Technoscience Journal for Community Development in Africa 3 (2024) ISSN 2659-0573

## **Editorial Note**

The Editorial Board of *Technoscience Journal of Community Development in Africa* presents Volume 3 of the journal. This volume brings together twentythree (23) peer-reviewed articles from diverse research across agriculture, engineering, ICT, and pure sciences, highlighting significant advancements in science and technology that could facilitate sustainable development of Nigerian and African economies.

In agriculture, notable findings include the successful combination of poultry manure and inorganic fertilizer for enhanced sweet maize yields in Nigeria's southern guinea savanna, with optimal results achieved at 7.5 t/ha poultry manure mixed with 90 kgN/ha. Studies also revealed promising natural antioxidants in citrus fruit peels as potential replacements for synthetic preservatives, while investigations into aflatoxin mitigation in poultry feed demonstrated the effectiveness of Aflasafe maize-based diets in maintaining healthy serum biochemistry in broiler chickens.

In engineering and technology, researchers made substantial progress in developing locally sourced solutions. A notable achievement was the creation of a fish-feed pelletizer with 90% efficiency and 30kg/h capacity, offering a cost-effective alternative for small and medium-scale farmers. Significant advances were also made in materials science, with research showing that TiO2-doped ZnO thin films annealed at 400°C achieved 80% optical transmittance, making them suitable for transparent conducting oxide applications. The successful incorporation of agricultural wastes like Guinea corn Ash and banana stem particles as a partial cement replacement in road construction and reinforcement in aluminum alloy for green materials development demonstrates innovative approaches to sustainable infrastructure development.

The Information and Communication Technology sector saw the emergence of innovative security

solutions, particularly in data protection and vehicle security. An enhanced Honey Encryption system using Residue Number System was developed to protect both numeric and text data during transmission, offering improved processing time and security compared to existing systems. Additionally, researchers developed a secure vehicle ignition system using One-Time Password authentication, providing an effective solution to combat vehicle theft through embedded system technology.

In pure and applied sciences, critical public health studies revealed concerning findings about food safety and zoonotic diseases. Studies of fruits and vegetables in community markets identified thirteen (13) different parasites, with cabbage and lettuce showing the highest contamination rates at 38.5% each. These findings indicate that citizens must take necessary precautionary measures. A parallel study of domestic dogs in Moro Local Government Area found that 53.7% of sampled dogs carried gastrointestinal parasites, highlighting significant public health risks. These findings underscore the urgent need for improved food safety measures and public health interventions in the region.

The board appreciates the commitment of all our Section Editors, reviewers, and the KWASU Press and Publishing for sustaining the quality of the journal and looks forward to future support in driving the vision of the founders of this journal, promoting innovative development in African community.

## A Tribute to Professor Muhammed Mustapha Akanbi SAN (Late)

The Editorial Board of *Technoscience Journal of Community Development in Africa* extends its deepest condolences to the family, friends, and associates of Professor Muhammed Mustapha Akanbi SAN, the second Vice Chancellor of Kwara

State University, Malete. Professor Akanbi, who was appointed Vice Chancellor on April 1, 2020, passed away on November 20, 2022, at the age of 51. Though his tenure was brief, his leadership proved both transformative and impactful. He was a visionary leader and goal-setter who demonstrated unwavering determination for excellence and remarkable drive for success. Throughout his administration, he exhibited confidence, courage, fairness, and firmness. We therefore dedicate Volume 3 of the Technoscience Journal of Community Development in Africa to Professor Akanbi's extraordinary legacy. As a distinguished figure in legal scholarship, education, and community development, his contributions fundamentally transformed the institutions and communities he served.

Professor Akanbi's academic career exemplified intellectual excellence and unwavering commitment to scholarship. As a Senior Advocate of Nigeria (SAN), he brought exceptional rigor and insight to legal scholarship, particularly in arbitration, business law, and community development. His publications became essential references for scholars and practitioners, demonstrating how legal frameworks could be leveraged to empower communities and foster sustainable progress.

His 152nd Inaugural Lecture at the University of Ilorin, titled "Contending Without Being Contentious: Arbitration, Arbitrators and Arbitrability," delivered on November 13, 2014, stands as a comprehensive work on dispute resolution. This seminal lecture illustrated how legal frameworks, especially arbitration, could serve as powerful tools for community development by promoting peaceful coexistence beyond traditional business applications.

Professor Akanbi approached community development through the lens of legal frameworks and alternative dispute resolution mechanisms, complementing Technoscience's focus on scientific and technological innovations. His work in arbitration established efficient and cost-effective dispute resolution mechanisms that preserved business and community relationships. By advocating for inclusive participation, including nonlawyers as arbitrators, and promoting reforms, he made justice more accessible to communities, strengthening social fabric through legal innovation. As the second Vice-Chancellor of Kwara State University, Professor Akanbi demonstrated exceptional leadership and commitment to community development. He strategically rebranded the university motto from "University for Community Development" to "the Green University for Community Development" to "the Green University for Community Development and Entrepreneurship," reflecting his holistic vision encompassing environmental sustainability and community prosperity.

His administration transformed the Centre for Sponsored Projects into the Centre for Research and Development, significantly shifting the university's research paradigm. Under his leadership, the university saw substantial growth in research grant acquisition while maintaining strong anti-corruption measures. His steadfast commitment to high standards for both staff and students fostered a culture of excellence and integrity that continues to influence the university community.

Professor Akanbi's most enduring legacy lies in the countless lives he touched as a mentor, teacher, and inspiration. His generosity of spirit, ethical leadership, and unwavering integrity served as a model for students, colleagues, and community leaders alike. As we reflect on his remarkable contributions, we recognize that his work represents not merely a chapter in history but an ongoing call to action in scholarship, academic ethics, principles of fairness and justice, and moral leadership.

May his legacy continue to inspire and guide future generations.

## Dr. Rafiu Mope Isiaka Hands Over the Baton to Dr. Jumoke Falilat Ajao

The Editorial Board of Technoscience Journal for Community Development in Africa expresses gratitude to Dr. Rafiu Mope Isiaka, pioneer Section Editor for the Computer Section, as he bows out of the Editorial Board after excellent service to the Journal. His significant contributions from the infancy of this journal to date are highly appreciated. The Board is looking forward to continuing to work with him to raise the bar of excellence we jointly set for the journal. While we acknowledge his enormous schedules that led to his exit from the Board, the effort to restore and relaunch Technoscience back online remains a collective task, and the Board counts on his continued support.

The Board also welcomes Dr. Jumoke Falilat Ajao as the new Section Editor for the Computer Section. Without doubt, Dr. Ajao brings to the board her rich professional and editorial experiences to join in driving Technoscience from its present state to a globally recognized platform for disseminating quality research outputs. On behalf of the editorial team, I say, Congratulations and welcome on board.

Olawale Mashood Aliyu Editor