

CHUKA



UNIVERSITY

Knowledge is Wealth/Akili ni Mali (*Sapientia divitia est*)

5th International Research Conference

Theme: "Harnessing Innovative Milestones for Visions Achievement"



Leveraging of Agricultural and Environmental Innovations for Visions Achievement



Utilization of Quality Education and Health Services in Visions Achievement



Deployment of Science and Engineering Technologies in Visions Achievement



Application of Innovative Arts & Social Sciences in Visions Achievement

Esteemed Collaborators



Conservation of Biodiversity and Natural Resources for Visions Achievement



Mainstreaming Affirmative Action and Gender Equity for Visions Achievement

Proceedings

24th to 26th October, 2018



Chuka University is ISO 9001:2015 Certified



Inspiring Environmental Sustainability for Better Life



Knowledge is Wealth/*Akili ni Mali (Sapientia divitia est)*

Fifth International Research Conference

Theme:
“Harnessing Innovative Milestones for Visions Achievement (HIMVA)”

Date:
24th to 26th October, 2018

Proceedings

Published in 2019



Knowledge is Wealth/Akili ni Mali (*Sapientia divitia est*)

CHUKA UNIVERSITY FUNDAMENTAL STATEMENTS

Motto: Knowledge is Wealth/Akili ni Mali (*Sapientia divitia est*)

Slogan: Inspiring Environmental Sustainability for Better Life

Philosophy: Quality education, training, research, extension, environmental sustainability, and entrepreneurship lead to social cohesion, human integrity, and economic development

Vision: A Premier University for the provision of quality education, training and research for sustainable national and global development

Mission: To provide access, generate, preserve and share knowledge for quality, effective and ethical leadership in higher education, training, research and outreach through nurturing an intellectual culture that integrates theory with practice, innovation and entrepreneurship.

CORE VALUES

- (1) Customer Value and Focus
- (2) Diversity and Social Fairness
- (3) Environmental Consciousness
- (4) Fidelity to the Law
- (5) Innovation
- (6) Integrity
- (7) Passion for Excellence
- (8) Peaceful Co-Existence
- (9) Professionalism and Confidentiality
- (10) Prudent Utilisation of Resources
- (11) Teamwork
- (12) Timeliness and Devotion to Duty

DISCLAIMER

Views expressed in these proceedings are those of contributing authors and do not in any way represent views of Chuka University, Division of Academic, Research and Student Affairs, or the Conference Organizing Committee. The organisers reserve the right to edit the manuscripts to meet required standards.

Copyright © Chuka University, 2018

Citation: Author (s) 2019. Title. *In*: Isutsa, D.K. (Ed.). Proceedings of the Chuka University Fifth Annual International Research Conference held in Chuka University, Chuka, Kenya from 24th to 26th October, 2018. === pp.

ORGANISERS

1. Prof. Dorcas K. Isutsa - DVC (Academic, Research & Student Affairs)
2. Dr. Geoffrey K. Gathungu - Department of Plant Sciences
3. Dr. Eunice W. Githae - Department of Biological Sciences
4. Dr. Rose Nyakio Kimani - Department of Humanities
5. Dr. Zipporah W. Muthui - Department of Physical Sciences
6. Dr. Beatrice M. Mburugu - Department of Education
7. Dr. Moses Mahugu Muraya - Board of Postgraduate Studies
8. Dr. Nancy W. Mbaka - Department of Humanities
9. Dr. Catherine Kaimenyi - Department of Business Administration
10. Dr. Charles M. Kariuki - Department of Animal Sciences
11. Dr. Sammy W. Musundi - Department of Physical Sciences

PREFACE

Chuka University is a Public University in Kenya since 2013. It is located in Chuka Town in Tharaka-Nithi County at approximately 186 km from Nairobi City along the Nairobi-Meru Highway. Chuka University has triple core Missions of Education, Research and Extension. The University desired to strengthen and sustain the core missions by hosting the 5th International Research Conference. The theme of the Conference was “Harnessing Innovative Milestones for Visions Achievement”. The subthemes were: leveraging of agricultural and environmental innovations for visions achievement; utilization of quality education and health services in visions achievement; deployment of science and engineering technologies in visions achievement; application of innovative arts and social sciences in visions achievement; mainstreaming of affirmative action and gender equity for visions achievement; and conservation of biodiversity and natural resources for visions achievement.

The objectives of the Conference were to disseminate and share current knowledge, innovations and technologies to spur visions achievement; bring students, researchers, scholars, professionals and policy makers together to share milestones in visions achievement; facilitate interested parties and stakeholders to acquire and exhibit the milestones achieved; and provide a forum for students, researchers and industrialists to explore commercialisation opportunities for their milestones.

