



REGIONAL CENTRE FOR MAPPING OF RESOURCES FOR DEVELOPMENT

RCMRD INTERNATIONAL CONFERENCE 2018

Conference Programme

#RIC2018

15th – 17th August 2018



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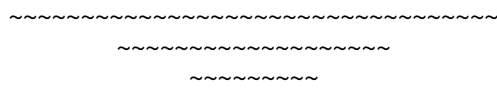
RCMRD INTERNATIONAL CONFERENCE 2018

Day 1: Wednesday, 15-August-2018

TIME	AGENDA ITEM	MODERATORS	VENUE	
07:30 – 09:00	REGISTRATION	Stella/ Elizabeth/ Lucy /Grace / Jacinta / Rose/ Ushers	Plenary Tent	
09:00 – 09:45	<p>OPENING CEREMONY</p> <p>Welcome notes from invited Guests</p>	<p>Participating Institutions</p> <ul style="list-style-type: none"> ▪ Digital Globe ▪ National Aeronautics and Space Administration (NASA-USA) ▪ USAID Kenya ▪ Director General RCMRD ▪ Ambassadors from RCMRD Member States ▪ Government of Kenya ▪ Chief Guest - RCMRD Governing Council 	<p>Byron / J.B. Kiema</p> <p>Rapporteurs Lilian / David / Sande / Jacinta</p>	Plenary Tent
09:45 – 10:30	<p>Key Note Speaker I: Science Policy Linkage</p>	<p>Nicholas Ozor African Technology Policy Studies Network (ATPS)</p>	<p>Byron Anangwe</p> <p>Rapporteurs Lilian / David / Sande / Jacinta</p>	Plenary Tent
10:30 – 10:35	LAUNCH OF RCMRD eLEARNING PLATFORM	Byron Anangwe	Plenary Tent	
10:35 – 11:30	TEA BREAK & EXHIBITION / POSTERS	<p>Booth Attendants Eunice, Lawrence, Eva & Masatu</p>	Exhibition Booth	

11:30 – 13:00	PLENARY SESSION: Main Topic: Science Policy Linkage	Participating institutions <ul style="list-style-type: none"> ▪ Digital Globe ▪ Amazon Web Services ▪ The Kenya Institute for Public Policy Research and Analysis ▪ LECRD(Low Emission and Climate Resilient Development) ▪ Ministry of Energy and mineral development Uganda ▪ Ministry of Health - UK ▪ Rwanda Land Management and Use Authority ▪ Conservation International ▪ Locate It ▪ Ministry of Local Government Lesotho ▪ Ministry of Water and sanitation - Kenya 	Moderator Nicholas Ozor Rapporteurs Lilian / David / Sande / Jacinta	Plenary Tent
13:00 – 14:00	LUNCH BREAK			
PARALLEL SESSIONS - PRESENTATIONS				
14:00 – 16:30	Agriculture and Food Security	Land Use Land Cover and Ecosystems	Weather, Climate, Water & Hydro Climatic Disasters	Cross Cutting and Land Surveying & Management
	Venue: Room 1 Moderator: Thierry / Degelo Facilitators: James / Steve Rapporteurs: Sande / Lilian	Venue: Room 2 Moderator: Kim / Muya Facilitators: Malachi / Oware Rapporteurs: Jacinta/ Makanga	Venue: Room 3 Moderator: Ron/ Mugo Facilitators: Denis / Tony Rapporteurs: Grace / Abdi	Venue: Plenary Tent Moderator: Esther/ Mtaroni Facilitators: David / Mordecai Rapporteurs: Ian /Patrick

