community acquired and hospital acquired settings. Antimicrobial drug resistance (AMR) to *S. aureus* is a critical global health challenge leading to increased complications, longer hospital stays, and higher mortality rates. In addition to reducing the use of antibiotics, alternative treatments are much needed to combat with clinical manifestations of *S. aureus* and to overcome the AMR. One approach can be the development of nanomaterials particularly silver nanoparticles. In current work silver nanoparticles biosynthesised by using aqueous extract of indigenous plants *Lepidium didymum* and *Dactyloctenium aegyptium* and their antibacterial activity was determined against *S.aureus.* The average crystallite size of *L. didymum* mediated silver nanoparticles was 21.42 nm and showed 19 mm $\pm$ 1.27 zone of inhibition. In the other hand *D. aegyptium* mediated silvernanoparticles has crystallite size of 20.03 nm and demonstrated 19 mm $\pm$ 1.32 zone of inhibition. The results indicated that biosynthesised silver nanoparticles can serve as ecofriendly and sustainable antibacterial agents with promising clinical applications against *S. aureus* infections.

Keywords: silver nanoparticles, antibacterial activity, *S. aureus,* disc diffusion

ISAC-25-90 Postmenopausal Osteoporosis: Pathophysiology, Diagnosis, and Management Strategies

Ali Ahmar Khan[1], Eisha Wyne[1]

Postmenopausal symptoms represent a significant challenge in women's health, with osteoporosis being a major concern due to its impact on morbidity and quality of life. The decline in estrogen levels after menopause accelerates bone resorption, leading to reduced bone density and an increased risk of fractures, particularly in the hip, spine, and wrist. This presentation will provide an overview of the pathophysiology underlying postmenopausal osteoporosis, the role of hormonal changes, and associated symptoms such as joint pain, fatigue, and decreased mobility. Additionally, it will highlight diagnostic tools, including bone mineral density (BMD) assessment via DXA scanning, and explore preventive strategies such as calcium and vitamin D supplementation, weight-bearing exercises, and lifestyle modifications. The importance of pharmacological interventions, including bisphosphonates, selective estrogen receptor modulators (SERMs), and monoclonal antibodies like denosumab, will also be discussed. This presentation aims to equip healthcare professionals with a comprehensive understanding of managing postmenopausal osteoporosis and improving patient outcomes.

Key words: Postmenopausal osteoporosis, Bone mineral density (BMD), Estrogen decline, Fracture risk, Pharmacological interventions

ISAC-25-91 Pre-menstrual syndrome with co-relation to depression and IBS

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Premenopausal Syndrome (PMS), Irritable Bowel Syndrome (IBS), and depression are interrelated conditions with overlapping symptoms and shared underlying mechanisms. Hormonal fluctuations during the premenopausal phase influence gut motility and serotonin levels, exacerbating IBS symptoms. Simultaneously, dysregulation of the gut-brain axis and psychosocial stressors contribute to a bidirectional relationship between IBS and depression. This creates a cycle where hormonal changes and psychological stress intensify gastrointestinal symptoms and depressive episodes. A multidisciplinary approach that addresses hormonal imbalances, gastrointestinal dysfunction, and psychological distress is critical. Strategies such as lifestyle modifications, dietary changes, hormonal therapies, and psychotropic medications can provide significant symptom relief and improve quality of life. Understanding this complex interplay is essential for effective diagnosis and holistic management of these comorbid conditions.

ISAC-25-92 The Role of Media Literacy in Shaping Public Opinion and Promoting Critical Thinking Regarding Economic Issues

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This study looks at how well people understand economic news on social media and form opinions about economic issues based on their media literacy. The research explores if media literacy helps social media users make better business decisions and prevents the spread of fake economic information. The study involves mostly young female participants. Results show that many trust social media for economic information, engage in economic discussions, and actively seek such information daily. Confidence in analyzing economic news varies. People see media literacy as crucial for understanding complex economic concepts. Future research could focus on how well media literacy programs work and how new technologies influence economic discussions on social media.

ISAC-25-93 Role Of Instagram's Filtered Reality On Social Reality : A Survey Analysis

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Instagram is one of the fast-growing social media applications that have been part of modern society and is becoming very popular because of its ability to connect, inspire, and motivate its users. The effects of social media have been studied in depth, whereas research on the filtered reality of Instagram and its effects on social reality is relatively limited. This is a quantitative paper that explores how Instagram's filtered reality shapes individual behavioral self-identity and social dynamics. For this purpose, a survey was conducted through Google Form in which responses were received from 100 people. Data collection was done through a simple random sampling with replacement method. From the analysis, two important trends were realized. First, Instagram is a motivational platform, which inspires users to enhance their personal and professional lives. Secondly, this also creates psychological effects in that people tend to compare their real lives with the idealized lives they view on Instagram, which may result in low self-esteem and unrealistic expectations. The findings show how Instagram is double-edged-both a place of creative inspiration and social bonding, but that it also clouds reality. As such, the research contributes to the debate ongoing on the effects of social media on psychology and society, laying emphasis on the way digital has shaped modern behaviour and identity.

ISAC-25-94 Social Construction Of Feminism In Pakistan: A Survey Of The Multan Region (2023)

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The present study attempts to evaluate the social construction of feminism in Pakistan focusing on the quantitative analysis done through the Likert scale questionnaire from Nishtar Medical University and Hospital, Bahauddin Zakariya University and The Women University Multan. The researchers collected an overall of 150 responses from the above-mentioned institutions. Despite extensive research on feminism, there is a noticeable gap in recent studies addressing how the concept is currently perceived in changing societal norms, digital activism, and evolving gender roles. To Understand contemporary attitudes toward feminism and its misconceptions it is necessary to understand how various minds are perceiving it. This survey acknowledges that 77.4% of people feel comfortable discussing feminist ideas and issues related to women in Pakistan in 2023. On the other hand, 72.0% of people think that resources and power should be equally distributed between both genders. 64% of people agree that women in Pakistan are discriminated against based on societal norms and traditional gender roles. 50.0% agree that patriarchy feels insecure about strong and independent women. 68.0% of people agree that media and cultural representations portray stereotypical concepts of feminism. 50.6% agree that feminists do not despise men. 86.6% of people agree that education plays an important role in understanding feminism. 70.0% of people agree that feminist movements are necessary but are no longer relevant. This survey concludes that feminism is not immune to negativity but also it

is not about bringing down one gender rather it advocates for equity and has helped break down barriers, fostering more inclusive societies.

Key Words: Feminism, Social Construction, Discrimination, Patriarchy, Stereotypes.

ISAC-25-95 Impact of Online Gaming Addiction on Aggression, and Self-Esteem: Gender differences among University Students

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The present research examined the association between online gaming addiction, aggression, and self-esteem. Furthermore, the gender differences related to online gaming addiction were examined. The Present study was conducted using 400 samples (241 male students and 159 female students). The Gaming Addiction Scale (Lemmens, J. S., Valkenburg, P. M., & Peter, J., 2009), Bus Perry Aggression Questionnaire (Buss & Perry, 1992) and Rosenberg Self Esteem Scale (Rosenberg, M., 1979) were used to measure the variables. Data were analyzed using Pearson product moment correlation, simple linear regression, and independent sample t-test. The findings show that there is a positive correlation between online gaming addiction and aggression but negative correlation between online gaming addiction and self-esteem. Moreover, online gaming addiction did not predict aggressive behavior but positively predict self-esteem. Furthermore, male students were more addicted to online gaming than female students and were more aggressive than female students. Additionally, students who were high on online gaming addiction were also found high on aggression and low on self-esteem. Therefore, this study shed light on the mental health of the students who are involved in gaming addiction and provide insight about how one can prevent itself from harmful use of gaming and internet gaming disorders.

Keywords: Online gaming addiction, Aggression, Low self-control, Self-esteem, Internet gaming disorder.

ISAC-25-96 Analyzing the role of Political Talk Shows in shaping voter's behaviors about electoral processes

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This study examines the impact of political talk shows on public opinion and voter behavior, with a focus on ARY News and Geo News. The research aims to investigate how these talk shows shape public opinion on political rigging and influence voters' political preferences. A survey-based research methodology was used, with a sample size of 55 respondents. The findings suggest that exposure to ARY News and Geo News talk shows significantly impacts public opinion on political rigging, leading to increased awareness and concern. Additionally, the study finds that exposure to these talk shows influences viewers to align their political preferences with the ideologies presented on the shows. The study concludes that political talk shows play a significant role in shaping public opinion and voter behavior, and their influence should not be underestimated.

Keywords: News channels, GeoNews, ARYNews, Political parties, Elections, Voterbehavior, Publicopinion, Political rigging, Agenda-setting, Cultivation hypothesis.

ISAC-25-97 The Aesthetics of Antiquity: A Comparative Study of Indus Valley and Indian Classical Sculptures

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The Indus valley and Indian sculptures known for its wide variety of items, including clay figures, seals, and pottery. This research examines the relationship between the Indus valley and Indian sculptures with the help of certain specimens which are made of stone, bronze, and clay. To achieve the research objectives, case study method has been used for in-depth analysis of the artistic styles and motifs. Comparison has been made on the basis of the forms, techniques, and stylistic details of different sculptures to identify patterns and influences. The results indicated that Indian classical art and Indus sculptures based on religious subject matters showing scenes of gods and goddess, legends and heavenly figures. These sculptures artifacts provided invaluable sights into the art, religion

and social life of ancient Indus culture. Moreover, these sculptures served as a cultural link that unites diverse groups across the vast expanse of the civilization, highlighting a shared artistic heritage. Comparative studies resulted that the Indus Valley sculptures reveals significant continuities in materials and techniques with Indian classical sculptures highlighting the evolution in stylistic and thematic complexity over time. This research concluded that the Indus Valley artworks laid a foundational artistic tradition that later transmitted to Indian cultures integrating new influences and developed in unique regional styles.

Keywords: Sculptures, terracotta, artifacts, Indian classical art, deities

ISAC-25-98 Things Fall Apart by Chinua Achebe : A Formalist Analysis

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This paper intends to interpret the text of Things Fall Apart from the perspective of a formalist. The researcher uses the qualitative method under the interpretative paradigm. In this paper, the researcher describes the form, literary devices, and language as well as analyze the compiled data using formalism theory in the novel Things Fall Apart by Chinua Achebe. As the formalists believed that literature should be examined scientifically. Similies, symbolism, gender roles, Ibo words, rhythmic lines, and clear-cut sentences are all abundant in Chinua Achebe's literature, according to the findings. From the data analysis , the researcher finds that the language of this novel is straightforward.

Keywords: Formalism, Russian formalism, Form, Literary devices, Language, Syntax

ISAC-25-99 Public Perception Regarding The Role Of Pakistani NewsChannels In Providing Awareness About The General Election Process 2024

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This study examines, public perceptions of the role played by Pakistani news channels in disseminating awareness, regarding the 2024 general election process. Given the increasing influence, of the media on political discourse, this research investigates how news channels shape public awareness, influence voter participation, and contribute to civic engagement. Additionally, the study explores the perceived biases and objectivity in news coverage during the election period. A survey of 75 respondents from Multan was conducted using simple random sampling to gather insights into media consumption patterns and trust in news reporting. The findings indicate that 80% of respondents relied on news channels as their primary source of election-related information. However, concerns over media bias and lack of objectivity were prevalent, with only 40% of respondents expressing trust in the accuracy and fairness of election coverage. These results highlight the agenda-setting role of news channels in shaping public opinion and emphasize the need for responsible and impartial reporting in Pakistan's media landscape. This study contributes to the discourse on media influence in democratic processes by offering critical insights into the role of Pakistani news channels in political communication. The findings underscore the importance of enhancing media responsibility and fostering public trust in news reporting to strengthen democratic participation.

Keywords: Media influence, Public opinion, Political awareness, Voter education, Media responsibility

ISAC-25-100 *Employment and work conditions impacts on women's mental and physical conditions.*

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Emplyoment has been a great influence on the human living factors. The recent decade the importance of employment in women has been increased. This relationship is shaped by factors such as work-family balance, job characteristics, and access to social support. To sum up the review on how employment impacts women's health, focusing on key values and provocations. A different studies from around the world, by multiple methods collected data by the women's in different conditions and employed before or in marriage. The studies on employment

impacts in early 200s].Most of the studies has shown women supported with work related environments and their dreams has shown positive health impact , in contrast women has been forced to work or not supported with social other duties has shown multiple mental and physical health deprivation. Employment's impact on health is positive under supportive conditions, highlighting the need for workplace policies that address barriers such as caregiving and work-life conflict.

Key words: employment, marriage, support, workplace.

ISAC-25-101 **A Meta-Analysis of the preventive potential of mucosal vaccines for Foot and Mouth Disease**

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Background: Foot and Mouth Disease (FMD) is a highly contagious viral illness that infects cloven-hoofed animals and causes enormous economic losses across the globe. Vaccination is an important technique for reducing FMD epidemics. Recent research indicates that in addition to humoral immunity, the mucosal immunity plays a significant role in enhancing the protective effect of FMD vaccinations by avoiding viremia and reducing virus shedding. This meta-analysis aims to assess the role of mucosal immunity in combating FMD with vaccination.

Methods: A comprehensive literature search was conducted across Google, Google Scholar, PubMed, ResearchGate, and Science Direct for studies published till May 2024. In this study, the role of mucosal immunity with the FMD vaccines was analyzed by meta-analysis. For this purpose, we evaluated evidence from 12 studies that included 645 animals with FMD vaccine. Research based on cohort, and case-control studies evaluating the effect of mucosal immunity on the effectiveness of the FMD vaccination were eligible. Statistical analysis was conducted by R (4.4.0) software and R studio using random-effects models and prediction intervals to calculate 95% confidence intervals (CIs) and proportions.

Results: A total of 12 studies met the inclusion criteria for this meta-analysis, involving 645 animals (mice, guinea pigs, cattle, and steers). A significant relationship was observed between improved mucosal immunity and lower FMD cases (FMD vaccine positive 95% CI was 0.72;0.91 with 0.82 proportion while in FMD vaccine negative 95% CI was 0.00; 0.06 with 0.03 proportion), although some heterogeneity was observed (FMD vaccine positive $I^2 =$ 92%, $\tau^2 = 0.0255$, p<0.01 while in FMD vaccine negative $I^2 = 67\%$, $\tau^2 = 0.0019$, p<0.01).

Conclusion: There is strong evidence from this meta-analysis that mucosal immunity greatly increases the protective effect of FMD vaccinations. Current immunization programs should be improved by including mucosal immunity-inducing techniques, which would lessen the incidence and spread of FMD, an economically devastating illness. To maximize immunogenicity and protection, future research should concentrate on improving mucosal vaccination formulations and delivery techniques.