The theme of the Conference was anchored in the national and international visions of countries. The theme, together with the subthemes, was coined to bring together scholars, researchers and industrialists to share some of the milestones they have generated toward realisation of Visions for respective countries.

Ultimately, the over 180 abstracts and posters received were presented, disseminated and shared during this Conference. I hope the conference met expectations and aspirations of delegates. Sincere gratitude goes to all scholars, researchers, authors and stakeholders who interpreted and addressed relevantly the theme of the conference. Gratitude goes to the Vice-Chancellor, Prof. Erastus Njoka, for being at the forefront of championing the conferences. Similarly, acknowledgement goes to our esteemed partners for facilitating the Conference. Last but not least, the invaluable support received from Chuka University organizing committee and staff during preparation of the Conference logistics.

I wish all users informative reading.

Professor Dorcas K. Isutsa, Ph.D.

Deputy Vice-Chancellor (Academic, Research & Student Affairs)

CONTENTS

Title page	i
Disclaimer and Copyright	ii
Organisers	iii
Preface	iv
Programme	v
Contents	xiv
LEVERAGING OF AGRICULTURAL AND ENVIRONMENTAL INNOVATIONS FOR VISIONS ACHIEVEMENT	
Application of the simplex-centroid design in the formulation and optimization of tropical cocktail fruits in Western Kenya. <i>Kadari B., Koech J. and Letting D.</i>	2
Evaluation of tissue culture vanilla plantlets for growth and yield in the coastal lowlands of Kenya <i>Pole F.N., Karemesi M., and Maingu R.</i>	2
Effect of defoliation on the final grain yield of Cowpea <i>S. Njuguna, M. Ng'ang'a, H. Mwago, S. Owour, H. Mwangi, M. Kariuki, C. Anaye</i>	3
Improving Kenyan sweet potato production through selection of varieties with resistance to <i>Meloidogyne incognita</i> <i>Karuri, H. W. and Njeri, E.</i>	3
Optimization of biosolids as a substrate for tomato transplant production <i>Otieno, P.C., Nyalala, S.O., Wolukau N.J.</i>	4
Identification, quantification and analysis of endogenous amino acids associated with somatic embryogenesis of coffee (<i>Coffea arabica</i> L.) <i>Mayoli, R.N., Isutsa, D.K., Nyende, A.B. and Mweu, C.M.</i>	5
Control of fusarium wilt pathogens in bananas (<i>Musa</i> sp.) using <i>Trichoderma</i> sp. and <i>Streptomyces</i> sp. <i>Muthengi, C.K. Wagacha, J.M. Muraya, M. M and Onyango B.O</i>	5
Genotypic response in rice during the reproductive phase under water stress and no water stress <i>Ruth N. Musila, Julia Sibiya, John Derera, John M. Kimani, Pangirayi Tongoona</i>	6
Effect of management practices on the utilization of nutrients by goats raised by farmers in Tharaka-Nithi and Embu Counties <i>Ernest Nyaga Maragara, Prof. L.M. Musalia and Prof. E.N. Njoka</i>	7
Amino acids requirement and methods of determination in swine <i>Roselyne Kahindi</i>	8
Deterministic simulations to determine the impacts of economic and non-economic breeding objectives on sustainable intensification of developing smallholder dairy farms <i>Charles M. Kariuki</i>	8
Ileocecical trichobezoars in a female llama (<i>Lama glama</i>) in Kenya <i>Onesmus Munene Nderi</i>	9
Brucellosis, hydrogen peroxide and microbial contamination in unpasteurized hawked milk in Chuka <i>Kemboi D.C., Amiani N.M. and Mutembei, M.</i>	10
Tomato Leaf miner (<i>Tuta absoluta</i>) (Meyrick 1917) (Lepidoptera: Gelechiidae) prevalence and farmer management practices in Kirinyanga County, Kenya <i>Nderitu Wangari Peris, John Jamleck Muturi, Otieno Mark, Arunga Esther and Mattias Jonsson</i>	10
Evaluation of neem (<i>Azadirachta indica</i>), tithonia (<i>Tithonia diversifolia</i>), tephrosia (<i>Tephrosia purpurea</i>) extracts on egg hatching and juvenile mortality of french bean root-knot nematodes <i>Njenga Joshua K, Gathungu Geofrey K. and Mbaka, Jesca N.</i>	11
Multivariate analysis techniques reveal significant morphogenetic variability in pumpkin landraces in Kenya <i>Kiramana, J.K. and Isutsa, D.K.</i>	12
Adult plant resistance of CIMMYT Triticale (<i>X. Triticosecale</i> Wittmack) lines to rust diseases in Njoro <i>Aleri I.O., Owuochi, J.O. and Okwiri, P. O.</i>	13
Optimizing yield and economic returns of rain-fed maize through soil moisture conservation under maize-legume intercropping systems <i>Kirimi I. Mwenda, Munyiri S.W., Haggai. O. Ndukhu</i>	13
A review on adopting african orphan crops to sustainable food systems for 21 st Century <i>Gathungu, G.K.</i>	14
A review of snacking and obesity: nutritive and health properties of snacks can be improved using pumpkin flour <i>Jedidah W. Kiharason, D. K. Isutsa and Peninah N. Ngoda</i>	15
The effective way of making goat manure based vermicompost for organic garlic production <i>Gichaba. V. Makini, Haggai. O. Ndukhu and Muraya Moses</i>	16
Morphological Characterization of Sorghum E. turcicum Isolate from Different Areas of Tharaka Nithi County, Kenya <i>Kathomi Carlene, Muraya Moses, Ogolla Fredrick, Onyango Benson</i>	16
Biological and chemical approach in the management of <i>Agrobacterium tumefaciens</i> that causes crown gall disease of roses under greenhouse conditions <i>Gitari J.M., Maingi J.M. and Onyango B.O.</i>	17
Relationships among Selected Endogenous Factors Associated with Somatic Embryogenesis of Coffee (<i>Coffea arabica</i> L.) cultivar Ruirii 11 <i>Mayoli, R.N., Isutsa, D.K., Nyende, A.B. and Mweu, C.M.</i>	18

