

Prof. Raymond Limen NJINGA
Department of Physics,
University of Medical Sciences, Ondo City, Ondo State, Nigeria

A. Personal Data

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|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Full Names: (surname first) | NJINGA, Raymond Limen |
| 2. Place and Date of Birth | Bamenda, 05 th August, 1975 |
| 3. Nationality: | Cameroonian |
| 4. State of Origin: | North West Region |
| 5. Permanent Home Address: | Road 8, Block L, Plot 1, Itanla GRA, Ondo Town |
| 6. Details of Contact Address: | |
| (a) E-Mail address (es): | rninga@unimed.edu.ng , njingaraymond@yahoo.co.uk |
| (b) Mobile phone Number: | +2347068234006 |
| 7. Marital Status: | Married |
| 8. Number of Children and Ages: | 3 children, 9, 7 & 3 years |
| 9. Next of Kin: | MBATANG, Annable Nkwezi |
| 10. Details of Contact Address: | |
| (a) E-Mail address (es): | annable.n@yahoo.com |
| (b) Mobile phone Number: | +2348168154018 |
| 11. Date of Assumption of Duty: | 9 th April, 2019 |
| 12. Rank/status on First Appointment: | A/Professor /CONUASS 6/step 02 |
| 13. Present Status: | PROFESSOR |
| 14. Date of Last Promotion: | 01 st October, 2021 |
| 15. Present Salary, Grade Level/step: | CONUASS 7/step 01 |
| 16. Faculty/Directorate: | Science |
| 17. Department/Unit: | PHYSICS |

B. Educational Background:

- Higher Educational Institutions Attended with Dates:**
 - North-west University, Mafikeng, South Africa (2015-2019) Post-Doctoral Fellowship
 - Ahmadu Bello University, Zaria, Kaduna State, Nigeria. 2007-2012
 - Ahmadu Bello University, Zaria, Kaduna State, Nigeria. 2003-2007
 - Benue State University, Makurdi, Benue State, Nigeria. 1999-2003
- Academic qualifications with Dates:**
 - PhD Physics, 22nd September, 2012

Topic of Thesis: *Implementation of k_0 -EpiCd-Instrumentation Neutron Activation Analysis Technique in the Newly Installed Cd-lined channel of Nigeria Research Reactor-1 for evaluation of Uranium, Thorium and Potassium in Archaeological and sediment samples.*

- Advisor: Prof. I.O.B Ewa, Email: iobewa4@yahoo.com
- 1st Co-Advisor: Prof. S.A Jonah
- 2nd Co-Advisor: Prof. M.O.A Oladipo

AREA OF STUDY: Nuclear and Radiation Physics

(b) M.Sc. Physics, 26th February, 2007

Topic of Dissertation: *Characterization of High Purity Germanium (HPGe) Detector Model 8111-10195.*

- Advisor: Prof. I.O.B Ewa, Email: iobewa4@yahoo.com
- Co-Advisor: Prof. S.A Jonah

AREA OF STUDY: Nuclear and Radiation Physics

(c) B.Sc. Physics, 11th June, 2004

Topic of Project: *Application of a Balance Adder-Subtractor in the solution of simultaneous linear equations.*

- Advisor: Dr M.D Tyona

AREA OF STUDY: Physics Electronics

3. Professional Qualifications with Dates:

(a) Fellowship

1. 2015-2019 North-west University, (Mafikeng Campus), South Africa, Post-Doctoral Fellowship
2. **Professional short courses attended with awarded certificates:**
 - a. ELECTROWEAK SCALE: Unraveling the Mysteries at the LHC, United State of America/SLAC National, Accelerator Laboratory, MCNP Code, **USA 2012.**
 - b. Radiation Technologies, Third (3RD) World Nuclear University School, MCNP Code, ECOLEGO, Doha, **Qatar 2014.**
 - c. Computational Radiation Shielding and Nuclear Criticality Safety, Nuclear Energy Corporation SOC Limited (Necsa), MCNP Code, **South African 2016.**
 - d. Residual Radioactivity Modelling of Radioactive Contaminated Building and Families or Populations leaving inside or outside the contaminated Building, Argonne National Laboratory, RESRAD BUILD, RESRAD OFFSIDES, RESRAD ONSIDES, **USA 2017.**

3. Research Grants

- a. CNSS Research GRANT Award (**ONE MILLION RAND 2018 - 2020**): NNR funded Centre for Nuclear Safety and security (CNSS) in Centre for Applied Radiation

Science and Technology, North-West University; in the area of Nuclear Safety and Radiation protection, **South Africa**

- b. NRF GRANT (**THIRTY MILLION**): On the “Dynamics of Radionuclides Migration in Soil of Cropland and Transfer through Terrestrial Food Chain in Nigeria”, (**2020 to 2022**).
- c. NRF GRANT (**TWEENTY MILLION**): On the “Demographic mapping of radon burden in homes and stakeholders engagement for lung cancer risks reduction in Ondo State”, (**2022 to 2024**).

