		Power Systems Track A (Level 0 - Akagera)		Hydropower Track B (Level 0 - West)		Device Design Track C (Level 0 - East)		Demand Analysis Track D (Level 1 - South)		Electrical Machines Track E (Level 1 - Kivu)	
Start	End	Chair: I. Davidson		Chair: J. Munda		Chair: F. Effah		Chiar: A. Misiko			
		No.	Title	No.	Title	No.	Title	No.	Title	No.	Title
11:30 AM	11:45 AM	175	Impact of Variation of Virtual Inertia and Virtual Damping on Frequency and Power Angle Responses of Virtual Inertia Emulation Controlled Converter	110	Forecasting of Monthly Hydroelectric and Solar Energy in Rwanda using SARIMA	151	Development of Dielectric Polymer Nanocomposites with Improved Energy Storage Capacity	27	Assessment of the Energy Efficiency Programmes Within the Internal Operations of Nairobi City County	229	Testing and Evaluation of Standards for Performance and Safety of Induction Motors
11:45 AM	12:00 PM	42	Optimal transmission voltage deviation based on fractional kinetic gas molecular optimization symbiotic organism search algorithm for network operational stability improvement	177	Analysis of the Effects of Drought Conditions on Hydroelectric Power Generation in Uganda	51	Flashover Voltage Variations of Glass and Porcelain Insulators with Different Contaminants	138	Modeling the Egyptian path to energy efficiency towards 2035	204	Performance Analysis for Numerical Relays in Implementing Loss of Feld in Generator Protection
12:00 PM	12:15 PM	192	Volt-VAr Optimization of a Low Voltage Distribution Network in Nigeria	79	Feasibility study of hybrid Hydro-PV power plant possible deployment in remote rural area.	142	Design of a 45nm CMOS Low Noise Amplifier for a 30 GHz mmWave wireless transceiver in radar sensor applications	35	Analysis of Energy Utilization Metrics as a Measure of Energy Efficiency in Data Centres: Case study of Wananchi Group (Kenya) Limited Data Centre	238	Improvement of Small Signal Stability by Tuning PSS Parameters for Geothermal Machines in Kenya
12:15 PM	12:30 PM	139	Dynamic Equivalence Model for Inter-connected Systems	161	Techno-economic analysis of marine outfalls wastewater discharge for electricity generation	55	Development of a user-enabled load manager for electrical appliances	92	An Interconnected Prosumer Energy Management System Model for Improved Outage Resilience	195	Harmonic sequences affecting synchronous generator response to GIC
12:30 PM	12:45 PM	242	A Review on Phasor Measurement Units and their Applications in Active Distribution Networks	10	The Design Context of a Tidal Power Plant Using Helical Turbines	217	Design of a low-cost IoT-based platform for realtime monitoring of power quality and energy consumption	189	Comparative analysis of incentive-based strategies for demand response programs	183	A Review on the State-of-the-Art Optimization Strategies and Future Trends of Wound-Field Flux Switching Motors

		Power Systems Track A (Level 0 - Akagera)		Control Track B (Level 0 - West)		Bio & Landfill Gas Track C (Level 0 - East)		Off-Grid Systems Track D (Level 1 - South)		Energy Storage Track E (Level 1 - Kivu)	
Start	End	Chair: P. Nyombi		Chair: J. Bikorimana		Chair: K. Kusakana		Chair: A. Yusuff			
		No.	Title	No.	Title	No.	Title	No.	Title	No.	Title
3:45 PM	4:00 PM	106	Distribution system network reconfiguration using overcurrent relays	74	Modeling and Performance Analysis of an Automatic Voltage Regulator (AVR) using Model Predictive Contoller (MPC)	221	An overview of biogas plants in Ethiopia and Sweden: What Ethiopia can learn from Sweden	153	Demand Response Technique for Energy Management System in a Micro-grid with Renewable Energy Resources	65	Sizing of Battery Energy Storage System (BESS) for Inertia Response Support
4:00 PM	4:15 PM	8	The Analytical Study of the Controlled Switching of an AC Vacuum Circuit Breaker for Fault Interruption	126	Speed Performance Enhancement and Analysis of a Three Phase Induction Motor Driving a Pump Load using Vector Control Technique	49	Biogas-to-hydrogen for fuel cell distributed generation using food wastes of the Cities of Johannesburg and Cape Town, South Africa	7	Technical, Economic and Environmental Performance of Solar Minigrids: Case of Remba Island Minigrid	178	Optimal Sizing of Battery Energy Storage System for Grid Stability in Kenya
