## PROF. JAMES H.P. KAHINDI, PhD

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#### **KEY QUALIFICATIONS & EXPERIENCE**

- Deputy Vice Chancellor (DVC) for Academic Affairs, Pwani University
- Professor of Microbiology
- Associate Deputy Vice Chancellor of United States International University (USIU)
- Dean of the School of Science and Technology at USIU
- Over 20 years research experience in Microbiology
- Research in Microbial Biotechnology
- Over 12 years' experience in environmental impact assessments and audits
- Advisor to PhD students engaged in medical-malaria research (Kemri-Wellcome Trust)
- Chaired Board of Management, Consortium for National Health Research
- Chaired Board of Management , Kenya Medical Training College (KMTC)

#### **CAREER OBJECTIVE**

To advance high impact teaching, learning, community engagement and research as head of a university with an ambitious mission.

#### PROFILE

I have vast experience in University Administration, Public service, and in Education, Research, Science, Technology and Innovation, Sustainable Environmental Management and conservation, Natural resource management encompassing Environmental Audits, Environmental Impact Assessments, water sanitation and environment, Strategies for Environmental Development, Sustainable Consumption and Production; Renewable Energy Solutions, Geothermal Energy Management and the Environment, Sustainable Energy Development and Environment and Capacity building initiatives.

## ACADEMIC QUALIFICATIONS

### 1991-1994

Ph.D. in Microbiology, University of Sussex, UK. **Thesis Title**: Efficiency of Nitrogen Fixation in *Azotobacter chroococcum* 

#### 1985-1987

MSc Microbiology, University of Nairobi, Kenya.

### 1980-1984

B.Sc (Hons) in Botany and Zoology, University of Nairobi, Kenya.

### **PROFESSIONAL EXPERIENCE**

September 2014 to date: Professor of Microbiology, Pwani University

September 2006 to October 2013: Professor of Natural Sciences, United States

International University- Africa (USIU-A), Nairobi, Kenya.

Teaching Courses:

(a) ENV 2001- Sustainable Resource Management

(b) NSC2212- Life, Environment and Society

(c) ENV 2000- Introduction to Environmental Science

(d) NSC 2205- Human Physiology

(e) FREX1000 – The World through Natural Sciences

September 2000 to August 2006: Associate Professor of Natural Sciences,

May 1994 – August 2000: Lecturer in Microbiology, Dept. of Botany, Faculty of Science,

University of Nairobi, Kenya.

Teaching Courses:

(i) <u>Undergraduates</u>

SBT 202: General Microbiology

ASC 404: Soil Biology & Environmental

Management (taught at the College of Agriculture and Veterinary Sciences, Kabete Campus)

(ii) <u>Postgraduates</u>

SBT 521: Microbial Physiology

SBT 522: Microorganisms as Pathogens

(c) I have also taught Undergraduate students on Environmental sciences from Kalamazoo College, and Dartmouth College, USA.

May 1990 – May 1994: Assistant Lecturer, Dept. of Botany, Faculty of Science, University of Nairobi.

**April 1988 – May 1990**: Tutorial Fellow, Dept. of Botany, Faculty of Science, University of Nairobi.

March 1987 – March 1988: Graduate Research Assistant, The Nairobi Microbiological Resources Centre (MIRCEN), University of Nairobi.

## CAREER RESPONSIBILITIES

- (i) Deputy Vice Chancellor, Academic and Student Affairs, Pwani University (November 2013 to date)
- (ii) Associate Deputy Vice Chancellor, Academic Affairs (January 2013 to October 2013)
- (iii) Dean, School of Science and Technology, USIU (January 2011 to Decemebr 2012)
- (iv) Ag. Dean, School of Arts and Sciences, USIU (November 2007 to December 2010)
- Associate Dean, School of Arts and Sciences, USIU (September 2005 to November 2007)
- (vi) Coordinator, International Relations and Natural Sciences (September 2005 August 2006)
- (vii) Coordinator, Psychology and Natural Sciences (September 2004 August 2005)
- (viii) Honorary Vice Chair, USIU Faculty Senate (May 2005 to Feb.2006)
- (ix) Coordinator, Natural and Social Sciences (September 2003 August 2004)

## **PUBLIC/ COMMUNITY SERVICE**

- **Governing Council Member-** *icipe* (International Centre of Insect Physiology and Ecology) from September 2015 to date
- Board member, Kenya Marine and Fisheries Research Institute (June 2011 to March 2015)
- Council member, National Council for Science and Technology (March 2010 to May 2013)
- Chairman Board of Management, Consortium for National Health Research (CNHR) (June 2010 to December 2015)
- Chairman, Board of Management , Kenya Medical Training College (KMTC) (April 2005 to January 2010)