C. Work Experience with Dates

1. Previous work Experience at Other Universities:

a. Ibrahim Badamasi Babangida University, Lapai, Niger State, Nigeria

i. Academic Experience

- Assistant Lecturer, Physics Department, 2008 – 2012.
- Lecturer I, Physics Department, 2012 – 2014.

ii. Administrative Experience

- Faculty Research Coordinator, 2008 – 2012.
- Member of the Jatropha Committee, 2014 – 2015
- Secretary of the Faculty Committee on Conferences/Seminars/Workshops and Journal Publication, 2014 – 2015
- Member Greening Applied Science and Technology Project Initiative Committee, 2013-2015
- Member, Biogas Energy generation project Committee, 2011 – 2012
- Member, Students Academic Nurture Committee, 2010 – 2011
- Treasurer, Faculty welfare committee, Faculty of Natural Sciences, 2011 – 2012
- Departmental Project and Seminar coordinator, 2012 – 2015.
- Student Adviser: First- and Third-year Physics Students, Department of Physics, 2008 – 2012
- Laboratory Assistant: Conducting Practical classes in optics and General Physics, 2008 – 2012
- Examination officer, Physics Department, 2012 – 2013
- Departmental Student Industrial Work Experience Scheme Coordinator, Physics Department, 2012 – 2013
- Final year Level adviser, 2012 – 2015.
- Departmental Examination officer, 2012 – 2015.

b. Federal University, Dutse, Jigawa State, Nigeria

i. Academic Experience

- Senior Lecturer, Department of Physics, 2015 – 2017 -
- Associate Professor in Physics, 2017 – 2019

ii. Administrative Experience

- Ag. HOD Physics, 1st Feb -1st Sept. 2016
- Member, promotion and appraisal committee, 2016 – 2019
- Member, accreditation committee, 2016 – 2019
- Chairman, Postgraduate committee, 2015 – 2018
- Departmental research and seminar Coordinator, 2015 - 2018
- Faculty Research Coordinator, 2015 – 2019
- Departmental Project coordinator, 2015 – 2019
- Student adviser third (300level) and final year (400 level), 2015 – 2019
- Chairman Committee on Postgraduate Implementations, 2015 – 2019
- Member, B.Sc Physics Accreditation committee, 2015 – 2019

2. Work Experience at University of Medical Science, (UNIMED) Ondo, Ondo State:

i. Academic Experience

- **PROFESSOR 2021 – till date**
- Associate Professor in Physics, 2019 – 2021

ii. Administrative Experience

- Ag. Head of Department (HOD), 2019 – 2020
- Deputy Director Research Development and Innovation, 2019 -2020

3. Professional Research Experiment

a. North-West University (NWU), Mafikeng, South Africa

- **Post-Doctoral Research Fellow:** Centre for Applied Radiation Science and Technology, 2015 – 2017.
- **Principal investigator:** Radionuclide toxicological exploration in South Africa, 2015 – 2017.
- **Principal investigator:** Designed experiment, sampling procedures, results interpretation, in the Radionuclides analysis in medicinal, soil, water, and environment analysis throughout south Africa 2015 – 2017.
- **Principal Trainer:** Trained international fellows from Namibia University of Science and technology (NUST): a joined collaboration between NWU and NUST, 2015 – 2017.
- **Principal investigator:** Design and evaluate risk analysis around mines environs, mine tailings and general environments in relation to cancer and radiological health hazards to human, 2015 – 2017.
- **Principal investigator:** Perform quality control/assurance test on all gamma instrumentation in the Nuclear Radiation Lab, 2015 – 2017.
- Acquaint students on the basics in usage of the equipment for routine analysis, 2015 – 2017.

b. Ahmadu bello University, Zaria, Nigeria

- **Technical research fellow:** Equipment calibration at Centre for Energy Research and Training (CERT), 2009-2014
- **Technical research fellow:** Technical contact research fellow for the development and utilization of kay zero (k_0) IAEA software, CERT, 2009/2012

d. Courses Taught Within Academic sessions

a. Courses taught within the Department at UNIMED, Ondo City

- PHY 111 Mechanics (3 Units), 2019/2020
- PHY 318 Mathematical Methods in Physics (3 Units), 2019/2020
- PHY 416 Computational Physics (3 Units), 2019/2020
- PHY 418 Nuclear and Particle Physics I (3units), 2019/2020
- PHY 316 Quantum Physics I (3units), 2019/2020

b. Courses taught within the Department at NWU, South Africa

- Nuclear Physics Module (Honors/4TH Year), 2017/2019
- Environmental Impact Assessment Module (Master), 2017/2019

c. Courses taught within the Department at FUD, Jigawa

i. Undergraduate Courses

- PHY 101 General Physics I (3 Units), 2015/16 till 2019
- PHY 103 General Physics III (3 Units), 2015/16 till 2019
- PHY 105 General Physics Laboratory (1 Unit), 2015/16 till 2019
- PHY 107 Introduction to practical Physics (1 Unit), 2015/16 till 2019
- PHY 305 Quantum Physics I (3 Units), 2015/16; 2016/17
- PHY 401 Quantum Physics II (3 Units), 2015/16; 2016/17
- PHY 415 Nuclear and Particle Physics I (2 Units), 2015/16; 2016/17
- PHY 418 Nuclear and Particle Physics II (2 Units), 2015/16; 2016/17
- PHY 424 Atomic and Molecular Spectroscopy (3 Units), 2016/17
- PHY 499 Supervised independent research work (6 Units), 2015/16; 2016/17; 2017/18