4:15 PM	4:30 PM	162	Practical Examination of Incipient growth of Water Trees in XLPE Cable Insulation	103	Heuristic Control of Neutral DC Compensation Method to Moderate DC bias in Power Transformer	113	Economic and Environmental evaluation of landfill gas to energy technology for Lesotho selected cities	93	Decentralised Solar Photovoltaic Battery Based Mini-grid for Rural Electrification in Tanzania – Part I – Power sharing between villages	236	Analysis of Hybrid Energy Storage Systems for Grid Connected Solar PV Source: A Review
4:30 PM	4:45 PM	241	Optimization of Cable Tray Support in Oil & Gas Projects Using Heavy Duty Expansion Plates	215	Implementation of a FUZZY logic controller (FLC) for improvement of an Automated Voltage Regulator (AVR) dynamic performance	46	Feasibility Study of Sustainable Biogas Driven Electricity Generation for a Typical Medium Income Residential Household in Nigeria	218	Identifying unelectrified population and geospatial factors that influence grid extension suitability: A case study on Ethiopia	164	Comprehensive Review of Energy Storage Technologies: Types, Applications, Optimal Sizing and Siting in Power Systems
4:45 PM	5:00 PM	163	Improved Expectations-Augmented Model for Short & MediumTerm Demand Forecasting in Kenya	95	Dynamic Demand Control for Grid Frequency Stabilization	190	Evaluation of energy policy based on internal energy markets requirements	88	Heuristic Approach to Ring Main Unit Placement within a Self-Healing Distribution Network	146	A Comparison of Model Predictive Control and Dead-Beat Predictive Control Algorithm for Permanent Magnet Synchronous Motor

		Power Systems Track A (Level 0 - Akagera)		Security/Resilience Track B (Level 0 - West)		Power Electronics Track C (Level 0 - East)		Off-Grid Systems Track D (Level 1 - South)		Network Analysis Track E (Level 1 - Kivu)	
Start	End	Chair: N. Williams		Chair: N. Mbuli		Chair: B. Krogh		Chair: M. Wilber		Chair: E. Mulenga	
		No.	Title	No.	Title	No.	Title	No.	Title	No.	Title
3:45 PM	4:00 PM	39	A Modified Approach for Monitoring Technical and NonTechnical Losses in a Distribution Feeder in a Developing Country: The Democratic Republic of Congo as a Case Study.	40	Static Security Assessment of the Kenyan Power System Using Contingency Analysis of Newton Raphson Approach	230	Model Predictive Current Control Method with Enhanced Performance for a Three-Phase Five-Level Cascaded H-Bridge Inverter Connected to Grid	28	Economic analysis and energy savings analysis of application of variable speed drives in pumps and fans – A case study capwell milling factory	167	Organization of the DRC electricity production and distribution into poles: first step to the calculation of optimal distributed electrical networks across the country
4:00 PM	4:15 PM	231	Design and Analysis of a Proposed Multistage Capacitor Bank Compensation Scheme	94	Impact of Cyber-Attacks on Frequency Control in An Interconnected Power System	19	Performance Analysis of DSTATCOM in Distribution Network for Mitigation of Voltage Sag, Voltage Imbalance and Harmonics	69	Design of a Low Cost Smart Meter for Capturing Usage Data for Battery-Operated Cooking Devices	196	Network unbalance compensation comparison: conventional pq theory vs the general power theory
4:15 PM	4:30 PM	176	Potential Factors for Multi-Criteria Evaluation of Capacity Uprate in Relation to New Transmission Line Projects	147	Matrix – based model for assessing the level of power system resilience	83	Power Electronic Converter Control Emulating Synchronous Machine Characteristics for Renewable Energy Penetration	15	Design of a Solar PV Powered Cold Storage for Fish in Sena and Mrongo Beaches in Mfangano Island, Kenya	119	Design of Hybrid Active Power Filters (HAPFs) in Photovoltaic Grid-Connected to Mitigate Harmonic Using Modified P-Q theory.