# Achievements:

(i) Expanded the number of programs being offered at KMTC from 16 to 19 thus increasing the number of courses taught from 26 to 48. The new course

introduced include; Ophthalmic Nursing, Ultra sound, Sensory Integration Therapy, Vision Therapy, and Optical Technology; to name a few

- (ii) Increased student enrollment form 1000 to 3000 per year.
- (iii) Increased the number of KMTC campuses form 26 to 29
- (iv) Instituted a Computerized system of students' admission based on Merit by Gender by District
- (v) Streamlined management of Financial Resources which culminated in the servicing of an overdraft of Ksh. 70 million
- (vi) Excelling in the Performance Contract system of the GOK, by being the 4<sup>th</sup>State Corporation out of 126 State corporations in Kenya
- (vii) Most courses being Field orientated, I improved the Transport sector by purchasing two new 4 x 4 vehicles, 7 new 26-seater minibuses, and three new 62-seater buses for the various KMTC campuses
- (viii) Improved the general infrastructure by constructing new hostels, laboratories, administration blocks, and lecture theatres; from development funds from GOK, Income generation funds and CDF
- Member of Board of Directors, National Environment Management Authority (NEMA), Kenya (April 2003 to March 2007)

## Achievements:

- (i) As a Pioneer Board, we set up Provincial and District Environment Offices Countrywide
- (ii) Introduced the Environmental Impact Assessment and Audit Regulations
- (iii) Introduced the Water Quality Regulations, 2006
- (iv) Introduced Draft Air Pollution Regulations
- (v) Introduced the Concept of Environmental Education Information and Public Participation
- Patron, Junior Chambers Club, USIU chapter
- Patron, USIU Women Basketball Team

## **OTHER PROFFESSIONAL ACTIVITIES**

- External Examiner (undergraduates), Sub Department of Medical Microbiology, Jomo Kenyatta University of Agriculture and Technology (2008 to date)
- External Examiner (Undergraduates and Postgraduates) Botany Department, Moi University, Kenya (2006-2008)
- External Examiner (Postgraduates) Botany Department, Jomo Kenyatta University of Agriculture and Technology, Kenya.
- External Examiner (Postgraduates) Botany Department, Kenyatta University, Kenya.
- External Examiner (Postgraduates) Biochemistry Department, University of Nairobi, Kenya.

### SELECTED ENVIRONMENT CONSULTANCIES UNDERTAKEN

- Environmental Impact Assessment for Ewaso Nyiro North Development Authority (ENNDA) under the auspices of Heritage Consultancy Services Ltd. (August to December 2010) Contact: Ms. Beatrice Sabana Tel: 0722462570 Email: bsabana@gmail.com
- Development of a Regional Policy for Regional Development Authorities in Kenya under the auspices of East African Development Consultants (October 13<sup>th</sup> 2006 -November 6th 2006) Contact: Mr. Brown Makotsi, Tel. 4450570. Email: eadecke@yahoo.com
- 3. Baseline survey for Ewaso Nyiro South Development Authority (ENSDA) under the auspices of Heritage Consultancy services (September 2007-December 2007) **Contact:** Beatrice Sabana. Tel. 0722462570
- EIA and rehabilitation of Marula Quarry at Gilgil, with Stalin Environment Consultants (4th August 2008- 16<sup>th</sup> August 2008) Contact: Eric Omondi Tel: 0722679680
- 5. Initial Environment Examination for USAID/Kenya (November 2008-January 2009) By Prof. James H.P. Kahindi **Contact**: Mr. Peter Mwarogo, FHI; Tel: 0722521361

6. Environmental Impact Assessment for the Proposed Installation of an Incinerator at Ruai Area, Nairobi, by Green Care Ltd. (January 2010) **Contact**: Karen Basiye Tel: 0722856597

## **RESEARCH EXPERIENCE**

1. PUBLICATIONS

## (A) Peer-Reviewed Articles in journals:

- Muniafu, M.M., Kahindi, J.H. and Kwena, M.O. (2015) Bio-ethanol production from cassava (Mannihot esculenta Crantz) at the coast region in Kenya. Research Journal of Agriculture and Environmental Management. Vol. 4(7), pp. 299-306 (Available online at http://www.apexjournal.org).
- J.M. Jefwa, S. Okoth, P. Wachira, N. Karanja, J. Kahindi, S. Njuguini, S. Ichami, J. Mung'atu, P. Okoth and, J. Huising (2012) Impact of land use types and farming practices on occurrence of arbuscular mycorrhizal fungi (AMF) JHPK/CV/2016

