Editorial

In this editorial, we present five papers that delve into critical issues spanning environmental responsibility, technological innovation, defence systems, and healthcare advancements. These papers contribute significantly to their respective domains, offering insights, solutions, and possibilities for future research and development.

As market economies advance, the pursuit of profits often overshadows environmental and social responsibilities, leading to the emergence of "greenwashing." This paper investigates the impact of Environmental, Social, and Governance (ESG) performance on Total Factor Productivity (TFP) in listed companies, particularly in China. Through empirical analysis, the paper demonstrates that higher ESG performance correlates with enhanced TFP, highlighting the importance of integrating sustainability practices into business strategies [1].

Field Programmable Gate Arrays (FPGAs) offer a versatile platform for real-time control algorithms, particularly in managing voltage spikes and static voltage errors in DC/DC boost converters. This paper explores the implementation of FPGA technology to mitigate voltage spikes, providing experimental evidence of its efficacy. By enabling dynamic control and parallel implementation of algorithms, FPGA technology presents a promising solution for addressing voltage irregularities in power systems [2].

Missile guidance systems play a pivotal role in ensuring tactical precision, with proportional navigation (PN) being a widely employed strategy. This paper introduces a comprehensive missile homing system incorporating true PN guidance, multiloop acceleration autopilot, and advanced imaging-based seekers. Leveraging deep machine learning for target detection and tracking, this system demonstrates superior performance in simulations, offering insights into the future of missile guidance technology [3].

Asthma remains a significant global health concern, affecting millions worldwide. This paper reviews recent advancements in intelligent monitoring systems, particularly those utilizing infrared sensors for asthma detection. By analyzing studies since 2016, the paper offers insights into evolving technologies and proposes a reference model for future research. These systems aim to enhance the quality of life for asthma patients by providing early detection and intervention strategies [4].

The papers presented in this editorial represent diverse areas of research, each addressing critical challenges and offering innovative solutions. From promoting sustainable business practices to advancing missile guidance technology and improving healthcare monitoring systems, these papers underscore the importance of interdisciplinary collaboration and technological innovation in addressing complex global issues. As we navigate an ever-changing landscape, the insights gleaned from these studies pave the way for future developments, fostering progress and resilience across various domains.

References:

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