Keywords: Foot and Mouth Disease, Mucosal immunity, FMD vaccine efficacy, Meta-analysis
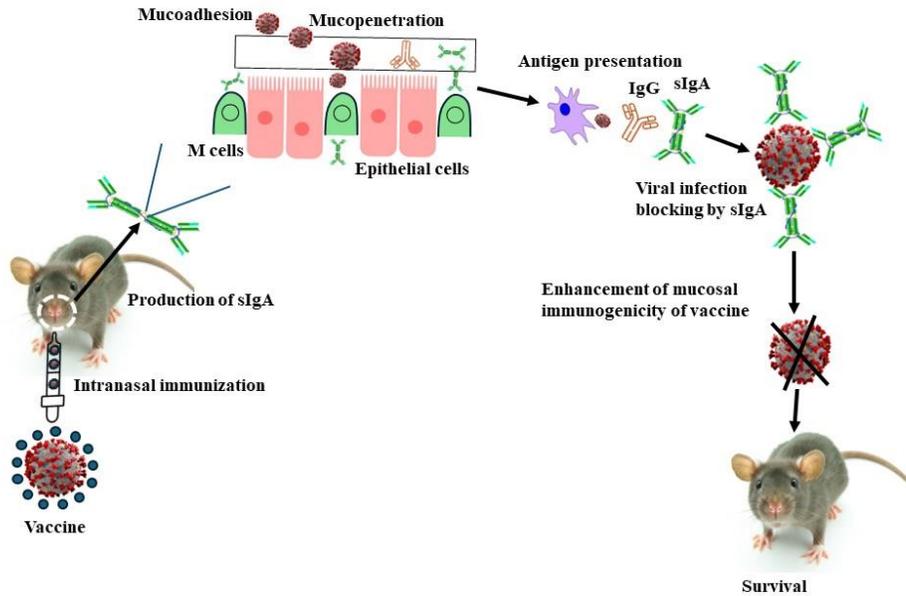
Fig. Graphical abstract

ISAC-25-102 Exploring the impact of political talk shows in shaping public opinion

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These talk shows can be considered as 'shapers' of public opinion through various ways of sharing information as well as being a sounding board for a given ideology. This study examines the pervasive and multifaceted influences of these political talk shows on public attitudes, explicitly looking at their potentiality in influencing political opinions, voting behavior, and other forms of civic participation. The study that drew from a multitude of approaches, including content analysis, audience survey, and case study, investigates how framing an issue, selection of panelists, as well as rhetorical devices utilized by the host have an impact on agenda-setting and opinion shaping.The findings indicate that political talk shows have a greater impact on the perception of viewers regarding political events and actors as well as sometimes intensifying polarization through selective representation and sensationalism. In addition, they also open up to a public setting where people from various backgrounds could interact and foster varying points of view. The study also looks at media literacy in influencing moderation in the impact of these shows and points to critical consumption of social media content as vital.It is within this transitional context of democracy that this research proves relevant in adding the how of the communication approach in the understanding of broader concepts such as media efficiency in democratic processes-bridging the gap between what political talk shows mean in two dimensions-as an instrument for education and a potential engine for misinformation

KEYWORDS : political talk show , public opinion , media influencer , voting behaviour , political communication , media framing , public trust , media ethics.

ISAC-25-103 Computational Exploration of Dual Slip Mechanisms in MHD Williamson Hybrid-Nanofluid Flow over a Thin Needle

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Enhancing heat transmission remains a significant challenge across various industries, including electronics, heat exchangers, and biochemical reactors. Nanofluids, due to their superior heat transfer properties, offer a promising

solution for improving energy transfer efficiency. This study investigates the flow and heat transfer characteristics of Williamson hybrid nanofluid containing graphene oxide (GO) and copper (Cu) nanoparticles. The hybrid nanofluid is analyzed as it flows over a thin needle under the influence of an applied magnetic field.To account for energy dissipation and slip effects, viscous dissipation and dual slip boundary conditions are incorporated into the model. The governing partial differential equations are transformed into nonlinear ordinary differential equations using similarity transformations and are numerically solved using the Bvp4c technique in MATLAB.Key findings indicate that an increase in the magnetic parameter (M), needle size ('a'), and velocity slip parameter (β) results in a decrease in the velocity profile. Conversely, variations in 'a', the Eckert number (Ec), and the thermal slip parameter (γ) lead to an increase in the temperature profile.This research highlights potential applications in polymer ejection for fiber technology and blood flow dynamics, providing valuable insights into the complex interplay between fluid dynamics and boundary conditions. Graphical and tabular results are presented, offering a comprehensive visual and quantitative analysis of the observed trends.

ISAC-25-104 Environmental Degradation, Energy Consumption, and Economic Growth in Pakistan: An Econometric Perspective

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This study explores the complex interrelationship between environmental degradation, energy consumption, and economic growth in Pakistan. Given the country's growing reliance on conventional energy sources and the alarming levels of environmental pollution, understanding this nexus is critical for sustainable development. Using a time-series analysis from 1990 to 2024, the study employs an autoregressive distributed lag (ARDL) model to assess the long-run and short-run dynamics among gross domestic product (GDP), carbon dioxide (CO_2) emissions, energy consumption, trade openness, foreign direct investment, and population growth. The findings indicate that while energy consumption significantly drives economic growth, it also exacerbates environmental degradation. Moreover, excessive CO_2 emissions and rapid population growth further hinder economic progress. However, trade openness and foreign direct investment appear to play a mitigating role in promoting economic sustainability. The study finds that economic growth does not necessarily lead to environmental improvement. Given recent trends, including a significant shift towards solar energy adoption, the study emphasizes the urgent need for energy policy reforms to ensure economic growth without compromising environmental sustainability. The findings contribute to the policy discourse on balancing energy consumption with environmental conservation in developing economies.

Keywords: Energy consumption, Environmental degradation, Renewable energy adoption, Sustainable development

ISAC-25-105 Comparative Analysis of Non-Newtonian and Newtonian Fluid Flow with Dual Slip in the Presence of Motile Microorganisms and Nanoparticles

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Nanofluids are used in heat exchangers, radiators, and other cooling system to improve its efficiency and enhance the ther- mal conductivity. Therefore, this study is carried out to inspect the influence of bioconvected Williamson fluid flow in the manifestation of nanoparticles. Furthermore, the impact of activation energy and magnetic field is part of this study. For motivation of problem, the effects of velocity and thermal slips are taken into account. Similarity approximation is used to transform the set of PDEs of governing equations of current flow model into a couple of nonlinear ODEs. The resulting set of equations of Williamson Buongiorno's model is numerically solved with help of MATLAB using bvp4c built-in solver. The inspiration of evolving parameters like Lewis number, thermophoresis, Schmidt number, Brownian motion, Prandtl number, Bioconvected Peclet number, and slips parameters on velocity, temperature, concentration, and density field is graphically analyzed. The notable thing is that a very good comparison for both Williamson and Newtonian fluids is obtained for various parameters. In addition, the effect of physical quantities is computed in the form of tables. This research offers a compre- hensive exploration of the interrelated domains of Williamson fluids, Newtonian fluids, MHD effects, activation energy, bioconvection, and dual slip effects. The improvement in the values of the activation energy E is enriched in concentration field. Thermal boundary layer increased with thermal slip; opposite behavior is noted for velocity slip. Furthermore, inves- tigation shows a 25% augmented transport efficiency in non-Newtonian fluids, further boosted

by 15% with microorganisms and nanoparticles. These findings presented herein contribute to a deeper understanding of these phenomena and pave the way for further advancements in diverse fields, from fluid mechanics to bioengineering.

ISAC-25-106 Female Financial Inclusion and Its Impact of Environment

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This study explores the relationship between gender-inclusive financial development and environmental impact, focusing on Consumption and Production Ecological Footprints across different income groups. While prior research has analyzed the environmental effects of financial inclusion for the general population, the role of female financial inclusion remains underexplored. Analyzing data from 105 countries, the findings reveal that increased female financial participation is linked to a rise in Ecological Footprints at the global level, indicating a negative environmental outcome. However, the effects differ by economic classification. In high-income countries, female financial inclusion does not significantly influence environmental indicators. In Upper-middle-income countries, it contributes to higher Production and Consumption Ecological Footprints, while in Lower-middle-income countries, it primarily increases the Production Ecological Footprint. In contrast, in Low-income countries, female financial inclusion appears to have a positive environmental impact.

ISAC-25-107 An Exploratory Study of Patient's Beliefs and Preferences regarding Doctors' Medication: A Study in Multan

Alishba Aymen

In order to increase the health care system, a comprehensive understanding of the faith and preferences of patients requires, which significantly affects their interaction with health professionals and medicines. This study examines the relationship between the patient's beliefs and treatment satisfaction, identifies important faith that is correlated with drug compliance and evaluates the role of medical communication which is effective in improving both farming and satisfaction. The research was conducted in District Multan. Data was collected from 308 outpatient patients at both Nishter Hospital and Shahbaz Sharif Hospital DHQ D.C. Multan through a structured questionnaire. Data analysis was done using Smart PLS 4. Conclusions suggest that lack of effective communication between doctors and patients is an important factor that contributes to dissatisfaction. Many doctors focus mainly on prescribing the drug instead of being involved in meaningful dialogue and emotional support. The results suggest that strong doctors' patients can increase confidence, improve the tools to promote communication and emotional conditions and eventually lead to better health care results. This study emphasizes the importance of integrating patient -focused communication strategies into medical practice to adapt to the treatment of treatment and farming.
Keywords: Patient Beliefs, Doctor-Patient Communication, Medication Adherence, Treatment Satisfaction, Healthcare Outcomes.

ISAC-25-108 *Socio and psychological problem Faced by Hepatitis patient*

Abeeza Awan

(A cause study of Multan)

The prevalence of hepatitis is dangerously high, socio-psychological problems that patients with hepatitis face are often ignored, mainly focused on medical treatment with health care. However, addressing the socio-psychological aspects of hepatitis care is important to improve the patient's results, improve the quality of life and promote general welfare. Hepatitis patients often experience significant sociopsychological problems, which are at the expense of the quality of life. The research was conducted in District Multan. Data was collected from outpatient at Children Hospital Multan through a structured questionnaire. A cross -sectional study was performed among 250 hepatitis patients using standardized questionnaires including hospital anxiety and depression. The study revealed the high prevalence of anxiety (63.2%), depression (56.4%), stigma (71.2%) and social isolation (58.4%) in patients with hepatitis. Important correlation was found between sociopsychological problems and the severity of the disease, compliance with treatment and quality of life. Hepatitis patients experience sufficient socio-psychological problems, and emphasize the need for integrated care models that address physical and mental health needs. Healthcare

professionals should prioritize psychological help, counseling and social services to reduce these problems and improve patient results.

Keywords: hepatitis, socio-psychological problems, anxiety, depression, stigma, social isolation, quality of life.

ISAC-25-109 Detail Study of Calligraphy on Kiswah of the Kaaba
Muqaddas Fatima[1]

The Kiswah of the Kaaba features inherited aesthetics with a historical and cultural essence. The Kiswah of the Kaaba is among the world's most sacred and valued fabrics, as it envelops the Sacred House of Allah and conveys profound meanings of sanctity. It represents Quranic verses, expressions of monotheism, and some of the most beautiful names of God, which contribute to the dignified covering's solemnity, beauty, and Majesty. Consequently, this study seeks to offer an accurate and detailed visual analysis of the entirety of Arabic calligraphy and calligraphic designs in both form and textual content during the reign of King Salman Al Saud. The study also intends to provide a thorough analytical description of the written content of the lines and calligraphic designs, the types of compositions, and the overall structure of the compositions on all four sides of the Holy Kaaba. The method employed in the study is the content analysis approach. The current study will rely on observation. The research revealed that the design of the covering of the Holy Kaaba is founded on a selection of Quranic verses curated by scholars. These lines were inscribed in an intertwined manner within various calligraphic designs, expressed in the elegant Thuluth script, and complemented by prominent letters to showcase the grandeur of Arabic calligraphy and its aesthetics, as well as the aspects of Islamic securitization.

Keywords: Quranic, calligraphy, Kiswah, kaaba, style.

ISAC-25-110 Synthesis, characterization, Anti-bacterial Activity evaluation and *in-vivo* wound healing capabilities of dual drug components loaded bi-polymeric nanocomposite films

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In a current study we designed dual antimicrobial components (i.e. antibiotics/nanoparticles) loaded bi-polymer films as potential wound dressing material. In current report *ex-situ* synthesized iron oxide nanoparticles were loaded into the co-polymeric composite solution with consequent film formation via conventional solution casting method. The *in-vitro* release pattern and contents uniformity analysis of antibiotic agents (i.e. MPM or VCN) and nanoparticles (i.e. iron oxide) from the polymeric films. The films were chemically characterized via SEM, FT-IR and XRD while the percentage swelling ratio (%SR), films thickness, weight and folding endurance, percentage moisture content (%MC) and films water solubility (%FS), *in-vitro* iron ions/drugs release were the physical characterizations performed. Biological characterization of the nanocomposite films included *in-vitro* antioxidant, antibacterial and *in-vivo* wound recovery activities (% wound repair and histopathological assessment). Composite films presented highly smooth and uniform morphology with formation of comparatively dense microporous structure upon nanoparticles incorporation. Furthermore drug incorporation led to irregular/disordered structure with augmented pores density. The polymeric (Cs and Sc) peaks identification was confirmed in FT-IR spectra with the drug peaks not clearly observed in composite films due to their overlapping with the polymeric bands. CsScIN films represented four characteristic peaks at 2θ of 32.1°, 35.5°, 43.4°, and 53° respectively, associated to iron oxide nanoparticles and provoking amorphous nature of the nanocomposite films. The fabricated nanocomposites presented considerably sustained and constant release pattern in all the formulations presenting ˜99% release in 24h. The fabricated nanocomposites presented moderate antibacterial activity against the tested bacterial strains particularly *s. aureus*. Antibiotics loaded nanocomposite films indicated accelerated wound healing activity indicated via rapid epithelization & dermal reorganization, neovascularization, fibrosis & fibroblastic differentiation, collagen reformation and tissue remodeling. Iron oxide and antibiotics (MPM & VCN) embedded bi-polymeric (Cs & Sc) nanocomposite films targeted for topical reinstatement of wound healing has been reported for the first time in current study.

Keyword: Anti-bacterial, Chitosan, Co-polymer, Films, Nanocomposite, Sericin, Wound repair Antimicrobial components loaded bi-polymeric nanocomposite films are an effective novel alternates for wound healing based on improved epidermal regeneration, neovascularization and collagen deposition/reformation.

ISAC-25-111 A Tree near the River

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Nature art is not just visual representation for sake of aesthetics but it's a powerful tool for understanding ourselves and world around us. Artists have long turned to nature not only for its beauty but also for its symbolism, using the natural world as a canvas for personal expression and philosophical exploration. By immersing themselves in nature, artists can tap into a deeper, almost universal understanding of existence, allowing them to communicate complex ideas that go beyond the physical realm. Nature also serves as a mirror, reflecting both individual and collective experiences. Moreover, nature has been a consistent source of inspiration for various artistic movements. From the awe of Romanticism, where nature was often seen as a sublime and powerful force, to the precision of naturalist and impressionist works that sought to capture the fleeting qualities of light and atmosphere, nature has been a rich ground for creative exploration.