Taita-Taveta district in Kenya. *Agriculture, Ecosystems and Environment* 157 (2012) 32– 39

- George M. Mwenda, Nancy K. Karanja, Hamadi Boga, J.H.P. Kahindi, A. Muigai and D. Odee (2011) Abundance and Diversity of Legume Nodulating Rhizobia in soils of EmbuDistrict, Kenya. *Tropical and Subtropical Agroecosystems*, 13 (2011): 1 10
- Jane A. Otadoh, Sheila A. Okoth, James Ochanda and James P. Kahindi (2011) Assessment of *Trichoderma* isolates for virulence efficacy on *Fusarium* oxysporum F. sp. phaseoli. Tropical and Subtropical Agroecosystems, 13 (2011): 99 – 107
- S. N. Mwangi, N. K. Karanja, H. Boga, J. H. P. Kahindi, A. Muigai, D. Odee and G. M. Mwenda (2011)Genetic Diversity and Symbiotic Efficiency of Legume Nodulating Bacteria from different Land Use Systems in TaitaTaveta, Kenya *Tropical and Subtropical Agroecosystems*, 13 (2011): 109 – 118
- Sheila A. Okoth, Roimen H., Mutsotso B., Muya E., Kahindi J., Owino, J.O. and Okoth P. (2007) Land use systems and Distribution of *Trichoderma* species in Embu Region Kenya. *Trop. and sub Trop. Agro Ecosystems* 7:105-122
- Wang'ondu V.W., Kahindi J.H.P., Olembo N.K and Ochanda J.O. (2007) Screening of local Bacillus thuringiensis isolates for toxicity to Chilo partellus, Sesamia calamistis and Busseola fusca in Kenya. J. Trop. Microbiol. Biotecchnol. 3:27-35
- 8. Kahindi J.H.P., Karanja, N.K., Odee, D. and Mwaura, F.B. (2004) The Diversity of Biological Nitrogen Systems in Kenya. *J. Trop. Microbiol.* 3:35-26
- 9. Karanja, N.K, Mwendwa K.A, Okalebo J.R. and **Kahindi J.H.P**. (**2004**) Effect of phosphate rock fertilization and arbuscular mycorhizae (AM) inoculation on growth and nodulation of agroforestry tree seedlings. *West Afr. J. Appl. Ecol.6:55-64*
- 10. Wangond'u V., Ochanda J., **Kahindi J.H.P**., and Olembo N. (**2003**) Isolation and partial characterization of *Bacillus thuringiensis* from Kakamega and Machakos Districts, Kenya. *J. Trop. Microbiol.* 2:5-12
- 11. Kahindi J.H.P.; Campbell F.O. and Yates M.G. (2000) The Effect of Nutrient limitation on the competition between Hydrogenase negative (Hup-) JHPK/CV/2016

Nitrogen fixing *Azotobacter chroococcum* containing the vanadium nitrogenase and the Hup+ recombinant in mixed portions. *Afr. J. Sci. & Tech. 1*(*3*): 21-28

- 12. Woomer, P.L.; **Kahindi, J.H.P**., and Karanja, N.K. (**1998**) Nitrogen Replenishment in the East African Highlands through Biological Nitrogen Fixation and Legume Inoculation. *Agron. Afr.* 1: 387-413.
- Kahindi, J.H.P.; Woomer, P.; George, T.; Moreira, F.M.; Karanja, N.K. and Giller, K.E. (1997) Agricultural intensification, Soil Biodiversity and Ecosystem Function in the Tropics: The Role of Nitrogen Fixing Bacteria. *Appl. Soil Ecol.* 6:55-76
- 14. Yates M.G.; Souza, E.M. and **Kahindi, J.H.P**. (**1997**) Oxygen, Hydrogen and Nitrogen Fixation in *Azotobacter. Soil Biol. & Biochem.29:863-869*
- 15. Hill, S.; Kavanagh, E.; D'Mellor, R.; Poole, R.K.; Munn, Kahindi, J.H.P.; J Campbell, F.; and Yates, M.G. (1994) Physiology of Nitrogen Fixation Relating to Nitrogen, Oxygen, Hydrogen status in free-living heterotrophs. In N.A. Hegazi, M. Fayez and M. Morib (eds) Nitrogen Fixation with Non-legumes pp. 15 24. The American University in Cairo Press.
- 16. **Kahindi, J.H.P.** (**1994**) Efficiency of Nitrogen fixation in *Azotobacterchroococcum*. Ph.D Thesis, University of Sussex, U.K.
- Kahindi, J.H.P.; Campbell, F.O. & Yates, M.G. (1993). Efficiency of Nitrogen Fixation by the molybdenum and vanadium nitrogenases of *Azotobacter chroococcum*. In R. Palacios, J. Moira and W.E. Newton (eds) New Horizons in Nitrogen Fixation pp. 473. Kluwer Academic Publishers, Dordrecht, Boston, London.
- Mukiama, T.K. & Kahindi, J.H.P. (1989) Potential of *Bacillus thiringiensis var. israelensis* for Mosquito Malaria Control in Kenya. *Israel J. Entomol.* 23: 69 – 79.
- 19. Kahindi, J.H.P. (1989) Microbial Control of Pests and Vector Insects. *Science News Vol. 1 (3):3-6,* University of Nairobi.

