## **ARDHI UNIVERSITY**

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## **CENTER FOR CONTINUING EDUCATION (CCE)**

## LIST OF SHORT COURSES AVAILABLE AT ARU

The table below contain some of the short courses available at Ardhi University, please note that they can be modified to suit clients' requirements. The client can as well request for a specific course which might not be in the list, since it's not exhaustive. Upon successful completion of the course, participants will be awarded certificates of participation or attendance of Ardhi University. For more information and enquiries please contact us through;

Email: dcce@aru.ac.tz, zolape2001@yahoo.com

Tel. + 255 734 705 554; +255 786 272 756 Centre for Continuing Education (CCE), Ardhi University (ARU), P.O.Box 35176, Dar es Salaam, Tanzania

		SCHOOL OF EARTH SCIENCES, REAL ESTATE, BUSINESS AND INFORMATICS DEPARTMENT OF GEOSPATIAL SCIENCES AND TECHNOLOGY		
		Contact Person: Ms. Latifa Rashid Mobile No. 0712115847		
SN	Name of the Course	Course Particulars		
1.		BASIC GIS AND REMOTE SENSING		
	Introduction	This course is designed to provide knowledge of the basic GIS and Remote Sensing (RS) concepts, the course covers field-to-office state of the art methods, tools and techniques for data acquisition, data processing/analysis, visualisation and mapping. The main methods, tools and techniques for acquisition of framework and thematic data, and information extraction from digital images are covered thoroughly.		
	Expected Learning outcomes	<ul> <li>Upon completion of this course the participants should be able to:</li> <li>Describe the main methods of geospatial data acquisition, coordinate systems and map projections and their role/application in geo-information application.</li> <li>Execute basic geospatial data acquisition operations with the provided soft- ware and hardware tools.</li> <li>Describe the main methods to process digital Remote Sensing images for information extraction.</li> <li>Apply basic GIS operations (data entry, editing, data structuring, topology building);</li> <li>Perform basic spatial analysis on vector and raster data;</li> </ul>		
	Course Content	<ul> <li>Introduction to Geographic Information Systems and Remote Sensing.</li> <li>Introduction geo-information production and methods of geospatial data collection.</li> <li>Spatial Referencing - reference surfaces, coordinate systems and projections.</li> <li>Data entry, preparation, spatial data analysis and (basics of) databases.</li> <li>Introduction to an open source QGIS software environment.</li> </ul>		

		Mapping and information dissemination
	Course Fee	TZS 1,000,000/ The course fee will cater for tuition fee, course materials, Compiled Notes, Certificates, QGIS software starter pack and other consumables.
	Duration	2 weeks
2	Name of the Course	GIS APPLICATION IN CRIME MAPPING
	Introduction	The course setup is designed to provide skills to exploit the inherent geographical quality of crime, basing on Geographic Information Systems (GIS) and Remote Sensing concepts and capability in mapping. The tailor-made course is for the Police Force Officers to assist them in understanding and tackling crime problems through mapping, the Crime Mapping will help in different forms of operational, investigative and strategic policing and thus reduction in crime activities. The basic cartographic visualization methods and processes, mainly map design and layout, will be used to prepare geospatial crime data for visualization purposes. Focus on the rules for applying visual variables to geographic features based on perception properties, conceptual/graphic generalization and other map- ping/visualisation fundamentals.
	Expected Learning outcomes	<ul> <li>Upon completion of this course the participants should be able to understand:</li> <li>The basics of map design and layout.</li> <li>The basic concepts of cartographic visualization, related to crime mapping use and law enforcement requirements.</li> <li>The concepts and application of statistics to perform standard statistical analysis on crime data for visualization purposes.</li> <li>The perceptual properties and the application of visual variables like colour, value, size and texture applied in the visualization of geographic data.</li> <li>The principles of a GIS based crime mapping process and apply this by creating a map, including data visualization, lay-out and output.</li> </ul>

		Introduction to data visualization.
		<ul> <li>Data statistics.</li> </ul>
	<b>Course Content</b>	Visual variables applied in visualization of geographic data.
		<ul> <li>Visualization of Geographic data in order to produce different outputs.</li> </ul>
		<ul> <li>Map design and layout.</li> </ul>
		Map production.
	Course Fee	TZS 1,000,000/ The course fee will cater for tuition fee, course materials, Compiled Notes,
	Course ree	Certificates, QGIS software starter pack and other consumables.
	Duration	2 weeks
3	Name of the	GIS APPLICATION IN CRIME ANALYSIS
	Course	UIS AFFEICATION IN CRIME ANALISIS
		The crime data collection/mapping tasks in Geographic Information System (GIS) platform, without
		data analysis, are of no use; GIS allows effective integration and analysis of data to identify,
		apprehend, and prosecute suspects. The Crime Analysis methods are used in identifying the
		different geographic patterns in criminal behaviour. There are many conventional tools for crime
	Introduction	data analysis, but GIS software can create a single visual output that combines multiple data layers
		into a meaningful output. The analysis between crime and other factors, for example, demography,
		housing, income, or social conditions, can lead to the understanding of the place and crime
		relationship based on the conditions compared.
		Upon completion of this course, the participants should be able to:
		<ul> <li>Understand and perform classifications on data for analysis operations;</li> </ul>
	Expected	Understand and perform Overlay operations;
	Learning	<ul> <li>Understand and perform Neighbourhood analysis;</li> </ul>
	outcomes	<ul> <li>Understand and create Models for spatial analysis operations using Map Algebra tools;</li> </ul>
		<ul> <li>Create proper visualizations of analysis results;</li> </ul>

	Course Content	<ul> <li>Classify Geographic data for spatial analyses operations.</li> <li>Neighbourhood analysis for describing crime patterns.</li> <li>Modelling and formulate expressions for analysis operations.</li> <li>Representation of analysis results.</li> </ul>
	Course Fee	TZS 1,000,000/ The course fee will cater for tuition fee, course materials, Compiled Notes, Certificates, QGIS software starter pack and other consumables.
	Duration	2 weeks
4	Name of the Course	Geo-Node: Web Spatial Data Infrastructure (SERBI-CMS)
	Expected Learning outcomes	<ul> <li>Upon completion of the course, participants will be able to: <ul> <li>apprehend the concept of Geo-Node as a Spatial Data Infrastructure; Install Geo-Node;</li> <li>acquire skills pertaining to Managing Layers, Managing Maps, Managing Documents, Publishing Data;</li> <li>Use Geo-Node with Other Applications such as QGIS and Google Earth; Administering Geo-Node; Manipulate groups, categories, metadata, menus; Perform Geo-Node customization to suit particular organization need.</li> </ul> </li> </ul>
	Target group	Mid carrier professionals in Government such as MLHHSD, National Land Use Planning Commission, Tanzania Forest Services Agency (TFS), TANAPA, International organizations such as USAID, DFID, GIZ, SIDA, DANIDA, KOICA etc., Land officers, NGOs undertaking land projects such as HAKI ARDHI, LANDESA, TAWLA etc. Business firms, and other interested participants
	Course Fee	Tshs. 800,000 to cover, Course materials, course delivery, certificates lunch and refreshments
	Location	Ardhi University, Dar es Salaam, Tanzania
	Duration	One (1) Week