In modern and contemporary times, artists continue to find inspiration in the natural world and explore the organic forms and rhythms found in nature. The dialogue between art and nature is not only a celebration of beauty but also a call to action, a reminder that we must honor and protect the world that sustains us.

Art and nature, when intertwined, offer a pathway to greater self-awareness, societal reflection, and a deeper connection to the world around us. "A Tree Near the River," is a testament with the intricate relationships between land, water, and sky.

Keywords: nature, visual, representation, aesthetics, symbolism

ISAC-25-112 Analysisof The Perceivedversus Actual Changesin The Climaticparameters: Inriverine, Irrigatedand Rainfedfarming System Of Punjab, Pakistan

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Farming communities in the Punjab province of Pakistan are indeed among the most vulnerable to the effects of climate change. Because of their biophysical and socioeconomic circumstances, making farming communities adaptable requires an understanding of the observed characteristics of the changing environment, as well as their coping mechanisms. This study was conducted to compare the perceived changes in climatic parameters with the actual changes in selected climatic parameters. In addition, this study explores to assess coping and adaptation strategies adopted in the face of extreme climatic events in the riverine, irrigation, and rainfed farming systems. A three-stage sampling technique was employed to randomly select a total of 150 farmers from rainfed, irrigated, and riverine systems. Secondary data about the selected climate variables were collected from the Metrological Department. Primary data was collected througha semi-structured questionnaire. The questionnaire consisted of a broad range of factors, including the socioeconomic attributes of the farmers, crop-growing techniques, farming systems, how the farmers perceive climate change, and the strategies they use to deal with its effects. Data were analyzed using the binary logistic regression model. Based on the survey data the majority 90.67% of the total sample respondents reported that the overall maximum temperature has been increasing over the past 20 years and most of the 83.34% total sample respondents observed that the rainfall has decreased over the last two decades. The farmers (80%) in rainfed areas (Tehsil Choubara District Layyah) growchickpea, while most of the farmers in riverine and irrigated farming systems are growing cotton, wheat, sugarcane, sesame, sugar beets, etc. as a major crop. An increase in the perceptions of flood from low to medium or medium to high will lead to an increase in the chances of changing sowing time as a strategy to mitigate adverse impacts of extreme weather events by 125%. As evident from survey data, respondents with high perceptions of drought have lower chances of adopting crop rotation to cope with the adverse impacts of extreme weather conditions. There will be a decline of 76% in the chances of adopting crop rotation as response to the growing uncertainties associated with extreme weather events in the study area.

Keywords: Climate change, farmers perceptions, riverine, irrigated and rainfed farming systems, farming communities, adaptations, Punjab, Pakistan

ISAC-25 Multan

ISAC-25-113 *Systematic Review: The Role of Academic Procrastination, Achievement Goals, and Personality Traits in Shaping Academic Success in University Students*

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Academic procrastination is a prevalent issue among students, and it has been extensively studied in relation to personality traits and achievement goals. This review examines the connection between academic procrastination, achievement goals, and personality traits, with a specific focus on Pakistani literature from the past decade. The study reveals that certain personality traits, such as neuroticism and conscientiousness, have a strong correlation with procrastination behaviors, with achievement objectives serving as a mediating factor. High-achieving students tend to exhibit lower levels of procrastination due to their greater inclination towards goal-setting and self-regulation skills. Mastery-oriented goals help reduce procrastination in students with strong academic performance, while performance-avoidance goals increase the likelihood of delaying assignments. Additionally, cultural and contextual factors, such as social expectations and academic pressure, significantly influence procrastination behaviors. The review identifies research gaps and suggests the need for further exploration, including the development of objective assessment tools and longitudinal studies. The findings are essential for policymakers and academic institutions, highlighting the necessity for targeted interventions aimed at reducing procrastination and enhancing academic performance.

Key Words: Academic procrastination, achievement goals, personality traits, academic achievement, self-regulation, mastery-oriented goals, Pakistani students, academic performance.

ISAC-25-114 **Mitigating Lead and Arsenic Contamination in Water:** *Metabolic dysfunction and Analytical Techniques*

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Lead and arsenic are highly toxic heavy metals that pose significant environmental and public health risks. Major sources of contamination include agricultural runoff, industrial wastewater, mining activities, pulp and paper mills, and emissions from coal-fired power plants. These pollutants persist in water sources, bioaccumulate in the food chain, and have severe health consequences, particularly for pregnant women, infants, and children. Chronic exposure to lead and arsenic is associated with neurological disorders, cognitive impairment, cardiovascular diseases, renal dysfunction, and pulmonary complications. Lead disrupts neurotransmitter signaling and calcium homeostasis, while arsenic interferes with cellular respiration and DNA repair mechanisms. Given the widespread contamination, effective removal and monitoring strategies are crucial. Several remediation technologies, including adsorption using activated carbon, membrane filtration, chemical precipitation, and bioremediation, have been explored to reduce lead and arsenic levels in water. Analytical methods such as electrothermal atomic absorption spectroscopy for arsenic and graphite furnace atomic absorption spectroscopy for lead provide precise detection and quantification, ensuring compliance with environmental safety regulations. An integrated approach combining these detection techniques with innovative remediation strategies is essential to minimize exposure risks. Strengthening regulatory frameworks and promoting sustainable water management practices can further aid in preventing contamination and safeguarding public health. Understanding the mechanisms of toxicity and implementing advanced treatment technologies are critical steps toward mitigating the long-term impacts of lead and arsenic contamination.

Keywords: Lead, Arsenic, EDC, metabolomics, metabolic disorders

ISAC-25-115 **Zinc MOFs: A Promising Solution for Combatting multi–Drug-Resistant Isolates from hospitalized pneumonia patients**

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ISAC-25 Multan

Background Pneumonia, a critical respiratory infection affecting the lungs, poses a substantial health risk, particularly in hospitalized patients due to the prevalence of multidrug-resistant (MDR) and extensive drug-resistant (XDR) bacterial strains such as Methicillin-resistant *Staphylococcus aureus* (MRSA), *Klebsiella pneumonia*, streptococcal *pneumoniae*. The emergence of these MDR strains necessitates the development of innovative antimicrobial agents.

Major objectives Present research work was designed to explore the potential of Zinc-based Metal-Organic Frameworks (Zn-MOFs) as novel antimicrobial agents for managing drug-resistant clinical isolates. To evaluate the synergistic effects of Zn-MOFs in combination with Ciprofloxacin against MRSA and *Klebsiella pneumonia*e isolates from the tracheal aspirates from pneumonia patients.

Methodology Clinical isolates were obtained from the tracheal aspirates of pneumonia patients, ensuring a relevant and representative sample of the pathogens responsible for severe respiratory infections in hospitalized patients. Antibiotics susceptibility testing (AST) performed by Kirby bauer Disc Diffusion Method as per EUCAST guidelines 2023. Antimicrobial potential of Zn-MOFs was evaluated by agar well diffusion method against MDR strains of MRSA and Klebsiella

Then MIC and MBC of both Zn-MOFs and Ciprofloxacin was calculated by using 96-wells microplates

Results MIC of Zn-MOFs against *Klebsiella* was 0.3 mg/ml and against MRSA was 0.6 mg/ml. MIC of Ciprofloxacin against Klebsiella was 0.6 mg/ml and against MRSA was 1.2 mg/ml. While MBC of Zn-MOFs against Klebsiella was 0.6 mg/ml and against MRSA was 1.2 mg/ml. MBC of Ciprofloxacin against Klebsiella was 1.2 mg/ml and against MRSA was 2.4 mg/ml.

Then synergistic effect of Zn-MOFs with Ciprofloxacin was performed by FIC. The FIC index value of *Klebsiella pneumonia*e was 0.25 mg/ml. The FIC index value of Methicillin resistant staphylococcus aureus (MRSA) was 0.3125 mg/ml.

conclusion synergistic effect of Zn-MOFs with ciprofloxacin's enhanced its efficacy & potential by increasing bacterial cell wall permeability and generating reactive oxygen species (ROS). These findings highlight the potential of Zn-MOFs, alone and in combination with ciprofloxacin, for effective management of MDR strains prevalent in hospitalized patients with pneumonia.

ISAC-25-116 The portrayal of cricketers in Print Media (a comparative analysis of male and female cricketers)

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This research examines the portrayal of cricketers in print media through a comparative analysis of male and female cricketers. It investigates how gender effect Media coverage, focusing on details such as the frequent occurrence, language used,And visual illustrations. By analyzing a newspaper , the study aims to uncover disparity in the portrayal of male and female cricketers, disclose potential biases and Cliché. The findings are expected to signify that male cricketers receive more significant and positive coverage, highlighting the challenges faced by female cricketers in achieving equal representation. This research contributes to the Understanding of gender vigorous in sports media and its impact on public insight.

Keywords: Portrayal , Cricketers, Print Media , Comparative Analysis, Male Cricketers, Female Cricketers

ISAC-25-117 The Weight of Dreams

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"The Weight of Dreams" captures a poignant moment of introspection, as a young girl bows her head in contemplation beneath a majestic moon. The soft, ethereal glow of the lunar backdrop contrasts starkly with the girl's dark, bent form, emphasizing the turmoil that weighs upon her mind. Her downward gaze suggests vulnerability and self-reflection, as if the weight of her aspirations and desires has become almost unbearable. The moon above, symbolizing guidance and illumination, casts an gentle light upon her struggles, inviting the viewer to share in her emotional journey. In this hauntingly beautiful scene, the girl's inner world is laid bare, revealing the universal human struggle to balance dreams with reality.

Keywords: Identity, Symbolism, Moon, Self-Reflection, Abstract Art

ISAC-25-118 Golden Serenity

ISAC-25 Multan

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Golden Serenity depicts a peaceful rural landscape bathed in warm sunlight. A dirt path winds alongside a gently flowing river, leading the eye toward a small bridge in the distance. Lush green trees frame the right side, their leaves casting dappled shadows on the golden earth below. Sparse, delicate branches reach toward the soft blue sky, adding a sense of quiet stillness. The painting captures the harmony of nature, evoking a feeling of calm, nostalgia, and connection to the land.
Keywords: Village Landscape ,Oil painting ,Sunset Painting, Nature , Trees

ISAC-25-119 **Vibrant Journey**

Tooba Khan
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The painting showcases a highly stylized and colorful auto-rickshaw against an urban backdrop. The use of bright, bold hues—reds, blues, yellows, and oranges—adds a sense of dynamism and festivity. The intricate patterns on the rickshaw's body, windshield, and roof are reminiscent of traditional Pakistani and Indian truck art, where decoration turns vehicles into moving canvases. The thick black outlines enhance the details, making the subject pop against the blue road and warm-toned cityscape. Encased in a matching yellow frame, the artwork exudes warmth, movement, and cultural richness, inviting the viewer to embark on an artistic journey through the streets of South Asia.

Keywords: Colorful Strokes, Pop Art, Abstract, Cultural Art

ISAC-25-120 **Metabolic Disorders and Cardiovascular Diseases:** *A Bidirectional Pathophysiological Link*

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The interplay between metabolic disorders and cardiovascular diseases (CVDs) represents a significant global health concern, with both conditions contributing to morbidity and mortality. Metabolic disorders such as diabetes, obesity, and dyslipidemia act as major risk factors for cardiovascular complications, including coronary artery disease, heart failure, and arrhythmias. These disorders trigger a cascade of metabolic, inflammatory, and oxidative stress responses that impair vascular function, accelerate atherosclerosis, and compromise myocardial performance. Insulin resistance, a hallmark of type 2 diabetes, along with chronic low-grade inflammation and lipid and glucose dysregulation, plays a crucial role in disease progression. Elevated free fatty acids and pro-inflammatory cytokines disrupt endothelial function, while dyslipidemia fosters plaque formation and instability within arterial walls. Additionally, mitochondrial dysfunction and oxidative stress further exacerbate myocardial damage, leading to cardiac dysfunction. The bidirectional nature of this relationship is influenced by genetic predisposition, environmental factors, and lifestyle choices, which collectively contribute to disease severity. Recent advances in metabolomics, in vivo and in vitro models, and in silico simulations have provided deeper insights into the molecular mechanisms underlying these disorders. Our research focuses on adipokine signaling, metabolic enzyme modulation, and targeted therapeutic interventions to mitigate disease progression. Understanding these interdependent mechanisms is essential for developing novel therapeutic strategies aimed at simultaneously addressing metabolic and cardiovascular dysfunction. These findings offer promising avenues for early detection, prevention, and treatment, emphasizing the need for integrative approaches in managing these interconnected diseases.
Keywords: Metabolism, Cardiovascular, Insulin, Atherosclerosis, Metabolomics.

ISAC-25-121 **Exploring The Impact Of Pakistani Celebrities Instagram Profile On Youth**

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In the world of technology, Instagram has emerged as an efficient tool for social media influencers to convey their ideas to the population and establish a connection with their followers. In Pakistan, public figures create a profile on Instagram and the youth starts to idolise them and goes through a personality transformation. This study looks at

how targeted social media campaigns, including celebrity endorsements and consumer branding, impact the culture and buying patterns of adolescent socio audiences. It describes how these profiles contribute to setting beauty standards, career aspirations, and lifestyle choices, while also addressing the potential challenges, such as the promotion of unrealistic ideals. By analysing the influence of Instagram engagement, the study provides perception into the extent of celebrity power and its implications on youth psychology and societal norms.

KEY WORDS : Instagram of celebrities, Instagram involvement, willingness to share, impact youth, willingness to like, Instagram involvement, celebrity fit.

ISAC-25-122 Impact of Green Energy on Socioeconomic Development in Pakistan

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This study investigates the impact of green energy on socioeconomic development in Pakistan, utilizing a time-series dataset spanning 2000-2024. Green energy measured by renewable energy consumption is posited as the primary independent variable while socioeconomic development proxies by human development index (HDI) serves as the dependent variable. To account for potential confounding effects information and communication technology (ICT) penetration, employment rate, electricity access, and foreign aid are incorporated as control variables. Employing econometric techniques, this research aims to elucidate the relationship between green energy adoption and socioeconomic development in Pakistan. The findings of this study will contribute to the existing literature on sustainable development and provide policymakers with empirical evidence to inform green energy policy decisions ultimately promoting inclusive and sustainable socioeconomic growth in Pakistan.