- 20. **Kahindi, J.H.P.** (**1987**) Evaluation of the Potential of *Bacillus thuringiensis* var. *israelensis* de Barjac (*Bti*) as a microbial control agent of target mosquito species in Kenya. MSc. Thesis, University of Nairobi.
- 21. Kahindi, J.H.P. (1987) The efficiency of *Bacillus thuringiensis var. israelensis* de Barjac as a larvicide of mosquito species in Kenya. *MIRCEN Newsletter vol.* 10(2): 3-4.

## (B) Book Chapters:

- Kahindi J.H.P. and Karanja N.K. (2006-2009) Biotechnology and Genetic Engineering Technology Assessment: Essentials of Biological Nitrogen Fixation Technology. In *"Encyclopedia of Life Support Systems (EOLSS) -*Biotechnology: Knowledge in Depth" Ed. Horst W. Doelle. (www.eolss.net).
- Karanja N.K. and Kahindi J.H.P. (2004-2007) Biotechnology and Genetic Engineering Technology Assessment: In *"Encyclopedia of Life Support Systems (EOLSS)* -Biotechnology: Knowledge in Depth" Ed. Horst W. Doelle. (www.eolss.net).
- Mugo, J.K, Kahindi, J.H.P., Odee D., Makatiani E. and Maureen S. (2002) Biological Nitrogen Fixation of *Acacia drepanolobium*. In: Challenges and Imperatives for Biological Nitrogen Fixation Research and Application in Africa for the 21<sup>st</sup> Century (Karanja, N.K. and Kahindi J.H.P) Eds. Pp. 131 – 138. John Phillips Africa Ltd. ISBN 9966-879-41-2
- Alabaster G., Kahindi J.H.P., Karanja N.K. and Kwach H.O. (2001) Urban Waste Management: proceedings of a Workshop on "Enhancement of Productivity and sustainability of Urban/Peri-Urban Agriculture (UPA) through efficient management of Urban Waste. UN-HABITAT. ISBN No. 92-1-131629-4

# (C) Scientific Field Documents:

Kimenju, J. W., Karanja, N.K., Okoth S.A., Wachira P.M., Kahindi J.H.P., Jefwa J.M., Nyamasyo G., Muya E., Mutsotso B., Gikungu M., Roimen H. and Kibberenge M. (2010) Effect of Land use Intensification and Soil Fertility Management Practices on Soil Biodiversity in Embu and Taita, Kenya. CSM-BGBD project Kenya Farmer Report 1001

- Karanja, Nancy and Kahindi, J.H.P. (2006) Conservation and Sustainable Management of Below-ground Biodiversity in Kenya: A Farmer Report on the Benchmark characteristics. A project executed by TSBF-CIAT with cofinancing from the Global Environment Facility (GEF) and implementation support from the United Nations Environment Programme (UNEP)
- Abaidoo R.C., Carsky R.J., Danso S.K.A., Fening J., Giller K.E., Gueye M., Kahindi J.H.P., Mpepereki S., Osunde A., Sanginga N., Schulz B., Vanlauwe B. and Woomer P.L. (2001) African Association for Biological Nitrogen Fixation (AABNF) mid-term Strategy for Collaborative BNF Research and it technical applications.

