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VOLUME: 4, YEAR: 2018

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Journal of Environmental Sustainability Advancement Research

J. Env. Sust. Adv. Res., ISSN: 2409-966X

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The *Journal of Environmental Sustainability Advancement Research (JESAR)* is a refereed periodical published in December of each year. It is founded on the premise that the environment encompasses all aspects that impact living things. The Journal accepts a wide range of original environmental sustainability studies papers derived from agricultural, biological, business, educational, health, social and physical scientific, technological and innovative basic and applied research works for publication to impact society and humanity progressively for posterity.

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FOREWORD

The articles published in this JESAR volume were selected from manuscripts presented in the Fourth International Research Conference held from 18th to 20th October, 2018 in Chuka University. The theme of the Conference was: Harnessing Environmental Conservation and Renewable Energy Innovations for Sustainable Development. The subthemes were: Strengthening agriculture to conserve the environment and develop renewable energy; Deployment of quality education and health for environmental conservation and renewable energy development; Application of science, engineering and technology in environmental conservation and renewable energy development; Linking arts, humanities and social sciences to environmental conservation and renewable energy development; Mainstreaming affirmative action and gender equity in environmental conservation and renewable energy development; and Utilization of biodiversity to conserve the environment and develop renewable energy. The objectives of the Conference were to share current knowledge, innovations and technologies to spur sustainable development, bring students, researchers, scholars, professionals and policy makers together to interact and network, facilitate interested parties and stakeholders to acquire and exhibit the new knowledge, technologies and capacities, and provide a forum for students, researchers and industrialists to take their creations and innovations to the next level.

The theme was anchored in the Chuka University's higher education, research and extension niche area and the 17 UN Sustainable Development Goals (SDGs) that countries will be expected to use to frame their agendas and policies until 2030 in an ecologically sound manner. Coincidentally, the theme was topical as it coincided with when Kenya resolutely decided to tame plastic bags that had in the past contributed immensely to environmental pollution. In this theme, all disciplines were applicable, owing to the fact that the environment is where everything operates and energy is an essential utility we cannot do without as human beings. Additionally, dialogue on this theme should help us contribute to finding solutions to mitigate the harsh climate change effects; for instance, through exploitation of renewable energy resources. Environmental conservation and renewable energy innovations play important roles in sustainable development through prudent resource utilization and guarding against associated risks. The Conference was coined to exemplify the roles Environmental Conservation and Renewable Energy innovations can play in the realisation of Sustainable Development.

Ultimately, abstracts and posters received were presented, shared and critiqued during the Conference. Selected complete manuscripts were critiqued by peer reviewers, who recommended minor or major corrections that were incorporated by the authors before acceptance. The published manuscripts deal with: Food security mitigation through drought tolerant crops varieties and irrigation in semi-arid tana-river county; Application of desirability function for optimization of multiple responses of watermelon using organic manure; Factors affecting economic benefits of indigenous vegetables grown by small-scale farmers in Kenya: A case study of Mwea Sub-County, Kenya; Importance of product attributes in successful branding of fresh fruits and vegetables; Use of language in encoding beliefs and stereotypes about money and wealth creation; A discursive analysis of political discourse during the 2010-2014 Mau forest restoration debate in Kenya; Assessing knowledge leakage on performance amongst teaching staff in public universities in Kenya; Psychological effects of divorce on academic achievement among primary schools pupils in Kangeta division, Kenya; Effectiveness of religious initiated programmes in curbing HIV/AIDS pandemic in Kenya: some selected programmes in Meru South Sub-County; Effect of micro-insurance segment on insurance uptake in Kenya; Using soil adjusted vegetation index to assess land degradation along sections of Mutonga River canyon; Herpetofaunal abundance and local community perception of the species in Kakunga-Mukangu region of the Kakamega forest national reserve, Kenya; Environmental impacts of population and cultivated ecosystems on the water resources of the Lake Victoria basin: A review in relation to water resources planning and management; Towards fuzzy logic in partner evaluation and selection for virtual enterprises; Effect of 2,4-D and hexazinone on soil dehydrogenase activity in sugarcane cultivated soils in Nzoia sugarcane plantations; Antimicrobial activity of a streptomycete isolate from wheat farm soil in Mau forest complex, Kenya; Synthesis, characterization and antimicrobial activities of hydroxytriazenes and their copper (II) complexes; Selective conversion of fructose to methyl levulinate using sulphated zirconia-alumina binary oxides; and Determination of the critical time when levels of the cyanide potential in cassava are at peak concentration.

The articles should contribute to harnessing of environmental conservation and renewable energy innovations for sustainable development through appropriate interpretation and application by the readers. I, therefore, wish our stakeholders, practitioners and academic fraternity fruitful reading and welcome them to submit their manuscripts to be published in future JESAR volumes and issues.

Professor Dorcas K. Isutsa, Ph.D.
Chief Editor

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