ii. Postgraduate Courses

- PHY 823 Fundamentals of Nuclear Physics, Master, (3 Units), 2018/19
- PHY 822 Nuclear Structure, Master, (3 Units), 2018/19
- PHY 826 Nuclear Application in Medicine, Industry and Research, Master, (3 Units), 2018/19
- PHY 804 Quantum Theory, Master, (3 Units) 2018/19
- PHY 705 Quantum Mechanics, PGDP, (2 Units), 2015/16; 2016/17
- PHY 707 Nuclear Reactor Physics, PGDP, (2 Units), 2015/16; 2016/17
- PHY 706 Project, PGDP, (4 Units), 2015/16; 2016/17

d. **Courses taught within the Department at IBBU, Lapai**

i. **Undergraduate Courses**

- PHY 101 Mechanics, Thermal Physics & Waves, (3 Units), 2008/09 till 2012/13
- PHY 102 Electricity, Magnetism & Modern Physics, (3 Units), 2008/09 till 2012/13
- PHY 201 Elementary Modern Physics, (3 Units), 2012/13
- PHY 203 Thermal Physics, (3 Units), 2011/2012
- PHY 202 Electric circuits & Electronics, (3 Units), 2011/12
- PHY 204 Workshop practice, (2 Units), 2011/12 till 2013/14
- PHY 403 Solid State Physics, (3 Units), 2007/08
- PHY 425 Electromagnetism, (3 Units), 2007/08
- PHY 415 Nuclear and Particle Physics I, (3 Units), 2010/11 till 2013/14
- PHY 418 Nuclear and Particle Physics II, (3 Units), 2010/11 till 2013/14
- PHY 499 Supervised independent research work, (6 Units), 2010/11 till 2013/14

e. **Professional training Courses taught, NWU, South Africa**

- Course title: Gamma-Ray spectroscopy. Personnel Hilma R. Amwele & Gideon P Kalumbu. From NUST, Private Bag 3388, Department of Agriculture, Windhoek, Namibia, 29/4/2017-30/6/2017.
- Course title: Experimental procedures for gamma measurement. Personnel Hilma R. Amwele & Gideon P Kalumbu. From NUST, Private Bag 3388, Department of Agriculture, Windhoek, Namibia, 29/4/2017-30/6/2017.

E. **Graduate Students' Supervision**

i. **PhD supervision at North West University, South Africa**

- a. Co-Advisor for John Mudiwa, Department of Centre for Applied Radiation Science and Technology, NWU, 2019 Dissertation. Title: Investigation of the transfer of naturally occurring radioactive materials from the Morupule Coal mine and the Morupule-B Coal Thermal Power Station in Botswana, to the surrounding environment.

ii. **PhD supervision at Federal University Dutse (FUD), Jigawa**

- a. Co- Advisor for Suleiman S. Zarma (2016 still ongoing Dissertation), Department of Physics, FUD. Title: The use of Egolego software in modelling the uptake of radionuclides from soil to different plant types in north east of Nigeria.s

iii. **PGD in Physics Supervision**

- a. Advisor for Gum Moses, Department of Physics, FUD, 2018 Thesis. Title: Evaluation of Radon in Water Samples around Dutse Granite Processing Company: Human Health Hazard.

F. Undergraduate Students' Supervision

i. North West University, South Africa

- a. Advisor for Dumile Nombasa, Department of Centre for Applied Radiation Science and Technology, NWU, 2017 Project. Title: Evaluation of Th/U ratios in maize meals around Mafikeng municipality.
- b. Advisor for Kamogeio Clementine, Department of Centre for Applied Radiation Science and Technology, NWU, 2017 Project. Title: Characterization of HPGe detector in Centre for applied radiation and science technology.
- c. Advisor for Tebogo Shaba, Department of Centre for Applied Radiation Science and Technology, NWU, 2017 Project. Title: Distribution of Th/U ratios around Centre for Applied Radiation and Science Technology Vicinity.

i. Federal University Dutse, Dutse Jigawa State, Nigeria

- a. Advisor for Gomina Samuel. Title: Radon assessment in ground water sources from Dutse LGA in jigawa and chikun LGA in Kaduna State Nigeria, 2017/2018.
- b. Advisor for Lawan Muhamad. Title: Determination of level of some heavy metals in soil of Warwade Dam area in Dutse, Jigawa State, 2017/2018.
- c. Advisor for Nwankwo Morris Chukwudi. Title: Determination of cadmium and chromium in the leaves of adansonia digitata, psidium guajava and carica papaya taken from sharada industrial area, Kano, 2017/2018.
- d. Advisor for Yakubu Ali. Title: Analyze meteorological data collected from 1990 - 2006 in Maiduguri metropolis to determine wind energy potential, 2016/2017.

ii. Ibrahim Badamasi Babangida University, Lapai, Niger State, Nigeria

- a. Advisor for Aminu Ibrahim. Title: The Natural Radioactivity in groundwater from selected areas in Ibrahim Badamasi Babangida University of Niger State by gross alpha and gross beta measurements, 2013/2014.
- b. Advisor for Hannatu Abdullahi. Title: Radiological Health hazards in some fruit juices from three Geopolitical zones in Nigeria, 2013/2014.
- c. Advisor for Gomina Mahmoud. Title: Preliminary investigation of Naturally Occurring Radio- nuclides in some traditional medicinal plants commonly used in Northern Nigeria, 2013/2014.
- d. Advisor for Zhitssu U Babaiassa. Title: Gross alpha and Gross beta analysis of some clay potteries used in domestics purposes, 2013/2014.
- e. Advisor for Baba Jay. Title: Analysis of radioactive content in drinking water around Lapai and Agaie local Government areas by gross alpha and gross beta measurements, 2013/2014.
- f. Advisor for Mamman Samuel. Title: Analysis of biological dose equivalent from different types of television set, 2013/2014.