## (D) Publications from Conferences & Workshops:

- 1. James H.P. Kahindi and Esther W. Nyaga (2011) The Hydropolitics of Lake Turkana: Water, Food Security and Conflicts around Lake Turkana. A paper presented during the Conference on Environment and Conflict: Challenges Facing Kenya at the Travelers Beach Hotel, Mombasa, 4<sup>th</sup> -7<sup>th</sup> Dec 2011
- Kahindi, J.H.P.; Karanja, N.; Mibey, R.K.; and Gikungu, M (2004) Conservation and Sustainable Management of Below Ground Biodiversity in Kenya. A poster presented at Launch of the BGBD project in Kenya. Nairobi, 6<sup>th</sup> September 2004.
- 3. Odee, D.W., Makatiani, E., Karanja N. and **Kahindi J**. (**2005**) Abundance and growth Characteristics of legume-nodulating bacteria in Embu and Taita benchmark sites of Kenya. In Inventory of below-ground biodiversity in eleven benchmark areas within seven tropical countries: Report of the Annual meeting of the TSBF-CIAT Below Ground Biodiversity project pp.77
- 4. Abaidoo R.C., Carsky R.J., Danso S.K.A., Fening J., Giller K.E., Gueye M., Kahindi J.H.P., Mpepereki S., Osunde A., Sanginga N., Schulz B., Vanlauwe B. and Woomer P.L. (2002) Collaborative BNF Research Initiative on Biological Nitrogen Fixation for African Agriculture. In Enhancing BNF Research and Application for Food Security and Poverty Alleviation in Smaa Holder African Farming: Proceedings of the 10<sup>th</sup> AABNF Congress, Accra, Ghana.
- 5. **Kahindi, J.H.P. (2000)** Soil Microbiota beneficial to Agriculture. A paper presented at the National Workshop on Agricultural biodiversity in

preparation for the Fifth Conference of Parties (COP V) to the Convention on Biological Diversity (CBD), Pan Afric Hotel, Nairobi, 27-28<sup>th</sup> April, 2000.

- Kahindi J.H.P. (2000) Abuse and Misabuse of Biotechnology: Kenya Which Way? A paper presented at the 1<sup>st</sup> Brown Bag Lecture Series Meeting held at USIU-A on 2<sup>nd</sup> February, 2000.
- Kahindi J.H.P. (2000) Alien Invasive Species that threaten Ecosystems and Habitats: Mitigation of Impacts. A Paper presented at the Kenya Government Biodiversity Conference of Parties 5 (COP 5) Preparation Meeting held at Mbagathi, April 27-28<sup>th</sup>, 2000.

5. **Kahindi, J.H.P.;** Campbell F.O., & Yates, M.G. (**1998**) The Efficiency of Nitrogen Fixation in Mixed Populations of Hup+ and Hup – mutants of *Azotobacter chroococcum. A* paper submitted to the Regional Workshop on Biotechnology, Nairobi 16 – 18<sup>th</sup> September, 1998

6. Karanja, N.K.; Mwala, A.K.; **Kahindi J.P**; and Woomer, P.L. (**1998**). The East African Rhizobium MIRCEN: A review of the Progress in research, training and information dissemination. (ed. F.D. Dakora) pp 101-102. Poster presented at the 8th Congress of the African Association for Biological Nitrogen Fixation (AABNF), 23-27 November, 1998.

7. Kahindi, J.H.P.; and Mukiama, T.K. (**1996**) Biotechnology and Biodiversity Conservation in Kenya. In P.M. Ndonye, J.H.P. Kahindi, G.H.N. Nyamasyo, J.K. Abuya and N. Arap Chumo (eds). Proceedings of the Kenya Workshop on Biodiversity pp. 45-53. UNO/RAF/006/GEF Field Document No. 19.

8. Eady, R.R.; Eldridge, M.E.; Dilworth, M.J.; **Kahindi, J.H.P**.; Campbell, F.O. and Yates, M.G. (**1992**) The efficiency of Vanadium Nitrogenase. In "The Annual Report of the Agriculture and Food Research Council" pp. 47 – 52.Institute of Plant Science Research, Cambridge Laboratory, John Innes Institute, Sainsbury Laboratory and the Nitrogen Fixation Laboratory, UK.

## (E) Contributions to Seminar Proceedings:

1. Safety in Biotechnology of Foods and Feeds: Report of the National Workshop held at Pan Afric Hotel, Nairobi, 17-18<sup>th</sup> October 2001. National Council for Science and Technology (Kenya) and the BIO-EARN project East Africa.

2. State of Environment Report for Kenya: Land use and Environment. A Report of the National Environment Management Authority (NEMA) (2004).