Evaluation of new cassava varieties for compatibility with maize and cowpea under intercropping <i>Musyimi Benjamin Muli</i>	19
A survey of major insect pests and diseases affecting production of <i>Catha edulis</i> (Miraa) in Meru County, Kenya <i>Wanjau Cecilia</i>	20
Effects of integrating NAA, Staking and mineral nutrient on nutrient use efficiency of climbing beans (<i>Phaseolus vulgaris</i>) <i>Pauline Wanjiru Kiragu</i>	20
KALRO Mtwapa: Successful seed production for coastal farmers <i>Weru, S.M. and M'Ragwa, L.R.</i>	21
Effects of integrated application of rhizobium and phosphorus on soybean growth, nodulation and yields <i>Mulambula, S., Gathungu, G.K., and Ndukhu, H.O.</i>	22
Effect of Spacing and Harvesting Stages on Seed Quality of Jute Mallow in Kenya <i>David K.L. Rutto, Elizabeth N. Omami, Julius O. Ochuodho and Lucas Ngode</i>	23
Effects of bacteria culture and stabilizer concentration of the physico-chemical properties of camel milk yoghurt <i>Joshua Arimi and Florence Mwobobia</i>	24
The impact of climate variability on socio-economic activities of mixed crop-livestock farming in Embu East sub-county, Embu County, Kenya <i>Linus M. Ireri and Stephen K. Wambugu</i>	24
Prediction of effect of demographic characteristics on parity using poisson regression model <i>Gatwiri, C.M., Muraya, M.M. and Gitonga, L.K.</i>	25
UTILIZATION OF QUALITY EDUCATION AND HEALTH SERVICES IN VISIONS ACHIEVEMENT	
Impact of interpersonal adaptation on academic achievement among students: a comparative study of boys and girls in boarding secondary schools in Meru County, Kenya <i>Grace Gatune Murithi</i>	26
Teachers' professional development and students' academic performance: A case study of Coast Girls Secondary School in Mombasa County, Kenya <i>Daniel Njane Thuo</i>	26
School-type as a correlate to secondary school boys' and girls' self-esteem in Nairobi County <i>Shadrack Mumanu and Dinga Jotham</i>	27
Relationship between head teachers' supervision on the use of teaching and learning materials and pupils' academic performance in public primary schools in Laare Division Meru County, Kenya <i>Rebecca Kailu Nkunja, Beatrice M. Mburugu and Nelson Jagero</i>	28
Learner related challenges contributing to low academic achievement in Mathematics among primary school pupils in Laare division of Meru County <i>Naito Lydia Ameru, Beatrice M. Mburugu and George M. Muthaa</i>	29
Impact of group conformity on academic counseling: a comparative study of boys and girls in public secondary schools in Tharaka-Nithi County, Kenya <i>Elosy Nyambura Riungu and Veronica Karimi Nyaga</i>	30
Relationship between availability of teaching and learning materials and academic performance of orphaned children in Laare Division Meru county Kenya <i>Mukoetari Miriam Kamanja, Nelson Jagero and Grace G. Murithi</i>	31
Social factors affecting academic performance of orphaned girls in public primary schools in Meru south sub-county, Tharaka Nithi County, Kenya <i>Leah Murugi Ntinyari and Benjamin Mugambi Kanga</i>	31
Group obedience and its impact on academic counseling: a comparative study of boys and girls in public secondary schools in Tharaka- Nithi County, Kenya <i>Elosy Nyambura Riungu and Susan Muthoni Kinyua</i>	32
An enquiry into the integration of research-based knowledge and teaching-learning process in Hawassa University College of Education in ensuring excellence in education <i>Girma Moti</i>	33
Repositioning African indigenous education <i>Njoki Wane</i>	34
Investigating factors affecting academic performances and achievements of undergraduate health science students at Hawassa university and its implications for quality of higher education in Ethiopia <i>Girma Moti and Mekdes Mekonnen</i>	35
Diagnostic significance of white blood cell count and C-reactive protein in neonatal sepsis; Asella Referral Hospital, South East Ethiopia <i>Abebe Sorsa</i>	35
Time to death predictors of HIV/AIDS infected patients on ART in Buno Bedele and Illu Aba Bor Zones, Ethiopia from 2003-2017 <i>Melaku Tadege</i>	36
Barriers to Immediate post-partum intra-uterine contraceptive device uptake among mothers delivering at Meru Hospital <i>Kirigia, C., Gitonga, L.K., and Muraya, M.M.</i>	37
Essential maternal and newborn care skills training for midwives: their impact on reducing maternal and neonatal mortalities in Kenya. <i>Timothy, K. and Gitonga, L.G.</i>	37
Relationship between parental involvement in discipline matters and academic performance of students in public day secondary schools in Igembe south sub-county, Kenya	38