ISAC-25-123 Meaning in Life and Subjective Happiness among Fertile and Infertile Females: A Comparative Analysis

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Infertility is a profoundly painful experience which triggers many psychological issues among the females who are unable to conceive. This study compared the meaning in life and subjective happiness of N=50 females (n=25 infertile & n=25 fertile), selected through purposive sampling techniques. This quantitative cross-sectional study utilized two scales for the measurement of study variables along with the self-structured consent from and demographic sheet. A four itemed Subjective Happiness Scale (SHS) (Lyubomirsky et al., 1999) was used to gauge subjective happiness of the participants, while Meaning in Life Questionnaire (MLQ) (Steger et al., 2006) was a two dimensional scale which measured search and presence of meaning in life of both fertile and infertile females. Results indicated that fertile females have higher subjective happiness as compare to infertile females (p=.042*). Infertile females showed higher level of search for meaning in life (p=.006*) as compared to fertile females. Presence of meaning remained non-significant among both counterparts. Results also revealed that subjective happiness was negatively correlated (r= -.346*) with the search for meaning of life and significantly positively correlated (r=.609**) with the presence of meaning in life of fertile and infertile females. These results emphasize the need for psychological support programs for infertile females, focusing on fostering a sense of meaning in life for enhancing their subjective well-being.

Keywords: infertility, subjective happiness, meaning in life

ISAC-25-124 *Determinants of Divorce in Pakistan: A Systematic Literature Review*

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Divorce rates have been increasing at an alarming rate not only globally, but also in Pakistan, which necessitates a comprehensive understanding of its determinants. This systematic review aimed to investigate the psychological, social and economic factors that contribute to divorce in the Pakistani context. A thorough search of various databases resulted in a collection of both qualitative and quantitative studies. The findings indicated that interference from in-laws, domestic abuse and infidelity were among the most prevalent determinants of divorce. Furthermore,

the review underscored a growing trend: the impact of social media on marital relationships which fosters materialistic attitudes, financial stress and marital conflict. Overlapping factors including body shaming, incompatibility, sexual dysfunction, intolerance, westernization, lack of commitment, marriage for greed and infertility were also identified. This review provides a nuanced understanding of the complex interplay among the psychological, social and economic determinants of divorce in Pakistan; however, it stresses the necessity for culturally sensitive and holistic approaches to mitigate marital discord.

Key Words: Divorce, Determinants, Systematic Review, Psychological Factors, Social Factors, Economic Factors, Social Media.

ISAC-25-125 Beyond Connectivity: Unpacking the Economic Implications of Internet Usage in West Asia

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In the investigation of Internet usage among individuals in West Asia, this study explores the multifaceted interplay between information communication technology (ICT) diffusion, economic variables, and income inequalities. Spanning the years 2001 to 2022, the research employs fixed and random effect models to analyze data from nine West Asian countries. The study reveals intricate dynamics, illustrating that while Gross Domestic Product per capita (GDPPC) exhibits a positive correlation with Internet usage proxies, its impact is not uniformly significant. Moreover, research and development expenditures emerge as a significant factor, underscoring the pivotal role of innovation in shaping Internet adoption patterns. This study contributes valuable insights into the socioeconomic implications of ICT diffusion and Internet usage in the unique context of West Asia.

ISAC-25-126 Screening The Efficiency Of Wild Plant Aquous Extract As Biostimulant For Sustainable Agricultural Practice

Abida Aziz, Qurat Ul Ain, Sabahat

Wheat (*Triticum asetivum)* is globally used in the human food and used as staple food in Pakistan. Enhancing wheat production using biostimulants can contribute significantly to food security and sustainability. These substances alter structural processes and effect the plant development by increasing the tolerance to environmental stresses and enhance grain yield and quality. The object of this work was to examine impact of aqueous extracts of various medicinal plants *Convolvulus prostratus* (hiran booti), *Cenchrus ciliaris* (daman), Sana maki (*Cassia senna)* , Puth Kanda (*Achyranthes aspera)* Kali Lani (*Suaeda fruticosa)* and Ukan (*Tamarix aphylla)* on the development and productivity of wheat crop. Experiment was conducted in field with different concentration (1%, 3% ,5%, 7% and 9%) of plants aqueous extract in priming and foliar way. At intervals of 30 days, 60 days, 90 days, and 160 days following planting, four harvests were conducted to evaluate various growth metrics. According to results of this research at low concentration of plants aqueous extract stimulate or promote the growth of wheat crop but as the concentration of plants aqueous extract was increased it show the negative effect on the wheat crop and yield. And plants aqueous extract applied by priming method show more growth of wheat crop as compared to foliar method.

Key Words: Biostimulants, medicinal plants, priming, foliar

ISAC-25-127 Sustainable Future of Environment

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Human actions have led to significant environmental degradation, threatening the planet's sustainability. This poster presents two contrasting futures: one where environmental neglect leads to devastating consequences, and another where sustainable practices prevail, ensuring a thriving planet. By highlighting the consequences of our choices, this poster aims to inspire individuals to adopt eco-friendly habits and contribute to a sustainable future.

Key Words: Sustainability, Environmental Degradation, Climate Change, Sustainable Practices, Eco-Friendly Habits

ISAC-25-128 Foreign Capital Inflows and Economic Development in South Asia

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Foreign capital is considered an essential asset for improving the quality of life and welfare in developing countries. Scholars and researchers are focusing on the impact of foreign capital on these emerging economies. This research investigates the influence of foreign capital on the economic development of six South Asian countries from 2001 to 2020. The key indicators of foreign capital analyzed in this study include official development assistance, foreign direct investment, and remittances from migrants. The growth rate of GDP serves as a measure of macroeconomic performance. The empirical analysis employs advanced panel data estimation techniques, specifically Fully Modified Ordinary Least Squares (FMOLS) and Dynamic Ordinary Least Squares (DOLS). The findings indicate that official development assistance negatively affects economic growth, while remittances and foreign direct investment contribute positively.

ISAC-25-129 Exploring the Impact of Social Support on Quality of Life among Heart Patients in Multan, Pakistan

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Heart diseases are one of the leading causes of mortality and morbidity globally, with its effects extending beyond physical health to significantly influencing mental health and consequently impacting the quality of life of the heart patients. In this context, social support plays a vital role to help patients in managing the challenges that are associated with their condition, ultimately effecting their quality of life. The present study aims to describe the relationship between social support and quality of life among heart patients in Multan, Pakistan. The correlational study targeted a sample of 150 patients using the purposing sampling technique. The Multidimensional Scale of Social Support (MSPSS) and the Quality of Life Scale was used to measure the patients' concept of support and quality of life. To describe the relationship, analyze the data, and reveal the effect of selected variables on each other; correlation and regression analysis and t-test were used. Results indicated a significant correlation between social support and quality of life with further revealing that social support has a profound effect on the quality of life. In terms of gender, notable differences were observed both in social support and quality of life. The findings of the study can facilitate the researchers to establish programs and such interventions for the heart patients which would enhance their quality of life and help in improving social support offered by significant others.

Keywords: social support, quality of life, heart patients, mental health

ISAC-25-130 Drug- Mediated Synthesis Of Bimetallic Nanocomposite And Its Functionalization For Colorimetric Sensing Of Oxalic Acid

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Functionalization of drug-mediated bimetallic copper oxide (CuO) and ferric oxide (Fe_2O_3) nanocomposites have drawn more attention among nanomaterials due to their potential application in sensors, catalysis, and environmental monitoring of numerous hazardous compounds. These CuO and Fe_2O_3 nanomaterials have a wide range of uses in various fields including drug delivery, contrast agents, separation, and enzymatic assays biosensors. However, a sensing platform for oxalic acid with low-cost methods and high analytical performance, high sensitivity and good stability is still highly desirable. This colorimetric method was also used for optimizing different parameters including pH, concentration of nanocomposites, concentration of TMB , concentration of hydrogen peroxide, and time through UV-Visible spectrophotometer. The nanocomposites were characterized by X-ray diffraction (XRD), scanning electron microscopy (SEM), Fourier transform infrared spectroscopy (FTIR), and energy dispersive x-ray spectroscopy (EDX) with the use of UV-Vis spectroscopy, the characteristic peak at 250 nm reveal the synthesis of bimetallic CuO and Fe_2O_3 nanocomposites. The measurement of the activity was done by colorimetric sensing of oxalic acid with TMB as a substrate. According to this method, tetramethylbenzidine (TMB) is turned blue-green when H_2O_2 oxidizes it, and back to colorless when oxalic acid is added. The colorimetric development was detected by UV-Vis spectra. In conclusion

In conclusion, it offers a practical solution for monitoring oxalate levels in water addressing a critical need in healthcare management.

ISAC-25 Multan

ISAC-25-131 **Fruit and Vegetable Classification Using GoogleNet: A Deep Learning Approach for Automated Food Recognition**

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Intended for automatic quality control, food safety, as well as dietary analysis, the smartest way to accomplish this is to correctly classify fruits, vegetables and other items. As in this study, image based classification of fruits and vegetables using deep learning based on the GoogleNet (InceptionV1) model. It then uses the Inception module to perform the task of getting multi-scale features to obtain high classification accuracy at a relatively high computational cost. Data augmentation is applied to a dataset of a number of fruit and vegetable photos, to improve the model generalization. Transfer learning is employed to fine tune the GoogleNet model to use the number of classes via modifying the final fully connected layer. The Adam optimzer and categorical cross entropy loss is used to train the model. Experimental results confirm the accuracy with which the model is able to classify different fruit and vegetable categories. This strategy can be applied in terms of dietary assessment, smart agriculture, and the use of automated food sorting systems. It will be future research on lightweight model optimization and ensemble learning strategies for edge device real time application.

ISAC-25-132 **The War on Terror: Origins, Impact on Pakistan, and Global Consequences**

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This study looks at the War on Terror, focusing on where it started, how it affects Pakistan, and what it means for the world. Using a qualitative research method, the research collects information through interviews with important people like government officials, military leaders, and experts, along with group discussions and analysis of relevant documents. The findings show that the War on Terror began because of political conflicts, extreme beliefs, and historical issues, which have shaped Pakistan's policies. The study highlights the serious effects on the people of Pakistan, including increased military presence, displacement of families, and loss of personal freedoms. It also discusses how the War on Terror has changed international relationships and security strategies worldwide. Overall, this research provides important insights into the War on Terror's many impacts and stresses the need for policies that address the root causes of these issues while promoting peace and stability in affected communities.

ISAC-25-133 **Cyber Frontline: Evolving Nature of Warfare between India and Pakistan**

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Due to technological advancement, there occurred a major shift in the ongoing rivalry between India and Pakistan. It has transformed the traditional warfare into fifth generational warfare where cyber space is being used as a tool and arena of warfare. This article focuses on the evolving nature of warfare, based on cyber espionage and disinformation, and how it contributes to the geographical tension between these two neighboring nuclear states. It discusses cyber conflicts between both states, cyber security policies, strategies or mechanisms adopted by both states, and its border implications for South Asian region. After analyzing the major cyberwar incidents, the policy documents, news articles and reports of different organizations, for instance, EU Dis Info Lab, findings reveal that both states are increasingly involved in cyber warfare through offensive and defensive attacks and campaigns that further contribute to the existing rivalry and escalate the traditional warfare between both states. Furthermore, there is a lack of proper cyber conflict resolution mechanism between India and Pakistan. Therefore, this work highlights the need for diplomatic efforts and suggests the regional cyber space governance to prevent potential cyber conflicts for the stability of the region.

ISAC-25-134 نمره عباس

(امیر اور غریب کے درمیان بڑھتی ہوئی خلیج)

امیر اور غریب کے درمیان بڑھتی ہوئی خلیج محض ایک اقتصادی مسئلہ نہیں ہے،بلکہ یہ ایک سنگین سماجی اور اخلاقی بحران ہے جو عالمی سطح پر اثر انداز ہو رہاہے۔یہ خلیج مختلف سماجی طبقات کے درمیان تعاون ، ہم آہنگی اور یکجہتی کو متاثر کر رہی ہے۔امیر طبقہ جدید سہولیات ،اعلیی تعلیم ،بہتر صحت کی خدمات اور معیاری زندگی کا لطف اٹھا رہا ہے۔جبکہ غریب طبقہ بنیادی ضروریات جیسے صاف ، پانی ،خوراک اور رہائش کی کمی کا شکار ہے۔ اس عدم توازن نے معاشرتی تقسیم کو واضح کردیا ہے۔ ایک جانب جہاں دولت مند افراد ٹیکنالوجی ،صنعت اور کاروباری مواقع کے ذریعے اپنی مالی حالات کو بہتر بنارہے ہیں، وہیں دوسری جانب غریب طبقہ ان ترقیوں سے دور رہ کر مزید پسماندگی کا شکار ہو رہا ہے۔مثال کے طور پر دیہی علاقوں کے رہائشی شہری علاقوں کے مقابلے میں تعلیم اور صحت کی بنیادی سہولیات سے محروم ہیں۔شہری افراد جدید ٹیکنالوجی اور بہتر بنیادی ڈھانچے کا فائدہ اٹھا رہے ہیں۔جبکہ دیہات میں بنیادی سہولیات جیسے سڑکیں ،بجلی اور پانی کی عدم ستیابی ہے۔اس طرح امیر اور غریب کے درمیان فاصلہ مسلسل بڑھتا جارہا ہے۔

تعلیم کی کمی اس فرق کو مزید بڑھا رہی ہے۔ امیر خاندان اپنے بچوں کو اعلیٰ تعلیم کے لیے ممتاز اداروں میں داخل کراتے ہیں، جبکہ غریب خاندان اپنے بچوں کو ابتدائی تعلیم بھی فراہم کرنے میں ناکام رہتے ہیں۔ اس کا نتیجہ یہ ہوتا ہے کہ غریب طبقے کے بچے معاشرتی ترقی کے مواقع سے محروم رہ جاتے ہیں اور غربت کے ایک دائرے میں پھنس جاتے ہیں۔ یہ دائرہ نہ صرف ان کی زندگیوں کو محدود کرتا ہے بلکہ پورے معاشرے کی ترقی پر بھی منفی اثر ڈالتا ہے۔ صحت کے شعبے میں بھی یہ فرق نمایاں ہے۔ امیر افراد اعلیٰ طبی سہولیات سے مستفید ہوتے ہیں، جبکہ غریب افراد بنیادی علاج تک بھی رسائی نہیں رکھتے۔ اس کی وجہ سے غریب طبقے میں بیماریوں کی شرح زیادہ ہوتی ہے اور اموات کی تعداد بھی بڑھ جاتی ہے۔ صحت کی سہولیات کی عدم دستیابی کی وجہ سے غریب افراد کی پیداواری صلاحیت متاثر ہوتی ہے۔جس کا براہ راست اثر معشیت پر پڑتاہے۔

روزگار کے مواقع امیر اور غریب کے درمیان تفریق کو نمایاں کرتے ہیں۔ امیر طبقہ اعلیٰ معیار کی نوکریوں اور کاروباری مواقع تک رسائی رکھتا ہے، جبکہ غریب طبقہ غیر مستحکم اور کم تنخواہ والی ملازمتوں پر انحصار کرتا ہے۔ اس صورتحال کی وجہ سے غریب افراد کی آمدنی میں کمی واقع ہوتی ہے، جس کی وجہ سے وہ اپنے خاندان کی بنیادی ضروریات پوری کرنے میں ناکام رہتے ہیں۔