- g. Advisor for Fatima B. Yusuf. Title: Evaluation of electrolyte levels of some selected fruit juices and vegetables for sporting activities, 2013/2014.
 - h. Advisor for Imam P. Aisha. Title: Analysis of gross alpha and gross beta analysis in some major organs of goat in Minna, Niger State, Nigeria, 2013/2014.
 - i. Advisor for Muhammad T. A. Title: Evaluation of heavy metals in clay product production processes using XRF techniques, 2010/2011.
 - j. Advisor for Lami H. Bioelectricity Evaluation for Domestic Usage, 2009/2010.
 - k. Advisor for Hilma S Fatima. Title: The Effect of Aspect Ratios on HPGe-Detector Crystals in Energy Resolution, 2008/2009.
- iii. **Current Undergraduate students at University of Medical Sciences, Ondo City**
- a. Advisor for Adeleke Quadri A. Title: Simulation of outdoor exposure of reference individual using radiation monitoring data. (2019/20 session ongoing).
 - b. Advisor for Olumofin Anthony D. Title: Theoretical simulation of radon transport in the atmosphere from radionuclide contaminated site and resulting inhalation doses to reference individuals. (2019/20 session ongoing).
 - c. Advisor for Oladele Blessing B. Title: Theoretical design of ingestion dose and soil to food crops transfer factor of radionuclides in Ondo City. (2019/20 session ongoing).
 - d. Advisor for Giwa Oluferanmi Ifunanya. Title: Theoretical evaluation of radionuclide transport to groundwater from the radionuclide contaminated. (2019/20 session ongoing).

G. Membership of Professional Bodies

1. Member of South African Institute of Physics (SAIP), since 2016
2. Member, International Network of Emerging Nuclear Specialists (INENS), since 2015
3. Member, Nigeria Institute of Physics (NIP), since 2013
4. American Research Institute for Policy Development. AMERICA ASSOCIATION OF INTERNATIONAL RESEARCHERS, since 2015

H. Publications

i. Thesis/Dissertation

- a. NJINGA Raymond Limen (26th February, 2007). Characterization of High Purity Germanium (HPGe) Detector Model 8111-10195. ***Thesis submitted to Ahmadu Bello University, Zaria, Nigeria for the award of master degree in Physics.***
- b. NJINGA Raymond Limen (22nd September, 2012). Implementation of k_0 EpiCd-Instrumentation Neutron Activation Analysis Technique in the Newly Installed Cd-lined channel of Nigeria Research Reactor-1 for evaluation of Uranium, Thorium and Potassium in Archaeological and sediment samples. ***Dissertation submitted to Ahmadu Bello University, Zaria, Nigeria for the award of PhD degree in Physics.***

ii. Books/book chapters

1. **BOOK PUBLISHED:** Raymond Limen Njinga, Sunday Adesonloye Jonah, Mark O.A. Oladipo (2012). Use of k_0 -ENAA in evaluation of Th, U and K in archaeological matrices; Theories and Fundamentals of Epithermal Neutron Activation Analysis in Archaeometry using Research reactors. Publishers: LAP LAMBERT Academic Publishing.
<https://www.amazon.com/Use-k0-ENAAevaluation-archaeological-matrices/dp/365920076X>
2. **PUBLISHED CHAPTER IN A BOOK:** R.L. NJINGA, U.U. ELELE, M.O.A. OLADIPO AND M.M. NDONTCHUENG (2016). Impact of Heavy and Light Metals in Medicinal Plants to Human. Recent Progress in Medicinal Plants, Phototherapeutics II, Vol. 43, STUDIUM PRESS LLC, ISBN: 1-62699-080-8, SERIES ISBN: 0-9656038-5-7, <http://www.studiumpress.in>
3. **PUBLISHED CHAPTER IN A BOOK:** Ndikilar, C., & Njinga, R. L. (2019). *NUCLEAR TERRORISM AND CROSS BORDER SECURITY*.
<https://doi.org/10.13140/RG.2.2.14387.78882>

iii. Published Journals Articles

1. M.D Tyona, O.J Tsor, **R.L Njinga** (2007). Application of a balanced adder-subtractor in the solution of simultaneous linear equations. Nigerian Journal of Physics, 19(1), Page 115-119.
<http://www.ajol.info/index.php/njphy/article/view/38131>
2. **R.L. Njinga**, B. Alfa and I.O.B. Ewa (2009). Geometry Scaling Using HPGE Detector (Model 8111-10195) Applied in Neutron Activation Analysis (NAA) Measurements with Nigeria Research Reactor -1 (NIRR-1). African Journal of Natural Sciences, 12, 69-75.
<http://www.ajns.org.ng/ojs/index.php/AJNS/article/viewFile/11/11>
3. **R.L. Njinga**, I.O.B. Ewa and B. Alfa (2009). Study of sample-detector geometry displacement and associated errors in analytical measurements. African Journal of Natural Sciences, 12, 55 –62. <file:///C:/Users/pc/Downloads/9-17-1-SM.pdf>
4. **R.L. Njinga**, Y.V. Ibrahim, M.O. Adeleye and S.A. Jonah (2011). Neutron flux stability measurement of miniature neutron source research reactors using 0.1% Au-Al alloy and pure Cu wires. Advances in Applied Science Research, 2 (6): Pg 488-497.
<http://www.imedpub.com/articles/neutron-flux-stability-measurement-of-miniatureneutron-source-research-reactors-using-01aual-alloy-and-pure-cu-wires.pdf>
5. **R.L. Njinga**, I.O.B. Ewa, S.A. Jonah, B. Alfa, Y.A.G. Ahmed, A. Agbo, J. Ebobenow and R. Nasiru (2011). Alternative Approach for Efficiency Data Generation in Neutron Activation Analysis. International Journal of Applied Science and Technology, Vol. 1, No 5, Pg 244-256.