<i>John Kubai Barungu, Nelson O. Jagero and John M. Kamoyo</i>	
The contribution of academic and research institutional repositories to visions achievement <i>Onsinyo, Charity Nyaboke</i>	39
Knowledge and acceptability of cervical cancer screening amongst women in Imenti North Subcounty <i>Kajuju, A.</i>	40
Factors influencing waste segregation among staff in Chuka Level Four Hospital <i>Mbisi, M.M., Gitonga, L.K., Mwangi, J.G.</i>	40
Continuing Professional Development (CPD): Training needs assessment on midwives in Meru County, Kenya <i>Nthigah G. Anne, Lucy K. Gitonga, Mwangi Joel</i>	41
Evaluation of midwives' and nurses' continuing professional development in reducing maternal and neonatal mortality in Embu County, Kenya <i>Charity.N Gikunda, Lucy K. Gitonga</i>	42
Perspectives of continuing professional development (CPD) for Kenyan midwives <i>Kaburi Mwiti and Lucy Gitonga</i>	43
Assessment, training and evaluation of emergency obstetric and neonatal care competencies for midwives in Meru and Embu counties, Kenya <i>Njeru, A. and Gitonga, L.K.</i>	43
Factors affecting cervical cancer screening among women below 25 years in Kithare area, Tharaka-Nithi County <i>Mugambi D and Gitonga L</i>	44
Effectiveness of advocacy skills in combating self stigma between family caregivers of persons with psychological disorders exposed to the skills and those who are not in Tharaka-Nithi County in Kenya <i>Monicah Buyatsi Oundo and Veronica Karimi Nyaga</i>	45
Perceptions and use of herbal remedies among patients with <i>Diabetes mellitus</i> in Murang'a North <i>Munoru, F. Mwangi, J. Gitonga, L.</i>	46
Determinants of contraceptive use among university students: A case of a public university in Kenya <i>Gloria Nthenya Joshua</i>	46
Influence of head teachers' management strategies on pupils' performance in Kenya Primary Education in public primary schools in Meru County <i>Leonard Muthuri Kananua</i>	47
Role of quality education for National Development in Kenya <i>Kinyua Esther Wangeci and Magoma Charles</i>	48
Integration of cervical cancer screening services in the routine examinations offered in the Kenyan health facilities <i>Munoru, F.M., Gitonga, L.K., Muraya, M.M</i>	49
Social demographic factors affecting utilization of female condom among youths in selected tertiary training institutions in Migori County, Kenya <i>Joshua Omwenga Boraya, Caroline Githae, Albert Gachau</i>	49
Influence of staff and institutional factors on the adoption and utilization of mobile learning technologies in chartered universities in kenya <i>David Gitumu Mugo, Kageni Njagi, Bernard Chemwei</i>	50
DEPLOYMENT OF SCIENCE AND ENGINEERING TECHNOLOGIES IN VISIONS ACHIEVEMENT	
Modeling nitrate leaching to groundwater using a modified advection-dispersion equation <i>Jimrise O. Ochwach, Mark O. Okongo, Sammy W. Musundi</i>	52
Development of an improved isocratic HPLC method for the determination of gallic acid, caffeine and catechins in tea <i>S.M. Kingori, P.O. Ongoma, S.O. Ochanda</i>	52
On the banach space numerical range for a linear operator <i>Priscah M. Ohuru, Sammy W. Musundi, Ombaka C. Ochieng</i>	53
Performance evaluation of monocrystalline and amorphous modules in Chuka-Kenya during a short time exposure <i>Njeru Elosy Gatakaa, Munji Mathew and Rithaa JN</i>	54
Metric equivalence as an almost similarity property <i>Eric M.Gitonga, Sammy W. Musundi, Bernard M. Nzimbi</i>	54
On the norm of an elementary operator of finite length in a C^* algebra <i>Kawira Esther, Denis N. King'ang'i, Sammy W. Musundi</i>	55
Role of attractive interaction in the high temperature superconductivity <i>Masinde Fred Wekesa</i>	55
Amine sensor based on evanescent wave and lock-in differential measurement <i>Tuwei, A.K., Njogu, S.M. and Grell, M.</i>	56
Results on a-unitary, a-normal and a-hyponormal operators <i>Isaiah Sitati</i>	56
Prediction variance properties of the three-factor CCD and its robustness with application of a potato (<i>Solanum-tuberosum</i>) tuber yield experiment. <i>Koeh J, Koske J, Mutiso J and Kosgei M</i>	57
Procurement fraud detection using data mining techniques <i>Adrian Bosire and Doris.A. Alago</i>	57
Leveraging on loyalty points and gift cards in social media and productivity applications to spur Kenya Vision 2030 Achievement <i>Tuei K. Kirui</i>	58
Modelling time to default on personal loans using survival analysis techniques. A simulation study.	59