3. Developmental of Institutional Intellectual Property Rights Management System. Proceedings of a Regional Workshop under the BIO-EARN Programme on Biotechnology and Intellectual Property Rights held at Masai Mara Serena Hotel, 6-7<sup>th</sup> December 2001

## (F) Books and Articles Edited:

1. Journal of Tropical Microbiology Volume 1. Number 1 2002

## (G) Publications from Training Courses:

- Ochanda J.O., Kahindi J.H.P., Anyango B, Gudu S., Muraya J., Amugune N., Kinyanjui P.W., Osanya A., Mukiama T.K. (1996) A laboratory manual for Molecular Biology Techniques Vol. I (Ed. J.H.P. Kahindi) University of Nairobi.
- Ochanda J.O., Kahindi J.H.P., Anyango B., Gudu S., Muraya J., Amugune N., Kinyanjui P.W., Osanya A., Mukiama T.K. (1996) A laboratory manual for Molecular Biology Techniques Vol. II (Ed. J.H.P. Kahindi) University of Nairobi.

# 2. FUNDED PROJECTS

- USD 7,275,000.00 for the Project on the Conservation and Sustainable Management of Below Ground Biodiversity in seven tropical countries namely, Kenya, Uganda, Cote d'Ivoire, India, Indonesia, Brazil and Mexico. Role: Kenyan Microbiologist. Project is in Phase II (2006-2009)
- USD 300,000.00 for the Project on the Development of *Bacillus thuringiensis*based biopesticide for adoption by Kenyan Small scale farmers. Funded by the Netherlands Government special Programme on biotechnology through the Kenya Agricultural Biotechnology Platform (KABP) 1998. **Role**: Microbiologist
- USD 71,200.00 for the Project on the Search for Stable Biocatalysts from Extremophiles for the utilization of renewable raw materials. Funded by SIDA-SAREC under the East African Regional Programme on Biotechnology, Biosafety and Biopolicy Development (BIO-EARN) 1999. Role: Network Partner and Supervisor for the PhD Project

4. Ksh.2.4 million for the project entitled "Extraction of ethanol from Cassava (*Mannihot esculenta*) wastes. Funded by National Council for Science and Technology, Kenya.

## SCHOLARLY ACHIEVEMENTS

Was instrumental in developing and completion of the Curriculum for the following USIU Degree programmes:

- Bachelor of Science in Environmental Science
- Bachelor of Clinical Laboratory Science
- Bachelor of Arts in Criminal Justice

Currently involved in the Development of the Bachelor of Science in Pharmacy Programme and equipping the USIU Science Laboratory

## SUPERVISION OF POSTGRADUATES STUDENTS

- Mwenda George Mutegi (JKUAT Student no. BR311-0121/05) MSc Thesis entitled: Genetic Diversity and Symbiotic Efficiency of Rhizobia isolated from Embu, Kenya
- 2. Simon Ngare Mwangi JKUAT student MSc. Theses entitled: Genetic Diversity and Symbiotic Efficiency of Rhizobia isolated from TaitaTaveta, Kenya
- Mr. Kevin Raymond Oluoch. PhD (Exchange student with Lund University, Sweden) ProjectTitle: Stable biocatalysts from Extremophiles for Utilization of renewable raw materials.
- 4. Mr. John NdemiKiiru MSc Student 2001-2002 **MSc Project Title**: Diversity of aerobic endospore-forming bacteria in a tropical environment
- 5. Mr. KagoriMugo, MSc. Student 1998/99. **MSc Project title**: Nitrogen Fixation in *Acaciadrepanolobium*.
- 6. Ms. Virginia Wango'ndu MSc Student 1999/2000 **MSc Project title**: Isolation and partial characterization of *Bacillus thuringiensis* strains isolated from Kakamega and Machakos districts in Kenya.

7. Mr. SylvetreNashiriminaya MSc student 1999/2000 **MSc Project title**: Nitrogen Fixing potential of *Acetobacter diazotrophicus* in Sugarcane in Kenya