<http://www.ijastnet.com/journal/index/110:vol-1-no-5september2011abstract31&catid=15:abstract>

6. **R.L. Njinga**, Baba Alfa, Okoh Sunday and T. A. Muhammad (2011). Evaluation of trace elements in clay sediments products of Tatiko locality using x-ray fluorescence technique. *Advances in Applied Science Research*, 2 (6): Pg 370-378.
<http://www.imedpub.com/articles/evaluation-of-trace-elements-in-clay-sedimentsproducts-of-tatiko- locality-using-xray-fluorescence-technique.pdf>
7. **R.L. Njinga**, I.O.B. Ewa, and M.O.A. Oladipo (2011). Influence of aspect ratios in resolutions of high purity germanium detectors in nuclear measurements. *Applied Physics Research*, Canadian Center of Science and Education, Vol. 3, No. 1, P84-88, ISSN: 1916-9647.
<http://www.ccsenet.org/journal/index.php/apr/article/view/8264>
8. **R.L. Njinga**, S.A. Jonah, I.O.B. Ewa, M.O.A. Oladipo and G.A. Agbor (2011). k0-IAEA Determination of Full Energy Peak Efficiency for a High Purity Germanium Detector. *Indian J.Sci.Res.2* (3): P25-32. <http://www.ijsr.in/1archive.php?id=18>
9. Oladipo M.O.A., **Njinga R. L.**, Baba A, and Mohammed I (2011). Contaminant Evaluation of Major Drinking Water Sources (Boreholes Water) in Lapai Metropolis. *Advances in Applied Science Research*, 2 (6): pg 123-130.
<http://www.imedpub.com/articles/contaminantevaluation-of-major-drinking-water-sources-boreholes-water-in-lapai-metropolis.pdf>
10. Agbo G. A., Baba Alfa, Ugwu E. I. and **Njinga R. L.** (2011). Temperature Variability in Abuja – Nigeria Correlated with Solar Radio Flux. *Nigerian Journal of Space Research Vol. (10) pg 28- 33. ISSN: 0794-4489*
11. B. Alfa., Mathew, T.T, **Njinga, R.L.**, and Ibrahim A. (2012). Fabrication and Characterization of Titanium Dioxide Based Dye Sensitized Solar Cell using Flame of the Forest Dye. *Applied Physics Research*, Canadian Center of Science and Education, Vol. 4, No. 1, P48-56.
<http://dx.doi.org/10.5539/apr.v4n1p48>
12. **R.L.Njinga**, S.A. Jonah, M.O.A. Oladipo, I.O.B. Ewa and B. Alfa (2012). Comparator factors for single standardization techniques in elemental analysis of archaeological matrices. *International Journal of Science and Technology*, UK, Vol. 1, No 7, Pg 376-386.
http://www.journalofsciencetechnology.org/archive/2012/july_vol_1_no_7/56871813396_1291_abstract.php
13. **R.L. Njinga**, S.A. Jonah, M.O.A. Oladipo, I.O.B Ewa and B. Alfa (2012). Use of k0-ENAA technique for Evaluation of Th, U and K in Sediments for Archaeometry Studies. *International Journal of Science and Technology*, UK, Vol. 1, No 8, Pg 391-399.
http://www.journalofsciencetechnology.org/archive/2012/august_vol_1_no_8/6317991339717_abstract.php
14. **R.L. Njinga**, Y.V. Ibrahim, M.O. Adeleye, and S.A. Jonah (2012). Determination of Neutron Flux Parameters after Installation of Cd-Lined for Implementations of ENAA and FNAА with NIRR-1. *International Journal of Applied Science and Technology Vol. 2, No 1, Pg 186-196*
<http://www.ijastnet.com/journal/index/173>