<i>Koach J, Kosgei M and Songok J</i>	
Modelling flight delays at Jomo Kenyatta International Airport using logit, random forest and support vector machine models <i>Gachoki PK and Muraya, MM</i>	59
Comparison of accuracy of support vector machine model and logistic regression model in predicting individual loan defaults <i>Obare, D.M. and Muraya, M.M.</i>	60
Determination of the extent of underground oil spillage in Thange village using resistivity method <i>Shadrack Mutunga and Odek Antony</i>	61
Structural and electronic properties of α – Sn and β – Sn. An ab – initio investigation. <i>Mbae Jane Kathure, Muthui Zipporah, Micheni Morris, Gitonga Eunice, and Kamweru Paul</i>	61
A comparative analysis of ensemble and individual classification algorithm for intrusion detection <i>Joseph Mbugua, Moses Thiga, Joseph Siror</i>	62
13 years of 6.7GHz Methanol Maser observations towards G351.78-0.54 <i>Mutie M.M. and Baki Paul</i>	63
Electronic and structural properties of α and β allotropes of cobalt: An ab initio Investigation. <i>Muthomi Morris, Muthui Zipporah, Mbae Jane, Gitonga Eunice, and Paul Kamweru</i>	63
Elemental, structural and functional analysis of open air and furnace calcinated rice husk ash <i>Kaleli J.M., Kamweru P. K, Gichumbi J.M, Ndiritu F.G.</i>	64
Structural, morphological and elemental analysis of copper doped magnesium nickel ferrite nanoparticles <i>Osamong G.A., Kamweru P. K., Gichumbi J.M., Ndiritu F.G.</i>	65
Effect of annealing rates on surface roughness of tio2 thin films using optical microscopy <i>Benjamin M. John, Simon W. Mugo, James M. Ngaruiya</i>	65
Molecular markers for sulfadoxine pyrimethamine resistance in Plasmodium falciparum clinical isolates from Kwale County, Kenya <i>Winfred Kendi Mutwiri, Michael Gicheru, Sichangi Kasili, Francis T. Kimani, Francis Makokha</i>	66
Association between malnutrition and immunoglobulin g responses to crude asexual P. falciparum schizont lysates in children attending Ishiara hospital, Embu County, Kenya <i>Mungiria Juster, Gicheru Michael, David Kavili and Mburu David</i>	67
Synthesis and characterization of Al doped zinc cobalt ferrites nano-particles using sol gel method <i>Butembu S, Kamweru P. K., Gichumbi J.M., Ndiritu F.G.</i>	67
An ab initio Investigation of the Electronic and Structural Properties of α -B and β -B Using Density Functional Theory (DFT) <i>Gitonga Eunice, Muthui Zipporah, Mbae Jane, Muthomi Morris, and Paul Kamweru</i>	68
Qualitative characterization of red soil, rice husks and quarry dust potential for geopolymerization <i>Malavi B., Kamweru P.K., Muthui Z.W., Ndiritu F.G.</i>	68
Effects of hall current, rotation and inclined magnetic field on a fluid flowing over porous parallel vertical plates <i>Kirimi Jacob, Mark Onyango Okong'o, Musundi S.Wabomba, Ochieng Ombaka</i>	69
On the norm of basic elementary operator in a tensor product <i>Peter G. Muiruri, Denis N. King'ang'i and Sammy W. Musundi</i>	70
Electronic structure of α – Fe and β – Fe, An ab initio investigation <i>Wilkister M. Ondigi, Muthui Zipporah, Kimani John, Daniel.K.Thuo, and Brian.M.Munene</i>	70
Synthesis, characterization and application of transition metal-doped manganese oxide catalysts on degradation of methylene blue <i>Richard Kariuki, Eric Njagi and Ochieng Ombaka</i>	71
APPLICATION OF INNOVATIVE ARTS AND SOCIAL SCIENCES IN VISIONS ACHIEVEMENT	
Competitive strategies and performance of life assurance companies in Kenya <i>Mutegi Tetu Mwenda and Kamau Muthoni Rahab</i>	72
Marketing information systems and sustainable consumption <i>Doris A. Alago and Jane Wanjira</i>	72
Knowledge management in organizations <i>Emily Murerwa</i>	73
Moderating effect of ICT on organization characteristic risk and performance of manufacturing firms in Kenya <i>Miriam Thogori Nyambura</i>	74
Effects of business mergers on employee loyalty in selected companies listed at the Nairobi securities exchange <i>Kirima Lucy Karimi</i>	74
Impact of heuristics biases on individual investor decision making process at the Nairobi securities exchange: A survey of individual investors in Meru county. <i>Kirera, F.K.</i>	75
Effect of sectorial wages on economic growth in Kenya <i>Maket, Juma Isaiah, Muriithi D.K. and Mugendi, L.</i>	76
Effect of Water and Sanitation Infrastructure Investment on Kenyan Economic Growth <i>Elizabeth Wangai Njiru</i>	77
Innovative Employment Practices and Employees' Performance: Understanding Mediating Effect of Self-efficacy in the Context of Collectivist Economy <i>Idowu Owoeye, Ambrose K Kaumbulu and Doris. A. Alago</i>	78

