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**AKINYEMI, Olukayode Dewunmi**

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Degree: B.Sc., M.Sc., Ph.D.

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Department: Physics

Academic Rank: Senior Lecturer

Current position: Director Linkages

Research Interest: Numerical modeling and experimental investigation of water and heat transfer in porous media, moisture transport across porous interfaces, and Ground spatial and temporal variability of hydrological and thermal properties. Subsurface pollutions and groundwater management. Near-surface geophysics.



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## **DETAILED RESUME**

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### **ACADEMIC DEGREES WITH DATE**

*	Ph.D. Earth Physics	-	2004
*	M.Sc. Earth Physics	-	1998
*	B.Sc. Physics	-	1994
*	Diploma, Computer applications	-	1996

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### **INSTITUTIONS ATTENDED WITH DATE**

*	University of Ibadan, Nigeria,	-	1999-2004
*	University of Ibadan, Nigeria,	-	1996-1998
*	University of Ibadan, Nigeria,	-	1989-1994
*	University of Ibadan, Nigeria,	-	1996

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### **MEMBERSHIP OF PROFESSIONAL BODIES**

- National Institute of Physics (NIP)
  - Geophysical Association of Nigeria (GAN)
  - Nigerian Institute of Hydro geologist (NIH)
  - European Institute of Physics
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### **PRIZES, HONOURS, NATIONAL AND INTERNATIONAL RECOGNITIONS.**

- Postdoctoral fellowship award by the Conselho Nacional de Desenvolvimento Cientifico e Tecnologico (CNPq) - ôf the Secretary for Science and Technology of Brazil, Thermal Systems Laboratory, Pontifical Catholic University of Parana, Curitiba, Brazil. 2006 – 2007
- Vice-Chancellor’s commendation of excellence as Assistant Coordinator, Pre-degree, Center for Human resources and Development, University of Agriculture, Abeokuta, Nigeria, 2002 - 2004.

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## COURSES TAUGHT

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## RESEARCH CONDUCTED

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### PUBLICATIONS

#### (a) Books;

- (1) **Akinyemi, O. D.**, Badmus, B. S., and Vincent U. E., 2005. *Physics at a Glance*, Centre for Human Resources Development, Abeokuta, Nigeria.

#### (b). Refereed Publications

- (1) Olowofela, J. A. and **Akinyemi, O. D.** (2001) A numerical model for the migration and fate of contaminants in groundwater. *Nig. J. of Sci.*, Vol. 35(1), 87 – 93.
- (2) **Akinyemi, O. D.**, Olowofela, J. A., Akinlade, O. O. and Badmus, B. S. (2003) A numerical model to study the effects of sediment size and depth on the movement of groundwater in an open channel bend system. *Nig. J. of Sci.*, Vol. 37(1), 75 – 79.
- (3) **Akinyemi, O. D.**, Olowofela, J. A and O. O. Akinwale (2003) Effect of probe material on the measurement of thermal conductivity of soil. *ASSET Int. J. (Series B)*, Vol. 2(2), 83-89.
- (4). **Akinyemi, O. D.** and Olowofela, J. A (2004) Variability of thermal properties of a dry sandy Soil. *Nig. J. of Sci.*, Vol. 38(1), 52 - 59.
- (5). **Akinyemi, O. D.**, Olowofela, J. A., Sauer, T .J. and Fasunan, O. O. (2004) Spatio-temporal variability and fractal characterization of the thermal conductivity measured *in situ* in a natural clay soil. *J. of Geophysics and Engineering, (Institute of Physics Publishing)* Vol. 1, 252 – 258, (United Kingdom).