اس مسئلے کے حل کے لیے حکومتوں کو مؤثر اقدامات کرنے کی ضرورت ہے۔ سب سے پہلے، تعلیم اور صحت کے شعبوں میں سرمایہ کاری کی جانی چاہیے تاکہ غریب طبقے کو بھی ان بنیادی سہولیات تک رسائی حاصل ہو سکے۔ دوسرا، روزگار کے نئے مواقع پیدا کرنے کے لیے صنعتی اور کاروباری ترقی کو فروغ دینا چاہیے۔ تیسرا، وسائل کی منصفانہ تقسیم کو یقینی بنانا چاہیے تاکہ غریب علاقوں میں بھی ترقی کے مواقع پیدا ہو سکیں۔

اس کے علاوہ، سماجی سطح پر بھی آگاہی بڑھانے کی ضرورت ہے۔ امیر طبقے کو چاہیے کہ وہ غریب طبقے کی مدد کے لیے آگے آئیں اور انہیں ترقی کے مواقع فراہم کریں۔ خیراتی ادارے اور غیر سرکاری تنظیمیں بھی اس سلسلے میں اہم کردار ادا کر سکتی ہیں۔اگر اس فرق کو کم نہ کیا گیا تو معاشرے میں عدم استحکام، جرائم، اور بے چینی میں اضافہ ہو سکتا ہے۔ اس لیے، امیر اور غریب کے درمیان فاصلے کو کم کرنا نہ صرف ایک اخلاقی ذمہ داری ہے بلکہ معاشرے کی پائیدار ترقی کے لیے بھی ناگزیر ہے۔

کلیدی الفاظ: امیر اور غریب کے درمیان فرق،اقتصادی عدم توازن،تعلیم کی اہمیت، روزگار کے مواقع،اقتصادی حکمت عملیاں

ISAC-25-135 **Impact of Perceived Stress on Academic Performance among Adolescent: Mediating Role of Self-efficacy**

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The present study was aimed to investigate impact of perceived stress on academic performance among adolescent with particular focus on a mediating role of self-efficacy. Perceived stress is an important factor which influences the academic performance of adolescent. Understanding these relationships mitigating the negative of stress and helps students how to perform under pressure. A sample of 300 adolescents both male and female was recruited from both government and private sector of Muzaffargarh city. The adolescent age range was from 10 to19 years according to world health organization. It was a correlational research method. Stratified sampling was used to collect the data. Assessment was carried out by using validated questionnaire Perceived Stress Scale (PSS) by Cohen, Kamarck & Mermelstein (1983) translated in urdu by Rukhsana Kousar & Tahira and General Self efficacy scale by Schwarzer, & Jerusalem while Academic Performance was measured by exams scores. To examine the data suitable statistical methods such as Frequency analysis of demographics, multiple regression analysis for mediation, and Pearson correlation was used. It was found that perceived stress and self-efficacy have strong correlation. The results showed that they have negative correlation and are highly significant. Perceived stress and Self-efficacy are highly significant at 5% level. So, that Self-efficacy do not play the role of mediator in the described sense. In order to improve their academic performance, adolescents have to manage their stress. As research in this area progresses, a better understanding of these dynamics can inform targeted interventions and support mechanisms to improve students' academic performance. This study intends to increase our understanding of the multiple links between perceived stress, self-efficacy, and academic achievement.

keywords: perceived stress, self-efficacy, academic performance.

ISAC-25-136 Efficiency Analysis Of Alumina Nanofiller Fixed Bed Column For Water Desalination

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The recycling and recovery of important materials from inexpensive feedstock has now become an intriguing area and vital from commercial and environmental viewpoints. Nanoparticles, with a 100 nm dimension, are utilized in electronics, biomedical, drugs, and energy, while aluminum is crucial in automobiles, buildings, airplanes, and packaging. This study reports the extraction of high-purity single phases of alumina from waste beverage cans using a direct precipitation method. Alumina nanoparticles from recycled aluminum cans have superior chemical, thermal, and structural properties, benefiting energy-saving and greenhouse gas emission. Recycling aluminum cans reduces greenhouse gas emissions and offers a cost-effective, eco-friendly wastewater treatment method. Lead and Triclosan, emerging pollutants in urban wastewater, pose health risks to humans due to renal failure, central nervous system damage, and developmental issues in children. Research explores recycling alumina to aluminum oxide nanoparticles for water desalination and wastewater removal, aiming to combat environmental and health issues caused by hazardous pollutants. Several advanced techniques have been used to characterize the as-prepared alumina tiny particles like UV-visible spectroscopy, X-ray diffraction technique (XRD) and Scanning electron microscopy (SEM). UV-visible studies show the peak at 200- 230nm. The research aims to recycle alumina into aluminum oxide nanoparticles for water desalination using a fixed bed column using adsorption technique, effectively removing salts and pollutants from wastewater.
KEYWORDS: Precipitation method; Fixed bed column; Desalination of water; Adsorption

ISAC-25-137 Molecular Analysis Of Nyctophilia From District Bannu

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Nyctophilia represents a clinically and genetically diverse collection of retinal illnesses resulting from genetic variants in the phototransduction cascade or retinal signaling from photoreceptors to neighboring bipolar cells. Nyctophilia is a serious condition, that significantly, hampers a person's ability to see in dim light. The ocular signs of nyctophilia may encompass nystagmus, myopia, strabismus, impaired dark adaption, and reduced visual acuity. According to the existing scientific literature, nyctophilia has been reported to segregate in autosomal recessive, autosomal dominant, and X-linked inheritance patterns. Only very few genetic variants have been documented for autosomal recessive & dominant types with fundus defects, whereas most have been observed in X-linked instances. The Prevalence rate of nyctophilia in Pakistan has been estimated to be 2.528%. The present study sampled one nyctophilia families from district Bannu, Khyber Pakhtunkhwa. Pedigrees were produced based on the information provided by the senior family members. DNA was taken from the blood samples, and whole exome sequencing was conducted on the affected patients. The examination of whole exome data identified a missense mutation (c.1079G>A; p.Gly360Asp) in the *CNGA1* gene of the affected family. Sanger sequencing was performed after designing primers using Primer3 software and co-segregation of the variant in the family was confirmed. The variant was segregating with the disease in autosomal recessive pattern. The *CNGA1* gene codes for the alpha subunit of a

cyclic GMP (cGMP)-gated cation channel, which is crucial for rod photoreceptor function in the visual pathway. Mutations in this gene lead to abnormal protein structures, leading to nyctophila disorder. In conclusion we identified a novel homozygous missense variant in *CNGA1* gene increasing the genetic spectrum of nyctophilia.

Key word: Nyctophilia, CNGA1 gene, Autosomal recessive, Whole exome sequencing, Sanger sequencing.

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ISAC-25-138 سائرہ منظور

بدعنوانی اور رشوت ستانی کی سر پرستی

بدعنوانی اور رشوت ستانی کی سرپرستی ایک سنگین مسئلہ ہے جو معاشرتی اور ادارتی بگاڑ کا باعث بنتا ہے۔ یہ نہ صرف انصاف کے اصولوں کو متاثر کرتا ہے بلکہ اقتصادی ترقی اور سماجی استحکام کے لیے بھی خطرہ بن جاتا ہے۔ یہ مقالہ اس مسئلے کی تفصیل بیان کرتا ہے اور ان عوامل کی نشاندہی کرتا ہے جو بدعنوانی اور رشوت خوری کو فروغ دیتے ہیں، خاص طور پر اعلیٰ سطح کی سرپرستی اور اداروں میں موجود خاموش حمایت۔ تحقیق سے یہ بات سامنے آتی ہے کہ جب حکومتی یا نجی شعبے کے عہدیدار اپنے ذاتی مفادات یا سیاسی مقاصد کے لیے بدعنوانی کو برداشت کرتے ہیں تو یہ قانون کی حکمرانی کو کمزور کرتا ہے اور عوامی اعتماد کو بھی متاثر کرتا ہے۔ مثال کے طور پر، ملازمتوں میں اقربا پروری، ٹھیکوں میں غیر شفافیت، اور عدالتی نظام میں تاخیر ایسے مظاہر ہیں جو سرپرستی کی وجہ سے پیدا ہوتے ہیں۔ مزید برآں، معاشرتی اخلاقیات کا زوال، تعلیمی اداروں میں ناانصافی، اور غریبوں کے ساتھ امتیازی سلوک جیسے مسائل بھی اسی سلسلے کی کڑیاں ہیں۔ مقالے میں یہ بھی بیان کیا گیا ہے کہ بدعنوانی کی سرپرستی کرنے والے ادارے اکثر طاقت کے مراکز پر کنٹرول رکھتے ہیں، جس کی وجہ سے احتساب کا عمل ناکام ہو جاتا ہے۔ بین الاقوامی سطح پر دیکھا جائے تو ترقی پذیر ممالک میں یہ مسئلہ مزید پیچیدہ ہو جاتا ہے۔

اکلیدی الفاظ: رشوت ستانی،غیر قانونی سرگرمیاں،اقتدار کا غلط استعمال،عوامی اداروں میں بدعنوانی،اخلاقی بحران

ISAC-25-139 A Comparative Study of Organizational Practices: Leadership, Culture, and Strategy

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This study aimed to recognize organizational practices in Pakistan. It is based on a qualitative method that explores the fundamentals of Industrial/Organizational Psychology, focusing on personnel recruitment, evaluating leadership styles, analyzing the development of organizational culture, training follow-ups, decision-making techniques, facilitation practices, transformation methodologies, and concept generation processes.

The theoretical background and interview guide are grounded in the works of Bass (1990), Greenleaf (1977), and Schein (2010). By utilizing a qualitative approach, the study employs a semi-structured interview method to capture in-depth insights. The data is thematically analyzed and structured into a comparative framework.

The findings demonstrate that cultural adaptability significantly impacts organizational practices. For instance, Meezan Beverages successfully integrates traditional principles with contemporary business operations. This research contributes to organizational psychology by enhancing the understanding of workplace improvement strategies that increase effectiveness and competitive growth. It highlights the importance of better recruitment practices, cultural management comparisons, leadership development, training systems, communication methods, innovative approaches, and change management strategies.

Keywords: recruitment, evaluating leadership styles, organizational culture, training follow-ups, decision-making techniques, facilitation practices, transformation methodologies.

ISAC-25-140 Behavioural impact of binge-watching on youth; a survey study.

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This study examines the psychological effects of binge-watching, focusing on its relationship with social interactions and emotional well-being. As binge-watching has emerged as a dominant media consumption trend, especially during the COVID-19 pandemic, understanding its potential positive and negative impacts is essential. Utilizing a quantitative survey research design, this study investigates binge-watching habits, frequency, and preferred content types to analyse their influence on face-to-face social interactions, loneliness, and disconnection. Grounded in the Uses and Gratifications Theory, the research explores how individuals use binge-watching to fulfil

psychological needs such as relaxation and escapism, while examining the potential risks of diminished social engagement. Data will be gathered through self-reported questionnaires distributed via snowball sampling to a diverse adult population. The findings aim to enhance understanding of binge-watching's psychological and social implications, contributing to the development of strategies for balanced media consumption and improved mental health.

Keywords: *Binge-watching, isolation, Netflix, depression, emotional well-being.*

ISAC-25-141 **Preparation Of Carbon Dots From The Fruit Of Momordica Charantia And Caralluma Edulis And Their Application As A Drug Carrier**

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Carbon dots (CDs) are novel fluorescent nanomaterials with a size range of approximately 10 nm. They exhibit excellent aqueous solubility, biocompatibility, and cost-effective production. These properties made them ideal candidates for drug delivery, metal sensing, and synthetic chemistry applications. This study focused on synthesizing and characterizing CDs derived from *Momordica charantia* and *Caralluma tuberculata* and the potential of these CDs as nanocarriers for drug delivery, specifically for antihyperglycemic drugs such as gliclazide and vildagliptin, used in the treatment of non-insulin-dependent diabetes mellitus. The CDs were synthesized using a hydrothermal method at 180°C for 6 hours, and their properties were characterized through UV-visible spectroscopy, X-ray diffraction (XRD), scanning electron microscopy (SEM), and Fourier transform infrared (FTIR) spectroscopy. The UV-visible spectra showed a strong absorption peak at 280 nm, confirming the formation of CDs. XRD analysis revealed an amorphous structure, while SEM images displayed spherical nanoparticles. FTIR spectroscopy identified functional groups such as -OH, -COOH, and -NH2 on the surface of the CDs, which facilitated drug loading. The drug-loading capacity of the CDs was evaluated by encapsulating gliclazide and vildagliptin. The drug-loading efficiency was found to be 85% for gliclazide and 78% for vildagliptin at a 1:3 drug-to-CD ratio. The resulting drug-loaded CDs were formulated into solid oral dosage forms (capsules). The capsules exhibited uniform fill weight (500 ± 10 mg) and met the pharmacopeial standards for weight variation (<5%). Dissolution studies conducted in phosphate buffer (pH 6.8) showed that the drug release from the CD-loaded capsules reached 95% within 60 minutes, compared to 70% release from conventional capsules in the same timeframe. The results demonstrated that the CDs significantly enhanced the solubility, stability, and controlled release of the encapsulated drugss. This study highlighted the effectiveness of CDs derived from Momordica charantia and *Caralluma tuberculata* as nanocarriers for drug delivery systems, offering a promising approach to improving the efficacy and safety of pharmacological therapies.

Keywords: Carbon dots, *Momordica charantia*, *Caralluma tuberculata*, drug delivery, gliclazide, vildagliptin, nanocarriers, dissolution rate, solid dosage forms.

ISAC-25-142 **Genetic Analysis And Molecular Docking Of Intellectual Disability Family Through Trio-Based Whole Exome Sequencing**

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Intellectual disability is a neurological condition that affects cognitive development and adaptive behavior, leading to challenges in learning and daily functioning (Patel *et al.*, 2020). It can be classified into syndromic and non-syndromic forms, with syndromic ID often presenting alongside metabolic or behavioral abnormalities. The

condition has a strong genetic component, with variations in multiple genes contributing to its development (AlMutiri *et al.*, 2023). The inheritance pattern of ID varies and can be autosomal dominant, autosomal recessive, or X-linked, depending on the underlying genetic mutation (Jamra, 2018). Among the genes associated with neurodevelopmental disorders, *MED12L,CACNA1C , MACF1, POLRMT* has been identified as playing a significant role in transcriptional regulation and brain function (Zhang *et al.*, 2024).

