
OLOWOFELA Joseph Adeniyi

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Department: Physics

Academic Rank: Reader

Current position: H.O.D. Physics



DETAILED RESUME

ACADEMIC DEGREES WITH DATE

Ph.D. Physics (Solid Earth)	-	1995
M.Sc. Physics (Solid Earth)	-	1988
B.Sc. Physics (Hons), Second Class Upper Division	-	1986

Professional Qualifications and Diplomas

- Certificate (Microprocessor-based real-time control of equipment
Awarded by United Nations University and International Centre for
Theoretical Physics (ICTP, Trieste, Italy) - 1995
- Certificate (Energy and water cycles in the climate)
Awarded by NATO-Advanced Study Institute,
Glucksburg, Germany. - 1991
- Certificate (Seismology and Seismic Hazard Assessment)
Awarded by Central Institute of Physics of the Earth,
Potsdam Germany. - 1991

INSTITUTIONS ATTENDED WITH DATE

University of Ibadan, Ibadan, Nigeria.	1989-1995
University of Ibadan, Ibadan, Nigeria.	1987-1988
University of Ibadan, Ibadan, Nigeria.	1982-1986

MEMBERSHIP OF PROFESSIONAL BODIES

PRIZES, HONOURS, NATIONAL AND INTERNATIONAL RECOGNITIONS.

COURSES TAUGHT

(a) Undergraduate teaching

Laboratory Demonstrator and tutorials instructors – University of Ibadan, Ibadan, Nigeria.

Pre-Degree (Physics) – University of Agriculture, Abeokuta, Nigeria.

100 – Level

- (i) PHY 101 – Physics for students of Agriculture and Veterinary Medicine.
- (ii) PHY 113 – Introduction to waves, optics and modern physics
- (iii) PHY 114 – Mechanics and Properties of matter.
- (iv) Chief Examiner and Laboratory supervisor from 1995-1999 (UI)

200 – Level

- (i) PHY 271 – Physics for Biology students
- (ii) PHS 251 – Modern Physics (Univ. of Agriculture, Abeokuta)

300 – Level

- (i) PHY 312 – Mathematical Methods
- (ii) PHY 309 – Acoustics
- (iii) PHY 308 – Electromagnetic Theory
- (iv) PHS 341 – Electromagnetism (Univ. of Agriculture, Abeokuta)
- (v) PHS 342 – Electromagnetic Waves and Optics
- (vi) PHS 354 – Nuclear Physics (Univ. of Agriculture, Abeokuta)
- (vii) PHS 364 – Energy and Environment (Univ. of Agriculture, Abeokuta)
- (viii) PHS 383 – Remote Sensing (Univ. of Agriculture, Abeokuta)
- (ix) PHS 352 – Quantum Physics (Univ. of Agriculture, Abeokuta).

400 –Level

- (i) PHS 473 – Computational Physics (Univ. of Agriculture, Abeokuta)
- (ii) PHY 409 – Modern Physics
- (iii) PHY 451 – Nuclear Physics

(b) Teaching at the Laboratory Technology Training School. (U.I.)

400 – Level : Oscillations and Waves

500 – Level : Power Electronics

(c) Undergraduate supervision

I have supervised over twenty five (40) B.Sc. Projects.

(d) Postgraduate teaching.

- (i) PHY 701 – Electromagnetic Theory
- (ii) PHY 713 – Solid Earth Physics
- (iii) PHY 773 – Methods and Techniques of Geophysical Prospecting
- (iv) PHY 705 – Data Analysis
- (v) PHS 703 – Computational Physics (Univ. of Agriculture, Abeokuta)
- (vi) PHS 701 – Mathematical Physics (Univ. of Agriculture, Abeokuta)
- (vii) PHS 751- Statistical Physics
- (viii) PHS 735 – Seismology II