- (6). Fasunwon, O. O, Olowofela, J. A and **Akinyemi, O. D.** (2005) Analysis of geophysical log in the extent of saline water intrusion in coastal environment of Lagos, Southwestern, Nigeria: *Science Focus*, Vol. 10 (3), 144 – 147.
- (7). **Akinyemi, O. D.**, Olowofela, J. A. and Akinlade, O. O. (2006) Thermal conductivity of unsaturated soils with heavy metals concentration from the Niger Delta region of Nigeria. *J. Zhejiang Univ. SCIENCE B*, Vol. 7(8), 615-618, (China).
- (8) **Akinyemi, O. D.** and Olowofela, J. A. (2007) *In situ* Spatial variability of the thermal conductivity and volumetric water content in a natural silty topsoil. *J. Appl. Sci. and Tech.* Vol. 12(1 & 2), 52 – 57, (Ghana).
- (9). **Akinyemi, O. D.**, T. J. Sauer and Olowofela, J. A. (2007) Reducing thermal contact resistance errors in measuring thermal conductivity of porous media. *J. Appl. Sci. and Tech.* Vol. 12(1 & 2), 58 – 64, (Ghana).
- (10). **Akinyemi, O. D.** and N. Mendes (2007) Numerical and experimental determination of surface temperature and moisture evolution in a field soil. *J. of Geophysics and Engineering (Institute of Physics Publishing)* Vol. 4, 7 – 17, (United kingdom).
- (11). **Akinyemi, O. D.**, N. Mendes, M. Jonsson, J. Meissner and S. De Linhares (2007) **Effects of Psychrometrics Conditions on the Drying of a Porous Soil.** *J. of Building Physics (Sage Publications)* Vol. 31, No. 1, 73 – 89,( United Kingdom).
- (12) **Akinyemi, O.D.** and T.J. Sauer (2007) Effects of heat sink compounds on contact resistance of porous media. *Thermal Science (Society of Thermal Engineers of Serbia and Montenegro publishing)* Vol. 4, No.11, 113 – 124, (Serbia).
- (13) Fasunwon, O. O., J.A. Olowofela, **O.D. Akinyemi** and A. Asunbo (2007) Ground-Magnetic Study of Ijapo Area of Akure, Ondo State, Nigeria. *Nig. J. of Phys.* Vol. 19, No. 1, 89 – 96.
- (14) Sauer, T.J., **O.D. Akinyemi**, P. They, J.L. Heitman, T.M. DeSuter and R. Horton (2008) Evaluation of a new, perforated heat flux plate design. *International Communications In Heat and Mass Transfer* Vol. 35, 800 – 8004 (U.S.A).
- (15) Fasunwon, O.O., J.A. Olowofela, O.O. Ocan and **O.D. Akinyemi** (2008) Determination of Thermal Conductivity of Rock Samples Using Fabricated Equipment. *Thermal Science (Society of Thermal Engineers of Serbia and Montenegro publishing)* Vol. 12, No.2, 119 – 128 (Serbia).
- (16) **Akinyemi, O.D.**and N. Mendes (2008) Ground Temperature and Moisture Distribution using Different weather Patterns. *J. Building Performance Simulation* Vol. 1, No. 4, 257 – 274 (United Kingdom).

- (17) Fasunwon, O., J. Olowofela, **O. Akinyemi**, B. Fasunwon and O. Akintokun (2008) Contaminants Evaluation as Water Quality Indicator in Ago-Iwoye, South-western Nigeria. *African Physical Review (International Centre for Theoretical Physics) Vol. 2, No. 2, 110-116* (Italy).
- (18) **Akinyemi, O.D.**, J.A Olowofela and O.O. Fasunwon (2008) A Numerical Model to Predict Vertical Diffusion of Contaminants in Open Channel Systems. *African Physical Review (International Centre for Theoretical Physics) Vol. 2, No. 2, 173-181* (Italy).
- (19) **Akinyemi, O.D.** and N. Mendes (2008) Temporal Distributions of Temperature and Moisture Content of a Brazilian Field under Mild Weather Conditions. *African Physical Review (International Centre for Theoretical Physics) Vol. 2, No. 2, 159-172* (Italy).
- (20) **Akinyemi, O. D.** (2008) Modeling Near-surface Hydrology in a Brazilian Field under Different Boundary Conditions. *African Physical Review (International Centre for Theoretical Physics) Vol. 2, No. 2, 182-190* (Italy).

**(c) International conference postal & proceedings;**

- (1). Akinyemi, O. D., Sauer, T. J. and Olowofela, J. A. (2003) Fractal Characterization of the thermal and hydrological properties of clayey soil. *Poster No. 317, A3-A8, ASA-CSSSA-SSSA Conference, Denver, Colorado, USA. 2003, (U.S.A).*
- (2). Akinyemi, O.D. and N. Mendes (2006) Experimental validation of a heat and mass model in near-surface dynamics. *(Refereed) Proceedings of the 11<sup>th</sup> Brazilian Congress of Thermal Sciences and Engineering, ENCIT `2006, (Brazil).*
- (3). Sauer, T.J., Ochsner, T.E., Heitman, J.L., Horton, R., Tanner, B.D., Akinyemi, O.D., Hernandez-Ramirez, G. and Moorman, T.B. (2008) Careful measurements and energy Balance Closure- The Case of soil Heat Flux. *The 18<sup>th</sup> Conference on Atmosphere BioGeoSciences/28<sup>th</sup> Conference on Agricultural and Forest Meteorology/28<sup>th</sup> Conference on Hurricanes and Tropical Meteorology (28 April – 2 May 2008, Orlando, FL).*
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