

**SCHOOL OF PURE AND APPLIED SCIENCES- KU**  
**43<sup>RD</sup> POSTGRADUATE SEMINAR PROGRAMME – MASTER GRADUANDS**

**THEME:** “CONNECTING RESEARCH TO INNOVATIVE ECONOMY”.

**VENUE:** BUSINESS AND STUDENTS CENTRE ROOM 12

**DATE:** THURSDAY 30<sup>TH</sup> NOVEMBER, 2017

**PROGRAMME**

**TIME:** 8.30 – 9.00AM: **REGISTRATION**  
9.00 – 9.05AM: **WELCOME ADDRESS – DR. JOYCE MWANIKI (CHAIRMAN, SBPS)**  
9.05 – 9.15AM: **OPENING REMARKS – AG. DEAN, SPAS – PROF. NGERANWA**  
9.15 – 9.25AM: **REMARKS – DEAN, GRADUATE SCHOOL - PROF. P. OKEMO**  
9.25 – 9.35AM: **KEYNOTE ADDRESS –**

**SESSION ONE: CHAIRMAN: Dr. JOYCE MWANIKI**

**RAPPORTEUR: DR. GEORGE OMWENGA**

**ROOM 12**

<b>S/ NO</b>	<b>TIME</b>	<b>NAME &amp; REG. NO.</b>	<b>DEPARTMENT</b>	<b>TITLE OF THESIS</b>	<b>DEGREE</b>	<b>SUPERVISOR</b>
1.	9.35 – 9.45am	Bii Thomas Kipkemoi I56/CE/23810/12	Chemistry	Remediation of Selected Heavy Metals from Water Using	M.Sc. <i>(Applied)</i>	Dr. Isaack W. Mwangi

				Mushrooms, <i>Agaricus biporus</i> and <i>Amanita phalloids</i> in Bomet County, Kenya.	<i>Analytical Chemistry</i> )	Prof. Ruth Wanjau
2.	9.45 – 9.55am	Odhiambo Robert Ouko I56/28877/14	Biochem. & Biotechnology	Bioefficacy of Organic Extracts of <i>Allium sativum</i> L. and <i>Ocimum basillicum</i> L. against Maize Weevil ( <i>Stophilus zeanae</i> )	M.Sc. ( <i>Biochemistry</i> )	Dr. Mathew Piero Ngugi Dr. Richard Okoth Oduor
3.	9.55-10.05am	Achieng’a Florence Carolyn I56/CE/11494/08	Zoological Sciences	Insect Proof Nets for the Management of Tomato Pests and their Impact on Natural Enemies and Yield in Nairobi County, Kenya.	M.Sc. ( <i>Agricultural Entomology</i> )	Dr. Jenard Patrick Mbugi Dr. Muo Kasina
4.	10.05-10.15	Catherine Gacheri Guantai I56/CE/11504/08	Zoological Sciences	Effects of Low Cover Agronets on Cabbage Pests, their Natural Enemies and Cabbage Yield in Karlo Kabete, Nairobi County, Kenya.	M.Sc. ( <i>Agricultural Entomology</i> )	Dr. Jeanard Patrick Mbugi Dr. Shelmith W. Mwaniki
5.	10.15-10.25am	Rawlings Werunga Kalenda I56/25949/13	Chemistry	A Computational Assessment of the Stability of Cocaine and the Effect of Various Functional Groups on the Rate of Cocaine Hydrolysis.	M.Sc. ( <i>Chemistry</i> )	Dr. Lucy Wairimu Kiruri Dr. Margaret Mwihaki Ng’ang’a
6.	10.25-10.35am	Isaac Kinyua Njangiru I57/CE/22527/11	Biochem. & Biotechnology	Pharmacological and Toxicological Study of Five Medicinal Plants Traditionally used in Management of Diabetes in Nakuru County, Kenya.	M.Sc. ( <i>Medical Biochemistry</i> )	Prof. Eliud N. M. Njagi Prof. Joseph J. N. Ngeranwa