RESEARCH CONDUCTED

PUBLICATIONS

- (i) **Books or Chapter in Books already Published.**
- [1] **Olowofela J.A.** Introduction to Heat and Thermodynamics (ISBN 978-117-7, June 1997), Publisher: Kanead Publishers, Mokola, Ibadan.
- [2] **Olowofela J.A. and Popoola O.I.**
Introduction to Waves, Optics and Modern Physics
(ISBN 978-028-117-7, March 2000)
- (ii) **Patents:** Nil.
- (i) **Articles that have already appeared in learned Journals.**
- [3] Oni E. and **Olowofela J.A.** (1998) .
Two-Dimensional and Three-Dimensional Induced Seismicity Theory and Application to Hydroelectric Dams in Nigeria. *Advances in Geodesy and Geophysics Research in Africa pp. 187-209*
- [4] Sunmonu L.A., Adabanija and **Olowofela J.A.** (2000).
Two-Dimensional Spectra Analysis of Magnetic anomalies of South-Eastern Part of Middle- Niger Basin, Central Nigeria, *Nigeria Journal of Physics*.12, 33-44
- [5] **Olowofela J.A.**, Adabanija S. and Sunmonu L.A. (2000)
Intrinsic Potential Distribution in Hydrocarbon reservoir. *Nigeria Journal of Physics*,.13, 8-10
- [6] **Olowofela J.A.** and Akinyemi O.D. (2001):
A numerical model for the migration and Fate of contaminants in Groundwater. *Nigerian Journal of Science Vol.35, 87-93*
- [7] **Olowofela J.A.** and Ozebo V.C. (2002)
The Mellin Transform Interpretation of the Zaria older granite suite Gravity anomaly. *Nigeria Journal of Science*.36, 221-228
- [8] Akinyemi O.D., **Olowofela J.A.**, Akinlade O.O. and Badmus B.S. (2003)
A numerical Model to study the effect of sediment size and depth on the movement of groundwater in an open channel bed system. *Nigerian Journal of Science, 37(1), 75-79*
- [9] Sunmonu L.A. and **Olowofela J.A.** (2003)
Gravity Interpretation of Kolarovo Gravity Anomaly Using the Mellin transform. *Zuma Journal of Pure and Applied Sciences (ZJPAS). 5(2), 148-150*

- [10] **Olowofela J.A.** Badmus B.S. and Offor C. (2004)
Geo-Electric Investigation of the proposed seismographic station at the University of Ibadan, Ibadan, Nigeria.
Zuma Journal of Pure and Applied Sciences 6(2)168-171
- [11] **Olowofela J.A.**, Adegoke J.A., Adewumi O.P. and Kamiyole I.C. (2004)
Contemporary Aspect of Monte Carlo and some Applications in Physics.(2004)
Zuma Journal of Pure and Applied Sciences 6(1) pp.139-149
- [12] **Olowofela J.A.**, Salawu O.R. and Akinlade O.O. (2004)
Computation of Geomagnetic Elements of Nigeria for the Year 2000 and 2010.
Nigeria Journal of Physics Vol. 16(2), 142-161
- [13] Akinyemi O.D. and **Olowofela J.A.** (2004)
Variability of Thermal Properties of a Dry Sandy Soil.
Nigerian Journal of Science Vol.38 No 1,7-11
- [14] **Olowofela J.A.** and Kamiyole I.C.(2004)
Wave velocities in sandstone using an empirical relations
Nigerian Journal of Physics Vol.16(1) 138-141
- [15] **Olowofela J.A.**, Kamiyole I.C., and Adegoke J.A. (2004)
Effects of Clay content and porosity on wave velocities in unconsolidated Media using Empirical relations.
J. Geophys.Eng. I, 234-239 (U.K.)
- [16] **Olowofela J.A.** and Adegoke J.A. (2004)
Modelling Effective Rheologies for Viscoelastic Porous Media.: Application to silt, medium and coarse sand
J.Geophys.Eng. I, 240-243. (U.K.)
- [17] Akinyemi O.D., **Olowofela J.A.**, Sauer, T.J. and Fasunwon O.O. (2004)
Spatio-Temporal Variability and Fractal Characterization of the Thermal conductivity measured in-situ in a natural clay soil *J.Geophys. Eng.I, 252-258 (U.K.)*
- [18] Sunmonu L.A., Adabanija, M.A. Kumar D.P. and **Olowofela J.A.** (2004)
Estimation of basements depths beneath the Koton-Karifi area of Bida basin (Nigeria) from Aeromagnetic data.
Journal of Geophysics, Vol. XXV No.2 and 3 ,19-26 (India)
- [19] **Olowofela J.A.** (2004)
Magnetotelluric response on vertically inhomogeneous earth with homogeneous transition medium.
Journal of Geophysics, Vol. XXV No. 4, 93-96 (India)