To analyze the genetic basis intellectual disability an affected family was sampled from district Kohat. The affected individual presented moderate intellectual disability, obesity, a jolly mood, and diabetes. Genomic DNA was extracted, and Trio based Whole Exome Sequencing (WES) was performed to detect potential pathogenic variants in the affected individual of the family. Whole exome sequencing identified four potential candidate genes variants which include novel missense variants in the MED12L gene (c.455C>G, p.Pro152Arg), *CACNA1C* (c.37G>C;p.Glu13Lys) and *MACF1* (C.3739c>T; p.Arg1244Cys), and a novel splice site variant in *POLRMT* (c.3268-4T>G). Different computational tools were used to assess the impact of the identified variants, where MutationTaster predicted these MED12L and MACF1 variants as disease-causing, while CACNA1C and POLRMT variants were predicted as polymorphism. PolyPhen-2 classified it as probably damaging. CADD score for this variants was 27.2 , 26.0, 29.2 (highly deleterious) and 0.394 (benigm) accordingly, which indicates that the 1st three variant is highly deleterious indicating a potential disruption of normal protein function and the last one in below then zero indicating that this variant having low impact on protein structure and function.

Conclusion

Using whole-exome sequencing, this study examined the genetic basis of intellectual impairment in a family from the Kohat district. Four possible genetic variations were found by analysis: POLRMT (c.3268-4T>G), MACF1 (c.3739C>T, p.Arg1244Cys), CACNA1C (c.37G>C, p.Glu13Lys), and MED12L (c.455C>G, p.Pro152Arg). The POLRMT variant was categorized as benign, whereas the MED12L, CACNA1C, and MACF1 variants appeared by computational methods to be potentially damaging. According to the results, MED12L, CACNA1C, and MACF1 may be associated with intellectual disability and associated symptoms in the individual with intellectual impairment, indicating the need for more investigation to fully comprehend their biological relevance.

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ISAC-25-143 Exploring The In Vitro Anti-Inflammatory Potential Of Benzo-Hydrazide Derivatives, Network Pharmacology And Molecular Docking.

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Salicylic acid and its derivatives are well-known for their anti-inflammatory properties, predominantly through cyclooxygenase-1 (COX-1) inhibition, often leading to gastrointestinal side effects. This study explores novel benzo-hydrazide derivatives of salicylic acid for selective COX-2 inhibition, aiming to enhance therapeutic efficacy while reducing adverse effects. The synthesized compounds were evaluated for anti-inflammatory and antioxidant activities, supported by ADMET profiling to assess their pharmacokinetic properties.

COX-2 inhibitory activity was determined using an enzymatic assay, with celecoxib as the reference drug (IC$_{50}$ = 2.82 µg/mL). Among the derivatives, **IN-3** demonstrated the most potent COX-2 inhibition (IC$_{50}$ = 1.60 µg/mL),

outperforming celecoxib. Other notable compounds included **IN-2** (IC$_{50}$ = 3.23 μg/mL) and **IN-4** (IC$_{50}$ = 3.38 μg/mL), while **IN-13** and **IN-11** exhibited weaker inhibition with IC$_{50}$ values of 7.00 μg/mL and 6.88 μg/mL, respectively.

The antioxidant activity was evaluated through ABTS and DPPH radical scavenging assays. For ABTS inhibition, **IN-11** exhibited strong activity with an IC$_{50}$ of 22.61 μg/mL, followed by **IN-2** (45.56 μg/mL) and **IN-4** (49.05 μg/mL). In the DPPH assay, **IN-2** showed the highest scavenging activity with an IC$_{50}$ of 48.69 μg/mL, while **IN-11** (23.78 μg/mL) and **IN-4** (30.93 μg/mL) also demonstrated significant activity. Ascorbic acid, used as the standard, exhibited IC$_{50}$ values of 7.46 μg/mL and 4.76 μg/mL in the ABTS and DPPH assays, respectively.

ADMET profiling, conducted using the SWISSADME platform, confirmed favorable drug-likeness properties in accordance with Lipinski's Rule of Five. Molecular docking studies using BIOVIA Discovery Studio and PyRx revealed strong binding affinities for the most active compounds. These results were further validated by 100-nanosecond molecular dynamics simulations using Schrödinger's Desmond software, confirming their stability under physiological conditions.

Overall, these findings highlight **IN-3**, **IN-2**, and **IN-11** as promising candidates for selective COX-2 inhibition and potent antioxidant activity. Their favorable pharmacokinetic properties suggest potential for further development as effective therapeutic agents for managing inflammatory conditions.

Keywords: Anti-Inflammatory, Benzo-Hydrazide, Molecular Docking, simulation, COX-2, DPPH.

ISAC-25-144 Molecular Characterization And Phylogenetic Analysis Of *Cimex Lectularius* Based On *Cox1* Gene In District Hungu Khyber Pakhtunkhwa

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Cimex lectularius (*C. lectularius*) is a widespread ectoparasite infesting human habitats, causing discomfort, allergic responses, and possible transmission of pathogens. Molecular characterization through the *COX1* gene is utilized for the assessment of genetic diversity, phylogeny, and population structure of bed bugs. The present study used field sampling in District Hangu where it focused on known infestation sites. Specimens of *C. lectularius* were preserved in absolute ethanol, and DNA was extracted using the phenol-chloroform method. The *COX1* gene was amplified through PCR, sequenced, and analyzed for phylogenetic relationships and population structure using MEGA software. A total of eight locations were inspected, five of which had active infestations. In total, 55 specimens (47 adults and 8 nymphs) were collected, with 45 adults identified morphologically as *C. lectularius* and two as *C. hemipterus*. Molecular identification of the *COX1* gene confirmed all nymphs as *C. lectularius*. The molecular analysis revealed that the strains of *C. lectularius* in District Hangu possessed high genetic similarity to those from neighboring countries, which include China, Iran, and India. The phylogenetic trees indicated a clustering with the reference sequences of these regions and, therefore, possible genetic flow and common evolutionary history. These results provide an important insight into the regional dynamics of infestation by bed bugs and emphasize cross-border collaboration as a key area in control efforts.

Keywords: *Cimex lectularius; COX1* gene; Genetic diversity; Nymphs; PCR; Bed bug

ISAC-25-145 Comparative Analysis Of Gut Bacterial Diversity Between Wild And Farmed Fishes

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The present study on comparative analysis of gut bacterial diversity between wild and farmed fishes through 16sRNA and Sanger sequencing methods. The population of bacteria, fungi, yeasts, viruses, protozoa, and

archaea living in an organism's alimentary canal is known as gut microbiota. Microflora of the gut plays important roles in food digestion, nutrient absorption, and host defense against ingested pathogens. Understanding the effects of factors such as host and environment on gut microbial community structure is essential for developing strategies for stimulating the establishment of a health-promoting gut microbiota. Taking samples from the fish gut stored in falcon tubes by using a wire loop then these were taken in the nutrient agar medium for observing the culture of bacteria. Then Grams staining and biochemical test method was followed for observation of identified bacteria. Certain phyla of microorganisms were discovered to be species-specific. Most of the dominating bacterial taxa have been reported to occur both in wild and farmed fish diversity. As a result, *E. coli spp.*, *Salmonella* spp., *Shigella* spp., *Klebsiella* spp., *Bacillus spp.*, and *Staphylococcus* spp. were confirmed. The current study findings can be applied to future studies into the gut microbiome's influence on fish's growth, immunity, and other physiological processes. Additionally, they colonize bacteria in the gut of farmed and wild fishes and determine whether some bacterial species can be pathogenic.

Keywords: Gut microbiota, bacterial diversity, wild & farmed fishes, comparative analysis, 16sRNA sequencing.

ISAC-25-146 Magnetic Nanoparticles Impregnated Activated Carbon Cloth (Fe3o4-Acc) Based Solid Phase Extractionof Rhodamine-B In Water And Commercial Spices.

Hoorya Zahra

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Rhodamine B dye is extensively utilized as a synthetic chromophore in the textile and food industries for coloration purposes. The accumulation of dyes reaches toxic concentrations in various tissues, especially in aquatic organisms, due to their non-biodegradable nature, high bioaccumulation potential, and slow elimination kinetics. The accurate extraction and quantification of Rhodamine B in real samples are crucial. In this research, magnetite (Fe_3O_4) nanoparticles were synthesized and incorporated onto activated carbon cloth (ACC) using the co-precipitation technique. The synthesized composite was employed as a solid-phase extraction adsorbent for quantifying Rhodamine B in commercial spice and water samples. Material characterization was conducted using Fourier Transform Infrared Spectroscopy (FTIR), Scanning Electron Microscopy (SEM), and X-ray Diffraction (XRD). Optimization studies determined the ideal extraction parameters to be pH 8, a sample volume of 40 mL, and an adsorbent dosage of 25 mg. Under optimized conditions, essential analytical parameters were evaluated, including the limit of detection (LOD) (0.00625 µg/L), limit of quantification (LOQ) (0.2633 µg/L), preconcentration factor (PF) (25), enhancement factor (EF) (25), and relative standard deviation (RSD) (5.4%). Method validation was performed using the standard addition technique for the determination of Rhodamine B in commercial spice and environmental water samples. The developed method exhibited high accuracy, as evidenced by quantitative recovery rates ranging from 94% to 97%, confirming its reliability for the analysis of real samples.

ISAC-25-147 Economical Factors Fluctuation Analysis In Pakistan

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The economy of Pakistan depends on the different factors such as the inflation rate, poverty rate, unemployment rate and crime rate etc. The economy will be stable if the unemployment rate, inflation rate will be less and the poverty rate will not be increase, because if there will be an increase in poverty rate, then the crime rate will also be increase. The current project is based on the analysis of crime rate, inflation rate, unemployment rate and poverty rate in Pakistan. For this purpose, the dataset is taken from the year of 2000 to 2020. The different rates are taken in percentages. The aim was to find out the multicollinearity issue between the different factors. Also the other objective was to find out the significant factors related to the unemployment, inflation, poverty and crime rate. For

this Purpose, population is taken as the dependent variable and all the other mentioned factors are taken as independent factors in the analysis. The multicollinearity was checked by the correlation matrix and showed that there was no multicollinearity was found between all the factors taken in the analysis. The results for the regression analysis showed that the significant factors are inflation rate, unemployment rate and education rate. The P-value was found for testing of difference between means of poverty rate and crime rate and found to be highly significant that showed that there was a significant difference on the average between the poverty rate and crime rate.

Keywords: Unemployment, Poverty, Inflation, Crime, Pakistan

ISAC-25-148 Statistical Analysis Of Factors Related To The Lung Cancer

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Abstract: Lunges Cancer is a type of cancer that begins in the lungs. The lungs are two spongy organs in the chest that take in oxygen when you inhale and release carbon dioxide when you exhale. Lung cancer is the leading cause of cancer deaths worldwide. The main goal of this study is to know which factor is more effective on Lungs Cancer. The analysis is based on secondary source of data collected from survey. In this research, 309 patients are taken in the analysis. Have taken the sample of 309 patients. The main demographic factors involved in this study are gender, age group, smoking, Anxiety, Allergy and other important significant factors are identified for the lung cancer by using the logistic regression analysis. The extracted factors are carried out by the factor analysis. Graphical analysis in term of bar chart, pie chart and scree plots are carried out for different factors to identify the percentage and extraction of different significant factors respectively. Results shows that 60 percent of people are suffering from this disease. The significant factors are gender, age, smoking, chronic diseases, peer pressure, fatigue allergy, coughing and swallowing difficulty. The future work can be carried by using the different factors of lung cancer. Survival analysis will be done on various factors of lung cancer for the future analysis.

Keywords: biostatistics, extraction, lung cancer, factor analysis, logistic regression

ISAC-25-149 Factors Of Identification For Body Mass Index: A Case Study In Multan

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Body mass index (BMI) has been demonstrated to affect female fertility; however, little information is available on the impact of BMI on male fertility. Body mass index (BMI) is a value derived from the mass (weight) and height of a person. The BMI is defined as the body mass divided by the square of the body height, and is expressed in units of $\frac{kg}{m^2}$, resulting from mass in kilograms and height in metres. Commonly accepted BMI ranges are underweight (under 18.5 $\frac{kg}{m^2}$), normal weight (18.5 to 25), overweight (25 to 30), and obese (over 30). BMI is useful indicator of health at the population level. BMI is a surrogate measure of body fatness because it is a measure of excess weight rather than excess body fat. Factors such as age, sex, ethnicity, and muscle mass can influence the relationship between BMI and body fat. The main goals of this study is to know which factors is more effective on BMI. Ordinary regression analysis is carried out for the factors effecting on BMI. Results shows that the overall model is highly significant with the factors age, height, weight, gender and smokers. The descriptive analysis is carried out for each factor. The logistic regression analysis showed that the smoking do not have effect on the BMI, weight and on routine exercise. All the important factors are already identified in this research project for BMI.

ISAC-25 Multan

ISAC-25-150 Statistical Analysis of Student's Motivation in online education during the COVID-19 Pandemic

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Coronavirus is the pandemic that effected the whole world in any way. Especially the education circle is disturbed a lot all over the world. Because the normal physical education system converted into the online education system. That effected many students in psychological and behavior terms. The grades of many students are effected due to this pandemic. The current research focused on the impact of COVID-19 on the education system, that how the online education system effected the students. The dataset is collected through different students that were dealing with the online study. The questions regarding their enjoyment, motivation, group study, teacher interaction and different internet facilities provided by the institution is asked by the students. Logistic regression is applied to know the significant factors related to the enjoyment of online education. The results showed that the no significant factor is found regarding the online education enjoyment. It means that the students did not get motivated even the facilities and teacher support is provided to the students by the institutions. The students even did not enjoy their group study. The relationship between motivation and online enjoyment is calculated through chi-square analysis and there was an association found between two attributes. That showed that if the student's will have motivation then they will enjoy the online education system more.
Keywords: Coronavirus, Online Education, Logistic Regression, Chi-Square, Motivation

ISAC-25-151 Application OF Various Statistical Techniques on Factor Associated with Diabetes

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Diabetes mellitus is a disorder in which the body does not produce enough or normally respond to insulin, causing blood sugar (glucose) levels to be abnormally high. Three types of diabetes; Type 1 diabetes & Type2 diabetes & Gestational diabetes. Symptoms of DM are increased thirst, frequent urination, extreme hunger, unexplained weight loss, Fatigue, Irritability, Blurred vision & Slow-healing sores. The main goal of this study is to know which factor is more effective on DM. The analysis is based on a secondary source of data collected online. We collect data from an online website, and the responses are 499. The main demographic factors involved in this study are age, gender, family diabetes, high BP, physically active, BMI, smoking, alcohol, BPlevel, p diabetes, sleep, sound sleep, and another factor of diabetes. An Association test is applied to the data to check the association between different factors that affect the DM. Graphical representation of the variables is also drawn to have a quick view of different data variables. Findings show that male patients are highly affected by this disease, and the female percentage is lower than that of males. Our results show that the family diabetes and pregnant women in high diabetes. After all analysis, we made conclusions based on all other factors, e.g., Gender, family diabetes, P diabetes and diabetes etc.
Keywords: Logistic regression analysis, Diabetes, Factor analysis, Regression, extraction.