10.35 – 11.00am

## TEA BREAK

**SESSION TWO:**

**CHAIRMAN: DR.SINGH**

**RAPPORTEUR: DR. RICHARD MUSAU**

7.	11.00 – 11.10am	Chepngetich Josphine	Chemistry	Capacities and Efficiencies of	M.Sc.	Dr. Harun Mbuvi
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		I56/22616/11		Electrospun Titania Nanofibers in Removing Organic Dyes and Pesticides from Contaminated Water.	(Chemistry)	Dr. Dickson Andala
8.	11.10 - 11.20a.m.	Tubele Jackline I56/CE/14597/09	Plant Science	Introgression of Stem Rust Resistance into a Popular Kenyan Wheat Variety to Improve Production.	M.Sc. (Genetics)	Dr. Omwoyo Ombori Dr. Peter N. Njau Dr. Fredrick M. Njoka
9.	11.20 – 11.30a.m.	Daniel Mumo Musyoka I56/CE/23810/13	Microbiology	Effect of Arbuscular Mycorrhizal Fungi and <i>Bradyrhizobium</i> Co-Inoculation on Nitrogen Fixation and Growth of Green Grams under Water Stress.	M.Sc. (Microbiology)	Dr. John Maingi Dr. Ezekiel Mugendi Njeru
10.	11.30 – 11.40.a.m.	Midiwo Charlotte Achieng I56/CTY/PT/23314/12	Biochemistry & Biotechnology	Assay of Plasma Carbonic Anhydrase II Levels in Children with Sickle Cell Disease Attending a Hematology Clinic in Nairobi County, Kenya.	M.Sc. (Medical Biochemistry)	Dr. Daniel Okun Dr. Samson Gwer
11.	11.40-11.50 a.m	Njenga Isaac Kariuki I56/5772/03	Chemistry	Analysis of Essential Trace Elements in Selected Medicinal Plants Used in Kenya.	M.Sc. (Applied Analytical Chemistry)	Prof. Wilson Njue Prof. Ruth Wanjau
12.	11.50-12.00 p.m.	Masiga Rose D. Ojwang’ I56/CE/12140/07	Zoological Sciences	Diversity and Abundance of Bees and their Effect on Yield of French Beans, Adjacent Mt. Kenya Forest in Laikipia County.	M.Sc. (Agricultural Entomology)	Dr. Jeanard Patrick Mbugi Dr. Muo Kasina
13.	12.00-12.10. p.m.	Kimani Lucy Njeri I56/CE/26258/11	Biochemistry & Biotechnology	Antidiabetic Activity and Safety of Piper <i>Capense</i> , <i>Berberis Holstii</i> , <i>Sonchus Asper</i> , <i>Vernonia Lasiopus</i> and <i>Galinsoga Parviflora</i> in <i>Alloxan</i> -Induced Diabetic Albino Mice	M.Sc. (Medical Biochemistry)	Prof. Eliud N. M. Njagi Dr. George O. Orinda

14.	12.10-12.20pm	Sylvester Makumi I56/CE/24677/12	Physics	Nanomechanical Mapping of Defected Graphene by Multimode 8.	M.Sc. (Physics)	Prof. Klaus Leifer Hu Li Ishtiaq Hassan Wani
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12.20 – 2.00pm

## HEALTH BREAK

**SESSION 3**

**CHAIRMAN: DR. PUAL MUORIA**

**RAPPORTEUR: DR. WINFRED MUTUKU**

S/ NO	TIME	NAME & Reg. No.	DEPT	TITTLE OF THESIS	DEGREE	SUPERVISORS
15.	2.00 - 2.10p.m.	Cosmas Kipyegon Kiptoo I56/CE/26896/11	Physics	Investigation of the Effect of Basicity and Concentration Proton Accepting Bases on the Potential of Quinones for High Potential Quinone Based Cathode Materials.	M.Sc.	Prof. Martin Sjodin Carlos Moyses Araujo
16.	2.10-2.20 p.m.	Michael Ndunda Ndikau I56/20027/12	Chemistry	Green Synthesis of Silver Nanoparticles using <i>Citrus lanatus</i> Rind Extract as a Reduction for Selected Antibacterial Applications.	M.Sc.	Dr. Eric Masika Dr. Naumih Noah Dr. Dickson Andala
17.	2.20- 2.30 p.m.	Ephantus Nyaga Njeru I56/CE/26186/11	Physics	Characterization of Cd <sub>0</sub> Se <sub>1-x</sub> S/PbS Thin Films Deposited by Chemical Bath Deposition for P-N Junction Solar Cell Application.	M.Sc.	Dr. Mathew K. Munji Dr. W. K. Njoroge
18.	2.30 – 2.40 pm.	Mwangi Charles Kamathi I56/CE/21979/12	Chemistry	Defluoridation of Water by Absorption with Trimethylamine Modified Maize Tassels.	M.Sc.	Dr. Isaac W. Mwangi Prof. Ruth N. Wanjau