Influence of mobile banking services on the financial performance of deposit taking savings and credit co-operatives in Meru county- Kenya <i>Daniel Waaria, Edward Munoru</i>	78
Information-seeking behaviours of undergraduate students: the case of Chuka University <i>John Mwaura Ileri</i>	79
Social media and political communication: a case study of face book usage among members of county assembly of Meru County <i>Godfrey Mutiga</i>	80
Role of Vernacular Radio in the Kenya's devolved governments: A case of Radio Ramogi in Nyatike SubCounty, Migori County <i>Nicholas Anyuor, Barasa Asanta Brigid and Emukule Emojong</i>	80
Participation in Kenyan Community Radio and its Impact on Content <i>Rose N. Kimani</i>	81
Contribution of ecotourism product pricing strategies on tourist's consumption rate in Tharaka-Nithi <i>Kangai, D., Muriuki, L.M. and Nkari, I.M.</i>	82
Effects of integrated rural tourism planning and communities' employment levels in Makueni <i>Nzomo, S.T., Muriuki, L.M. and Omollo, J.W.</i>	83
Optimising curbside and off-street parking in towns through location-allocation: spatial approach to the planning problem in Chuka Town <i>Kibetu Kinoti and Caroline Wanja</i>	83
The influence of the implementation of AGPO programme on business growth in disadvantaged groups-owned enterprises in Meru south sub county Kenya <i>Casty Kabubu and Timothy Mwenda</i>	84
A historical study of the challenges facing the development of the informal sector in Nanyuki town, Laikipia County, Kenya (1978 -2013) <i>Ann Kagwiria Mwebia, Dickson K. Nkonge and Caroline M. Kithinji</i>	85
Efficacy level of therapeutic counselling in dealing with anxiety disorder among adult refugees: A case of Dadaab Refugee Camp, Garissa County, Kenya <i>Lucy Kanyua Mugambi and Beatrice M. Mburugu</i>	86
Analysis of strategies used by lawyers to cross-examine child witnesses in custody cases in Kibera Law Courts Kenya. <i>Juliana Achieng Oswago</i>	87
Connotative meanings of names given to businesses in Chogoria town <i>Loyford Kariuki Kinegeni, Nancy Mbaka and Christine Atieno Peter</i>	87
"Time is.....": Examining the Agikũyũ Conceptualization of Time within Cognitive Linguistics <i>Moses Gatambuki Gathigia and Phyllis Mwangi</i>	88
The Functions of narration in Bahati Bukuku's songs <i>Matthew Kwambai</i>	88
Lexical borrowing: A documentation of Gichuka loanwords <i>Nancy W. Mbaka and P. Kinyua Muriungi</i>	89
Comparative analysis of motifs in utendi wa mikidadi na mayasa na utendi wa Kalevala <i>Jackson Ndung'u Mwangi</i>	90
Contribution of various institutions in land conflict resolution as portrayed in Kiswahili novel: An evaluation of Kovu Moyoni <i>Mary K. Njeru and John M. Kobia</i>	91
Challenges facing the youth and the efforts they adopt to overcome them in swahili novel kidagaa kimemwozea <i>Jackson Ndung'u Mwangi</i>	92
Influence of domains on language shift among the youth in Nairobi County, Kenya <i>Rosemary Wamaita Kimani., Moses Gatambuki Gathigia & Naom Moraa Nyarigoti</i>	93
Social stratification and its effect in swahili short stories diwani ya tumbo lisiloshiha na hadithi nyingine <i>Jackson Ndung'u Mwangi</i>	94
The role of oral literature as a communication tool during the alternative rites of passage among the Igembe people of Meru County <i>Nkatha Immirongo, Njogu Waita and Colomba Muriungi</i>	95
The interface between literature and environment: An ecocritical analysis of Kiigembe proverbs <i>John M. Kobia</i>	96
Analysis of absent referents of idioms in Gikũyũ <i>Purity Njambi Kiguta, Moses Gatambuki Gathigia., & Naom Moraa Nyarigoti</i>	97
Analysis of the youths as agents of change in swahili novel kidagaa kimemwozea <i>Jackson Ndung'u Mwangi</i>	97
'Pesa zako zinanuka': Mikakati ya unyenyekevu inayotumiwa na washiriki wa biashara ya miraa mtaani Easleigh, Nairobi, Kenya. <i>Judith Gakii King'ang'i, Furaha Chai, John Kobia</i>	98
Albinism as a motif of unmasking other layers of issues in goro kamau's ghosts and fortune hunters <i>Stephen Mutie and Albert Rutere</i>	99
Antonymy in Gikũyũ church sermons <i>Catherine Nyambura Gitonga, Moses Gatambuki Gathigi & Noam Nyarigoti Moraa</i>	100
A cognitive integration analysis of blended idioms of campaign in kenyan newspapers <i>Ogal George Ouma, Moses Gatambuki Gathigia, & Naom Nyarigoti Moraa</i>	100