## MSC AND PHD THESES EXAMINED

- Caroline A. Kundu (2012) M.Sc. thesis entitled "Effect of Arbuscular Mycorrhizal Fungi and Phosphate solubilizing bacterial inoculants on Growth and Phosphorus uptake by Orange Fleshed sweet potatoes (*Ipomea batatus* (L) Lam.) University of Nairobi
- 2. Hannah Wangari Karuri (2012) PhD thesis entitled "Assessment of the impact of transgenic Cotton expressing Bacillus *thuringiensis* insecticidal protein on soil nematodes in Mwea, Kenya" **University of Nairobi**
- Pamela Muringo Njugu (2011) M.Sc. Thesis entitled "Antibiotic susceptibility patterns and Genetic Resistance mechanisms of *Klebsiella* species and *Escherichia coli* isolated from environmental sources around Nairobi, Kenya" Jomo Kenyatta University of Agriculture and Technology
- 4. BancyNjokiMuruga (**2010**) M.Sc. Thesis entitled "The Diversity of ExtremophilicBacteria in Lake Magadi, Kenya". **University of Nairobi**
- Kaaria K. Purity (2009) M.Sc. Thesis entitled "Potential of Endophytes and Rhizosphere Bacteria from selected Indigenous Kenyan Plants around Juja as sources of Antimicrobial Compounds. Jomo Kenyatta University of Agriculture and Technology
- 6. Mr. Romano Mwirichia Kachiuru (2009) PhD. thesis entitled "Microbial Diversity of Lake Elmenteita, Kenya". Jomo Kenyatta University of Agriculture and Technology.
- 7. Mauco Kabelo Leonard (**2009**) M.Sc. Thesis entitled "Isolation and Identification of Plant Growth Promoting Rhizobacteria from the Roots of Sorghum vulgare grown in Pandamatenga and Okavango Delta Soils". **University of Botswana**
- 8. **Ms. Elizabeth Siameto (2009)** M.Sc. thesis entitled "Molecular characterization and Identification of Biocontrol isolates of *Trichoderma harzianum* (Green Mould) from Embu District, Kenya". **University of Nairobi**
- Mr. Huxley M. Makonde (2009) MSc. Thesis entitled "Assessment of effects of Bacillus thuringiensis Cry1a(c) δ-endotoxin on Nitrogen Fixing Bacteria in Clay soils in Kenya.Jomo Kenyatta University of Agriculture and Technology



- 10. Mr. Gicharu, Gibson Kamau (**2006**) MSc. thesis entitled "A comparative study of nitrogen fixation in selected cultivars of bush and climbing beans inoculated with different *Rhizobium* strains". **Kenyatta University**
- 11. Mr. S.W.P. Okanya (2005) MSc. thesis entitled "Screening for anti-malarial activity using secondary metabolites from extremophiles found in Kenyan soda lakes". University of Nairobi
- 12. Ms. Catherine Lukhoba (**1999**) Ph.D Thesis entitled "A taxonomic Revision of the genera *Ocimum* and *Plectranthus* (Labiatae) in Kenya. **University of Nairobi**.
- 13. Ms. Patricia Mwau Nduku (**1999**) Msc. Thesis entitled "Nitrogen and Phosphorus budgets in Tilapia, *Oreochroisniloticus* and Catfish, *Clariusgaripinus* in poly culture ponds at Sagana Fish farm, Central Kenya. **Jomo Kenyatta University of Agriculture and Technology**
- 14. Mr. Samuel W. Mwangi (**1998**) MSc. Thesis entitled "Growth and Nodulation of some multipurpose Nitrogen Fixing Trees in some tropical Soils". **University of Nairobi**.
- Mr. Simon Maina Macharia (1997) MSc. Thesis entitled "Intraspecific genetic Variation among populations of the Kenyan African Violet, *Saintpaulia rupicola*. B.L. Butt: A Molecular Approach". University of Nairobi.

## SELECTED TRAINING COURSES ATTENDED

- Application of Molecular Techniques in Soil Biodiversity Studies held at The International Center for Tropical Agriculture (CIAT), Cali, Colombia, 29<sup>th</sup> September – 3<sup>rd</sup> October 2003.
- Residential Training Course on Corporate Governance for Directors of State Corporations on behalf of the Commonwealth Fund for Technical Co-operation held in Mombasa, 25<sup>th</sup>-31<sup>st</sup> July 2004.
- The BIO-EARN (East African Regional Network on Biotechnology, Biopolicy and Biosafety) crash Course in Risk Evaluation of Genetically Modified Organisms (GMOs) held at Lund University Sweden, June 8th-22<sup>nd</sup>, 2000.
- The BIO-EARN Regional Training Workshop on Risk Assessment and Management held at the Imperial Botanical Garden Hotel, Entebbe, Uganda, 29<sup>th</sup> November – 2<sup>nd</sup> December 1999.