		INSTITUTE OF HUMAN SETTLEMENT STUDIES (IHSS) Contact Person: Dr. Lazaro Mgumi Mobile No. 0787761987
S/N		COURSE PARTICULARS
5		FORMALISATION AND REGULARISATION OF INFORMAL SETTLEMENTS
	Expected Learning outcomes	<ul> <li>Upon completion of the course the trainees will be able to:</li> <li>Organize and pursue land formalization and regularization in collaboration with other stakeholders</li> <li>Be aware of cost components for accomplishing formalization and regularization (planning, surveying and issues of CROs);</li> <li>Appreciate the value of spatial planning in regularization;</li> <li>Acquire knowledge on development control for regularized areas;</li> <li>Establish roles and contributions of key stakeholders in land formalization and regularization;</li> <li>Understand compensation requirements and fundraising strategies for compensation during regularization;</li> <li>Pursue resource mobilization (finance, survey equipment and technical personnel) for regularization.</li> </ul>
	Duration	1 Week
	Course Fee	TZS 750,000. This amount will cover for facilitation, course materials, course delivery and certificates only
6		EMERGING APPRORIATE COMMUNITY SANITATION APPROACHES

	Expected Learning outcomes Target	<ul> <li>Upon completion of the course the trained staff will be able to:</li> <li>Impart knowledge and skills on Police Force communities mobilization and engagement;</li> <li>Develop sanitation campaign approaches appropriate for the Police Force housing estates;</li> <li>Effectively implement and monitor sanitation programs;</li> <li>Gain better understanding of the emerging concepts and approaches for sanitation.</li> </ul>
	group	Police officers, police officers neighborhood communities, estates departments at the Police Force.
	Duration	1 week
	Course fees	TZS 750,000. This amount will cover for facilitation, course materials, course delivery and certificates only
7		PROJECT CONTROL SYSTEM
	Objective of the course	The Police Force to acquaint its staff with knowledge on project controls to establish whether value for money is observed and maintained during project implementation, focusing on systems for the tendering process; monitoring cost budgets, schedule, quality; and, change control
	Expected Learning outcomes	<ul> <li>Upon completion of the short course, the participants should be able to: <ol> <li>Apply systematic approach in investigating project implementation problems.</li> <li>Use appropriate methodologies in gathering &amp; analysing information pertinent to decision-making.</li> <li>Demonstrate effective investigative skills in project implementation environment.</li> <li>Relate current events in their specialised area.</li> </ol> </li> <li>Integrate investigative skills in project control</li> </ul>
	Target group	Police officers, police officers neighborhood communities, estates, procurement and planning departments at the Police Force.

	Location	To be agreed between ARU and TPF	
	Duration	2 weeks	
	Course fees	TZS 1,000,000. This amount will cover for facilitation, course materials, course delivery, certificates, refreshments and lunch	
	S	CHOOL OF ARCHITECTURE CONSTRUCTIONENGINEERING AND MANAGEMENT DEPARTMENT OF INTERIOR DESIGN	
		Contact Person: Mr. Newton Kiwia Mobile No. 0656754660	
S/N		COURSE PARTICULARS	
8		Home Sweet Home: Interior Décor for Residential Homes	
	Expected Learning Outcomes	Upon completion of the course the trainees will be able to: (i) understand basic principles of interior designing (ii) prepare a concept board. (iii) prepare quick freehand diagrams and sketches to illustrate different aspect of the concept for the Interior Decor.	
	Target group	All individuals interested in home décor, including home owners and designers, as well as pre- careers individuals such as form IV, form VI leavers and college students.	
	Location	Ardhi University, Dar es Salaam, Tanzania	
	Duration	Six (6) sessions, each two hours	
	Course fees	TShs. 600,000. This amount will cover for course materials, course delivery and certificates.	
9	Course Title	Introduction to Building & Landscape Design	
	Contents	Course aimed at introducing future ARU students to different disciplines at SACEM including Architecture, Interior Design, Landscape Architecture, Construction Management and Quantity Survey	

Expected	Upon completion of the course the trainees will be able to: (i) understand different Professional
Learning	Disciplines at SACEM (ii) Network with Alumni and Professional Boards (iii) inspire the creative
Outcomes	aspect of design of our surroundings indoors and outdoors
Target	Pre-careers individuals such as form IV, form VI leavers and college students.
group	
Location	Ardhi University, Dar-es-Salaam, Tanzania
Duration	Two weeks - Eight (8) sessions, each four hours
Course fee	TShs. 600,000. This amount will cover for course materials, course delivery and certificates.
	Colorful Interiors: The World of Paints for Interior Spaces
Expected	Upon completion of the course the trainees will be able to: (i) knowledge of the color wheel (ii)
Learning Outcomes	understanding of psychology of colors in interior spaces (iii) knowledge of technical requirements of paint in interior surfaces
Target group	All individuals interested in home décor, including home owners and designers.
Location	Ardhi University, Dar es Salaam, Tanzania
Duration	Three (3) sessions, each two hours
Course fee	TShs. 500,000. This amount will cover for course materials, course delivery and certificates.
Interior Décor for Commercial Spaces	
Expected	Upon completion of the course the trainees will be able to: (i) understand basic principles of
Learning	interior designing (ii) prepare a concept board. (iii) prepare quick freehand diagrams and sketches
Outcomes	to illustrate different aspect of the concept, as part of the concept board.
	Target group Location Duration Course fee Expected Learning Outcomes Target group Location Duration Course fee Expected Learning

	Target group	All individuals interested in interior designing of commercial spaces, corporate designers, graphic designers, contractors, developers, financial institutions, marketing and public relation officers
	Location	Ardhi University, Dar es Salaam, Tanzania
	Duration	Six (6) sessions, each two hours
	Course fee	TShs. 900,000. This amount will cover for course materials, course delivery and certificates.
12	ART & CRAI	T for Interior Spaces
	Target group	All individuals interested in art, decorations or interior design, home owners, "weekend warriors" seeking fun projects for creativity or entrepreneurship
	Location	Ardhi University, Dar es Salaam, Tanzania
	Duration	Eight (8) sessions, each two hours
	Course fee	TShs. 950,000. This amount will cover for course materials, course delivery and certificates.
13	The Tropica	l Garden [SACEM]
		Explores local plants and vegetations, with a focus on native species, for gardening purposes. We can collaborate with local gardeners for teaching, nurseries and even the pottery art.
	Expected Learning Outcomes	Upon completion of the course the trainees will be able to: (i) understand both Technical Drawings and Emotional Drawings (ii) understand the Functional and the Aesthetic aspects of Interior Accessories (iii) use Colour, Textures, Patterns, Scale & Proportions for Art & Craft projects for the Interior Spaces (iv) prepare quick freehand diagrams and sketches to illustrate and Art & Craft project.