4:30 PM	4:45 PM	207	Power Transformer Differential Protection For Three Eskom Feeders.	62	Situation Awareness to Enhance the Distribution System Network Operational Resilience against Hurricane Event	4	Optimal Allocation of DSTATCOM Considering Different Load Models Using Bat Algorithm	81	Rwandan Pay-As-You-Go Solar Home System User Payment Behavioural Types	222	Flexibility Assessment of a Solar PV penetrated IEEE 9-Bus System Using Dynamic Transient Stability Evaluation
4:45 PM	5:00 PM	232	Analysis of the impact of improper termination and grounding of substation cables	24	Problem design and analysis of onshore power supply to berthed ships at the Port of Mombasa	123	Dynamic state estimation for load bus protection on inverter-interfaced microgrids	181	Opportunities and challenges for eCooking on mini-grids in Malawi: case study insight	193	Towards asymmetrical modeling of voltage stability in the presence of GICs
5:00 PM	5:15 PM	173	An Expository Comparison of Electric Vehicles and Internal Combustion Engine Vehicles in Africa - Motivations, Challenges and Adoption Strategies								

		Renewables Integration Track A (Level 0 - Akagera)		Energy-Water Nexus Track B (Level 0 - West)		Applications of AI & ML Track C (Level 0 - East)		Off-Grid Systems Track D (Level 1 - South)		Photovoltaic Systems Track E (Level 1 - Kivu)	
Start	End	Chair: M. Kiani		Chair: V. Thomas		Chair: E. Logan		Chair: S. Musonye		Chair: O. Popoola	
		No.	Title	No.	Title	No.	Title	No.	Title	No.	Title
11:15 AM	11:30 AM	22	Comparison of HVAC and HVDC collection grids in offshore windfarms	214	Spatial assessment of solar PV-based irrigation potential in Kenya	98	Modelling Photovoltaic power output using Machine Learning techniques	97	Providing renewable energy to rural areas: intervention in nine colleges in Uganda	5	Grid-connected solar pv with active power filter services for power quality improvement
11:30 AM	11:45 AM	78	Stochastic Hosting Capacity Assessment considering the Epistemic (E) Probability Distribution Function(pdf)	80	Use of solar powered auto irrigation system as solution of reduction of carbon dioxide (CO2) emissions in Rwanda	107	Artificial neural network based-online estimation of a power system inertia	101	Techno-economic Analysis of Standalone Zambian Solar Home Systems considering the Geo-placement and Plot-area constraints	67	PV system grid connected management using automatic changeover switch
11:45 AM	12:00 PM	61	Network Analysis of the Federal Capital Territory Distribution Network of Nigeria for Future Integration of Distributed Energy System	20	Energy Savings by Use of Heat Pump Water Heater to Compliment Solar Water Heaters as a Hybrid Design	112	Indoor Room Temperature and Relative Humidity Estimation in a Commercial Building Using the XGBoost Machine Learning Algorithm	82	Analysis of Private Mini-Grid Development for Rural Rwanda	31	An improved P&O MPPT algorithm with the capability of drift avoidance in PV systems
12:00 PM	12:15 PM	14	Design and optimization of hybrid electrical energy storage system for grid connected wind energy	109	IoT based intelligent household water consumption management system	118	Finding Protection Based Distributed Generation Medium Voltage Opportunity Networks Using Machine Learning	56	Design and Analysis of Optimal Hybrid Energy Supply System for a Remotely Located Village in Rwanda	208	Enhancement of Solar PV Output Error Under Variable Irradiation and Temperature Using an Improved Regulation Strategy