	<ul style="list-style-type: none"> ▪ AFS006: Data Driven Agriculture for Increased Productivity and Agricultural Commercialization ▪ AFS007: Modelling Large-Scale Smart Coffee Agriculture and Environmental Factors Suitability Zones in Maraba, Rwanda ▪ AFS008: Crop Suitability Modelling For Agricultural Productivity ▪ AFS010: Integrated Sentinel 2 Optical and Sentinel 1 Radar Images For Mapping Of Rice Crop in Fogera Wereda, Ethiopia ▪ LMS006: Land based data platforms, applications, progress and improvements for decision making 	<ul style="list-style-type: none"> ▪ LULC003: Using Collect Earth to Assess and Monitor Forest Cover in Kenya ▪ LULC008: Economic valuation of Mabira forest in Uganda: a contingent valuation method ▪ LULC010: Land cover change and urban growth prediction of the coastal city of Lagos, Nigeria using the Land Change Modeler ▪ LULC020: Mapping threatened tree species using WorldView-2 data and advanced machines leaning classification algorithms, KwaZulu–Natal, South Africa ▪ LUCL022: Beyond Biodiversity - Using Geo-information to Drive Conservation and Development Decision Making 	<ul style="list-style-type: none"> ▪ WC001: Evaluation of Climate Change Impact on the Magnitude of Rainfall and Flood Frequency: The Case of Hare Watershed, Ethiopia ▪ WC006: The influence of calibration data on Empirical-Statistical Downscaling of temperature projections for Tanzania ▪ WRD002: Responses of evapotranspiration to climate and land use changes in the Lake Naivasha Basin, Kenya ▪ WRD010: Seismic Risk Awareness and Emergency Preparedness in Zimbabwe: A case study of Harare Metropolitan City ▪ WRD012: An Analysis of Landslides Hotspots in Phalombe, Malawi 	<ul style="list-style-type: none"> ▪ CR010: The Power of Geographic Information System and Remote Sensing in the Development of Conservancy Management Plans: A case Study of Mara-Siana Conservancy. ▪ CR012: Bringing Together and Building the Next Generation of Space Scientists and Policy Makers ▪ CR015: Spatial Equity in Devolved Healthcare: Does Proximity Translate to Improved Local Utilizations of Maternal Healthcare ▪ CR020: The Developmental and Security Impacts of Land Use Conflict between Farmers and Pastoralist in South Sudan ▪ CR025: Stop-and-Go UAV Positioning In GNSS Denied Environments: Overhead Electrical Transmission Line Design
16:30 – 17:00	TEA BREAK & EXHIBITION / POSTERS			



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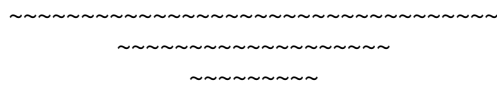
Day II: Thursday, 16-August-2018

TIME	AGENDA ITEM	MODERATORS	VENUE
07:30 – 09:00	REGISTRATION	Stella/ Elizabeth/ Lau /Lucy /Grace/ Rose	Plenary Tent
09:00 – 09.30	Key Note Speaker II: Sustainable Development Goals	Etta D. Jackson The Institute for Conscious Global Change (ICGC)	Plenary Tent
	Key Note Speaker III: Power of data sharing	Andre Laperriere Global open Data for Agriculture and Nutrition (GODAN)	
09:30 – 10.30	PLENARY SESSION: Main Topic: Sustainable Development Goal	Participating institutions <ul style="list-style-type: none"> ▪ Barcelona Drone Centre ▪ Trans African Hydro Meteorological Observatory ▪ 4-H ▪ Umeme Uganda ▪ Tanzania Meteorological Authority ▪ Kenya National Highway Authority ▪ Land Matrix initiative ▪ Optron ▪ Geospatial Society of Kenya ▪ Kenya Meteorological Department ▪ RCMRD 	Moderator Etta D. Jackson Rapporteurs Lilian / David / Sande / Jacinta