	Target	All individuals interested in art, decorations or interior design, home owners, "weekend warriors"
	group	seeking fun projects for creativity or entrepreneurship
	Location	Ardhi University, Dar es Salaam, Tanzania
	Duration	Three (3) sessions, each two hours
	Course fee	TShs. 500,000. This amount will cover for course materials, course delivery and certificates.
14		Garden Art
		Explore the local cultures of walling fences as a set up for the aesthetics of the domestic landscape.
	Expected Learning Outcomes	Upon completion of the course the trainees will be able to: (i) understand both Technical Drawings and Emotional Drawings (ii) understand the Functional and the Aesthetic aspects of Interior Accessories (iii) use Colour, Textures, Patterns, Scale & Proportions for Art & Craft projects for the Interior Spaces (iv) prepare quick freehand diagrams and sketches to illustrate and Art & Craft project.
	Target group	All individuals interested in art, decorations or interior design, home owners, "weekend warriors" seeking fun projects for creativity or entrepreneurship
	Location	Ardhi University, Dar es Salaam, Tanzania
	Duration	Three (3) sessions, each two hours
	Course fee	TShs. 500,000. This amount will cover for course materials, course delivery and certificates.
15	Herbal Garc	lening

		With the recent global wide health challenges of the Covid-19 disease, the need to explore the local plants and herbs with medicinal properties and mainstreaming them, incorporating them in to the domestic gardens.
	Expected Learning Outcomes	Upon completion of the course the trainees will be able to: (i) understand both Technical Drawings and Emotional Drawings (ii) understand the Functional and the Aesthetic aspects of Interior Accessories (iii) use Colour, Textures, Patterns, Scale & Proportions for Art & Craft projects for the Interior Spaces (iv) prepare quick freehand diagrams and sketches to illustrate and Art & Craft project.
	Target group	All individuals interested in art, decorations or interior design, home owners, "weekend warriors" seeking fun projects for creativity or entrepreneurship
	Location	Ardhi University, Dar es Salaam, Tanzania
	Duration	Three (3) sessions, each two hours
	Course fee	TShs. 500,000. This amount will cover for course materials, course delivery and certificates.
		Department of Building Economics Contact Person: Dr. Geraldina Kikwasi Mobile No. 0754263235 Course description
16	Name of the Course	Resolution of Construction Disputes
	Introducti on	The training for this course is designed to provide the skills, knowledge and confidence to effectively manage and resolve disputes in the construction industry. The participants will clearly understand concepts related to disputes, provisions in construction contracts for dealing with

	disputes, available dispute resolution mechanism and procedures to resolve disputes in the event of occurrence.	
Expected learning outcomes	<ul> <li>Upon completion of this training, participants will be able to</li> <li>Understand the nature and sources of disputes in construction</li> <li>Manage construction disputes in the perspective of various forms of contract applicable in Tanzanian construction industry</li> <li>Comprehend alternative dispute resolutions and</li> <li>participate in dispute settlements in the construction industry</li> </ul>	
Course contents	<ul> <li>Dispute concepts</li> <li>Disputes in construction projects</li> <li>Forms of contracts and provisions for dispute resolution</li> <li>Dispute avoidance</li> <li>Dispute resolution mechanisms</li> <li>Dispute Management in Construction projects</li> <li>Dispute settlements examples (Case Studies)</li> </ul>	
Course fee	TZS 1,000,000 /= per participant per week	
Target Group	Architects, Quantity Surveyors., Engineers, Project Managers, Construction managers, Consulting firms, Contractors, claims experts, planners, lawyers and any professional dealing with construction projects.	
Duration	Three weeks	
Location	Ardhi University, Dar es Salaam	
Contact Person	Dr. Geraldina Kikwasi 0754263235	

17	Course title	Microsoft project training (MS project)
	Expected learning outcomes	Upon completion of this training, participants will be able to(i)Plan construction projects;(ii)Manage resources (cost, time and materials); and(iii)Track and manage project progress:
	Target Group	Architects, Quantity Surveyors., Engineers, Project Managers, Construction managers, Building surveyors, facilities managers, Consulting firms, Contractors, Planners and any professional dealing with construction projects.
	Duration	One (1) week
	Location	Ardhi University, Dar es Salaam
	Fee	TZS 700,000 /= per participant per person
		DISASTER MANANGEMENT TRAINING CENTRE (DMTC)
		Contact Person: Mr. Dion Rugai Mobile No. 0715471798
18	Course Name	Application of Geographical Information Systems (GIS) For Disaster Risk Management
	Course Descriptio ns	This course aims at equipping the learners with knowledge to use GIS tools to visualize real world features, explore spatial data and analyze maps to communicate information and make decisions on their daily tasks. As an introductory course it will cover both theory and hands on experience of GIS application for Police Operations.

Course Expected Learning	Upon completion of this course, participants will be able to:
Outcomes	• explain core concepts related to Disaster Risk Management (DRM) as these apply to
	rapidly changing African towns
	<ul> <li>understand different sources of geospatial data useful for DRM;</li> </ul>
	<ul> <li>understand and apply core elements of GIS analysis tools and methods;</li> </ul>
	• apply geospatial analysis tools to map hazards, vulnerability and risks for the purposes
	of urban risk assessment and management.
Target	All sectors whose day-to-day operations are directly or indirectly linked to DRM aspects. They
group	involve the central Government Ministries, Departments, Commissions, Regional and District
	Authorities and Agencies, the Local Government Authorities (City, Municipal, Towns, Township
	and District Authorities), Private Sector, Civil Society Organization (CSOs) such as NGOs, CBOs and
	FBOs, Academic Institutions, Defence and Law Enforcement Machineries, the local community,
	individuals and other interested persons.
Location	Disaster Management Training Centre (DMTC) Seminar Room 1st Floor located within the Planning Building. Ardhi University (ARU), Dar es Salaam, Tanzania.
Duration	Two (2) weeks
Course	TShs. 1,000,000/= (USD 600.00 or equivalent in freely-convertible currency for non-Tanzanians)
fee:	per participant. This will cover training materials and light refreshments during the course.
	Participants will have to cover their living costs while in Dar es Salaam.
	SCHOOL OF ENGINEERING AND ENVIRONMENTAL STUDIES

	Contact Person: Dr. Lukuba Swea Mobile No. 0759513171				
		WASTE MANAGEMENT AND RESOURCE RECOVERY (WASTE TO RESOURCE)			
19	Expected Learning Outcome	<ul> <li>Upon completion of the course the trained staff will be able to:</li> <li>Identify and select waste materials suitable for resource recovery in their surrounding environments.</li> <li>Select and operate the suit for use technologies (place-based technologies) in briquettes, biogas and maggot production.</li> <li>Produce alternative cooking and heating energies (briquettes and biogas) based on the waste materials available in their localities.</li> <li>Produce animal food, majorly for fish and poetry sector that is rich of concentrated protein and nutrients.</li> <li>Organize and impact resource basics to other communities or staffs interested in the sector.</li> </ul>			
	Target group	Tanzania Police Force (TPF), National Environmental Council (NEMC), Vice Presidents Office, Division of Environment (VPO-DOE), Ministry of Industry and Trade, Ministry of Investment, Research and Development Organizations, Livelihood Non-Government Organizations (NGO), Ministry of Labor and any other Interested organization or individual(s).			
	Location	Ardhi University (ARU) Compound			
	Duration	Two (2) weeks training (10 days)			
	Course fees	TZS 1,000,000/=. This amount will cover; facilitation, course materials, course delivery, certificates, refreshments and Lunch. Fee wave of up to 5% will be provided for institutions with more than three (3) participants.			
		BASIC CONCEPTS ON ADEQUATE SANITATION INTERVENTIONS			
20	Expected Learning Outcome	<ul> <li>Upon completion of the course the trained staff will be able to:</li> <li>Assess the adequate sanitation intervention that suits a particular case of concern.</li> <li>Apply the sanitation intervention(s) tools in planning, implementing and decommissioning the sanitation-based projects in both rural and urban settings.</li> </ul>			