Spreading God, sowing dissent: Gikuyu evangelists and the Mau Mau revolt in Chuka, 1915-1960 <i>Muiru Paul Njoroge</i>	101
The challenge of materialism in the Presbyterian Church of East Africa with reference to Kieni West Presbytery <i>Preston Njeru Phinius</i>	102
Assessment of suicidality among university students in Kenya: A case of Chuka university <i>Francis Gacheru</i>	102
Moderating Effect of Demographics on Customer Relationship Management on Satisfaction of Commercial Banks Account Holders in Kenya <i>Rael N. Mwirigi, Samuel Maina, Linda Kimencu</i>	103
Comparison of Behavioral Finance and Traditional Finance in Investment Decisions <i>Kirera, F.K</i>	104
Upshot of regulatory based credit risk management on return on equity of commercial banks in Kenya <i>Mambo J.K., Simiyu J.M. and Nyang'ara D.</i>	105
Innovative business schools for economic sustainability in African universities: Trends and lessons for adoption <i>Moses Wandera</i>	105
Effect of investment decision on sustainability of SACCOs in Kenya <i>Maureen Achieng and Moses Odongo</i>	106
Solai dam tragedy: Psychological perspectives on impacts of climate change in Kenya and implications for achievement of four pillars of development <i>George Manono Areri</i>	106
Philosophy of drama: The origin and regulation of behaviour in social institutions <i>Pachomius Wambugu, Njagi Z.N. and Rebeca Wachira</i>	95
MAINSTREAMING OF AFFIRMATIVE ACTION AND GENDER EQUITY FOR VISIONS ACHIEVEMENT	
Justice through abolition of emergency modern slavery on Kenyan female employed in the Middle East <i>Gilbert Nyakundi Okebiro, Mary Ogutu, Sharon Chepkorir Kirui</i>	108
Remarriage as a coping mechanism of widowers and widows in Meru County Kenya <i>Beatrice M. Mburugu</i>	108
Women's perception on technology in relation to enhancing their productivity: The case of Southern Nations, Nationalities and People's Region (SNNPR), Ethiopia <i>Solomon Wolde</i>	109
The role of the agikuyu women's indigenous knowledge systems (AWIKS) on food crop production in Kiambu county prior to 1902 <i>Martha Wanjiru Muraya</i>	110
Religious landscape: An examination of the role of daughters of Faith of Deliverance Churches in HIV and AIDS ramification, mitigation and care in Migori County <i>Pauline Chemutai Langat</i>	111
Alternative rite of passage for the girl child among ameru community of Kenya: Embracing change for a better life <i>Susan Muthoni Kinyua</i>	112
Rethinking Affirmative Action and the (Re)construction of Masculinity: A Study of David Mailu's novel Man from Machakos <i>Antony Mukasa and Jane Marete</i>	113
Stereotypical Portrayals of Kipsigis Secular Songs and Gender Identity in Chepalungu Sub-County, Kenya <i>Judy, C. Koskei & Margaret Barasa</i>	114
A statistical analysis of gender and metaphorical conceptualization of ekegusii pop songs <i>Victor Ondara Ntobo, Moses Gatambuki Gathigia and Naom Moraa Nyarigoti</i>	114
Causes of marital conflict among newly-wedded couples in full gospel churches of Kenya Meru central jurisdiction, Mount Kenya region <i>Kaimenyi, M. K., Nkonge, D and Bururia, D.N</i>	115
Nature and extent of elder abuse in Machakos County, Kenya <i>Ruth Mueni Muli</i>	116
Influence of contextual factors on implementation of workforce diversity policies in public universities in Kenya <i>Catherine Kathure Kaimenyi</i>	117
CONSERVATION OF BIODIVERSITY AND NATURAL RESOURCES FOR VISIONS ACHIEVEMENT	
Conservation of biodiversity in L. Nakuru and sustainable flamingo bird's sanctuary for visions achievement objectives <i>Gilbert Nyakundi Okebiro</i>	118
Influence of total organic carbon in sediments on heavy metal concentrations in lake Baringo <i>Koskey, J.C. M'Erumba C.M., Ogendi, G. M., and Tamba C.L.</i>	118
Assessment of the distribution, abundance and carbon stocks in seagrass meadows within Eastern and Western Creeks of Gazi Bay, Kenya <i>Gabriel A. Juma, Adiel M. Magana and James G. Kairo</i>	119
Assessment of road-side tree nursery diseases and the influence of environmental factors on their spread along agro-ecological zones <i>Karani JK and Githae E.W, Onyango B, Omondi S, F</i>	120
Assessment of plant species diversity in heavy metal polluted soils, Kang'oki Dumpsite, Thika, Kenya <i>Orao LA, Muraya MM and Ombaka CO</i>	120
Role of selected environmental factors on the regeneration of <i>Ocotea usambarensis</i> in Mt Kenya forest,	121