12:15 PM	12:30 PM	111	Bi-directional soft-linking between EnergyScope and Dispa-SET	72	Impact of node count on energy-optimal control of stratified vertical water heaters in smart grid applications	18	Estimation for Solar Radiation on Different Places from Adjacent Weather Stations Data through Mathematical Regression Model	219	Optimal Sizing and Techno-economic Analysis of an Off-grid Solar Photovoltaic System for Rural Electrification	17	Improved Voltage Control in LV Grid-Connected PV System Using Active Power Curtailment with Battery Energy Storage System

		Security/Resilience Track A (Level 0 - Akagera)		Renewable Energy Pathways Track B (Level 0 - West)		Feasibility Studies Track C (Level 0 - East)		Off-Grid Systems Track D (Level 1 - South)		e-Mobility Track E (Level 1 - Kivu)	
Start	End	Chair: N. Ijumba						Chair: P. Lilienthal		Chair: L. Berwa	
		No.	Title	No.	Title	No.	Title	No.	Title	No.	Title
3:15 PM	3:30 PM	71	A Load Flow Analysis of the Southern African Power Pool Interconnections using High Voltage Alternating Current, High Voltage Direct Current, and Flexible AC Transmission System	73	Transforming the Energy Insufficiency in Sub-Saharan Africa into Clean Energy Hub Region	186	Techno-Economic Analysis of a Rooftop Grid-connected Photovoltaic Solar System: A case study of Jomo Kenyatta University of Agriculture and Technology (SAJOREC area)	223	Money and Power: The Impact of Tariff Structures on Electricity Consumption in Solar Microgrids in Africa	57	Unlocking the Joint Potential of Electric Mobility and Rural Electrification in Africa - A Concept for Improved Integration using Modular Batteries
3:30 PM	3:45 PM	213	Transmission Systems Protection Using Phase and Ground Distance Elements	168	Theoretical Maximum Integration of Wind Power in Ethiopian Grid for the Horizon year 2030	239	Feasibility Study of Floating Solar PV System in Rwanda: Case Study Ntaruka Hydropower Reservoir	120	Multi-feeder minigrid loading index – a prequalifier to rigorous grid integration planning of minigrids	91	A Global Daily Solar Photovoltaic Load Coverage Factor Map for Passenger Electric Vehicles
3:45 PM	4:00 PM	2	Performance Evaluation of Percentage Differential Relays on Power Transformer and Reliability Assessment in HVDC Grid Protection Scheme	68	A Taxonomy of the Risks and Challenges of Embracing Blockchain Smart Contracts in Facilitating Renewable Electricity Transactions	47	Feasibility study of floating solar photovoltaic system integrated with a hydropower plant (Nyabarongo hydropower plant dam case study)	224	A Load Control System for Off-grid Renewable Energy Optimization in Healthcare Delivery	182	The Nexus Between Smart Mobility Digitalization and Carbon Neutrality Through Blockchain Technology
4:00 PM	4:15 PM	9	Reliability and Security Analysis of The Southern Africa Power Pool Regional Grid	150	The Possibility of Renewable Energy based Tourism in Rwanda: A proposal for Karongi Community in Western Province	16	Effectiveness of Vertically Mounted Solar Panels on Buildings - A Case Study of Radisson Blu Hotel	200	A Review of Load Assessment and Load Prioritization for Micro-Hybrid Power Plants in Rural Communities	87	Driving an Inclusive Transition to Electric Vehicle in African Cities: A Case Study of Dakar
4:15 PM	4:30 PM			96	Competitiveness of economic growth based on renewable energy: the case of Uganda to 2035	102	Framework for Leased Residential Rooftops for Solar Phovoltaic in Zambia	108	Multi-Stage Stochastic Electrification Planning under Demand Uncertainty		