		<ul> <li>Create and Organize sanitation campaign programs in rural and urban settings</li> <li>Design and manage home house hold-based sanitation facilities, including the wastewater/faecal sludge containments and re-use options.</li> <li>Create programs that influences decision making and prioritization of sanitation in education, health and community sectors.</li> <li>Understand and facilitate sustainable Menstrual Hygiene Management at all levels (Family, community and National levels).</li> </ul>
	Target group	<ul> <li>For Profit, and Non-Profit Organizations (NGOs) majored on School Water, Sanitation and Hygiene (SWASH), Menstrual Hygiene Management (MHM), WASH for Health facilities and Community based Sanitation interventions like; CLTS, CLUES, PHAST, Sanitation Marketing etc.</li> <li>Ministry of Health, Community development, Gender, Elderly and Childress;</li> <li>Ministry of Education, Science and Technology</li> <li>Research and Development Organizations</li> <li>Tanzania Police Force (TPF)</li> </ul>
	Location	To be agreed between ARU and Client
	Duration	One (1) week (5 days) training
	Course fees	TZS 700,000/=. This amount will cover; facilitation, course materials, course delivery, certificates, refreshments and Lunch. Fee wave of up to 5% will be provided for institutions with more than three (3) participants.
		ENVIRONMENTAL IMPACT ASSESSMENT (EIA) AND ENVIRONMENTAL AUDITING (EA)
21	Expected Learning Outcome	<ul> <li>Upon completion of the course the trained staff will be able to:</li> <li>Conduct the EIA on the proposed project</li> <li>Perform the EA of the ongoing projects</li> <li>Oversee the project to make sure that it abides to environmental legislation and regulations.</li> <li>Advice decision makers and the community on the adverse environmental and health impacts resulted by either the proposed or ongoing project</li> </ul>

	Target group	Manufacturing and Processing Industries, EIA and EA companies, National Management Council (NEMC), Tanzania Police Force (TPF), Research and Development Organizations, Vice Presidents Office- Division of Environment (VPO-DOE), Ministry of Investment, Ministry of Labor, and Interested Organizations/Individuals.	
	Location	To be agreed between ARU and Client	
	Duration	One (1) week (5 days) training	
	Course fees	TZS 500,000/=. This amount will cover; facilitation, course materials, course delivery, certificates, refreshments and Lunch. Fee wave of up to 5% will be provided for institutions with more than three (3) participants.	
	BASIC	CONCEPTS ON GEOGRAPHIC INFORMATION SYSTEM (GIS) AND REMOTE AND SENSING (RS)	
22	Expected Learning Outcome	<ul> <li>Upon completion of the course the trained staff will be able to:</li> <li>Customized shapefiles to fit the area of interest</li> <li>Digitize paper map</li> <li>Create; water delineations and project zone/boundaries/buffers</li> <li>Prepare Reports on Ground water quality and contamination traits and trends information on specific phenomenon like; Fire hazards, green spaces (including forests), water bodies, development/urbanization pattern</li> </ul>	
22	Target group	Consultants and companies. Construction companies. National Environmental Council (NEMC).	
	Location	To be agreed between ARU and Client	
	Duration	One (1) week (5 days) training	
	Course fees	TZS 500,000/=. This amount will cover; facilitation, course materials, course delivery, certificates, refreshments and Lunch. Fee wave of up to 5% will be provided for institutions with more than three (3) participants.	
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	Expected Learning Outcome	<ul> <li>Upon completion of the course the trained staff will be able to:</li> <li>Use models to predict the behaviour of the water and wastewater treatment plants during planning and operations.</li> <li>Acquire knowledge on model design, calibrations, simulation and</li> </ul>
	Target group	Water and wastewater sectorial stakeholders/workers, managers and researchers.
	Location	To be agreed between ARU and Client
	Duration	Three (3) days training
	Course fees	TZS 300,000/=. This amount will cover; facilitation, course materials, course delivery, certificates, refreshments and Lunch. Fee wave of up to 5% will be provided for institutions with more than three (3) participants.
		BASIC CONCEPTS ON ECOSYSTEM SERVICES
24	Expected Learning Outcome	<ul> <li>Upon completion of the course the trained staff will be able to:</li> <li>Understand the ecosystem services and disservices from both terrestrial and aquatic environment</li> <li>Categorize the ecosystem services namely, supporting, regulating, provisioning and cultural services</li> <li>Assess the risks and opportunities related to ecosystem services</li> <li>Evaluate the ecosystem services; ecological modelling and contribution of ecosystem services in community livelihood improvement</li> </ul>
	Target group	Processing and Manufacturing industries, Academia, Research and Developments Organizations, Community based organizations, Tanzania Police Force, Non-Government Organizations, National and International funder organizations.
	Location Duration	To be agreed between ARU and Client Two (2) days training

	Course fees	TZS 300,000/=. This amount will cover; facilitation, course materials, course delivery, certificates, refreshments and Lunch. Fee wave of up to 5% will be provided for institutions with more than three (3) participants.	
	APPLICATION OF INDUSTRIAL ECOLOGY CONCEPTS IN INDUSTRIALIZATION AND MODERNIZATION		
	Expected Learning Outcome	<ul> <li>Upon completion of the course the trained participants are expected to be competent on:</li> <li>Assessing environmental impacts of products, processes and services associated with industrial systems</li> <li>Applying ecological principles in identifying and implementation of strategies to reduce environmental impacts</li> </ul>	
25	Target group	Processing and manufacturing Industries, Environmental sectorial organizations, National Management Council (NEMC), Vice Presidents Office- Division of Environment (VPO-DOE), Community based Organizations, Municipalities, Tanzania Police Force (TPF) and any other interested Organization or Individuals.	
	Location	To be agreed between ARU and Client	
	Duration	Three (3) days training	
	Course fees	TZS 300,000/=. This amount will cover; facilitation, course materials, course delivery, certificates, refreshments and Lunch. Fee wave of up to 5% will be provided for institutions with more than three (3) participants.	