ISAC-25-152 Fertilizer Effectiveness on Crop Consumption: A Randomized Complete Block Design

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This study examines the influence of fertilizer on crop consumption from 2015 to 2022, employing a Randomized Complete Block Design (RCBD). The primary objective is to evaluate how fertilizer application affects crop consumption across various crop types and years. In the design, years (2015-2022) are treated as blocks, while different crop types are considered treatments. To analyze the data, multiple bar charts and descriptive statistics

were used. The results highlight that crop type significantly impacts fertilizer consumption, suggesting that different crops exhibit distinct responses to fertilizer. Furthermore, the year of application also plays a significant role in fertilizer usage, pointing to the influence of factors such as environmental conditions and soil health on variation in fertilizer consumption over time. These findings underscore the importance of considering both crop type and temporal factors when developing fertilizer application strategies. This study offers valuable insights into optimizing crop productivity and improving fertilizer efficiency by recognizing the diverse responses of crops to fertilizer and how these responses vary across years. Understanding these factors can guide the development of more effective, sustainable fertilizer management practices, helping to boost agricultural productivity while minimizing environmental impact.

Keywords: Fertilizer consumption, Crop Type, Randomized Complete Block Design, Treatments, Agricultural productivity

ISAC-25-153 Analyzing the Relationship between Automobile Sales and Production: A Simple Linear Regression Approach

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This study investigates the relationship between automobile sales and production from July 2019 to June 2020 using simple linear regression. Monthly sales and production data from various automobile manufacturers during this period were collected and analyzed. The analysis begins by organizing the sales and production data for each month. A simple linear regression model is applied, where monthly production serves as the dependent variable and sales as the independent variable. The results of the regression analysis reveal the strength and direction of the relationship between sales and production. By calculating the slope and intercept of the regression line, the study determines the average change in sales for each unit change in production. The coefficient of determination (R-squared) is also used to assess how well the model fits the data. The findings provide valuable insights into the impact of production levels on automobile sales. These insights can guide decision-making in areas such as production planning, inventory control, and marketing strategies in the automotive industry. Additionally, the study demonstrates the use of simple linear regression as an effective statistical tool for analyzing sales and production trends in this sector.

Keywords: Automobile Sales, Production, Simple Linear Regression, Automotive Industry, Production Planning

ISAC-25-154 Impact of Social Media Addiction on Students' Education and Moral Values in Pakistan

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In today's digital age, the internet plays a crucial role in students' lives, serving as a tool for communication, learning, and entertainment. While social media can offer some positive benefits, its impact on students is increasingly concerning. Social networking sites often distract students from their primary focus—education—leading to wasted time and disrupted academic progress. What was initially intended as a means of connecting users has evolved into an addiction, affecting not only students but also teenagers and adults. This paper explores the negative effects of social media on students' education, their overall well-being, and the consequences on the lives of young individuals. The study specifically examines the impact of social media addiction on students in major cities of Pakistan. A descriptive survey research design was used to explore this phenomenon. Data was collected from 200 students across different cities of Pakistan using random sampling. A self-administered, well-structured questionnaire, based on a Likert scale, was distributed to the participants. The data were analyzed using statistical software such as SPSS, and results were presented through frequency tables and statistical tests, including

descriptive statistics. The survey findings reveal that a significant proportion of students are addicted to social media, which has had a detrimental effect on both their educational outcomes and moral values.

Keywords: Social Media, Educational Impact, Moral Values, Students, Pakistan

ISAC-25-155 Mental Health Concerns Among University Students: Insights from Multan

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Mental health issues are increasingly common among university students, with a significant impact on their overall well-being and academic success. A recent study conducted in Multan, Pakistan, revealed that more than 50% of university students experienced at least one mental health problem in the previous year. The most prevalent issues reported were anxiety, depression, and stress. The academic demands placed on students often contribute to these problems, as the pressure to perform well academically can exacerbate feelings of stress, anxiety, and depression. The study also highlighted a gender difference, with female students reporting a higher prevalence of mental health problems compared to their male counterparts. This suggests that female students may face additional challenges, possibly due to social, cultural, or academic factors.

The findings underscore the urgent need for greater awareness and support for mental health among university students in Multan. Universities should focus on creating a supportive environment to help students manage their mental health, such as providing counseling services, stress management workshops, and promoting mental health awareness campaigns. Descriptive statistics and the Chi-Square test were used in the study to analyze the data, revealing a strong positive correlation between mental health and academic performance. This indicates that improving mental health can have a beneficial impact on students' academic outcomes, further emphasizing the importance of addressing mental health issues on campuses.

Keywords: Mental health, Academic outcomes, Chi-Square, University students, Multan.

ISAC-25-156 An Empirical Case Study on Child Labour in Pakistan: Exploring Causes and Impacts

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Child labour remains a widespread issue globally, including in Pakistan, where it continues to persist despite being recognized as a serious crime. Although efforts have been made to combat child labour, significant progress in eradicating this issue has been limited. This study focuses on exploring the underlying causes, reasons, and policies aimed at controlling child labour in Pakistan. The data for this research was collected from children who have been directly involved in child labour, using a random sampling method. A total of 201 respondents participated in the study. Key demographic factors considered in the study include name, age group, gender, location, and education level. The survey included questions regarding the various reasons for child labour, the causes behind its persistence in Pakistan, and the effectiveness of current policies addressing this issue. To analyze the data, Chi-Square tests were applied to examine the relationship between demographic factors and responses to the survey questions. Additionally, graphical representations were used to present the distribution of demographic factors, providing a clear overview of the sample population. The findings indicate that several significant factors contribute to the support of child labour and its continued prevalence. These factors are multifaceted, involving socio-economic conditions, lack of education, and insufficient enforcement of policies. The study highlights the need for more effective strategies to address the root causes of child labour and enhance existing policies in Pakistan. By understanding these contributing factors, the research aims to provide insights into the challenges of eliminating child Pakistan, Policieslabour and to suggest potential measures for improvement.

Keywords: Child Labour, Demographic Factors, Chi-Square analysis.

ISAC-25 Multan

ISAC-25-157 Prevalence Of Chronic Nonspecific Low Back Pain And Ergonomically Predisposing Factors In Office Workers

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Background: This study examines why office workers often experience back pain. We aim to understand how common this issue is and identify workplace factors that might contribute to it. By surveying office workers and observing their work environments, including chairs and desks, we hope to find ways to make offices more comfortable and reduce back Pain.

Objectives: Prevalence of chronic nonspecific low back pain and ergonomically predisposing factors in office workers.

Methodology: A self-reported standardized questionnaire was constructed to record risk factors associated with the occurrence of LBP. Personal characteristics, work ergonomics, were collected and related to LBP prevalence.

Results: Of the 246 office workers, the majority of the participants were male (89.2%). Discomfort in body position due to poorly designed chairs and tables and sitting for more than 6 hours of working in office reported with chronic low back pain in office workers. Multiple logistic regression models have revealed that significant determinants for predicting LBP occurrence are age, gender, body mass index, body distance from computer screen, adjustable back support, body position while sitting, sitting time of greater than 6 hours, repetitive work.

Conclusion(s): High proportions of office workers suffer from LBP which might affect the economy. The incidence of LBP status is significantly associated with some anthropometric, ergonomic factors. Need for ergonomic interventions, including improved furniture design and posture education, to mitigate LBP risks. This emphasizes the importance of ergonomic awareness and adjustments in office environments to prevent chronic LBP.

Keywords: low back Pain, low back disability, office workers, ergonomical factors, risk factors.

ISAC-25-158 Prevalence and Associated Risk Factors of Low Back Pain among Public School Teachers in Multan

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Background: Low back pain (LBP) is a prevalent musculoskeletal disorder among school-teachers, significantly impacting their quality of life and work performance. Prolonged standing, poor posture, and heavy workload contribute to its occurrence. This study aims to assess the prevalence and associated risk factors of LBP among public school teachers in Multan. Determine the relationship, if any, between the risk factors and prevalence for low back pain among teachers.

Methods: A cross-sectional study was conducted among a sample of public-school teachers in Multan. Data were collected using a structured questionnaire focusing on demographic characteristics, occupational factors, lifestyle habits, ergonomic practices and the presence of LBP. The prevalence of LBP was estimated, and logistic regression analysis was performed to identify significant risk factors.

Results: The study found that a substantial proportion of teachers experienced LBP, with a higher prevalence among females and those with longer teaching experience. Key risk factors identified included prolonged standing, poor ergonomic practices, lack of physical activity, and psychological stress. Teachers with inadequate workspace ergonomics and high teaching loads were at a significantly greater risk of developing LBP.

Conclusion: LBP is a common occupational health issue among public school teachers in Multan, influenced by multiple work-related and lifestyle factors. Interventions such as ergonomic improvements, physical activity promotion, and stress management strategies are recommended to reduce the burden of LBP and improve teachers' well-being.

ISAC-25 Multan

ISAC-25-159 Knowledge, Attitudes, and Practices of University Bus Drivers Towards Traffic Rules and Regulations in Multan, Pakistan

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Traffic rule violations and unsafe driving behaviors contribute significantly to road accidents. University bus drivers play a crucial role in ensuring the safety of students and staff. This study aims to assess the knowledge, attitudes, and practices (KAP) of university bus drivers in Multan, Pakistan, regarding traffic rules and regulations. A cross-sectional survey was conducted among university bus drivers in Multan. A structured questionnaire was used to collect data on drivers' knowledge of traffic laws, their attitudes toward compliance, and their driving practices. Emphasis had also been given to the primary data generation and allied aspects such as construction of the data gathering instrument (Questionnaire), content management, sampling, execution, testing and refinement of the instrument for getting hold of the quality data which ultimately determines quality of the ultimate research. Descriptive statistics, statistical testing and regression analysis were performed to identify factors influencing adherence to traffic rules. The findings indicate that while most drivers had adequate knowledge of traffic rules, their attitudes and actual practices did not always align with safe driving behaviors. Factors such as lack of regular training, fatigue, and pressure to meet tight schedules contributed to risky driving practices. Although many drivers expressed positive attitudes toward road safety, compliance with speed limits, seat belt use, and adherence to traffic signals were inconsistent. While university bus drivers in Multan possess reasonable knowledge of traffic regulations, gaps exist in their attitudes and real-world practices. Regular training programs, strict enforcement of traffic rules, and awareness campaigns are necessary to enhance road safety and reduce traffic violations.

Keywords: Knowledge, attitudes, practices, traffic rules, university bus drivers, road safety, Multan, Pakistan.

ISAC-25-160 Multifactorial Analysis of Obesity: Principal Component Approach to Demographic, Health, and Lifestyle Determinants in Mexico, Peru, and Colombia

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Abstract: The study aims to discover major factors impacting the level of obesity among Mexicans, Peruvians, and Colombians by investigating numerous demographic and lifestyle variables. Using Principal Component Analysis (PCA), the study discovered that the top seven components explained 67.1% of the variation in obesity categorization. Body parameters such as weight and obesity were key factors driving obesity levels (Component 1), whereas height and age influenced general patterns (Component 2). Other characteristics revealed in Component 3 were age and MTRANS (transportation), indicating a link between age, transportation patterns, and health behavior. Component 4 tracked dietary habits and physical activity, with factors like FAVC and FCVC impacting food choices and exercise routines. Alcohol consumption, as well as health-related behavior such as calcium intake and family history (Component 5), all led to a better understanding of the role of lifestyle in obesity. Component 6 examined the influence of SMOKE (smoking) and CH2O (hydration), demonstrating an unfavorable association with exercise practices. Finally, NCP and MTRANS found that dietary behavior, social factors, and transportation choices all contributed to obesity (Component 7). The findings emphasize the intricate interplay of physical traits, lifestyle choices, and demographic variables in affecting obesity risk among the research groups.

Keywords: Principal Component Analysis, Obesity, Demographic and lifestyle variables.

ISAC-25-161 Predictive Analytics for Heart Disease: A Machine Learning Perspective

ISAC-25 Multan

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Heart disease is still one of the world's top causes of death, better predictive models are required for early detection. In this study, 303 patient records with 14 attributes—such as age, sex, cholesterol, and maximal heart rate—are analyzed using machine learning algorithms. To predict the existence of cardiac disease, we used classification algorithms (Logistic Regression, Decision Tree, SVM, and Random Forest), regression analysis, correlation analysis, and descriptive statistical techniques. With an accuracy of 83.61%, the Random Forest model was the most accurate classifier. According to our research, characteristics including the type of chest pain, maximal heart rate, and ST depression have a big impact on the prognosis of heart disease. These findings highlight how machine learning might help medical practitioners make better decisions and diagnosed patients earlier.

ISAC-25-162 A Proposal about Some Ridge Regression Estimators and their Performances under Inverse Gaussian Regression Model

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This study looks at the performance of several Ridge estimators (biasing parameters) in Ridge estimation for the Inverse Gaussian regression model. The Inverse Gaussian distribution is often used to represent non-negative, skewed data. However, estimating its parameters can be difficult because of the multicollinearity. Ridge estimation, a regularization approach, can help to address this issue. A Comparative study on different biasing parameters and how these settings affect the performance of Ridge estimation in case of Inverse Gaussian regression model is provided. Our findings reveal that the choice of biasing parameters has a considerable impact on estimation accuracy and prediction performance. A simulation study was conducted and selected estimators were compared. We include recommendations for picking the best ridge estimator settings and show how this approach works well with a real-world dataset.

Keywords: biasing parameters, Ridge estimation, Inverse Gaussian regression Model, Multicollinearity, Mean squared error, Simulation study.

ISAC-25-163 The Impact of Hostel Life on Students: A Study of Student Adaptation, Learning, and Well-being

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This study measures life in hostel life students influences process of academic, social and emotional wellness to determining adjustment and learning. The study explores the influence of hostels on the behavior, personality and experience of students, based on gender, duration of stay and type of accommodation. Results: A cross-sectional research design and stratified random

sampling methods were used to collect data from 115 students who were studying at universities in Pakistan and were living either in on-campus or off-campus hostels. Derived findings show that hostel life plays a very positive role in students and helps them to become matured, more confident, organized, etc. which in turn improves their study and performance in different fields. But they did mention difficulties including health problems, substance abuse and homesickness. The research showed that there were marked differences in terms of experiences and decisions between male and female students respectively and thus gender sensitive dimensions need to be included in not the only hostel management but also in all aspects of living in hostels. This leads the hostel life to be the fulcrum of their learning, however, poor hostel life and services like health services, counselling and gender-based support systems have been yet another contributing issue to their Mental Health and Academic Problems one of the researchers explained.

ISAC-25-164 Barriers to ICT Adoption and Integration in Teaching Among Female Faculty in Public Sector Women Universities of Pakistan

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The integration of Information and Communication Technologies (ICTs) in higher education has become essential for effective teaching and learning. However, despite a positive attitude toward ICTs, female faculty members in public sector women universities of Pakistan continue to face significant challenges in adopting and integrating these technologies. This study investigates the key barriers to ICT adoption, considering institutional, technological, and personal factors. A mixed-method approach was employed, using surveys and in-depth interviews with faculty members from various women universities.

