THE TECHNICAL UNIVERSITY OF KENYA

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Faculty:	Applied Sciences and Technology
School:	PHYSICS AND EARTH SCIENCES
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Consultation Hours:	8AM-5PM MON - FRI

EDUCATION

LEVEL	QUALIFICATION NAME	INSTITUTION	YEAR
Doctor of Philosophy (PhD)	CLIMATE CHANGE AND ADAPTATION	UNIVERSITY OF NAIROBI(Kenya)	2021
Masters of Science (M.Sc.)	GEOGRAPHICAL INFORMATION SYSTEMS	UNIVERSITY OF NAIROBI(Kenya)	2011
Bachelor of Education (B.Ed)	ARTS	MOI UNIVERSITY(Kenya)	2000

WORK EXPERIENCE

PERIOD	INSTITUTION	POSITION
2014 - To Date	Technical University of Kenya	Assistant Lecturer
May 2013 - November 2014	THE TECHNICAL UNIVERSITY OF KENYA	PART TIME LECTURER
September 2006 - May 2009	Kanunga High School	TEACHER
March 2009 - July 2013	PARKLAND BOYS HIGH SCHOOL	TEACHER
October 2010 - April 2013	ICRAFT	Research Assistant
2006 - 2006	Kakiimba High School	TEACHER

CURRENT RESEARCH PROJECTS

MODELING OF THE IMPACT OF CLIMATE CHANGE ON HERBIVORES DISTRIBUTION IN THE SAVANNA ECOSYSTEMS, A CASE STUDY OF AMBOSELI ECOSYSTEM ,KAJIADO COUNTY, KENYA	climate change and Adaptation

SELECTED PUBLICATIONS

TITLE	LINK TO PUBLICATION	YEAR
1) Aduma, M.M.,Ouma, G., Said, M.Y., Wayumba, G.O.,Omondi, P.A. and Njino, L.W. (2018) Potential Impacts of Temperature Projections on Selected Large Herbivores in Savanna Ecosystem of Kenya. American Journal of Climate Change , 7, 5-26. 2)) Aduma, M.M., Said, M.Y., Ouma, G.,Wayumba, G. and Njino, L.W. (2018) Projection of Future Changes in Elephant Population in Amboseli under Representative Concentration Pathways. American Journal of Climate Change, 7, 649-679. 3)Mildred M. Aduma, Gilbert O. Ouma, Mohamed Y. Said, Gordon O. Wayumba, Joseph Muhwanga Spatial and Temporal Trends of Rainfall and Temperature in the Amboseli Ecosystem of Kenya World Journal of Innovative Research	View online	

COURSES TAUGHT

NAME	DESCRIPTION	PERIOD
Environmental Management Systems	Focuses on Understanding EMS Strategic alignment of the EMS with the organization, facility/site profile, process for improvement and cost reduction. Looks at Environmental policy, structure and responsibility and management	May 2019 - August 2019
Range lands management	Main focus is on the Principles of range management, significance of rangelands to society, Range ecology, Principles of wildlife management, pastures and fodder production. Range plants and their values. Proper use factors in rangelands. Rangeland problems and range improvement strategies.	September 2014 - Dec 2019
Energy Resources and land use	Focuses on both renewable and non reneable energy sources and the effects they have on land use.	Jan 2015 - TO-DATE
Environmental Health and Safety	Explain the meaning of Environmental Health and Safety. Environmental safety and Human Health. Disease patterns in the world. Impact of technology on environmental safety. Poor health and contamination water. Technologies to reduce pollution and associated diseases chemical health, hazardous chemicals: effect of climate change on environment & human health. Analyze impact of social activities on environmental safety and human health: identify commonly abused drugs	Jan 2019 - April 2019
Sustainable Wetlands Utilization	Focuses on formation of major categories of wet lands, Rationale for wetland conservation and sustainable utilization.Principles of sustainabale wetland utilization. Threats to wetlands. Naturally occuring event such as drought , erosion, drops in ground water levels , pollution, overexploitation, of wetland resources, challenges to sustainable wetland utilization	Jan 2019 - April 2019
Application of Geospatial Information Systems in Community Health and Wellness	i. The purpose of this course is to equip the learners with the intended knowledge base in the application of skills in the key areas of GIS to solve Community Health and Wellness problems .It also includes the nature, components and applications of GIS	September 2018 - December 2018
Renewable Energy Resources	Examines various sources of renewable energy and technology for harnessing each and Environmental implications associated with utilization of each energy source. Further explains ways of accelerating uptake of renewable energy in boosting energy supply and factors hampering access to renewable energy sources	October 2014 - August 2019
Energy resources Management	It covers energy sources, Energy demand and supply, Forms of Energy, generation of electric power, hydro -electricity, large scale hydroelectricity, dams , micro-hydro systems, run -of the river hydro –electricity; Biomass, solid biomass, liquid biomass, bio-fuels, bio- ethanol, bio-diesel. Ocean Energy; tidal power, wave power. Geothermal energy, geothermal power plants and energy audit	Sept 2015 - TO-DATE
Forestry management	Focuses on Roles of forests, types, their classification, characteristics of each class and proper management practices.	Jan 2015 - April 2015
Introduction to Environment and its Resources	Looks at the components of environment and interrelationships. Structure of Ecosystems, types and properties of Natural resources.Climate; types, importance, climate Zones and Food Security. Geological factors controlling formation and distribution of mineral resources.	Sept 2015 - December 2015
Earth and Environmental science	Focuses on the structure of the earth various rock types soil profile time dating and relevance to Engineering	Jan 2015 - April 2015

PROFESSIONAL AFFILIATIONS AND SOCIETIES

TITLE	INSTITUTION
MEMBER	TSC
MEMBER	GIS Conservation Community