	SCHOOL	OF EARTH SCIENCES, REAL ESTATE STUDIES, BUSINESS AND INFORMA Department of Land management and Valuation (LMV) Contact person: Ms. Rebecca Milamo Mobile No. 0715900166	TICS (SERBI)
SN		COURSE PARTICULARS	TENTATIVE DATES
26		Strategic Implementation of Estate Management Policy in Tanzania's Police force	
	Expected Learning Outcomes	<ul> <li>upon completion of the course the trainees will be able to</li> <li>Gain knowledge on estate management policy.</li> <li>Acquire skills on how to translate estate management policy into practice</li> <li>Possess managerial skills so as to achieve economic satisfaction, profit, prestige, social welfare and sustainability in management of police estates.</li> </ul>	To comply with the
	Target Group	Police officers in the estate department, planning and quality control department, procurement department and Accounting department.	client's time schedule
	Location	To be agreed upon ARU and TPF	
	Duration	One (1) Week, five (5) days	
	Course fees	Tshs. 1,000,000 to cover, Course materials, course delivery, certificates lunch and refreshments	

		COURSE PARTICULARS	TENTATIVE DATES
27	Course Title	Maintenance Management of Landed Properties in Tanzania's	
		Police force	
	Expected Learning Outcomes	<ul> <li>upon completion of the course the trainees will be able to</li> <li>equip trainees with knowledge and maintenance</li> <li>acquire skills on how to carry out condition survey</li> <li>Apply maintenance knowledge acquired in planning, budgeting tendering, execution and supervision for maintenance activities.</li> </ul>	To comply with the client's time schedule
	Target Group	Police officers in the estate department, planning and quality control department, procurement department and accounting department.	
	Location	To be agreed upon ARU and TPF	
	Duration	One (1) Week, five (5) days	
	Course fees	Tshs. 1,000,000 to cover, Course materials, course delivery, certificates lunch and refreshments	
28	Course Title	Management of Housing stock for Tanzania's Police force	TENTATIVE DATES

		<ul> <li>upon completion of the course the trainees will be able to</li> <li>Understand management of housing stock</li> <li>Gain skills in handling tenant's mobility</li> <li>Implement energy management in housing stock</li> <li>Understand the implication of behavioral aspect in housing stock management.</li> </ul>	To comply with the client's time schedule
	Target Group	Selected police officers, Police officers in the estate department, planning and quality control department, procurement department and accounting department, police transportation officer's office	
	Location	To be agreed upon ARU and TPF	
	Duration	One (1) Week, five (5) days	
	Course fees	Tshs. 1,000,000 to cover, Course materials, course delivery, certificates lunch and refreshments	
29		Sustainable Estates Recording in Tanzania's Police force	
	Expected Learning Outcomes	<ul> <li>Upon completion of the course the trainees will be able to:</li> <li>the equip them with knowledge on estate recording system for a modern police force</li> <li>understand the best methods of administration of leases</li> <li>Create proper estates accounts</li> </ul>	
	Target Group	Police officers in the estate department, planning and quality control department, procurement department and Accounting department, police transportation officer's office	To comply with the client's time schedule
	Location	To be agreed upon ARU and TPF	

	Duration	One (1) Week, five (5) days	
	Course fees	Tshs. 1,000,000 to cover, Course materials, course delivery, certificates lunch and refreshments	
30		Management of Movable Assets in Tanzania's Police force offices	
	Expected Learning Outcomes	<ul> <li>Upon completion of the course the trainees will be able to:</li> <li>Understand asset management policy</li> <li>Classify different types of movable assets</li> <li>Understand different coding and tracking systems</li> <li>Understand asset disposal procedures.</li> </ul>	
	Target Group	Police officers in the estate department, planning and quality control department, procurement department and Accounting department, police transportation officer's office	To comply with the client's time
	Location	APC Building, Bunju-Dar es Salaam, Tanzania	schedule
	Duration	One (1) Week, five (5) days	
	Course fees	Tshs. 1,000,000 to cover, Course materials, course delivery, certificates lunch and refreshments	
31		Sustainable Facilities Management in police force	
	Expected Learning Outcomes	<ul> <li>Upon completion of the course the trainees will be able to:</li> <li>Comprehend the concepts and functions of facilities management</li> </ul>	

		<ul> <li>Classify different facilities within the organization in relation to its core mission</li> <li>Understand the legal framework on facilities management</li> <li>Apply facilities management skills in the organization</li> </ul>	To comply with the
	Target Group	Police officers in the estate department, planning and quality control department, procurement department and Accounting department, police transportation officer's office	client's time schedule
	Location	To be agreed upon ARU and TPF	
	Duration	One (1) Week, five (5) days	
	Course fees	Tshs. 1,000,000 to cover, Course materials, course delivery, certificates lunch and refreshments	
		SCHOOL OF SPATIAL PLANNING AND SOCIAL SCIENCE (SSPSS) Department of Economics and Social Sciences (ESS). Contact Person: Mr. Jimson Chumbula Mobile No. 0755555411	
32	Effective		
	Lilective	e Community Engagement Approaches for Crime Prevention	

	Target Group	Police officers involved direct and indirect interventions and programs related to engagement with communities	To comply with the client's time
	Location	To be agreed	schedule
	Duration	One (1) Week, five (5) days	
	Course fees	Tshs. 800,000 to cover, Course materials, course delivery, certificates lunch and refreshments	
33	Course name	Data-Driven Policing: Socio-demographic and Spatial Data Analysis for Public Safety	
	Expected Learning Outcomes	<ul> <li>Upon completion of the course the trainees will be able to:</li> <li>Understand the potential of data (including large datasets) for enhancing public safety</li> <li>Gain an understanding of the various data analytical tools for socio-demographic and spatial data</li> <li>ability to access and manage data sets for the purposes of criminal investigations and overall Police agency benefits</li> <li>Ability to analyze socio-demographic and spatial data to inform public safety interventions</li> </ul>	To comply with the client's time schedule
	Target Group	Police officers in the departments responsible for administration and resource management; operations; and criminal investigation, among others.	
	Location	To be agreed upon ARU and TPF	
	Duration	One (1) Week, five (5) days	

	Course fees	Tshs. 800,000 to cover, Course materials, course delivery, certificates lunch and refreshments	
34	Crowdsourcing Col and Strategies	mmunity Road Safety Education, Sensitization and Information: Needs	
	Expected Learning Outcomes	<ul> <li>Upon completion of the course the trainees will be able to:</li> <li>Understand community crowdsourcing and historical look at crowdsourcing road safety with global instances cited</li> <li>Understand importance and typologies of community crowdsourcing on road safety, as well as their tools for engagement</li> <li>Gain understanding on the needs and implementation of road safety strategies through community crowdsourcing in this era of digitalization</li> <li>Develop context-based community crowdsourcing engagement methods and processes for implementing road safety system approach on education, sensitization and information co-production</li> </ul>	To comply with the client's time schedule
	Target Group	Police officers responsible for road safety, road users' education, traffic incidents data, road rules and regulations, highway traffic safety administration, road safety research, among others.	
	Location	To be agreed upon ARU and TPF	
	Duration	One (1) Week, five (5) days	
	Course fees	Tshs. 800,000 to cover, Course materials, course delivery, certificates lunch and refreshments	
35	TITLE	Community Facilitation Skills	

	Objective	The course is designed to increase the ability of people who are working with the community in performing their change agent roles so as to change and empower the communities in various development matters	
	Target group	LGAs (CDOs, WEOs, VEOs), NGOs, CBOs, Masters and PhD students in social studies	
	Location	Ardhi University	
	Duration	1 Week	
	Course fees	600,000/=	
36	Title	Data Collection using Computer-Assisted Personal Interviewing (CAPI)	
	Objectives	Given the current fast-paced research landscape, efficient and accurate data collection is vital. This course is designed to offer hands-on training in Computer-Assisted Personal Interviewing (CAPI) techniques, so as to equip one with the knowledge and practical skills to collect high-quality data using digital tools and devices. The course will tackle practical aspects of CAPI such as how to design and customize electronic surveys, implement CAPI protocols, and effectively manage data in real-time.	
	Target group	Researchers, Officers from LGAs, NGOs, CBOs, Masters and PhD students in social studies	
	Location	Ardhi University	
	Duration	1 Weeks	
	Course Fees	TZS 700,000/=	