19.	2.40 – 2.50 p.m	Otieno Calleb Duya I56/CE/21450/12	Chemistry	Variation in Levels of Vitamins A and C with Maturity of <i>Amaranthus hybridus</i> (L) Leaves Grown in Different Soil – Types in Kwale County, Kenya.	M.Sc.	Dr. Mildred P. Nawiri Dr. Alphonse W. Wanyonyi
20.	2.50 – 3.00p.m.	Matano S. Mwatenga I56/12262/09	Zoological Sciences	Gastrointestinal Parasites Infesting Grevy's Zebra ( <i>Equus Grevyi</i> ) in the Samburu Landscape in Samburu County.	M.Sc. ( <i>Animal Ecology</i> )	Dr. Eunice Kairu Dr. Paul K. Muoria
21.	3.00 -3.10 p.m.	George Tibi Gachuhi I56/CE/20963/10	Microbiology	Antibiotic Susceptibility Pattern of Bacterial Uropathogens Isolated from Patients in Nakuru Level 5 Hospital, Kenya.	M.Sc. ( <i>Microbiology</i> )	Dr. John Maingi Dr. Anthony Kebira
22.	3.10 – 3.20p.m.	Reginald Silverius Kashakuro I56EA/24172/13	Zoological Sciences	Distribution, Abundance, Population Ratios and Acoustic Behaviour of <i>Conocephalus Maculatus</i> (Orthoptera: Tettigonidae) in Kagera Region North-Western Tanzania.	M.Sc. ( <i>Animal Ecology</i> )	Dr. Susan Sande Dr. Nicodemus D. Matojo
23.	3.20 – 3.30 pm.	Rono Franklin Kipyegon I56/23061/11	Biochem. & Biotechnology	Comparison of Analytical Profile Index, Microscan Walkaway 40 Plus and Bruker Maldi Biotyper Systems for Identification of Enteric Pathogens in Kenya.	M.Sc. ( <i>Biotechnology</i> )	Dr. David Mburu Dr. Brook Danboise

12.0 – 1.00 p.m.

## HEALTH BREAK

# ROOM:152

**SESSION: TWO**

**CHAIRMAN: DR. A. K. NYAMACHE**

**RAPPOCTEUR: DR. EUNICE KAIRU**

S/ NO	TIME	NAME & REG. NO.	DEPARTMENT	TITLE OF THESIS	DEGREE	SUPERVISOR
1.	11.00-11.10am	Aguyo Apollo Ochieng I56/CE/26607/11	Physics	Effect of Exchange and Absorption Potential in the Distorted Wave Calculation of	M.Sc. ( <i>Atomic Collision</i> )	Dr. C. S. Singh Prof. John Okumu

				Election Impact Excitation of Autoionizing State of Cesium.		
2.	11.10-11.20am	Maina Lukas Mwaura I56/CE/26637/11	Microbiology	Isolation, Identification and Antimicrobial Testing of <i>Salimonella typhi</i> from water and Food Samples in Mwea Region, Kirinyaga County, Kenya.	M.Sc. ( <i>Microbiology</i> )	Dr. John Maingi Dr. Anthony Kebira
3.	11.20-11.30am	Sigei Wilfred Kiprono I56/28688/13	Zoological Sciences	Fish Parasites and Fisheries Productivity in Relation to Extreme Flooding of Lake Baringo, Kenya.	M.Sc. ( <i>Applied Parasitology</i> )	Prof. Michael Gicheru Dr. Joshua Mutiso
4.	11.30-11.40am	Araka Machani Onchangwa I56/CE/22172/10	Zoological Sciences	Suitability of Selected Drought Tolerant Grass Species as Trap Plants for <i>Chilo Partellus</i> (Swinhoe) in Kisumu County, Kenya.	M.Sc. ( <i>Agricultural Entomology</i> )	Dr. Eunice Kairu Dr. Oscar Magenya
5.	11.40-11.50am	Stephen Kiruthi Mwiha I56/CE/25292/14	Biochemistry & Biotechnology	In Vitro Antibacterial and Antioxidant Activities of Methanolic and Dichlomethanolic Seed Extracts of Kenyan <i>Annona squamosal Lim.</i>	M.Sc. ( <i>Biotechnology</i> )	Dr. Mathew Piero Ngugi Dr. John M. Maingi
6.	11.50-12.00pm	Njoroge David Kimemia I56/24956/13	Physics	Fabrication and Characterization of a Graphite Dispersed Titanium Dioxide Solid Solar Cell.	M.Sc. ( <i>Electronics &amp; Instrumentation</i> )	Dr. Walter K. Njoroge Dr. Isaac W. Mwangi
7.	12.00-12.10pm	Khaemba Wafula Bramuel I56/20179/12	Chemistry	On-host Behavioural Interactions between Adult <i>Rhipicephalus appendiculatus</i> and Characterisation of the Mediating Pheromones.	M.Sc. ( <i>Chemical Ecology</i> )	Dr. Margaret Ng'ang'a Dr. Wilber Lwande Prof. Ahmed Hassanali
8.	12.10-12.20pm	Ogombe Charles Ojiambo I56/CE/23844/12	Chemistry	Variation of Cyanide Levels in Processed Sweet Cassava ( <i>Manihot esculenta Crantz</i> ) Leaves Grown in Busia and Kilifi Counties, Kenya.	M.Sc. ( <i>Chemistry</i> )	Dr. Mildred Nawiri Dr. Eric Masika