- [20] Akinyemi O.D. **Olowofela J.A.** and Akinwale O.O. (2004)
Effects of probe material on the measurement of thermal conductivity of soils.
ASSET series B Vol.2 No.2
- [21] Akinyemi O.D. and **Olowofela J.A.** (2004)
Variability of Thermal Properties of a Dry Sandy Soil.
Nigerian Journal of Science Vol.38, 13-17
- [22] **Olowofela J.A.** and Adegoke J.A.(2004)
A Laboratory study of the effects of porosity and gradient on flow of groundwater.
Nigerian Journal of Science Vol.38,93-97
- [23] **Olowofela J.A.**, Jolaosho V.O. and Badmus B.S. (2005) Measuring the electrical resistivity of the Earth using a Fabricated Resistivity meter
Eur.J.Phys. 26, 501-515 (U.K.)
- [24] **Olowofela J.A.** Obawole A.O. and Oni E. (2005)
Determination of frequency equation for Three Dimensional Rayleigh waves in vertically inhomogeneous media.
J.Geophys. Eng. 2, 64-74, (U.K.)
- [25] Badmus B.S., Ayolabi E.A. **Olowofela J.A.** Adisa J.A. and Oyekunle T.O.(2005)
Current variation in the electrical resistivity probing using Wenner and Schlumberger arrays in a basement terrain
J.Geophys. Eng, 2, 118-125 (U.K)
- [26] **Olowofela J.A.** and Fasunwon O. (2005)
Transient Method of Determining Thermal Diffusivity and Thermal conductivity of Basalt.
African Journal of Pure and Applied Sciences, 1, 30-33
- [27] **Olowofela J.A.** and Adegoke J.A.(2005)
A laboratory study of the effects of porosity and bed tilting on the discharge rate of groundwater.
Indian Journal of Physics Vol.79 No.8,893-897
- [28] F. O. Ogundare, F. A. Balogun, **J. A. Olowofela**, C. E. Mokobia and O. O. Fasunwon (2006)
Thermoluminescence characteristics of natural dolerite
Nuclear Instruments and Methods in Physics Research B 243(2006) 156-160
- [29] **J.A.Olowofela** and V.C. Ozebo (2006)
Electromagnetic Modelling with wave tilt and reflection coefficient: an application to stratified earth media using low and radio frequencies.
J.Geophys.Eng. 3, 160-168 (U.K)

- [30] Akinyemi O.D. **Olowofela, J.A.**, Akinlade O.O. and Akande O.O. (2006)
Thermal Conductivity of Soils with heavy metals concentration from the Niger Delta region of Nigeria.
J.Zhejing Univ. SCIENCE B.7(8) 615-618
- [31] O.D.Akinyemi, T.J. Sauer and **J.A.Olowofela**
Reducing Contact Resistance Errors in Measuring Thermal Conductivity of Porous Media
Journal of Applied Science and Technology (JAST) Vol.121. Nos 1 & 2, 2007, 52-57 (Ghana)
- [32] O.D.Akinyemi and **J.A.Olowofela** (2006) In situ Spatial Variability of Thermal Conductivity and Volumetric Water Content in a Silty Top Soil
Journal of Applied Science and Technology (JAST) Vol.11. Nos 1 & 2, 2007, pp.58-64
- [33] O.O.Fasunwon, **J.A..Olowofela**, O.D.Akinyemi and A Asunbo
Ground-Magnetic Study of Ijapo Area of Akure, Ondo State, Nigeria.
Nigerian Journal of Physics 19(1), 2007, 89-96
- [34] J.A.Adegoke and **J.A.Olowofela**
Variability of Permeability with diameter of conduit
PRAMANA – J. Phys Vol.70, No 5, May 2008, 991-999
- [35] O.O.Alatise, I.A.Babalola and **J.A.Olowofela**
Distribution of some natural gamma-emitting radionuclides in the soils of the coastal areas of Nigeria
Journal of Environmental Radioactivity 2008, 1-4
- [36] O.O. Fasunwon, **J.A.Olowofela**, O.O.Ocan, O.D.Akinyemi
Determination of Thermal Conductivity of Rocks Samples Using Fabricated Equipment
THERMAL SCIENCE Vol.12, Issue 21, 2008, 1-11
- [37] **Olowofela J.A.** Ajani O.O. and Jose Arce
Linearization of induced polarization data equation for disseminated sulphide bodies.
International Journal of Physical Sciences Vol.1 No.1, 2006
- [38] O.D. Akinyemi, **J.A.Olowofela** and O.O.Fasunwon
A numerical Model to predict vertical diffusion of contaminants in an open channel systems..
African Physical Review vol. 2, 173-181

- [39] O.Fasunwon, **J.Olowofela** O.Akinyemi B.Fasunwon and O.Akintokun
Contaminants evaluation as water quality indicator in Ago-Iwoye, South-
Western, Nigeria.
African Physical Review vol. 2, 110-116

Proceedings

- [40] Coker J.O. Makinde V. and **Olowofela J.A.** Geophysical Investigation of
Groundwater Potentials of Oke-Badan Estate, Ibadan,
Southwestern, Nigeria. *Proceedings of the Third Conference on Science
and National Development, 119-131. College of Natural Sciences,
University of Agriculture, Abeokuta, Nigeria.*

Posters

- [41] O.D. Akinyemi , T.J.Sauer and **J.A.Olowofela**
Spatial Variability of Soil Thermal Properties in a Clay Soil in
Nigeria. (Poster No. 317, A3-A8 session, ASA-SSSA, Denver, Colorado,
U.S.A.)
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