10:30 – 11:30	TEA BREAK & EXHIBITION / POSTERS		Booth Attendants Eunice, Lawrence, Eva & Masatu	Exhibition Booth
PARALLEL SESSIONS - PRESENTATIONS				
11:30 – 13:00	1. Agriculture and Food Security	2. Land Use Land Cover and Ecosystems	3. Weather, Climate, Water & Hydro Climatic Disasters	4. Cross Cutting and Land Surveying & Management
	<p>Venue: Room 1 Moderator: Thierry / Degelo Facilitators: James / Albert Rapporteurs: Sande / Lilian</p> <ul style="list-style-type: none"> ▪ AFS002: <i>Planting With First Effective Rains a Hidden Potential in Rainfed Production in Hwedza, Zimbabwe</i> ▪ AFS005: <i>Empirically Based Spatial Prioritization: Mapping where Child Nutrition is most affected by Local Environmental Conditions</i> ▪ AFS011: <i>Object Based Image Analysis for Irrigated Area Mapping Using Sentinel Satellite Images in Blue Nile Basin, Ethiopia</i> ▪ AFS015: <i>Temporal Analysis of C-Band Radar Signature to Estimate Agricultural Areas in Senegal.</i> ▪ LMS002: <i>Strengthening capacity for land governance performance monitoring and link to SDGs</i> 	<p>Venue: Room 2 Moderator: Esther / Muya Facilitators: Malachi / Sakwa Rapporteurs: Jacinta/ Makanga</p> <ul style="list-style-type: none"> ▪ LULC001: <i>Can Science be integrated in daily Management of MPAs in the Western Indian Ocean Region</i> ▪ LULC004: <i>Development of a Web Based Map Catalogue System for KeNHA</i> ▪ LULC006: <i>Optimizing Mine Planning: Applying the Integrative Power of Spatial Models and System Dynamics under Divergent Land Use Scenarios</i> ▪ LULC016: <i>Land Cover Change Mapping Under the System for Land Based Emissions Estimation in Kenya (SLEEK)</i> ▪ LULC018: <i>Integrating topographic factors with Sentinel-2 MSI data to map and predict C3 Festuca and coexisting C4 grass species distribution in Fort Nottingham commonage rangeland, South Africa</i> 	<p>Venue: Room 3 Moderator: Ron/ Mugo Facilitators: Denis / Tony Rapporteurs: Grace / Abdi</p> <ul style="list-style-type: none"> ▪ WC002: <i>Enhanced Climate change Resilience and Improved Livelihoods of Vulnerable Rural Communities Migori County, Kenya</i> ▪ WC008: <i>Remote sensing based retrieval of Local Climate Zones and their link with land surface temperature in Harare metropolitan city, Zimbabwe</i> ▪ WRD004: <i>Predicting soil erosion and sediment yield assessment using the EPM models: The case of Imini, Elmaleh and Ounilla river catchment</i> ▪ WRD007: <i>Unlocking the potential of Rwanda Nyabarongo urban wetland through the effective management practices</i> ▪ WRD009: <i>Regional monitoring of irrigation and water uptake in Desert areas</i> ▪ WRD013: <i>Unmanned Aerial Vehicles and Geospatial Tools</i> 	<p>Venue: Plenary Tent Moderator: Kim/ Vincent Facilitators: David / Mordecai Rapporteurs: Ian /Patrick</p> <ul style="list-style-type: none"> ▪ CR002: <i>Assessing the Impact of Urbanization on Green Space Cooling Intensity in Kampala Metropolitan Area</i> ▪ CR004: <i>Urban Sprawl Mapping and Land use Change Detection Using Spatial Metrics Method: A Case Study of Addis Ababa City and Its Surrounding Areas, Ethiopia</i> ▪ CR007: <i>Health risk evaluation of heavy metals in water within and around the Kpawara River in Bétaré-Oya mining district, East Cameroon</i> ▪ CR014: <i>Application of GIS in Customer Survey Processes in Umeme</i> ▪ CR016: <i>Digital Urban Mapping of Mombasa County</i> ▪ CR023: <i>Identifying urban neighborhood type in satellite imagery using convolutional</i>

	<ul style="list-style-type: none"> ▪ LMS003: A methodology for incorporation of customary tenure into the formal Land Administration System (LAS) in Kenya. 	<ul style="list-style-type: none"> ▪ LULC019: Application of Space Technology to Estimate the Area under Tea (Hectares) in Kenya 	Application in Disaster Management in Kenya; A Case Study of the Lower Tana and Athi River Basins	neural networks in a developing country setting
	5. DEVELOPER SESSION: Venue: Room 4 Moderator: Kennedy Ng'ang'a Facilitators: Steve/ Hillary Rapporteurs: Oware		<ul style="list-style-type: none"> ▪ Safi Analytics: Yield prediction using Deep learning ▪ Life in GIS: SpatiaLite Databases for Community Mapping 	
13:00 – 14:00	LUNCH BREAK			
14:00 – 16:30	1. Agriculture and Food Security	2. Land Use Land Cover and Ecosystems	3. Weather, Climate, Water & Hydro Climatic Disasters	4. Cross Cutting and Land Surveying & Management
	Venue: Room 1 Moderator: Thierry / Degelo Facilitators: James / Albert Rapporteurs: Sande / Lilian <ul style="list-style-type: none"> ▪ AFS001: Practices and perceptions of pesticide use in tropical wetlands: an assessment from the Nyabarongo lower catchment in Kigali, Rwanda ▪ AFS003: Validation of remote sensed data (WRSI and cNDVI) using FAO Aqua crop model a need for crop monitoring in Zimbabwe ▪ AFS004: Evaluation of suitability of Loitikipi Aquifer for Agricultural project using GIS 	Venue: Room 2 Moderator: Esther / Muya Facilitators: Malachi / Sakwa Rapporteurs: Jacinta/ Makanga <ul style="list-style-type: none"> ▪ LULC002: New ways for analyzing economic impact of investments in sustainable land use Using Satellite Imagery to Assess Impacts of Soil and Water Conservation Measures: Evidence from Ethiopia's Tana Beles Watershed ▪ LULC005: Monitoring the spatio-temporal variations of C3/C4 grass species using multispectral remote sensing ▪ LULC013: Application of Collect Earth and Remote Sensing In 	Venue: Room 3 Moderator: Ron/ Mugo Facilitators: Denis / Tony Rapporteurs: Grace / Abdi <ul style="list-style-type: none"> ▪ WC003: Reducing Drought Risk through Minimizing Post harvest losses, 2018 ▪ WC005: Evaluation of rainfall simulations over Uganda in CORDEX Regional Climate Models ▪ WC009: Aerosol Optical Depth Pathways and Sources; Lake Victoria Basin ▪ WRD006: Use of remotely sensed satellite data (MODIS) to assist in Flood monitoring and damage assessment: A case study of areas 	Venue: Plenary Tent Moderator: Kim/ Vincent Facilitators: David / Mordecai Rapporteurs: Ian /Patrick <ul style="list-style-type: none"> ▪ CR001: Geospatial Analysis of the Electricity Distribution Network in Central and Eastern Uganda by the Ministry of Energy ▪ CR003: Analysis of Lead, Copper and Cadmium Concentration in the Soil of Anka, Zamfara State, Nigeria ▪ CR005: Ethiopian Geospatial Information Agency