Ref		Department of Business Studies
		COURSE PARTICULARS
37	Course Title	Business Communication Skills
	Contact details	Mr. Bega Mobile: 0757965150/0717745113/0766961283
	Expected Learning Outcomes	Upon completion of the course, the trainee will be able to: Write and prepare professional reports, memo, letters and other communication documents; Read Comprehensive business communication documents and summarize them; Effectively listen and take notes in meeting, conferences and policy briefs; Prepare professional presentations to capture audience's attention; Present, deliver speech and respond to queries from audience
	Target Group	SMEs in all sectors, Consultancy firms, VICOBA, Business Development Officers, Marketers, Customer Service officers in All Sectors, Micro finance Institutions, Sole proprietorship and All Entrepreneurs at large.
	Location	Ardhi University, Dar es Salaam, Tanzania
	Duration	One (1) Week, five (5) days
	Course fees	Tshs. 750,000 to cover, Course materials, course delivery, certificates lunch and refreshments
Ref		COURSE PARTICULARS

Ref		Department of Business Studies
		COURSE PARTICULARS
38	Course Title	Legal and Regulatory framework for SMEs
	Contact details	Head Department of Business Studies, Att: Dr. Munisi, Mr. Bega & Mr. Nzowa P.O.Box 35176, Dar es Salaam. Email: <u>hodbs@aru.ac.tz</u> Mobile: 0752309909/0717745113/0766961283/0787472392
	Expected Learning Outcomes	The course intends to equip SMEs with knowledge and skills on business formalization, company registration and incorporation, licensing, post registration matters, legal and regulatory framework pertaining to business sector and case studies, group discussion and experience sharing.
	Target Group	Business Consultancy Firms, SEMs in all sectors, Creditor Officers, BDS Providers, All Entrepreneurs and Government Officials deal with SMEs such as Community Development Officers and Project Planning Officers.
	Location	Ardhi University, Dar es Salaam, Tanzania
	Duration	One (1) Week, five (5) days

Ref		Department of Business Studies
		COURSE PARTICULARS
	Course fees	Tshs. 750,000 to cover, Course materials, course delivery, certificates lunch and refreshments
Ref		COURSE PARTICULARS
39	Course Title	Entrepreneurship with Applications in Catering and Food Processing Sectors
	Contact details	Head Department of Business Studies, Att: Mr. Bega & Mr. Kansheba P.O.Box 35176, Dar es Salaam. Email: <u>hodbs@aru.ac.tz</u> 0717745113/0766961283/
	Expected Learning Outcomes	SMEs will be equipped with the knowledge and skills in Products Innovation, Branding, Business Planning, Sector Analysis, Market Positioning, Getting financing, Experience sharing and Case Studies
	Target Group	Business Consultancy Firms, SMEs especially in Catering and Food Processing Sector, Government Officials who oversee this sector, Individual Food Vendor and All Organizations that supporting SMEs in this Sector of Catering and Food Processing.
	Location	Ardhi University, Dar es Salaam, Tanzania

Ref		Department of Business Studies	
		COURSE PARTICULARS	
	Duration	One (1) Week, five (5) days	
	Course fees	Tshs. 1,000,000 to cover, Course materials, course delivery, certificates lunch and refreshments	
Ref		COURSE PARTICULARS	
40	Course Title	Advanced Financial Statement Analysis For Decision Support Systems	
	Contact details	Head Department of Business Studies, Att: Dr. Munisi & Mr. Ndaro P.O.Box 35176, Dar es Salaam. Email: <u>hodbs@aru.ac.tz</u> Mobile: 0752309909/0719566410	
	Expected Learning Outcomes	After completion of this program, the participants will be able to understand the financial statements, perform financial statements analysis, Understand the valuation techniques based on financial statements, Understand the key concepts in corporate finance, develop an organizational decision support system based on Advanced excel tools, imbed financial statement ratios into the decision support system	

Ref		Department of Business Studies	
		COURSE PARTICULARS	
	Target Group	Mid carrier professionals in Government ministries, LGAs, Business firms, Economics, Real estate and other interested participants	
	Location	Ardhi University, Dar es Salaam, Tanzania	
	Duration	One (1) Week, five (5) days	
	Course fees	Tshs. 750,000 to cover, Course materials, course delivery, certificates lunch and refreshments	
Ref		COURSE PARTICULARS	
41	Course Title	Financial Modeling with Advanced Excel Features	
	Contact details	Head Department of Business Studies, Att: Dr. Munisi & Dr. Alananga, CPA Nurdin P.O.Box 35176, Dar es Salaam. Email: <u>hodbs@aru.ac.tz</u> Mobile: 0752309909/0757965150	
	Expected Learning Outcomes	After completion of this program, the participants will be able to work more efficiently in excel and financial modeling, Understand advance excel tools to be used in finance, be able to develop the integrated financial model incorporating forecasting, sensitivity, scenario etc.	

Ref		Department of Business Studies	
		COURSE PARTICULARS	
	Target Group	Mid carrier professionals in Government ministries, LGAs, Business firms, Economics, Real estate and other interested participants	
	Location	Ardhi University, Dar es Salaam, Tanzania	
	Duration	One (1) Week, five (5) days	
	Course fees	Tshs. 750,000 to cover, Course materials, course delivery, certificates lunch and refreshments	
Ref		COURSE PARTICULARS	
42	Course Title	GIS application in Real Estate Market Analysis	
	Contact details	Head Department of Business Studies, Att: Dr. Alananga & Mr. Malisa P. O. Box 35176, Dar es Salaam. Email: <u>hodbs@aru.ac.tz</u> Mobile: 0757965150/0658202445	
	Expected Learning Outcomes	Upon completion of the course the trainee will be able to: Design and populate a Geo-database with real estate data, Analyse real estate market drivers in a GIS environment, Use satellite image to generate	

Ref		Department of Business Studies	
		COURSE PARTICULARS	
		real estate data, Tracking real estate phenomenon using GIS & Map real estate data and produce hard copies of the same	
	Target Group	Mid carrier professionals in Government ministries, LGAs, Business firms, Economics, Real estate and other interested participants	
	Location	Ardhi University, Dar es Salaam, Tanzania	
	Duration	One (1) Week, five (5) days	
	Course fees	Tshs. 1,000,000 to cover, Course materials, course delivery, certificates lunch and refreshments	
Ref		COURSE PARTICULARS	
43	Course Title	Application of GIS in Business, Social and Economic Data Analysis	
	Contact details	Head Department of Business Studies, Att: Dr. Alananga P.O.Box 35176, Dar es Salaam. Email: <u>hodbs@aru.ac.tz</u> Mobile: 0757965150/	

