Editorial

In this edition of our journal, we present three exceptional research papers that address vital issues ranging from mental health during pandemics to the security of digital data and the transparency of agro-food certification. Each study offers innovative approaches and detailed analyses that contribute significantly to their respective fields.

The first paper examines the profound impact of pandemics on the mental well-being of medical students and their parents. With the ongoing emergence of new coronavirus variants, this study provides crucial insights into the psychological effects and highlights factors contributing to mental health deterioration. Through a cross-sectional study involving 438 participants and using the Warwick–Edinburgh Mental Wellbeing Scale (WEMWBS), the authors found that 35.2% of respondents showed signs of probable depression, while only 6.4% exhibited high mental well-being. The comparison between students and parents revealed that a significant proportion of students (44.7%) suffered from probable depression compared to their parents (43.8%), who mostly had average mental well-being. This research underscores the urgent need for targeted mental health interventions for both medical students and their families during such crises [1].

Digital multimedia assets are integral to modern communication, making their security paramount. The second paper explores the evolving field of steganography for secure information concealment within digital audio files. By employing advanced cryptographic techniques, the study offers a robust framework for secure communication that mitigates potential risks and vulnerabilities. The research emphasizes the importance of reliable steganographic methods in hiding significant amounts of secret data within digital images and audio files, thereby enhancing the confidentiality of sensitive information. This work contributes to the development of more secure digital communication systems, ensuring that crucial information remains protected against unauthorized access [2].

The third paper introduces an innovative framework for the certification of agro products using smart contracts and blockchain-based non-fungible tokens (NFTs). Utilizing the ERC-1155 Ethereum token standard, the authors developed a system that ensures the uniqueness and traceability of each harvest. By deploying and testing the framework on the Ethereum test net blockchain, the study demonstrates how consumers can access Third-party Certificates (TPC) via an Android app, promoting transparency and trust in the agro-food supply chain. The implementation of blockchain technology in this context reduces counterfeiting and green-washing, fostering sustainable buying habits and enhancing food safety. This research highlights the potential of blockchain to revolutionize agro-food certification and supply chain transparency [3].

The three papers presented in this edition exemplify the innovative and impactful research that our journal strives to publish. From addressing mental health challenges during pandemics to enhancing digital data security and revolutionizing agro-food certification, these studies provide valuable contributions to their fields. We are honored to share these insights with our readers and anticipate that they will inspire further advancements and research.

References:

[1]   M. Khan, M. Ibrahim, M.S. Shabbir, M.H. Tofique, M.N. Khalili, M. Asad, M. Ahmed, M. Haroon, S. Zainab, "COVID-19 Pandemic and Mental Well-Being: A Study Conducted on Medical Students and Their Parents in a Private Medical College in Pakistan," Journal of Engineering Research and Sciences, vol. 2, no. 2, pp. 1–7, 2023, doi:10.55708/js0202001.

[2]   B.B. Oo, "Applied Salt Technique to Secure Steganographic Algorithm," Journal of Engineering Research and Sciences, vol. 2, no. 2, pp. 8–14, 2023, doi:10.55708/js0202002.

[3]   R.B. Dos Santos, R.P. Pantoni, N.M. Torrisi, "Blockchain Tokens for Agri-Food Supply Chain," Journal of Engineering Research and Sciences, vol. 2, no. 2, pp. 15–23, 2023, doi:10.55708/js0202003.

Editor-in-chief

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