	<p>and Remote Sensing in Turkana County, Kenya</p> <ul style="list-style-type: none"> ▪ AFS009: In-season Maize Crop Monitoring with Radar Satellites- case study of Endebess, Kenya ▪ LMS004: New ways for streamlining tenure regularization and improving property tax collection using satellite imagery: ▪ LMS005: Impact of Spatial Transactions on Land Transfer Boost In Rwanda 	<p>Forest Carbon Stock Estimation and Land Use Land Cover Changes in Mau Forest Narok County, Kenya</p> <ul style="list-style-type: none"> ▪ LULC017: Integrating Landsat and R Shiny for Land Cover Change Analysis along the Coastal Shores of Kwale County, Kenya ▪ LULC021: Land Use and Land Cover Changes Assessment in Muranga County Using Collect Earth and High Resolution Images 	<p>around Mai Mahiu_ Suswa Section, Kenya.</p> <ul style="list-style-type: none"> ▪ WRD007: Unlocking the Potential of Rwanda Nyabarongo Urban Wetland Through the Effective Management practices ▪ WRD008: Rapid Flood Mapping using Sentinel-1 SAR C for Emergency Response. 	<ul style="list-style-type: none"> ▪ CR013: Fate Of Remnant Natural Patches in Cities: The Case of Kampala Region ▪ CR017: Optimal Location of Health Facilities ▪ CR022: An open source web GIS tool for analysis and visualization of elephant GPS telemetry data, alongside environmental and anthropogenic variables
	<p>5. DEVELOPER SESSION: Venue: Room 4 Moderator: Kennedy Ng'ang'a Facilitators: Oware/ Hillary Rapporteurs: Steve</p>		<ul style="list-style-type: none"> ▪ What's trending: Open Source Tools, Web Mapping Platforms, Useful libraries, Innovations, Mobile Computing etc 	
16:30 – 17:00	TEA BREAK & EXHIBITION / POSTERS			



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Day III: Friday, 17-August-2018

TIME	AGENDA ITEM	MODERATORS	VENUE
07:30 – 09:00	REGISTRATION	Stella/ Elizabeth/ Lau /Lucy /Grace/ Jacinta/ Rose	Plenary Tent
09:00 – 09.20	Key Note Speaker III: Role of Universities in Geospatial Technology Development	Michael Gould The Institute for Conscious Global Change	Plenary Tent
	Key Note Speaker III: Land Tenure and governance within IGAD region	Esther Obaikol Land governance project (IGAD/LPI)	
09:20 – 10.00	PLENARY SESSION: Main Topic: Role of Universities in Geospatial Technology Development	Participating institutions <ul style="list-style-type: none"> ▪ Kenyatta University ▪ Makerere University ▪ University of Kwazulu Natal ▪ Mekelle University ▪ University of Zimbabwe ▪ University of Nairobi ▪ Jomo Kenyatta University of Agriculture and Technology ▪ University of Malawi ▪ Jaramogi Oginga Odinga University of Science and Technology ▪ Taita Taveta University ▪ RCMRD 	Plenary Tent
10:00 – 10.30	LIGHTNING TALKS	Mubea / Wanjohi / Steve / Kibui	Plenary Tent

