Editorial

In the rapidly evolving landscape of technology and global trade, innovative research continues to drive advancements and address critical challenges. This editorial highlight three significant papers that contribute to the fields of customs clearance, cybersecurity, and next-generation communication systems. Each paper offers unique insights and solutions, demonstrating the importance of interdisciplinary research in fostering progress and enhancing practical applications.

There is a complex process of customs clearance in foreign trade, presenting a mathematical model to improve control and efficiency. By examining existing methods for solving linear programming problems with variable coefficients and studying customs risks, the authors propose a novel approach using threshold matrices. This method aids in identifying reliability risks, and the development of a control algorithm for customs values further underscores the practical implications of this research. The results showcase the potential for improved accuracy and reliability in customs processes, offering valuable tools for practitioners [1].

The growing sophistication of phishing attacks, focusing on the browser-in-the-browser (BitB) technique. This novel attack exploits single sign-on popups to deceive users and steal credentials. Through comprehensive analysis and experimental scenarios from both attacker and victim perspectives, the study highlights the technical intricacies and social engineering tactics employed in BitB attacks. The authors propose effective countermeasures to detect and mitigate these attacks, filling a critical gap in cybersecurity research. This pioneering study enhances awareness and provides practical strategies for protecting sensitive information [2].

The advancements and challenges of 5G and 6G communication systems, emphasizing the role of optical wireless communication (OWC) technologies. The authors discuss the superior capabilities of 6G over 5G in terms of capacity, connectivity, latency, security, energy efficiency, user experience, and reliability. The integration of IoT and the tactile internet presents additional complexities, necessitating innovative solutions. OWC technologies, such as Visible Light Communication (VLC), Light Fidelity (LiFi), Optical Camera Communication (OCC), and Free Space Optics (FSO), are identified as promising candidates to meet these demands. This comprehensive review underscores the potential of OWC technologies in the successful deployment of 5G/6G and IoT systems, providing a roadmap for future research and development [3].

In summary, these three papers collectively contribute to enhancing global trade processes, strengthening cybersecurity defenses, and advancing communication technologies. The innovative solutions and practical applications presented in each study underscore the importance of continuous research and development in addressing contemporary challenges. As technology and global trade continue to evolve, such interdisciplinary research will play a crucial role in shaping a more efficient, secure, and connected world.

References:

[1] I. Mukhtorov, T. Abduraxmonov, A. Saidov, “Mathematical Model of Optimum Management of the Customs Control Process and Expert System for Ensuring Data Reliability,” *Journal of Engineering Research and Sciences*, vol. 3, no. 5, pp. 1–13, 2024, doi:10.55708/js0305001.

[2] K. Alessa, B. Alhetelah, G. Alazman, A. Bader, N. Alhomeed, L. Almubarak, F. Almulla, “Browser-in-the-Browser (BitB) Attack: Case Study,” *Journal of Engineering Research and Sciences*, vol. 3, no. 5, pp. 14–22, 2024, doi:10.55708/js0305002.

[3] R. Khalid, M. Naqi Raza, “Analyzing the Impact of Optical Wireless Communication Technologies on 5G/6G and IoT Solutions: Prospects, Developments, and Challenges,” *Journal of Engineering Research and Sciences*, vol. 3, no. 5, pp. 23–36, 2024, doi:10.55708/js0305003.

Editor-in-chief

Prof. Paul Andrew