Ref		Department of Business Studies	
		COURSE PARTICULARS	
	Expected Learning Outcomes	Upon completion of the course the trainee will be able to: Design and populate a Geo-database with business, social and economic data, Analyse business, social and economic dynamics in a GIS environment, Capture business, social and economic using satellite imagery, Tracking business, social and economic phenomenon using GIS & Map business, social and economic data and produce hard copies of the same	
	Target Group	Mid carrier professionals in Government ministries, LGAs, Business firms, Economics, Real estate and other interested participants	
	Location	Ardhi University, Dar es Salaam, Tanzania	
	Duration	One (1) Week, five (5) days	
	Course fees	Tshs. 750,000 to cover, Course materials, course delivery, certificates lunch and refreshments	
Ref		COURSE PARTICULARS	
44	Course Title	Collateral Management using Geo-Spatial Techniques	
	Contact details	Head Department of Business Studies,	

Ref		Department of Business Studies
		COURSE PARTICULARS
		Att: Dr. Alananga & Mr. Bega P.O.Box 35176, Dar es Salaam. Email: <u>hodbs@aru.ac.tz</u> Mobile: 0757965150/0717745113/0766961283
	Expected Learning Outcomes	Upon completion of the course the trainee will be able to: Collect location data for collaterals using simple hand held GPS/Mobile phone; Design and populate a Geo-database with collateral attribute as well as spatial data, Analyse collateral risks in a GIS environment, Capture collateral information using satellite imagery, Track risky collateral information over time using GIS & Generate collateral information map and use them to support decisions on collateral.
	Target Group	Mid carrier professionals in Banks, Real estate and other financial institutions
	Location	Ardhi University, Dar es Salaam, Tanzania
	Duration	One (1) Week, five (5) days
	Course fees	Tshs. 1,000,000 to cover, Course materials, course delivery, certificates lunch and refreshments
Ref		COURSE PARTICULARS

Ref		Department of Business Studies
		COURSE PARTICULARS
45	Course Title	Quantitative Data Analysis with SPSS, STATA & R
	Contact details	Head Department of Business Studies, Att: Dr. Alananga & Mr. Kansheba, CPA Nurdin P.O.Box 35176, Dar es Salaam. Email: <u>hodbs@aru.ac.tz</u> Mobile: 0757965150/
	Expected Learning Outcomes	Upon completion of the course, trainee will be able to collect organize and prepare quantitative data for subsequent analysis, Enter and import data across data analysis software, Examine data in terms of simple descriptive statistics, Analyse and present ANOVA results, Analyse cross sectional data using different regression tools, Analyse time series data using standard approaches and tests, Collect, organize and prepare panel data for subsequent analysis in different software: Summarise and analyse panel data using appropriate panel data methods, Carry out sensitivity analysis depending on the method of analysis and Scientifically report quantitative analysis results in monograms, thesis, research articles and other scientific platform
	Target Group	Mid carrier professionals in public and private sectors; Masters and PhD students; data analysts in banks and consultancy firms and other researchers in academic institutions

Ref		Department of Business Studies
		COURSE PARTICULARS
	Location	Ardhi University, Dar es Salaam, Tanzania
	Duration	One (1) Week, five (5) days
	Course fees	Tshs. 1,000,000 to cover, Course materials, course delivery, certificates lunch and refreshments
Ref		COURSE PARTICULARS
46	Course Title	Value Chain Analysis with Economic Linkages: Applications in the Oil, Gas and Mining Sectors
	Contact details	Head Department of Business Studies, Att:Mr.Nurdin & Ms.Lisa P.O.Box 35176, Dar es Salaam. Email: <u>hodbs@aru.ac.tz</u> Mobile: 0717158960/0766910303
	Expected Learning Outcomes	On completion of the course, participants will have a clear understanding of the investment alongside the oil, gas and mining sector from the upstream, midstream and downstream, Investment opportunities, Challenges affecting the existing investors in the sectors, strategies to win the clients in the sector, Laws and regulations to adhere for smooth business operation in the value

Ref		Department of Business Studies	
		COURSE PARTICULARS	
		chain, Introduction to economic linkages. Local employment, Local procurement, Enabling tech transfer and Downstream linkages and Energy transition and decarbonization	
	Target Group	Sustainable development practitioners; Extractive practitioners, Entrepreneurs who wish to invest in the value chain supporting services, Graduate students on extractives, sustainable development and Climate change activists or practitioners.	
	Location	Ardhi University, Dar es Salaam, Tanzania	
	Duration	One (1) Week, five (5) days	
	Course fees	Tshs. 1,000,000 to cover, Course materials, course delivery, certificates lunch and refreshments	
Ref		COURSE PARTICULARS	
47	Course Title	Public Finance and Taxation in Practice	
	Contact details	Head Department of Business Studies, Att: Dr.Munis, CPA. Ndaro & CPA. Nurdin P.O.Box 35176, Dar es Salaam.	

Ref		Department of Business Studies
		COURSE PARTICULARS
		Email: <u>hodbs@aru.ac.tz</u> Mobile: 0717159960/
	Expected Learning Outcomes	Upon completion of the course, trainee will be able to understand how taxes are computed within the different set of business operations and specialized sector such as Mining and oil and gas sector. What are the basis of Tax estimates to companies and Small and Medium Enterprises (SMEs), What steps to follow to avoid penalties and interest on the payment of various taxes, What are different taxes that a business must know and what are the due dates for payment of taxes. Fiscal system and tax laws to adhere as a company and SMEs. Other tax issues. International taxation, Transfer pricing and Upstream oil and Gas Taxation
	Target Group	International Oil, Gas and Mineral Companies, International Companies, Local Companies in All sectors, SMEs in all sectors, Consultancy firms, VICOBA, Business Development Officers, Marketers, Customer Service officers in All Sectors, Micro finance Institutions, Sole proprietorship and All Entrepreneurs at large.
	Location	Ardhi University, Dar es Salaam, Tanzania
	Duration	One (1) Week, five (5) days

Ref		Department of Business Studies	
		COURSE PARTICULARS	
	Course fees	Tshs. 1,000,000 to cover, Course materials, course delivery, certificates lunch and refreshments	

48	Name of the	SCHOOL OF SPATIAL PLANNING AND SOCIAL SCIENCES Department of Urban and Regional Planning <i>Contact Mr. Amedeus Kimaro 0785122441</i>	
40	Course	GIS APPLICATION FOR URBAN PLANNING	
	Introduction	A GIS or geographic information system integrates hardware, software, and data for capturing, managing, analyzing, and displaying all forms of geographically referenced information. A GIS helps you in answering question and solve problems by analyzing the data provided and making it easier to understand and share. <b>Geographic Information</b> <b>System is</b> one of the latest and most advanced systems till date to help organize spatial data. It is an information system that is used to <b>input, store, retrieve,</b> <b>manipulate, analyze and output</b> geographically referenced data or geo-spatial data in various forms which gives relationships, patterns, and trends in different forms like maps, globes, reports, and charts. This helps planners to support decision-making for planning and management of land use and natural resources. It can also be considered as a computer-based mapping tool that allows users to manipulate large sets of data as layers or themes.	