10:30 – 11:30	TEA BREAK & EXHIBITION / POSTERS		Booth Attendants Eunice, Lawrence, Eva & Masatu	Plenary Tent
PARALLEL SESSIONS - PRESENTATIONS				
11:30 – 13:00	Agriculture & Food Security and Land Surveying & Management	Land Use Land Cover and Ecosystems	Weather, Climate, Water & Hydro Climatic Disasters	Cross Cutting
	<p>Venue: Room 1 Moderator: Thierry / Degelo Facilitators: James / Steve Rapporteurs: Sande / Lilian</p> <ul style="list-style-type: none"> ▪ AFS012: Application of remote sensing to assess and improve the level of homogeneity within the currently used agricultural area frames in Rwanda ▪ AFS013: Potentials and constraints of remote sensing application in crop health ▪ AFS014: Using factor analysis to categorize and map ecological variables influencing maize lethal necrosis disease in Bomet County, Kenya ▪ AFS016: Access the impact of GIS model on agricultural economics. (By GIS technology adoption) ▪ LMS001: Development of a Modern Digital Cadastral Model to Support General Boundary Systems in Kenya 	<p>Venue: Room 2 Moderator: Esther / Muya Facilitators: Malachi / Oware Rapporteurs: Jacinta/ Makanga</p> <ul style="list-style-type: none"> ▪ LULC007: Forests, Fences, and Livelihoods: a case study of conservation in Kenya ▪ LULC009: Estimating vegetation phenology at 30m resolution with multi-temporal optical imagery for a rangeland site in Kenya ▪ LULC011: The fusion of freely available passive and active remote sensing imagery for invasive alien plant detection and mapping ▪ LULC012: Indicators and Drivers of Land Degradation in Makueni County. ▪ LULC014: An Assessment of Greenhouse Gases Emissions in Central Kenya using GOSAT Observations ▪ LULC015: Multi-sensor approach for mapping honeybee habitats in fragmented landscapes in Kenya 	<p>Venue: Room 3 Moderator: Ron/ Mugo Facilitators: Denis / Tony Rapporteurs: Grace / Abdi</p> <ul style="list-style-type: none"> ▪ WC004: Climate change Impacts on Tourism in East Africa ▪ WC007: Assessing Climate Change over Kenya in the 21st Century using MarkSim Statistical Downscaling Model ▪ WRD001: Comparative study on spatial variability of top soil moisture content and carbon stocks as influenced by land use types and soil and water conservation structures in Semi-arid highlands of Northern Ethiopia ▪ WRD003: Shoreline Detection in Lake Chamo, Ethiopia: A Comparison of Water Extraction Indices ▪ WRD005: Evaluation of Management Practices for Sustainability of Water Resources in Aror River Watershed, Kenya 	<p>Venue: Plenary Tent Moderator: Kim/ Vincent Facilitators: David / Mordecai Rapporteurs: Ian /Patrick</p> <p>CR006: Gaps in Institutional Interplay on Balancing Food Production and Environmental Protection in Wetlands of East Africa</p> <p>CR008: Assessment of Soil Organic Carbon in Malawi CR009: GIS Technology in Automating Distribution Power Line and Asset Inspection in Umeme</p> <p>CR011: Building Cities' Biodiversity Portfolios: The Mapping of Urban Natural Assets for Resilience in Kampala, Uganda</p> <p>CR018: Cultural Factors Influencing Full Participation of Rural Women in Crop Farming In Kakelo Location, Homa Bay County</p>

	<ul style="list-style-type: none"> ▪ LMS007: Ministry of Local Government and Chieftainship, Department of Land Management Lesotho 			
13:00 – 14:00	LUNCH BREAK			
14:00 – 15:00	CLOSING CEREMONY	Participating Institutions <ul style="list-style-type: none"> ▪ Digital Globe ▪ National Aeronautics and Space Administration (NASA-USA) ▪ USAID Kenya ▪ Director General RCMRD ▪ Ambassadors from RCMRD Member States ▪ Government of Kenya ▪ Chief Guest - RCMRD Governing Council 	Byron/ Mitchum Rapporteurs Lilian / David / Sande / Jacinta	Plenary Tent

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