15. M.O.A. Oladipo., **R.L. Njinga.**, S.S. Achi., P.O. Ogunleye., B. Alfa. , A.A. Ibrahim (2012). Analysis of Savannah and Rainforest Soils of Nigeria using Thermal Neutron Activation Analysis Technique. International Journal of Science and Technology, USA, Volume 2012 No.8, pg 583-589. http://ejournalofsciences.org/archive/vol2no8/vol2no8_14.pdf
16. M.O.A. Oladipo, **R.L. Njinga**, A. Baba, H.L. Muhammad (2012). Evaluation of Trace Elements in Some Northern-Nigeria Traditional Medicinal Plants Using INAA Technique. Applied Radiation and Isotopes 70, 917–921. <http://www.ncbi.nlm.nih.gov/pubmed/22484144>
17. Adeleye M.O., Ibrahim Y.V., **Njinga R.L.**, Balogun G.I. and Jonah S.A. (2012). Determination of some metal contaminants from industrial effluents in North-West Nigeria using k₀-NAA Standardization Method. Advances in Applied Science Research, 2012, 3 (2):678-684. Available online at www.pelagiaresearchlibrary.com
18. Funtua I. I., Oladipo M.O.A., **Njinga R. L.**, Jonah S.A., Yusuf I., and Ahmed Y.A, (2012). Evaluation for Accuracy and Applicability of Instrumental Neutron Activation Analysis of Geological Materials on Nigeria Nuclear Research Reactor-1(NIRR-1). International Journal of Applied Science and Technology, Vol. 2012, No 1, Pg 286-292. <http://www.ijastnet.com/journal/index/151>
19. Y.V. Ibrahim, H.C. Odoi, **R.L. Njinga**, M.O. Adeleye, S.A. Jonah (2012). Monte Carlo simulation of additional safety control rod for commercial MNSR to enhance safety. Annals of Nuclear Energy, Vol. 39, No 44, Pg 71–75. <http://www.sciencedirect.com/science/article/pii/S0306454912000175>
20. **R. L. Njinga**, M. N. Moyo, and S. Y. Abdulmalik (2013). Analysis of Essential Elements for Plants Growth Using Instrumental Neutron Activation Analysis. International Journal of Agronomy, vol. 2013, Pg 1-9. doi:10.1155/2013/156520
21. Oladipo M.O.A, **Njinga R.L.**, Elele, U.U and Sadiq I. (2013). Instrumental Neutron Activation Analysis of Aerosol Particles in Lapai Metropolis. Elixir Pollution, Vol. 65, Pg 19963-19966. [http://www.elixirpublishers.com/articles/1386923966_65%20\(2013\)%2019963-19966.pdf](http://www.elixirpublishers.com/articles/1386923966_65%20(2013)%2019963-19966.pdf)
22. Ndontchueng, M.M., Nguelem, E.J., Simo A., **Njinga, R.L.**, Beyala, J.F., Kryeziu D (2013). Preliminary investigation of naturally occurring radionuclide in some six representative cement types commonly used in Cameroon as building material. Radiation Protection and Environment, Vol. 36, Pg 71- 77. <http://www.rpe.org.in/article.asp?issn=09720464;year=2013;volume=36;issue=2;spage=71;epage=77;aulast=Ndontchueng;type=0>
23. M.M. Ndontchueng, E.J.M. Nguelem, **R. L. Njinga**, O. Motapon, , A. Simo, J.C.S. Guembou, B.Yemele (2014). Radiological hazards from bauxite deposit sites in Dschang settlement of Cameroon. British Journal of Applied Science & Tech, Vol.:5, pg 342-352. <http://orbi.ulg.ac.be/handle/2268/198174>
24. M.M. Ndontchueng, **R. L. Njinga**, E.J.M. Nguelem, A. Simo, J. F. Beyala Ateba (2014). ²³⁸U, ²³⁵U, ¹³⁷Cs and ¹³³Xe in soils from two campuses in University of Douala—Cameroon. App. Rad. and Isotopes. 86; 85–89. <http://www.sciencedirect.com/science/article/pii/S0969804314000074>
25. **R. L. Njinga**, U.U. Elele and I.O.B. Ewa (2014). Elemental Concentration of commonly used

- Clay Potteries from some selected locations in Niger State of Nigeria using Instrumental Neutron Activation Analysis. *Journal of Environmental Science, Toxicology and Food Technology*, Vol. 8, Issue 11, Ver. I, Pg 11-21.
<http://www.iosrjournals.org/iosrjestft/papers/vol8- issue11/Version-1/C081111121.pdf>
26. **R.L. Njinga**, S.A Jonah and M.O Adeleye (2014). Evaluation of some research reactor parameters in Modified Irradiation Site of NIRR-1. *Elixir Nuclear & Radiation Phys.* Vol. 70, Pg 23880-23885.
http://www.elixirpublishers.com/index.php?route=articles/category&path=341_392
 27. Mark Omotola Afolayan Oladipo, **Raymond Limen Njinga**, Ugoeze Ucheoma Elele and Adamu Salisu (2014). Heavy Metal Contaminations of Drinking Water Sources due to Illegal Gold Mining Activities in Zamfara State – Nigeria. *Journal of Chemistry and Biochemistry*, Published by American Research Institute for Policy Development, Vol. 2, No. 1, pp. 31-44.
http://icbnet.info/journals/jcb/Vol_2_No_1_March_2014/4.pdf
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 34. **R. L. Njinga** and V.M. Tshivhase (2015). A Comparison of LabSOCS and Source-Based Full Energy Efficiency Generation in Measurements. *Int. J Advanced Res.* 4(2); 1102-1107.<http://www.journalijar.com/current-issue/>
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 40. **Njinga, R.L.** and Jonah, S.A. (2015). Calibration of the High Purity Germanium Gamma-Ray Spectrometer in CERT, ABU Zaria, Nigeria. *Modern Instrumentation*, Vol. 4, Pg 11-17.
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 42. **Raymond Limen Njinga.**, Victor Makondelele Tshivhase., Nnenesi Anna Kgabi., and Munyaradzi Zivuku. (2016). Hazards Index Analysis of Gamma Emitting Radionuclides in Selected Areas Around the Uranium Mine Sites at Erongo Region, Namibia. *Journal of Environmental Science and Management* 19-2: 1-7, ISSN 0119-1144
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48. **Raymond L. Njinga**, Victor M. Tshivhase (2017). Major Chemical Carcinogens in Drinking Water Sources: Health implications due to Illegal Gold Mining Activities in Zamfara State- Nigeria. *Exposure and Health*, Pg 1 -11, <https://doi.org/10.1007/s12403-017-0265-7>
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51. **Raymond Limen Njinga**, Hilma Rantilla Amwele, Kalumbu Gideon Pendapala, Victor Makondelele Tshivhase, Motsei Lebogang and Kgabi Nnnesi Anna (2017). Toxicological evaluation of chicken-livers ingested around Mafikeng metropolitan city, South Africa. *Journal of Animal & Plant Sciences*, Vol.34, Issue 1: pp 5376-5389. ISSN 2071-7024.
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53. **Raymond L. Njinga** & Victor M. Tshivhase, (2017). The impact of mine tailings on the Witwatersrand and the surrounding water types in Gauteng Province, South Africa. *Journal of Mine Water and the Environment – Springer*, Volume 36, Issue 4, pp 638–645 <https://doi.org/10.1007/s10230-017-0469-x>.
54. **RL Njinga** and VM Tshivhase (2018). Use of RESRAD-Onsite 7.2 Code to Assess Environmental Risk around Tudor Shaft Mine Tailing Sites. *Environment and Natural Resources Research* 8 (3), 138 – 147.
55. **Njinga RL**, Tshivhase VM, Elele UU, Samuel G (2018). Health Exposure to Radon in Drinking Water Sources from Dutse and Chikun Environs in Nigeria. *Com Med Pub Heal Edu: CMPHE*-101.
56. **Raymond L. Njinga**, Victor M. Tshivhase, and U. U Elele (2019). Correlation of gamma emitting radionuclides and radiological health hazards indices around Lancaster dam. *International Journal of Radiation Research*. Vol. 17, No 1: pp 151 – 161.
57. **RL Njinga** (2019). Discrepancy in the k_0 -values of ^{134}Cs , ^{152}Sm , ^{75}Se and Experimental Implementations in k_0 Standardization Techniques. *Journal of Applied Sciences* 19 (1), 914.