The findings indicate that the most common barriers include limited access to ICT resources, insufficient technical support, and a lack of structured training programs. Additionally, faculty members reported facing resistance to change, heavy workloads, and time constraints, which further hinder their ability to adopt ICTs effectively. Institutional constraints, such as inadequate funding and administrative support, were also identified as major obstacles. Technological challenges, including slow internet connectivity and outdated software, further contribute to the digital divide in higher education.

Despite these barriers, faculty members expressed a strong willingness to enhance their digital skills if provided with the necessary support and resources. The study suggests implementing comprehensive ICT training programs tailored to faculty needs, increasing institutional investments in digital infrastructure, and fostering a culture of digital literacy through continuous professional development. Addressing these challenges will enable female faculty members to integrate ICTs more effectively, ultimately improving teaching quality and student engagement in public sector women universities.

Keywords: ICT Adoption, Digital Barriers, Female Faculty, Public Sector Universities, Higher Education, Pakistan, ICT Integration, Digital Divide.

ISAC-25-165 Impact of ICT Training on Teaching Effectiveness Among Female Faculty in Public Sector Women Universities of Pakistan

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The use of Information and Communication Technologies (ICTs) in higher education is crucial for modern teaching methodologies. Previous research has highlighted a gap in ICT competence among female faculty members in public sector women universities of Pakistan. To address this issue, a structured ICT training program was implemented, aiming to enhance faculty members' digital skills and their ability to integrate technology into teaching. This study evaluates the effectiveness of the training program by comparing faculty members who received training with those who did not, using a quasi-experimental research design.

The findings reveal that faculty members who participated in the ICT training demonstrated significant improvements in their teaching methods, student engagement, and confidence in using digital tools. They were more likely to incorporate e-learning platforms, online assessments, and digital resources in their coursework. However, the study also identified persistent challenges, such as limited access to ICT infrastructure, time constraints, and the need for ongoing technical support. Faculty members who did not receive training continued to struggle with ICT integration, reinforcing the necessity of regular capacity-building initiatives.

The study recommends the institutionalization of ICT training programs as part of professional development, increased investment in digital infrastructure, and continuous mentoring to sustain technology adoption in academia. By equipping faculty members with the necessary digital skills, universities can improve teaching effectiveness and enhance the overall learning experience for students in Pakistan's public sector women universities.

Keywords: ICT Training, Teaching Effectiveness, Faculty Development, Digital Competency, Higher Education, Pakistan, Women Universities, E-Learning.

ISAC-25-166 Evaluating Statistical Understanding Among Postgraduate Research Students in Multan: A Case Study

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Statistics is a fundamental component of research, enabling scholars to analyze data and derive meaningful conclusions. This study examines the conceptual understanding of statistics among postgraduate research students in Multan. Using purposive sampling, data were collected from 576 students in public and private institutions who had studied statistics in their academic careers and/or applied statistical analysis in their research. The study investigates their perception of statistics, their level of conceptual understanding, and the challenges they face in statistical applications.

Findings reveal that while 86% of respondents recognize the importance of statistics in their research, many struggle with conceptual clarity, limiting their ability to apply statistical techniques effectively. A significant barrier identified is the lack of formal training in statistical software, making data analysis challenging. Many students also experience difficulties in interpreting statistical results, affecting the quality of their research.

This case study highlights the urgent need for improved statistical education, particularly in applied data analysis. Universities should integrate hands-on training in statistical software alongside theoretical coursework to enhance research capabilities. Strengthening statistical literacy among postgraduate students is essential for improving research quality and fostering analytical skills.

Keywords: Statistical literacy, postgraduate students, data analysis, conceptual understanding, research skills

ISAC-25-167 Student-Supervisor Communication and Research Quality: A Case Study of The Women University Multan

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Effective supervision plays a critical role in postgraduate research, influencing both the quality of dissertations and the overall student experience. This study examines the student-supervisor relationship at The Women University Multan, focusing on communication gaps, role expectations, and institutional support in the research process. Key areas of investigation include differences in perceptions regarding research timelines, facilitator roles, role ambiguity, and the necessity of research completion. The study also assesses the impact of communication on service reliability, assurance, responsiveness, and empathy.

A stratified sampling method was employed to collect data from 120 postgraduate students and 40 supervisors. Demographic factors such as age, marital status, teaching experience, and computer usage were considered. Findings indicate that while faculty members generally maintain a positive attitude toward supervision, unclear communication and differing expectations create challenges in research progress. The study highlights the need for structured mentorship, clearer guidelines, and institutional interventions to enhance the postgraduate research experience.

By analyzing student-supervisor dynamics, this case study provides insights into improving research supervision and fostering a more effective academic environment. The findings emphasize the importance of developing communication strategies and training programs to ensure better research outcomes.

Keywords: Postgraduate supervision, student-supervisor relationship, research quality, communication gaps, The Women University Multan.

ISAC-25-168 Evaluating the Impact of AI-Based Learning Tools on Student Performance: A Statistical Analysis

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Artificial Intelligence (AI) has transformed education by introducing adaptive learning platforms, chatbots, and automated assessment tools. This study examines the impact of AI-based learning tools on student performance across different academic levels. Data were collected from university students through a structured survey, measuring AI tool usage, academic performance, and perceived effectiveness. Key demographic variables, including gender, age, education level, and frequency of AI tool usage, were analyzed.

Descriptive statistics were used to summarize the data, while independent t-tests and One-Way ANOVA were applied to compare academic performance between students who actively used AI tools and those who did not. Additionally, regression analysis was conducted to assess the predictive effect of AI tool usage on academic success. The findings indicate that students who frequently engaged with AI-based learning tools demonstrated significantly higher academic performance compared to those who relied solely on traditional learning methods. Moreover, the analysis revealed that education level and frequency of AI tool usage were strong predictors of academic success. These results highlight the effectiveness of AI-driven educational tools in enhancing learning outcomes. The study suggests that institutions should integrate AI-based resources into curricula to optimize student learning experiences and performance.

Keywords: AI in education, student performance, adaptive learning, statistical analysis, academic success.

ISAC-25-169 Evaluating the Performance of Bayesian Biasing Parameters in Ridge Estimation for Inverse Gaussian Regression Models

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Ridge estimation is a widely used technique to address multicollinearity in regression models, enhancing parameter estimation and predictive accuracy. In the context of Inverse Gaussian regression models, selecting an appropriate biasing parameter is crucial for improving the efficiency of ridge estimators. This study examines the performance of Bayesian biasing parameters in ridge estimation for Inverse Gaussian regression models. By incorporating Bayesian methods, we derive optimal biasing parameters and compare their effectiveness with traditional ridge estimators. A comprehensive evaluation is conducted through simulation studies and real-world applications, assessing mean squared error. The results indicate that Bayesian biasing parameters significantly enhance estimation accuracy, particularly in high-multicollinearity settings, making them a valuable tool for robust statistical modeling.

Keywords: Bayesian biasing parameters, Ridge estimation, Inverse Gaussian regression, Multicollinearity, Mean squared error.

ISAC-25-170 Exploring the Consequences of Online Game Addiction

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Online game addiction is a growing concern impacting various aspects of individuals' lives. Excessive gaming can lead to the negligence of academic or professional responsibilities hindering employment and career advancement. Prolonged gaming periods can also lead to a decline in academic or professional performance, limiting job prospects. Additionally, online game addiction can have negative consequences, such as social isolation, reduced interaction with real-world relationships, and a distorted sense of priorities incorporating evidence from questionnaires and online surveys. A random sample of 200 respondents provided the data for this study, which examined the relationship between demographic factors and variables related to survey responses. Descriptive statistics revealed a diverse sample, with respondents representing various age groups, professions, marital statuses, and qualifications. Chi-Square tests and Pie charts were employed to investigate associations between demographic factors and survey variables, revealing significant correlations ($p < 0.05$) between certain demographic characteristics and responses. Notably, graphical representations highlighted disparities in responses across demographic subgroups. The findings suggest that exposure to violent or unethical content in games may lead to decreased empathy, impaired interpersonal skills, and reduced communication abilities. Furthermore, the results indicate that such exposure can desensitize individuals to real-life consequences, blurring the distinction between virtual and actual moral values.
Keywords: Online Game Addiction, Moral Responsibilities, Chi-Square Test, Correlation, Interpersonal Skills.

ISAC-25-171 A Comparative Analysis of Area-Wise Production of Crops in Pakistan

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Agriculture is considered as the backbone of Pakistan's economy, which relies heavily on its major crops. Pakistan is blessed with fertile land and different climatic zones, making it ideal for the cultivation of various crops. The most important crops grown in Pakistan are wheat, rice, sugarcane, cotton, and maize. Wheat is the staple food of the country, and Pakistan is one of the largest wheat producers in the world. Rice is another essential crop, and Pakistan is one of the largest rice exporters globally. Sugarcane is cultivated in the provinces of Punjab and Sindh. Pakistan is one of the top ten sugarcane producers in the world. Cotton is also grown in Punjab and Sindh, and is one of the major cash crops of the country. Maize is another crop that is gaining importance in the country, and is used as a source of animal feed. The statistical analysis is based on the secondary source of data collected from internet. The dataset, comprising area-wise production of major crops in Pakistan from 2011 to 2020, was subjected to descriptive and inferential statistical analysis. Summary statistics revealed an average wheat cultivation area of 8935.72 hectares and average production of 19359.37 metric tons. Notably, the coefficient of variation for wheat area and production was 2.74% and 6.12%, respectively. Further analysis employing multiple regression and ANOVA techniques identified significant predictors influencing crop production. The models demonstrated high accuracy, explaining 91% (maize), 97% (rice), 92% (sugarcane), and 80% (cotton) of the variation in crop production. These findings provide valuable insights into the dynamics of crop production in Pakistan, highlighting the importance of key factors influencing agricultural productivity.
Keywords: Area Wise Production, Agriculture Commodities, Multiple Regression, ANOVA, Crops of Pakistan.

ISAC-25-172 A Statistical Analysis of Factors Affecting Unemployment Rate in Pakistan

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Unemployment is a major economic and social problem in Pakistan. The unemployment rate in Pakistan has been consistently above 5% in recent years. This study investigates the relationships between unemployment and various economic indicators in Pakistan, including Gross Domestic Production (GDP), Gross National Product (GNP), Gross National Income (GNI), Population growth rate, and Inflation rate. The Statistical analysis of the impact of

economic indicators on unemployment in Pakistan revealed that these indicators significantly influence unemployment. A high population growth rate presents both opportunities and challenges, providing a large labor force but also straining resources and infrastructure. To address unemployment, policymakers must focus on stimulating economic growth, improving education and skills, and implementing effective labor market policies. Using secondary data from 1991 to 2011, multiple linear regression and ANOVA were employed to examine the significance of these factors. The results indicate that population growth rate is the most significant factor affecting unemployment in Pakistan. Additionally, the analysis reveals a positive correlation between unemployment and inflation rates. The findings of this study provide valuable insights for policymakers, highlighting the need to address population growth and inflation to mitigate unemployment. The results also underscore the importance of monitoring economic indicators to foster sustainable and inclusive economic growth.

Keywords: Unemployment Rate, Economic Indicators, Gross Domestic Production (GDP), Pakistan, ANOVA.

ISAC-25-173 Investigating the Impact of Social Media on University Students' Academic Performance

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This study examines the influence of social media addiction on the academic performance of university students in Multan. Social media platforms enable users to create, share, and exchange content, but excessive usage can hinder academic achievement. Using descriptive statistics (frequency counts, percentages, graphs) and inferential statistics (Chi-square test), this research identifies significant trends and patterns. A review of existing literature reveals a correlation between social media obsession and diminished educational attainment among university students. The findings indicate that a substantial proportion of students in Multan, Pakistan, struggle with social media addiction, leading to negative consequences on their academic performance. This aims to strike a balance between social media exposure and academic responsibilities, ensuring a path to future success. A descriptive survey research design was employed, with a sample of 250 students selected through simple random sampling. A four-point Likert-type rating scale questionnaire was used to collect data. Descriptive statistics and chi-square tests were applied to analyze the data. The results reveal that a significant proportion of students are addicted to social media, which negatively impacts their academic performance. The study recommends harnessing social media for educational purposes, expanding social networking sites for academic activities, and monitoring students' social media usage to balance academic and social media activities.

Keywords: Social Media, Academic Performance, University Students, Descriptive Survey, Chi-Square Test.

ISAC-25-174 Evaluating the Performance of Pakistan's Odi & T20 Asia Cup Cricketers

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Cricket is widely regarded as one of the most popular sports globally, offering a wealth of statistical data for analysis. The sport underwent a significant transformation in April 2008 with the introduction of new formats, including One-Day Internationals (ODIs) and Twenty20 (T20) matches. This study applies Principal Component Analysis (PCA) to evaluate the performance of players in Pakistan's T20 and ODI Asia Cup cricket matches. PCA, a widely used technique in multivariate data analysis, serves as an effective tool to engage students in statistical concepts through the lens of cricket data. By examining the systematic covariances among various factors influencing batting and bowling abilities, this research ranks batsmen and bowlers based on their contributions to their teams. Traditionally, runs scored and wickets taken have been the primary metrics for assessing cricketers' performance. In this study, players are evaluated based on their batting and bowling averages, respectively. The findings highlight the top five batsmen and bowlers who have excelled in recent matches, revealing that batting

prowess often surpasses bowling ability. These conclusions align with the prevailing opinions of numerous cricket enthusiasts and experts.

Keywords: T20 Cricket, ODI Cricket, Principal Component Analysis, Performance Ranking, Batting, Bowling

ISAC-25-175 The future isn't written ,it's Glitching: A study of Chaos, Interconnectedness, and Ecological collapse Explored through Richard Powers in "The Overstory"(2018)

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This study explores how Richard Powers' The Overstory(2018) delves deeply into the relationship between humans and nature, with the Anthropocene (age of human) and ecological circumstances as backdrops. Through the prism of the future isn't written, it's glitching. This topic analyzes the novel; it focuses on chaos, the future's fragmented possibilities, interconnection, and ecological catastrophe. Postmodern literary criticism,deep ecology, and chaos theory can, with the help of this paper, help determine how powers represent environmental instability as a structural flaw in ecological and human systems. This paper looks into this matter with theories from James Gleick (1987), Timothy Morton (2010), and Arne Naess (1973) in regards to whether the OverStory reconsiders ecological collapse as a danger of existence and an impetus for reconsidering how the natural world should place humans in it. Other ethical and philosophical questions arising from the empowerment of technology are raised in this study, focusing on responsibility for the consequences of human beings. By understanding the potential for error and embracing ambiguity,we can build a more reclaimable future.

Keywords: Ecological crises, Anthropocene,Chaos, fractured future, Interconnection, ecological collapse,deep ecology, chaos theory,, postmodern literary criticism,environmental instability,systemic glitch,human system.