- FAO/IAEA Inter-regional Training Course on the use of isotope radiation techniques in studies on soil/plant productivity with emphasis on root studies; 24<sup>th</sup> May – 1<sup>st</sup> July 1988, Seibersdorf, Austria.
- ICIPE/UNEP/MIRCEN Regional Training Course on the use of pathogens in the control of pests and vectors, October 12<sup>th</sup> – 24<sup>th</sup> 1997, Nairobi, Kenya.

### SEMINARS AND CONFERENCES ORGANIZED

- The 2<sup>nd</sup> Regional Microbiology Conference held at the Kenya School of monetary Studies, Nairobi, Kenya 16-19<sup>th</sup> March 2004
- Preparing and Writing Research Proposals Seminar organized by the Kenya Forestry Research Institute (KEFRI) and University of Nairobi, KEFRI, 29<sup>th</sup> August, 2000. Status: Resource Person
- (iii) Sustainable Management of Headwater Resources Conference held at USIU 2002
- (iv) "Meeting the Challenges of Higher Education in Africa: The role of Private Universities" held at Safari Park Hotel, September 2003

## SELECTED SEMINARS AND WORKSHOPS ATTENDED

1. 4th National Council for Science and Technology (NCST) Conference on the Dissemination of Research Results and Exhibitions on Innovations, held at Kenyatta International Conference Centre 3<sup>rd</sup> to 5<sup>th</sup> May 2011

2. Western Association of Schools and Colleges (WASC) Academic Resource Conference (ARC) on Higher Education's Third Horizon held at Hyatt Regency Hotel, San Francisco, USA April 6<sup>th</sup> to 8<sup>th</sup> 2011

3. Academic Integrity and Excellence Seminar organized by the IEEE Kenya Section (Advancing Technology for Humanity) held at Kenya Institute of Education (KIE) Nairobi, Kenya; 24<sup>th</sup> to 25<sup>th</sup> February 2011

4. BGBD Project Kenya Stakeholder Reporting and Policy Formulation Workshop on Conservation and Management of Below Ground Biodiversity held at Laico Regency Hotel, 15-16<sup>th</sup> March 2010

5. Pension Trustees Seminar held at The Stanley Hotel, Nairobi, 2<sup>nd</sup> December 2005

6. Investment Management Seminar for Trustees held at Hilton hotel Nairobi, 18<sup>th</sup> November 2005

7. National Launch of the Project on the Conservation and Sustainable Management of Below Ground Biodiversity in Kenya, held at Grand Regency Hotel, 16<sup>th</sup> September 2004.

Status: Deputy Coordinator and Project Information Officer.

- 4. USIU Leadership Retreat held at Nakuru, Kenya, July 2<sup>nd</sup> to 5<sup>th</sup> 2004
- 5. Launch of the Trust Fund for Combating Desertification on 18<sup>th</sup> June 2004 at The Grand Regency Hotel, Nairobi

6. Parliamentary Workshop on Forestry Management in Kenya, held at Whitesands Hotel, Mombasa, January 9<sup>th</sup> -10<sup>th</sup> 2004

7. Conservation and Sustainable Management of Biodiversity- BGBD Kenya National Workshop held at Landmark Hotel Westlands, Nairobi, September 2003

8. National Environment Tribunal Awareness Consultative Campaign workshop held at Panafric Hotel Nairobi, December 18<sup>th</sup> - 19<sup>th</sup> 2003

9. 10<sup>th</sup> Congress of the African association for Biological Nitrogen fixation held in GIMPA, Accra, Ghana 28<sup>th</sup> October to 1<sup>st</sup> November 2002. **Conference theme**: *"Enhancing BNF Research and application for food security and Poverty alleviation in smallholder African farming communities"* 

10. Agricultural Biotechnology and Policy Issues and Challenges: Experience from Africa, Asia and Europe Workshop held on 28<sup>th</sup> November 2002 at the Hotel Intercontinental, Nairobi

### **PROFFESSIONAL MEMBERSHIP**

- Member, Executive Committee, Kenya Society of Microbiology.
- Member The African Association of Biological Nitrogen Fixation (AABNF).

### **COMPUTER LITERACY**

- Microsoft Word,
- Microsoft Power Point,
- Microsoft Excel and
- Freelance Graphics.

#### REFEREES

- Prof. Samson Munywoki, School of Humanities and Social Sciences, USIU
  P.O. Box 14634-00800, Nairobi Kenya
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- Prof. Nancy Karanja, Department of Soil Science, University of Nairobi, P. O. Box 30197 NAIROBI, KENYA. TEL: 630480 FAX: 622733/521159/632121 Email: <u>nancy.karanja@cgiar.org</u>
- 3. Mr. Peter Mwarogo,

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