58. Ugoeze U. Elele, **Raymond L. Njinga**, Michael. O Adeleye, Oladipo Mark Omotola Afolayan and, Abdulgafar Ahmed (2019). Elemental Evaluation of Cereals Commonly Used in Nigeria Using Neutron Activation Analysis. *Dutse Journal of Pure and Applied Sciences (DUJOPAS)*, Vol. 5 No. 2a
59. Ugoeze U. Elele, **Raymond L. Njinga**, Michael O. Adeleye and Shittu Dauda (2019). Metal Toxicity in *Terminelia avicennioides* and *Sida acuta* Medicinal Plants from Gbongbofu and Swata-mukum in Bida, Niger State. *Dutse Journal of Pure and Applied Sciences (DUJOPAS)*, Vol. 5 No. 2a
60. **Njinga RL**, Olufemi AP, Adebayo AS. Major chemical carcinogens and health exposure risks in some therapeutic herbal plants in Nigeria. *PLoS One*. 2022 Nov 3;17(11):e0276365. doi: 10.1371/journal.pone.0276365. PMID: 36327284; PMCID: PMC9632904.
61. **Raymond L. Njinga**, Ogundele L. Tunde, Adebayo S. Adebisi, Aladeniyi Kehinde, Olufemi P. Ayodele, Olowookere J. Christopher, Michael A. Olatunji, Alcides Pereira, Arogunjo A. Muiyiwa & Victor M. Tshivhase (2022). Distribution dynamics and descriptive statistical analysis of radionuclides in the farmland soils near mining areas in southwestern Nigeria. *Environ Geochem Health* <https://doi.org/10.1007/s10653-022-01440-4>

iv. Manuscript submitted for publication

1. **Raymond L. Njinga** (2022). Assessment of heavy metal pollution index and bio-concentration factor in fish organs from coaster water using ecolego 6.4 software. *Scientific Reports*.
2. **Njinga R.L**, Adeneye S.O, Akinyode J.O and Olowookere C.J (2022). Absorbed dose measurements for teletherapy prediction of superficial dose using halcyon linear accelerator. *Iranian Journal of Medical Physics*
3. **Raymond Limen Njinga** (2022). A Review Study on the Necessities of Nuclear Programmes in Cameroon: Accident and Safety analysis. *Journal of Spectroscopy*.

v. Accepted articles in Press

1. **Njinga R.L**, Adeneye S.O, Akinyode J.O and Olowookere C.J (2022). Absorbed dose measurements for teletherapy prediction of superficial dose using halcyon linear accelerator. *Iranian Journal of Medical Physics*
2. **RL Njinga.**, VM Tshivhase., RB Nshimirimana., TP Keetile & TC Dlamini (2022). Optimization of Image Quality and Radiation Dose Minimization in Bone X-ray Radiography. *X-Ray Spectrometry*.