	Expected Learning outcomes	Upon completion of this course, the participants should be able to: Perform GIS functions of geographic information system: Capture Data Store Data Query data Analyze data Display Data Produce Output and, Understand and perform classifications on data for analysis operations; Understand and perform Overlay operations; Understand and perform Neighbourhood analysis; Understand and create Models for spatial analysis operations using QGIS tools; Create proper visualizations of analysis results;
	Course Content	<ul> <li>Classify Geographic data for spatial analyses operations.</li> <li>Neighbourhood analysis for describing land uses patterns.</li> <li>Modelling and formulate expressions for analysis operations.</li> <li>Representation of analysis results.</li> </ul>
	Course Fee	TZS 700,000/ The course fee will cater for tuition fee, course materials, Compiled Notes, Certificates, QGIS software starter pack and other consumables.
	Location	To be agreed between ARU and Clients
	Duration	3 weeks
49	Name of the Course	Spatial data collection and Web Spatial Data Infrastructure for urban planning -URP
	Introduction	The target for this course to study the use of WEB GIS open-source solution for workflow organizing rban planning documentation: zoning permit, building permit, occupancy permit, utilities connection land use data storage.

	Expected Learning outcomes	<ul> <li>Upon completion of the course, participants will be able to:         <ul> <li>(iv) apprehend the concept of Geo-Node as a Spatial Data Infrastructure; Install Geo-Node;</li> <li>(v) acquire skills pertaining to Managing Layers, Managing Maps, Managing Documents, Publishing Data;</li> <li>(vi) Use Geo-Node with Other Applications such as QGIS and Google Earth; Administering Geo-Node; Manipulate groups, categories, metadata, menus; Perform Geo-Node customization to suit particular organization need.</li> </ul> </li> </ul>
	Target group	Professionals in Government such as MLHHSD, National Land Use Planning Commission, Tanzania Forest Services Agency (TFS), TANAPA, International organizations such as USAID, DFID, GIZ, SIDA, DANIDA, KOICA etc., Land officers, NGOs undertaking land projects such as HAKI ARDHI, TAWLA etc. Business firms, and other interested participants
	Course Fee	Tshs. 800,000 to cover, Course materials, course delivery, certificates lunch and refreshments
	Location	To be agreed between ARU and Clients
	Duration	3 Week
50	Name of the course	Mobile data collection for Urban planners-ODK and OMK
	Introduction	Recently, the use of mobile communication devices, such as smart phones and cellular phones, in field data collection is increasing due to the emergence of embedded Global Position Systems (GPS) and Wi-Fi Inter-net access. Accurate, timely and handy field data collection is required for proper town planning and quick response during emergencies that are as a results of town planning challenges.

Overview	In the past, data collection was performed using paper and pen, which made it prone to error, difficult to conduct on a large scale, and high in transaction costs. ICT tools such as mobile devices and software that allow users to create surveys, collect, manage, and upload data to cloud storage facilities in real-time have reduced the conventional challenges associated with remote data collection. One of the commonly used tools is ODK (Open Data Kit). Open Data Kit has been used to observe elections, monitor rainforests, track outbreaks, conduct one-off surveys, rapid assessments, baseline studies, project mid-term evaluation, project end-term evaluation, market research, during and directly following disasters, and in many other cases. This course is a hands-on, step-by-step guide that will teach learners how to set up, administer, and manage a mobile-based data collection platform using ODK.	
Objectives	<ul> <li>Course Objectives</li> <li>This online training course in Mobile Data Collection using Open Data</li> <li>Kit (ODK) will teach learners how to: <ul> <li>Build/design forms (Digitize questionnaires) in ODK Build and in Microsoft Excel (XLSForm syntax)/Spreadsheet</li> <li>Check for xlsform syntax errors, validate forms and convert xlsform to XForm</li> <li>Setup a free sub-domain on Free DNS</li> <li>Set up an account on Digital Ocean</li> <li>Setup ODK Aggregate server on Digital Ocean</li> <li>Collect data offline on mobile devices using ODK Collect.</li> <li>Upload and aggregate collected data in a cloud server</li> <li>Visualize, manage, analyze and map data online</li> <li>Download data from the cloud server for further analysis</li> </ul> </li> </ul>	

	Additional Benefits	<ul> <li>Digitize any paper-based questionnaire to an ODK compatible format using MS Excel and ODK Build</li> <li>Setup a free sub-domain on Free DNS</li> <li>Setup and operate an account in Digital Ocean VPS</li> <li>Setup and operate an ODK aggregate server in Digital Ocean</li> <li>Setup ODK Collect and collect data offline on mobile devices</li> <li>Upload data to a cloud-based ODK Aggregate server</li> <li>Analyze, visualize and map data online on ODK aggregate</li> <li>Download data from ODK aggregate using ODK Briefcase for further analysis using software such as MS. Excel, Stata, SPSS, R, etc</li> </ul>	
	Target group	Professionals in Government such as MLHHSD, National Land Use Planning Commission, Tanzania Forest Services Agency (TFS), TANAPA, International organizations such as USAID, DFID, GIZ, SIDA, DANIDA, KOICA etc., Land officers, NGOs undertaking land projects such as HAKI ARDHI, TAWLA etc. Business firms, and other interested participants	
	Course Fee	TZS 300,000 to cover, Course materials, course delivery, certificates lunch and refreshments	
	Location	To be agreed between ARU and Clients	
	Duration	2 Week	
		INFORMATION AND COMMUNICATION TECHNOLOGY DIRECTORATE	
51	Name of the Course	INTRODUCTION TO PRINCIPLES AND APPLICATION OF GEOGRAPHICAL INFORMATION SYSTEM (GIS)	TENTATIVE DATES

Course Objective Mode of Teaching Learning	The main objective of the training is to provide participants with knowledge and skills related to GIS and its applications in land management, revenue collection and management. More specifically, the training will introduce participants to spatial and attribute data concepts, including data collection, management, processing and presentation. The training will be delivered through PowerPoint presentations and hands-on computer exercises using ArcGIS Pro/QGIS software. In addition, there will be group discussions and participant presentations. Participants are encouraged to bring their own data related to day-to-day activities to be used in the case study. However, the ICT Directorate has sufficient datasets for participants to use in the exercises. Upon completion of the course, participants will be able to describe the main concepts of GIS and perform GIS data input, management, analysis and visualisation using ArcGIS Pro/ QGIS software.	To comply with the
outcome Award	Additionally, participants will be able to use ArcGIS Pro/ QGIS software. Additionally, participants will be able to use ArcGIS Pro/ QGIS to solve real-world problems related to their daily activities. Upon successful completion of the course, participants will be awarded a Certificate of attendance from Ardhi University on Introduction to Principles and Applications of GIS.	client's time schedule
Course Fee	The course fee per participant is <b>TZS 750,000/=</b> , which covers tuition fees, stationery, tea, and refreshments.	
Location	ICT Computer Lab Ardhi University	
Duration	2 weeks	
Contacts	For more information and enquiries, please do not hesitate to reach out to us through our contact information below. Email: <u>editha.temu@aru.ac.tz</u> , <u>ictsupport@aru.ac.tz</u> or <u>edithatemu.et@gmail.com</u> Phone: 0754-607694, 0715-607694 or 0754- 372054	