12.20-2.00pm						
<b>HELATH BREAK</b>						
9.	2.00-2.10pm	Penina Muthoni Kungu I56/27760/14	Microbiology	Trend in Antibiotic Resistance among <i>Vibrio Cholerae</i> Clinical Isolates in Kenya Between 2006-2015	M.Sc. ( <i>Microbiology</i> )	Prof. Paul Okemo Dr. John Kiiru
10.	2.10-2.20pm	Muia Prominah Kavinya I56/CE/20256/12	Biochem. & Biotechnology	Performance of Genexpert Test in Detecting Pulmonary Tuberculosis and Rifampicin Resistance of in Patients Attending Kitui County Hospital, Kenya.	M.Sc. ( <i>Medical Biochemistry</i> )	Dr. David Mburu Dr. Mathew Ngugu
11.	2.20-2.30pm	Agnes Ikolot Otwani I56/22801/11	Zoological Sciences	Evaluating Phytochemical Profiles, Molluscicidal and Schistosomicidal Activity of Aqueous and Ethanol Extracts of <i>Vernonia amygdalina</i> and <i>Harrisonia abyssinica</i>	M.Sc. ( <i>Applied Parasitology</i> )	Dr. Lucy M. Kamau Prof. Dorcas Yole
12.	2.30-2.40.p.m	Omondi Robert I56/CE/24667/12	Zoological Sciences	Prevalence of Plasmodium Infection and Anaemia in Primary School Children Following Universal Distribution of Insecticide Treated Bed Nets in Kasipul, Homa-Bay County, Kenya.	M.Sc. ( <i>Applied Parasitology</i> )	Dr. Lucy M. Kamau Dr. Eric K. Mwangi
13.	2.40-2.50 p.m.	Raphael Njurai Miano I56/28944/13	Chemistry	Behavioral Responses of <i>tuta absoluta</i> to a Wild and Cultivated Tomato Plants and Characterization of the Mediating Semiochemical Blends.	M.Sc. ( <i>Chemistry</i> )	Dr. Richard Musau Dr. Faris Samira Mohammed Prof. Ahmed Hassanali
14.	2.50 – 3.00 p.m	Onyango Tonny Omondi I56/CTY/PT/24940/13	Biochem. & Biotechnology	Effects of Maalox Plus* Antacid and Purecal* Calcium Supplements on Liver and Kidney Function following Heavy Alcohol Intake in Rats.	M.Sc. ( <i>Medical Chemistry</i> )	Dr. David Mburu Dr. Mathew Ngugi

15.	3.00 – 3.10 p.m.	Mungere Susan Njeri I56/27354/13	Chemistry	Essential Oils of Selected <i>Ocimum</i> and <i>Lippia</i> Species as Potential Inhibitors of Mycotoxin Producing Fungi in Post-Harvest Maize.	M.Sc. ( <i>Applied Analytical Chemistry</i> )	Prof. Caroline Thoruwa Prof. Ethel O. Monda Prof. Ahmed Hassanali
	3.10 -3.20 p.m.	<b>TEA BREAK</b>				
	4.00	<b>CLOSING CEREMONY</b>				