<i>Rithaa J.N., Magana A.M., Nduru G.M. and Githae E.</i>	
Efficiency of rain water harvesting techniques on livelihoods of residents of Kyuso Sub-County, Kitui <i>Mercy Wawira Nyaga and Cecilia Kajuju Muriuki</i>	122
Households' perceptions on impact of drought on water resources in Makindu Sub-County of Makueni County, Kenya <i>Peter K. Musyimi</i>	122
Compensation for wildlife related damages and losses: a local community perspective in Tsavo West National Park Kenya. <i>Mukabana Victor and Njeru, J.M.</i>	123
Variation of human and domestic animal's activities with discharge in a high altitude tropical stream, the Njoro River, Kenya <i>Charles Mwithali M'Erimba and Judith Koskey Chepkorir</i>	124
Level of community participation in wildlife conservation in Kisite/Mpunguti Marine National Park/Reserve Kenya <i>Musumba M. Akello and Njeru, J.M.</i>	124
Population trends and threats facing conservation of the African elephant (<i>Loxodonta Africana</i>) in the Mountain Conservation Area, Kenya <i>Wycliff T. Obwoye and Njeru J.M.</i>	125
Assessment of biomass resources for sustainable production of biofuels and biochemicals in Kenya <i>Eric C. Njagi</i>	126
Effects of drift net mesh size and exposure time on macroinvertebrate drift size-class in the riffle and pool habitats in the Njoro River, Kenya <i>Priscilla W. Mureithi, Charles M. M'Erimba & John G. Mbaka</i>	126
Efficacy of the Kipevu sewage treatment plant in the removal of faecal coliforms, chemical oxygen demand, nitrates and phosphates in Mombasa County, Kenya <i>George L. Oguda Adiel M. Magana, Silas Kiruki, Saeed M. Mwanguni</i>	127
Impact of farm based activities on woody plants species diversity and structure in Maara Sub-County, Tharaka-Nithi County, Kenya <i>Nduati P.K., Gathungu, G.K. and Waweru, F.K.</i>	128
Biological control of toxin-producing cyanobacteria in the economic stimulus programme (ESP) fish ponds in Tharaka-Nithi County, Kenya <i>Kibara, D. I., Magana, A.M., Githae E.W. and Ombaka, O.</i>	129
CORRESPONDING AUTHORS EMAIL CONTACTS	130