G. Conferences, seminars and workshop attended with dates

i. Attended Conference with dates

1. Towards Personalized Cancer Medicine, January 18-21, 2015, HYATT REGENCY MAIMI, USA

2. Nuclear Reaction Data for Advanced Reactor Technologies, Italy/ICTP Trieste 3rd to 14th May, 2010
3. Infrastructure Development and the Environment Nigeria/Abuja, 10th to 15th September, 2006
4. 34th Annual Conference of Nigerian Institute of Physics (NIP), Obafemi Awolowo University, Ile ife, Osun State, 11-15 October, 2011, Nigeria
5. Experimental Confirmation of k₀-IAEA Software in Evaluation of Full Energy Peak Efficiency (FEPE) for Co-axial HPGe-Detectors in NIRR-1, Conference held at CERD, Obafemi Awolowo University, Ile-ife, Nigerian Institute of Physics (NIP), 12th October 2011
6. Installation and Characterization of Cd-lined Irradiation Channel for ENAA Using NIRR-1Facilities, 34th Annual Conference of Nigerian Institute of Physics (NIP) Conference held at CERD, Obafemi Awolowo University, Ile-ife, 12th October, 2011

ii. IAEA-AFRA Africa Conferences and Presentations attended with dates

1. Securing a better future for Radiation Technology in Ibrahim Badamasi Babangida University, Lapai, Niger State-Nigeria, Egypt Atomic Energy Authority, Cairo, Egypt, January, 18-21, 2015
2. The use of k₀-ENAA Techniques with NIRR-1 Facilities for Determination of Th, K, U, in Archaeological Materials, ICTP Trieste, Italy, 01st - 14th, May, 2010
3. Characterization of detector (Model 8111-10195) for application in NAA measurements, 5th IAEA-AFRA Africa Conference, Cairo, Egypt, 2-3, December 2007
4. Evaluation of Th, U and K in Sediments from Tatiko locality for archaeological studies using k₀-ENAA technique, 7th IAEA-AFRA Africa Conference on Research Reactor Utilization, Egypt Atomic Energy Authority, Cairo, Egypt, 14-15, October 2012.

H. TECHNICAL AND PROFESSIONAL ACTIVITIES

- Competent with WINDOWS operating systems
- Competent with KAY ZERO IAEA program for spectrum analysis.
- Competent with MCNPX274: Monte Carlo radiation Transport code.
- Microsoft suite of programs including Excel, Word, Schedule, Power Point, etc.
- Experienced with Mathcad
- Experienced with MATLAB

I. REVIEWED JOURNALS

- 2013-Present: Reviewer: Journal of Applied Radiation and Isotopes, Published by Elsevier

- 2013-Present: Reviewer: Science Domain (soil and physics)
- 2013-Present: Reviewer: Hindawi publishers (soil and physics)
- 2015-Present: Reviewer: Int. J. Environ. Res. Public Health
- 2016-Present: Reviewer: Journal of water quality and environmental health
- 2016-Present: Reviewer: Cogent Medicine, Public Health
- 2016-Present: Reviewer: International Research Journal of Public and Environmental Health
- 2016-Present: Reviewer: Journal of Radioanalytical and Nuclear Chemistry
- 2016-Present: Reviewer: Journal of Water Quality, Exposure and Health
- 2016-Present: Reviewer: Journal of Basic and Applied Research international (International Knowledge Press), UK

J. PROFESSIONAL SHORT COURSES ATTENDED WITH AWARDED CERTIFICATES

- a) Residual Radioactivity Modelling of Radioactive Contaminated Sites and Families or Populations leaving on the contaminated sites, Argonne National Laboratory, USA, 2017, RESRAD ONSIDES
- b) Residual Radioactivity Modelling of Radioactive Contaminated Sites and Families or Populations leaving outside the contaminated sites Argonne National Laboratory, USA 2017 RESRAD OFFSIDES
- c) Residual Radioactivity Modelling of Radioactive Contaminated Building and Families or Populations leaving inside or outside the contaminated Building, Argonne National Laboratory, USA 2017, RESRAD BUILD. (February 27 - March 3, 2017)
- d) Computational Radiation Shielding and Nuclear Criticality Safety, Nuclear Energy Corporation SOC Limited (Necsa), South African 2016, MCNP Code,
- e) Radiation Technologies Third (3RD) World Nuclear University School, Doha, Qatar 2014 MCNP Code, ECOLEGO, 2015
- f) ELECTROWEAK SCALE: Unraveling the Mysteries at the LHC, United State of America/SLAC National, Accelerator Laboratory Menlo Park, California, USA 2012, MCNP Code. (23rd July to 3rd August)

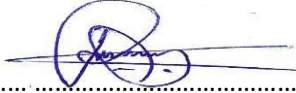
K. EXTRA CURRICULUM AFFAIRS

- Like reading journal/magazine
- Like playing football
- Like swimming
- Like watching news (local and foreign)
- Like supporting the weak in the society

L. PROFESSIONAL RESEARCH INTERESTS

- Life and Earth Sciences: Mining Activity/Environmental Impact Assessment, Remediation of radioactive contaminated land, Application of site-specific quantitative risk assessment, radioactive field-testing analysis, Exposure risk assessment, Reporting NORMs limits in food, land/soil, and water for assessment. Environmental Impact Assessment/ Environmental Impact Statements, radiation managements in the Ecological systems, Radiation impact on DNA cells in human/animals/insects.

- Nuclear models, Nuclear structure and properties, Neutrino hypothesis, Radioactive decays, Semi-empirical mass formula modelling and the mathematical simulation of fundamentals particles interaction/weak interactions.
- Radiation Physics: Radiation Protection, Radiation Effects and interaction with matter.
- Reactor Physics and Nuclear regulator.



Signature : Date:**21-02-2023**.....